Spotlight on Sustainability

Best Practices in Waste-Heat Recovery



Clay Detlefsen

he U.S. Environmental Protection Agency (EPA) estimates that manufacturers in the United States spend about \$100 billion a year on energy costs. At individual plants, energy is often the highest operating cost after raw materials and labor. That's why EPA has expanded its Energy Star program, which encourages energy efficiency, to include industrial facilities.

With global energy consumption continuing to rise — EPA expects U.S. demand to increase by 31% within 25 years — dairy processors and manufacturers are implementing energy-management programs to improve energy performance, save on operating costs and reduce greenhouse-gas emissions.

As part of an industry-wide sustainability effort, dairy processors and manufacturers recognize that an effective energymanagement program starts with a top-down commitment from individual businesses, but is successful in large part due to the identification and sharing of best practices across the entire industry. Sharing best practices based on each other's experience helps processors identify the energy-efficient practices and technologies that may work best in their plants and for their business model.

A few of these best practices fall under the category of energy recovery and recycling, which are highly cost-effective means for producing energy, and can be implemented on a broad scale to both new and existing facilities. I'd like to share some best practices and experiences from the dairy industry.

By capturing thermal units that were literally flushed down the drain, Oakhurst Dairy saves at least 2,500 gallons of heating oil a year.

Waste-heat recovery

Dairy manufacturers recover waste heat from processing equipment by capturing the energy — typically steam or hot water thereby utilizing the thermal energy.

Oakhurst Dairy in Portland, Maine, captures solar energy through roof panels to preheat water to temperatures as hot as 110°F. By reducing the energy required to heat water for case washing (150°F to 160°F), the system reduces the company's heating oil consumption by more than 5,000 gallons annually.

An extension of the project includes a hot-water-recovery system attached to the case wash. Hot water from the case wash is routed through a heat exchanger, recovering waste heat and recycling it back into the solar panels. By capturing thermal units (from the hot water) that were literally flushed down the drain, Oakhurst saves an additional 2,500 gallons of heating oil per year at a minimum.

Another successful waste-heat-recovery implementation was in the boiler system of a Wisconsin dairy. After an energy audit, the dairy identified multiple issues that caused inefficiencies in the facility's boiler system. Among other upgrades, the dairy installed a blowdown heat-recovery system to capture heat from the boiler blowdown stream. This reduced both energy consumption and the city water required at the blowdown drain discharge point. All upgrades to the boiler system combined reduced the plant's natural gas consumption by 10,500 MMBtu per year, for a cost savings of \$39,400 annually. The plant will realize a return on its investment in 1.6 years, which is right in the middle of the one- to two-year payback period most dairies typically require for capital investments.

Combined heat and power (CHP)

CHP is two to three times as efficient as traditional power generation because it recycles excess heat generated rather than throwing it away. Recycled Energy Development (RED), based in Westmont, Ill., works with industrial consumers and other large users of power to capture energy that is normally wasted and turn it into clean electricity and heat for operations. RED develops the concept, provides financing, technology selection, engineering, environmental permitting and construction, and then manages the operation. Studies indicate that 20% of total U.S. generating capacity could come from CHP by 2030.

United Dairymen of Arizona, a cooperative of 70 dairy farmers, for example, is planning to replace electricity with natural gas at its processing facility in Tempe, Ariz., through a CHP gas turbine generator. The estimated implementation cost is \$7.6 million, with a potential annual savings of \$3.1 million. That's a simple payback of 2.5 years.

According to RED, onsite cogeneration can provide a manufacturing plant with all of its thermal and electric needs, and excess power can be sold back to the electric grid.

Success in energy management

As dairy processors strive to be more efficient, reduce cost and save our global resources, it is helpful to review EPA's seven steps for energy management, which are based on the successful practices of many Energy Star partners. They are: 1. Make a commitment, 2. Assess performance, 3. Set goals, 4. Create an action plan, 5. Implement action plan, 6. Evaluate progress and 7. Recognize achievements.

Taking advantage of industry best practices and following these guidelines for energy management can help a dairy facility improve its energy and financial performance while distinguishing it as an environmental leader. More information on the Energy Star guidelines can be found at the Buildings and Plant tab on the www.energystar.gov website.

Clay Detlefsen is vice president for regulatory affairs for the International Dairy Foods Association, Washington, D.C. This is his first column for Dairy Foods.

Dairy & Livestock

A look at milk's life cycle

By LEN RICHARDSON

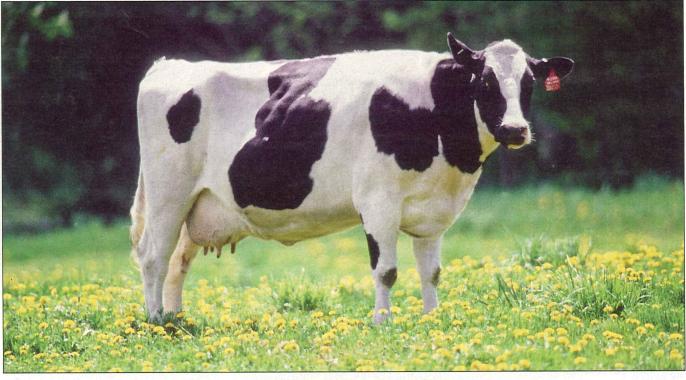
ESEARCHERS have followed the journey of a gallon of milk from the beginning of its life cycle, when crops are grown to feed cows. Next, milk is produced and delivered to processors; processing, packaging and distribution follow. Finally, the consumer purchases, consumes and disposes of it.

This completed a carbon footprint study that measured the greenhouse gas, or GHG, emissions associated with a gallon of milk in the U.S.

Life-cycle analysis

The Innovation Center for U.S. Dairy commissioned the University of Arkansas Applied Sustainability Center to conduct the carbon footprint study. Greg Thoma, a professor of chemical engineering at the university and lead investigator, presented the findings at the International Food Life Cycle Analysis Conference.

The study, together with other studies measuring GHG emissions, helps validate that total U.S. dairy GHG emissions are about 2% of total U.S. emissions — far less than earlier figures reported about the global livestock industry, which were in-



LIFE-CYCLE ANALYSIS: A new study followed the journey of a gallon of cow's milk from the beginning of its life cycle, when crops are grown to feed cows. Then, milk is produced and delivered to processors. Next, it is processed, packaged and distributed before the consumer purchases, consumes and finally disposes of it.

Key Points

- Researchers followed the life cycle of a gallon of milk.
- Greenhouse gas emissions linked to a gallon of milk were measured.
- U.S. dairy GHGs make up approximately 2% of U.S. GHG emissions.

correctly attributed to U.S. dairy.

"The entire dairy industry — dairy producers, processors, manufacturers and brands — is working together to build on its long history of sustainability. We are committed to providing the nutritious dairy products consumers want in a way that makes the industry, people and the Earth economically, environmentally, and socially better, now and for future generations," says Thomas P. Gallagher, CEO of the Innovation Center for U.S. Dairy and Dairy Management Inc., which manages the dairy checkoff on behalf of U.S. farmers.

The carbon footprint study identifies opportunities for efficiency and innovation across the fluid milk supply chain, including feed efficiency, manure management, energy management and fuel efficiency.

"I am pleased that hundreds of America's dairy farmers completed detailed surveys about their farming practices in order for us to create this assessment," says Jerry Kozak, National Milk Producers Federation president and CEO.

Trend toward beneficial changes

Dairy businesses across the country are already making changes that are environmentally and economically beneficial.

One example is Aurora Organic Dairy

in Boulder, Colo. Some practices include:

- A manure dry-vac replaces water flush, saving 400,000 gallons of water per year. All of the of milk parlor wash water is recycled for crop and pasture irrigation.
- Compost is used to improve soil and nourish crops.
- A processing plant was built using LEED (Leadership in Energy and Environmental Design) certification guidelines for energy-efficient lighting; and variable-speed and high-efficiency motors, heat exchangers and insulation.

In 2008, Aurora Organic Dairy partnered with the University of Michigan's Center for Sustainable Systems to launch a life-cycle analysis of the dairy's operation from seed to shelf. Because the dairy is vertically integrated, it has the opportunity to control all aspects of production and processing.

Another example is Prairieland Dairy, Firth, Neb., which practices a zero-waste philosophy. Byproducts from local food processors contribute to cow diets, including distillers grain, leftover cereal mix and spent brewer's grain from a nearby microbrewery. Prairieland's compost operation makes fertilizer from cow manure and local organic material, which is used on the farm and by local gardeners.

Read more at www.usdairy.com/

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PROMOTION BY TOM GALLAGHER

DAIRY'S LEGACY

Change...it's been a topic of

numerous columns I've authored over the last few years. We have seen consumers change, including how they feel about the companies and industries providing the foods and beverages

they purchase.



FYI

■ Tom Gallagher is chief executive officer of Dairy Management Inc. ¹³⁴, For more information, visit www. dairycheckoff. The 2010 Edelman Trust Barometer, an annual survey developed by Edelman Public Relations, measures changes in consumer trust and perceptions of credibility toward organizations and entire industries. It concluded that, while quality and performance remain a core component to consumer trust, an industry's perceived performance as a good citizen and "steward of society" is now equally important.

This new paradigm offers challenges and opportunities to the dairy industry. Americans are increasingly disconnected from agricul-

ture; the agricultural sector now employs less than 2% of the nation's workforce. Also, we know anti-animal agriculture activists who are well-funded, well-organized – and increasingly focused on dairy – create an increasing threat to ongoing consumer trust in dairy sales.

To address this, we are going to become increasingly proactive in telling the dairy producer story. Producers and the dairy industry are in a better position than ever to assure trust in dairy, due to checkoff initiatives that offer increased strength; systems and science, commitment to community and multiple pathways to reach consumers.

Systems and science

Over the past several years, the dairy industry and dairy checkoff have formed several key systems to provide reassurance to consumers. For example, through the Innovation Center for U.S. Dairy, a DMI-formed entity that allows the entire dairy industry's "value chain" to work together to help grow sales, the industry recently completed a scientific study of dairy's carbon footprint, setting the record straight on

the U.S. dairy industry's actual impact regarding greenhouse gas emissions. The Innovation Center also formed an industry task force to address food safety challenges and solutions in dairy processing and manufacturing plants,

Further, the National Milk Producers Federation has developed its Farmers Assuring Responsible Management (FARM) animal care and quality assurance program, which has the support of producers representing more than half of the nation's milk supply.

Finally, dairy producers have a decades-long history of funding credible, third-party nutrition and product research showing the health and nutrition benefits of consuming dairy products.

Commitment to community

Dairy producers' commitment to community starts with your long-standing legacy of stewardship for the land and water. Your commitment extends to the people you employ, and the other businesses you support in your community -- from the feed and equipment you purchase, to financial services and on-farm management consulting you require to run your farm business. The public needs to know this.

Producers also reinforce their commitment through dedicated children's health and wellness efforts to provide nutritious foods, including dairy, and physical activity in our nation's schools through the Fuel Up to Play 60 program. Dairy producers are the driving force in forming a public-private partnership to help solve childhood obesity, the nation's leading public health issue.

To support Fuel Up to Play 60, DMI has created a new foundation with the goal of raising \$10 million annually to reward schools that provide for better nutrition—including kid-friendly foods like milk, cheese and yogut—and physical activity. This effort is a critical part of reinforcing the reputation of dairy producers within their communities.

Pathways to build trust, loyalty

Through the dairy checkoff, producers have multiple paths to build trust and loyalty among consumers. One example is the lunovation Center's Consumer Confidence Committee, which works to help the entire industry speak with one unified voice to food retailers, foodservice

"While quality and performance remain a core component to consumer trust, an industry's perceived performance as a good citizen and 'steward of society' is now equally important."

restaurants and others about key industry topics, such as health and wellness, animal care, food safety and environmental stewardship.

Another path is through dairy marketing partners that reach millions of consumers. They would like to help dairy producers tell their story. Through partnerships with companies such as McDonald's and Domino's Pizza a, we can share dairy-friendly messaging through packaging, in-store promotions and other activities. This also holds true for Fnel Up to Play 60 partners who can communicate with consumers through Foundation efforts to demonstrate that dairy is part of the solution to combating childhood obesity.

Another critical path is the vast human resources of the dairy industry itself. Thousands of people employed by dairy promotion, co-ops, processors and manufacturers call on businesses, institutions and schools every day. There is a great opportunity to activate them to help share dairy's story with the public.

When these strengths work together, they can create a tipping point to a new foundation of consumer trust, where positive voices can drown out the negative. The dairy industry will build this trust from its reputation embodied in America's dairy producers, who:

- Feed the world
- Fight childhood obesity
- Address hunger and malnutrition
- Bring jobs to local communities
- Provide a path to energy independence
- Assure food security for America
- Care for the land and their animals

That's the legacy of America's dairy producers and the U.S. dairy industry. Now is the time to proactively tell this story to build a new foundation of consumer trust in dairy.



Innovation Center for U.S. Dairy Publishes First Progress Report

January 7, 2011

Source: Innovation Center for U.S. Dairy

The Innovation Center for U.S. Dairy has published the first U.S. Dairy Sustainability Commitment Progress Report, a summary of the industry-wide efforts underway to increase the economic, environmental and social sustainability of the dairy industry.

The report is intended for use by the industry and our partners to communicate the industry's science-based approach to continuous improvement. It is available for download at www.usdairy.com/sustainability.

Since the launch of the Sustainability Commitment in 2007, the industry has worked together to establish voluntary goals, launch an environmental research agenda and spur innovation across the value chain.

More than 500 leaders and experts from within and outside the U.S. dairy industry have invested more than 100,000 hours of time to the commitment, amounting to nearly 15,000 working days with a value of nearly \$5 million. The U.S. Dairy Sustainability Commitment Progress Report summarizes these efforts from the commitment launch in 2007 through August 31, 2010.

Highlights include:

- The current state of carbon in the U.S. dairy industry and key findings of the first national GHG life cycle assessment, or carbon footprint study, of fluid milk.
- Milestones achieved in the 10 industry projects to reduce GHG emissions and create business value at various steps in supply chain. These include the reduction of fuel and energy costs at farm and milk processing facilities, as well as in milk hauling and dairy product distribution.
- Examples of some of the many efforts underway by individual farms and businesses across the industry to measure and improve their environmental footprint.

The progress report also will serve as a resource for stakeholders as they continue to work together to measure the industry's performance. Over the coming years, we will gradually expand the scope of reporting to include industry-wide data for additional sustainability dimensions. Ultimately, our goal is to publish an annual, comprehensive sustainability report based on the Global Reporting Initiative (GRI) Sustainability Reporting Framework.

Please visit www.usdairy.com/sustainability or contact us at innovationcenter@usdairy.com. If you would like a hard copy of the report, please contact innovationcenter@usdairy.com.

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U.S. Dairy Industry Publishes Its First Sustainability Progress Report

January 7, 2011

Submitted by: Innovation Center for U.S. Dairy

ROSEMONT, Ill., Jan. 07 /CSRwire/ - The Innovation Center for U.S. DairyTM announced the publication of its first *U.S. Dairy Sustainability Commitment Progress Report*. The report is a summary of the industrywide efforts currently under way to increase the economic, social and environmental sustainability of the dairy industry.

Dating from the launch of the Sustainability Commitment in 2007 through August 2010, the report focuses on the first priority area addressed by this effort, greenhouse gas (GHG) emissions reduction. In 2009, the industry announced a voluntary goal to reduce the GHG emissions of a gallon of milk by 25 percent by 2020.

"U.S. dairy is an industry of great people with strong values, who are passionate about the nutrient-rich products we supply and about our commitment to healthy people, healthy products, healthy planet," said Thomas P. Gallagher, CEO of the Innovation Center for U.S. Dairy and Dairy Management Inc.TM "As we move forward, we are committed to continuous collaboration to realize our collective vision of forging a more sustainable and profitable U.S. dairy industry."

The *U.S. Dairy Sustainability Commitment Progress Report* outlines the current state of carbon in the U.S. dairy industry and key findings of the first national GHG life cycle assessment, or carbon footprint study, of fluid milk. It also presents the advancements - made possible by more than 500 volunteers - of the 10 projects that will help reduce GHG emissions and create business value across the industry. Examples of some of the many initiatives under way by dairy farms and businesses are featured throughout the report.

The report is available for download at USDairy.com/Sustainability.

About The Innovation Center for U.S. Dairy

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U.S. dairy industry publishes its first sustainability progress Report

January 8, 2011

Source: CSRwire - Corporate Social Responsibility Newswire

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U.S. Dairy Sustainability Progress Report available January 9, 2011

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Dairy industry publishes sustainability progress report – January 10, 2011

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Innovation Center Advisory: U.S. Dairy Sustainability Progress Report Available For Download

January 10, 2011

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Dairy Industry Targets Cow Burps to Cut Emissions January 10, 2011

By Jonathan Bardelline

ROSEMONT, IL — Ten projects developed as part of the U.S. Dairy Sustainable Commitment are expected to get it close to halfway to its goal of slicing the greenhouse gas emissions of milk by 25 percent.

Launched in 2007, the commitment is an industry effort overseen by the Innovation Center for U.S. Dairy, which released a progress report last month. The commitment is also being supported by the U.S. Department of Agriculture.

Although the commitment includes a number of goals for 2020, the major one the Innovation Center is focusing on is reducing GHG emissions by one-fourth.

The Innovation Center expects current projects to reduce emissions by 11 percent by 2020, with the biggest chunk of that coming from capturing methane and processing biogas from it.

To guide its work, the Innovation Center had a life cycle analysis (LCA) of GHGs from milk conducted by the Applied Sustainability Center at the University of Arkansas.

The LCA found that production accounts for about 51 percent of a gallon of milk's emissions, and feed production accounts for about 20 percent. The primary source of emissions during production is the cow's themselves in the form of methane from burping as well as methane from manure.

Some concepts being explored to deal with those emissions include making changes to feed so fewer cows are needed, using additives that would reduce methane from cows, using manure as fertilizer and building anaerobic digesters to handle manure while also producing usable biogas.

Other goals for 2020 include reducing nitrogen fertilizer use by 10 percent, conducting 7,200 energy audits, improving the energy efficiency of farms by 10-35 percent and constructing methane digesters at 1,300 farms.

The Innovation Center stated in the progress report it plans to publish more reports, eventually on an annual basis. LCAs for all impacts from milk and cheese are also being conducted, along with an LCA on milk processing and packaging.



U.S. Dairy Industry Publishes Its First Sustainability Progress Report January 10, 2011

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Dairy industry releases sustainability report

January 10, 2011 Plastics News Report

ROSEMONT, ILL. (Jan. 10, 2:45 p.m. ET) -- America's dairy industry is out with its first-ever sustainability report.

The report, "U.S. Dairy Sustainability Commitment Progress Report," summarizes industry-wide efforts currently under way to increase the economic, social and environmental sustainability of the dairy industry. The industry's priority is on reducing greenhouse gas emissions.

In 2009, the industry announced a voluntary goal to reduce the GHG emissions of a gallon of milk by 25 percent by 2020.

The report cites one example with a plastics-related angle: Firth, Neb.-based Prairieland Dairy has a zero-waste goal which extends to its packaging. The company's milk is packaged in corn-based plastic that can be composted and recycled.

The report was published by the Rosemont-based Innovation Center for U.S. Dairy.



U.S. Dairy Industry Publishes Its First Sustainability Progress Report

January 10, 2011



The Innovation Center for U.S. Dairy™ announced the publication of its first *U.S. Dairy Sustainability Commitment Progress Report*. The report is a summary of the industrywide efforts currently under way to increase the economic, social and environmental sustainability of the dairy industry.

Dating from the launch of the Sustainability Commitment in 2007 through August 2010, the report focuses on the first priority area addressed by this effort, greenhouse gas (GHG) emissions reduction. In 2009, the industry announced a voluntary goal to reduce the GHG emissions of a gallon of milk by 25 percent by 2020.

"U.S. dairy is an industry of great people with strong values, who are passionate about the nutrient-rich products we supply and about our commitment to healthy people, healthy products, healthy planet," said Thomas P. Gallagher, CEO of the Innovation Center for U.S. Dairy and Dairy Management Inc.™ "As we move forward, we are committed to continuous collaboration to realize our collective vision of forging a more sustainable and profitable U.S. dairy industry."

The *U.S. Dairy Sustainability Commitment Progress Report* outlines the current state of carbon in the U.S. dairy industry and key findings of the first national GHG life cycle assessment, or carbon footprint study, of fluid milk. It also presents the advancements — made possible by more than 500 volunteers — of the 10 projects that will help reduce GHG emissions and create business value across the industry. Examples of some of the many initiatives under way by dairy farms and businesses are featured throughout the report.

The report is available for download at USDairy.com/Sustainability.

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This story originally appeared at CSRwire



U.S. Dairy Industry Releases First Sustainability Report January 10, 2011

Jan. 10 -- America's dairy industry is out with its first-ever sustainability report.

The report, "U.S. Dairy Sustainability Commitment Progress Report," provides a summary of efforts "to increase the economic, social and environmental sustainability of the dairy industry," according to the Innovation Center for U.S. Dairy.

The report "outlines the current state of carbon in the U.S. dairy industry and key findings of the first national GHG life cycle assessment, or carbon footprint study, of fluid milk," the group said.

The report is available here.



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Sustainability: Dairy Industry Fights Gas Pains

January 17, 2011 Tom Andel

If you're my age—slightly over 50—you probably don't drink much milk anymore. It tends to make us gassier than we are by nature. I HAVE cultivated a taste for almond milk in my cereal, though. My readers in the dairy supply chain won't like that admission, but I'm not alone. If you exclude the people with digestive gas issues, there's still a big population who have a problem with the dairy industry's greenhouse gas (GHG) issues.

According to a recent United Nations Food and Agricultural Report, dairy production accounts for 4 percent of man-made GHG emissions. That adds up to over 1.3 billion tons of greenhouse gases per year.

Both sets of gas problems are causing the Dairy industry significant heartburn. But the GHG issue has reached such a pain point that the industry is doing something about it—and setting a great example for all supply chains while they're at it.

The U.S. Dairy Industry just released a report on its efforts to combat GHG emissions. "The U.S. Dairy Sustainability Commitment Progress Report" comes from the Innovation Center for the U.S. Dairy Industry. It represents the efforts of more than 500 dairy stakeholders — including environmental, academic and scientific experts — to reduce the Dairy industry's greenhouse gas emissions by about 11 percent by 2020. By doing so, the industry also expects to achieve \$238 million in business value. These goals are tied to ten projects—two of which should hold great interest to this audience.

These two projects aim to cut greenhouse gas emissions tied to packaging and transporting dairy products. Here's a fun fact: Eight percent of the greenhouse gas emissions associated with getting a gallon of milk from farm to table comes from transportation. Packaging represents another three and a half percent.

By 2020, this industry hopes to reduce GHG emissions associated with milk transportation by more than 542,000 metric tons and fuel costs by nearly \$58 million. It expects trucker payback in about a year, depending on fuel cost and usage.

Tactics include changing driver behaviors and routes and reducing idling time. The industry is also working with EPA's SmartWay program, which provides tools and resources for increasing fuel efficiency. Dairy processors and transportation providers will help the industry understand fuel savings achievable through their efficiency programs and their use of the SmartWay Program and electronic on-board recorders.

In turn, the industry will report best practices it has encountered. Take Oakhurst Dairy, for example. This family-owned company is northern New England's largest independent dairy.

Based in Portland, Maine, the dairy prides itself on environmental stewardship. Back in 2004 it was one of the first organizations to sign on to a voluntary State of Maine program for cutting GHG emissions. Its goal was a 20 percent reduction by 2010. By 2008, Maine's Department of Environmental Protection and the Governor's administration recognized Oakhurst for meeting part of its carbon reduction goal ahead of schedule. By then it had achieved a 12 percent reduction.

Oakhurst implemented rerouting software on its delivery fleet, reducing travel time and resulting in a savings of 88,000 gallons of diesel in the first year. The company also converted to biodiesel fuel, reducing CO2 by more than 1,332 metric tons every year.

Beyond transportation, this company installed 2,500 square feet of solar panels on the roof of its Portland headquarters and reduced consumption of heating oil by more than 7,500 gallons per year. Solar panels at one of Oakhurst's distribution units reduced electrical usage by more than 15%.

Although I'm not a big cow-milk fan, I applaud the dairy industry for taking the bull by the horns and being a purveyor of better living through logistics.

Sustainability group sets goal for 2020

By Jim Massey

Editor

MADISON — U.S. dairy officials aim to reduce greenhouse gas emissions associated with producing a gallon of milk by 25 percent by 2020.

The goal was included in the "U.S. Dairy Sustainability Commitment Progress Report" published in December.

To view the sustainability report, visit www.usdairy.com/ sustainability.

James Robson, chief executive officer of the Wisconsin Milk Marketing Board, updated board members on the Innovation Center for U.S. Dairy's work at a Jan. 11 board meeting.

The 62-page report summarizes industrywide efforts under way to increase the economic, social and environmental sustainability of the dairy industry, he said.

Dairy Management Inc., the promotion arm of the National Dairy Board, is funding and staffing the project.

"The first goal is to

reduce greenhouse gas emissions from a gallon of milk by 25 percent by 2020," Robson said. "They're also developing a carbon footprint for cheese production."

Robson serves on the Dairy Innovation Center's "common voice" committee that communicates with the center's stakeholders.

The progress report uses data from the launch of the sustainability program in 2007 through August 2010. The report focuses on the first priority addressed by the effort — reducing greenhouse gas emissions.

The report provides estimates of the current carbon footprint of milk and examples of 10 projects that will help reduce those emissions by 2020.

According to the report, dairy farmers could reduce their carbon footprint by reducing their use of nitrogen fertilizer; conducting more energy audits to improve on-farm energy efficiency; making milk routes more efficient to cut fuel consumption; and building more methane digesters.

The Innovation Center for U.S. Dairy board of directors includes 31 dairy leaders representing producer organizations, dairy cooperatives, processors, manufacturers and brands.



Optimizing Solar Potential

January 20, 2011

For the processing industry, where the demand for process heat often meets or exceeds the demand for electricity, solar cogeneration is the ideal solution.

by Dr. Gilad Almogy, CEO, Cogenra Solar

With an uncertain economic climate, manufacturers are now more than ever looking to cut costs and foster long-term financial stability. It's no surprise that the energy-intensive nature of processing leaves many producers vulnerable to rising electricity and fuel prices. These financial motivators coupled with new environmental guidelines and strict industry regulations are prompting many companies to reassess how to most effectively meet their energy needs. On-site renewable energy installations are an attractive solution for progressive manufacturers looking to take control of their energy future.

Fortunately, technology advancements and generous government incentives have made going green not only an environmentally responsible choice, but also a strategic, cost-saving business move. New financing models tailored for industrial end-users allow processing facilities to integrate renewable energy systems for little or no upfront costs, providing a pay-as-you-go model for onsite energy production that serves as a hedge against volatile utility rates. These models, known as power purchase agreements (PPAs), enable sustainability programs without redirecting capital from core business objectives.

Not all renewable energy technologies are created equal

While most plant managers agree renewable energy could be an effective solution to meet sustainability objectives and improve the bottom line, selecting the right technology can be an exhausting process. There are essentially two fundamental solar technologies available for industrial manufacturers: solar photovoltaic (PV), traditional solar panels that generate electricity, and solar thermal, systems that generate heat for hot water and other processing operations that are typically fueled by burning natural gas. Both solar PV and solar thermal supply a valuable energy resource, so why choose between the two?

Introducing solar cogeneration, renewable heat & electricity

For the food manufacturing industry, where the demand for process heat often meets or exceeds the demand for electricity, solar cogeneration is the ideal solution. Solar cogeneration combines proven solar PV and solar thermal technologies in a single system to deliver both electricity and hot water. While the electronic component connects to the facility's existing power supply, the thermal end heats water for washing and sanitation, cleaning, pasteurization, fermentation, boiler pre-heating, and other practical applications.

The Nitty Gritty — Heating Up with Solar Cogen

By using solar cogeneration, food manufacturers reduce a large portion of their natural gas consumption and gain access to clean electricity to sustainably power plant operations. Solar cogen modules are quickly assembled on site and designed to seamlessly integrate with existing hot water boiler equipment. The water is heated through a closed-loop heat exchanger to temperatures around 70° C (160° F), depending on the facility needs, and can be utilized immediately, fed into boilers to be elevated to higher temperatures, or temporarily stored and applied during non-sun hours.

Solar cogeneration is the most environmentally responsible solar solution on the market, eliminating greenhouse gas emissions at nearly three times the rate of traditional PV panels while also reducing local VOC (volatile organic compounds) and NOx (Nitric Oxide and Nitrogen Dioxide) emissions released from the onsite burning of natural gas. In some air quality districts, avoidance of VOC and NOx pollutants can obviate regulatory burdens and associated fines.

A Closer Look at Solar Cogen for the Dairy Industry

The U.S. dairy industry has made an aggressive commitment to promote sustainability and identify best practices for processing operations. The energy used for milk pasteurization, packaging and distribution contributes nearly five million metric tons of greenhouse gas emissions nationally each year. In an industry call to action, the Innovation Center for U.S. Dairy announced in January 2009 a voluntary goal to reduce greenhouse gas emissions from the production lifecycle of each gallon of milk by 25 percent by 2020. A partnership with the EPA and the agency's ENERGY STAR program was formed early last year to rally industry participants and determine transitional guidelines to meet this goal.

The industry's energy-intensive cleaning practices, fueled by high-temperature heat, were identified as one area for major improvement. Processing equipment and piping systems in milk plants require frequent cleaning to keep milk fresh and abide by FDA regulations. To meet these standards, the inner surfaces of pasteurization equipment and pipes are cleaned daily and raw milk storage tanks are cleaned every 72 hours. Consequently, more than half of a milk processor's energy consumption is devoted to cleaning equipment and pipes.

The Next Generation Cleaning project was tasked with finding new solutions that lower a processing plant's fuel demands and greenhouse gas emissions. Recently, the Innovation Center recognized solar cogeneration as a viable solution to maintaining the high-temperature cleaning processes without the large carbon footprint and high fuels costs.

"As a leader in the dairy industry and an active member of The Innovation Center for U.S. Dairy, we are always interested in technologies that can help us reduce our impact on the environment and the world around us," explains Howard Depoy, director of power refrigeration and sustainability for LALA USA. "Solar cogeneration could enable us to meet our threefold objective: reduce our carbon footprint and our reliance on fossil fuels, decrease our fuel costs and, of utmost importance, continue to provide our consumers with safe and nutritious dairy products."

Under the Next Generation Cleaning project scope, the Innovation Center will continue to collaborate with Cogenra Solar to determine the impact of solar cogen on the dairy industry at scale.

Solar cogeneration is by far the most efficient and environmentally sustainable solar solution for food manufacturers. Supplying two valuable industrial resources — electricity and hot water — solar cogeneration delivers five times the energy output, three times the greenhouse gas reductions and twice the financial savings compared to traditional solar panels.

For more information on solar cogeneration, visit www.cogenra.com or visit Cogenra Solar at the California League of Food Processors' Expo & Showcase of Processed Foods in Sacramento, Calif. Feb. 1-2, 2011. Dr. Gilad Almogy will give a presentation on the value of solar cogen on the panel "Solar Energy, Has the Time Come?" on Wednesday, Feb. 2 from 12:00 – 1:00 p.m.

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Vilsack Outlines Biofuels Progress

Thu Jan 20, 2011 02:48 PM CST

NEW YORK (DTN) -- U.S. Agriculture Secretary Tom Vilsack announced Thursday that biofuels and biomass energy projects across the country have been selected for funding, saying the funding continues the Obama Administration's support for the development of renewable fuels.

Vilsack highlighted the various investments USDA made since he laid out a broad vision to spur rural revitalization through renewable energy production in a speech at the National Press Club in October 2010.

"Building an active biofuels and biomass industry in every region of the country will help to create jobs and provide economic opportunity for people who live in rural communities," said Vilsack. "The Obama Administration knows these investments will benefit all of America because renewable energy provides the opportunity for a cleaner environment and greater energy security for our country."

The Biorefinery Assistance Program, which was included in the 2008 Farm Bill, provides loan guarantees to entrepreneurs eager to take advantage of the growing opportunities in renewable energy provided by advanced biofuels. Thursday's announcement includes three projects totaling \$405 million in guarantee loans.

In rural western Alabama, Coskata, Inc. has received a letter of intent for a \$250 million loan guarantee to construct and operate a cellulosic ethanol biorefinery facility. This 55-million-gallon-per-year renewable biofuel project will use woody biomass to produce ethanol.

In Pontotoc, Miss., Enerkem Corp. has been selected to receive an \$80 million loan guarantee to build and operate a biorefinery that will be capable of producing 10 million gallons per year of cellulosic ethanol by refining some 100,000 metric tons of dried and post-sorted municipal solid waste through a thermo-chemical cellulosic process.

In Vero Beach, Fla., the INEOS New Planet BioEnergy, LLC. has been selected to receive a \$75 million loan guarantee to construct and operate a biorefinery capable of producing 8 million gallons per year of cellulosic ethanol and gross electricity production capacity of 6 MW. The feedstock for the process will include primarily vegetative waste, yard wastes, wood waste and municipal solid waste.

Each company has specified conditions that they must meet in order to complete the loan.

In separate energy releases Thursday, Vilsack announced payments made to eligible producers under the Advanced Biofuels Payment Program to support and ensure an expanding production of advanced biofuels and \$1.6 million in grant funding for 68 feasibility studies under the Rural Energy for America Program.

For example, in Hale County, Texas, Select Milk Producers, Inc. was selected to receive a \$17,500 feasibility study grant to analyze all aspects of a proposed anaerobic digester project, including evaluating the conversion of biogas to electricity, compressed natural gas for injection into natural gas pipelines, and compressed natural gas for use as a diesel fuel replacement.

In New York, the Cayuga County Public Utility Service Agency has been selected to receive a \$40,000 renewable energy feasibility study grant to examine a proposal to connect up to 20 Cayuga County farms to a collector pipeline that will deliver farm-produced biogas to produce renewable heat and power for sale to business customers.

Across the country in Fresno County, Calif., J & D Wilson and Sons Dairy has been selected to receive an \$8,250 grant for a feasibility study to evaluate the viability of installing a biomethane recovery and a liquefied natural gas liquefaction plant at the grantee's dairy.

These anaerobic digesters also play an important part in efforts between USDA and the Innovation Center for U.S. Dairy, an

industry group, to implement key strategies to increase the availability of anaerobic digesters on U.S. dairy farms, said Vilsack. This effort is part of an historic agreement signed in Copenhagen in December 2009. The Memorandum of Understanding calls for cutting greenhouse emissions by 25 percent by 2020.

As part of USDA's commitment to reduce U.S. dependence on imported oil by developing alternative, renewable energy sources, USDA will soon issue new rules for the Biorefinery Assistance Program; Repowering Assistance Program; and Bioenergy Program for Advanced Biofuels Payments To Advanced Biofuel Producers.

The new rules will provide additional opportunities for development of advanced biofuels projects. Vilsack also noted that on the same date the rule for Section 9005 is published, a Notice of Funding Availability for fiscal year 2010 funds will also be published.

Vilsack said this funding is an example of the many ways that USDA is helping revitalize rural economies to create opportunities for growth and prosperity, support innovative technologies, identify new markets for agricultural producers, and better utilize the nation's natural resources.

USDA, through its Rural Development mission area, administers and manages more than 40 housing, business and community infrastructure and facility programs through a national network of 6,100 employees located in the nation's capital and nearly 500 state and local offices. These programs are designed to improve the economic stability of rural communities, businesses, residents, farmers and ranchers and improve the quality of life in rural America. Rural Development has an existing portfolio of nearly \$142 billion in loans and loan guarantees.

(BM/AG)

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January 20, 2011

The Innovation Center for U.S. Dairy published the first U.S. Dairy Sustainability

The Innovation Center for U.S. Dairy published the first U.S. Dairy Sustainability Commitment Progress Report, designed to demonstrate the industry's progress toward reducing its environmental impact. Based on data from 2007-2008, greenhouse gas (GHG) emissions per gallon of milk consumed, from farm to table, averaged 17.6 lbs. of carbon dioxide equivalents (CO2e). The report also estimates emissions for each step in milk's life cycle: dairy cattle feed production accounts for 20.3%; milk production (primarily the cow) accounts for 51.5%; and on-farm energy usage is 3.6%. Once the raw milk leaves the farm, other emission estimates include: milk processing – 5.7%; milk packaging – 3.5%; transport/ distribution – 7.7%; milk retailing – 6.5%; and milk consumption – 4.9% The study, along with data from other resources, validates total U.S. dairy GHG emissions are approximately 2% of total U.S. emissions. The dairy industry's voluntary goal is to reduce GHG emissions from fluid milk by 25% by 2020.

To find the full report or for more information, visit www.usdairy.com.



Cheese industry pledges to do more on sodium reduction

January 21, 2011

By Guy Montague-Jones

US cheese companies have agreed to step up efforts to reduce the sodium content in cheese and educate consumers about the limits of sodium reduction.

At a meeting hosted by the Innovation Center for US Dairy 17 leading cheese firms, including the likes of Chr Hansen, Kraft Foods and Cargill, discussed the key challenges and opportunities related to sodium reduction.

The companies are working pre-competitively on best practice to reduce sodium levels through formulation as well as process and manufacturing control.

Some companies have already begun to reduce sodium levels with the launch of new reduced sodium cheeses and others are making reductions across product lines.

No industry-wide targets

However, there is currently no move to introduce industry-wide targets.

Carol Blindauer, SVP, health and wellness, at the Innovation Center told this publication: "While a variety of individual cheese manufacturers or multi-food companies who make cheese may have committed to a targets approach to sodium reduction for their products, the industry at large is not adopting a targets approach."

Blindauer said this is because cheese is not one single food for which a blanket sodium target would be appropriate. Swiss cheese, for example, is naturally low in sodium so there would be little merit in making cuts that would be particularly difficult to achieve without compromising on taste or risking food safety.

The industry spokesperson said sodium plays a vital role in cheese making for flavour, moisture, versatility and even food safety. Salt is a natural preservative that is not easy to replace without resorting to artificial alternatives that many consumers prefer to stay away from.

The cheese companies are agreed that more work is needed on a marketing level to put these points to the consumer. At the meeting of the task force on sodium in cheese the companies agreed that more education work was needed to inform the consumer about the nutrients in cheese, the role of sodium in cheese and the work that has already been done on sodium reduction.

Marketplace analysis

The companies are also looking to establish more clearly where the industry is as far as sodium reduction is concerned. Blindauer said a marketplace analysis has been completed and is pending publication.

She said: "Understanding where we are as an industry is the first step to being a part if the solution to addressing sodium and cheese."

Companies involved in the Best Practices Task Force on sodium reduction include: Bongards, Cargill, Chr Hansen, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino Foods, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

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Cheese Companies Work Proactively On Sodium Challenges; Walmart Seeks Less Salt

Walmart Wants Less Sugar Added To Yogurt, Milk, Less Salt In Cheese Products

Rosemont, IL, and Washington—The Innovation Center for US Dairy last month hosted over a dozen cheese companies united at a Best Practices Task Force meeting to work on proactively addressing the opportunities and challenges associated with reducing the sodium content of cheese products.

The group has been working precompetitively to improve consumers' health and wellness while maintaining strict expectations for food safety and taste.

"This effort is aimed at eliminating sodium, sugar and trans fat in products where they are not really needed."

—Andrea Thomas, Walmart

The group rallied around three key points related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower-sodium products; updating process controls in manufacturing; and educating key audiences about the necessary role of sodium in cheese, in terms of the cheesemaking process and food safety/shelf stability.

"Cheese contributes a relatively small amount of sodium to Americans' diets, less than 8 percent; however, industry is steadfast in its commitment to being part of the solution to lowering sodium levels in the diet. Innovation efforts are under way that help the industry control and lower sodium," said Nigel Kirtley, vice president cheese research, development and quality for Kraft Foods and member of the health and wellness subcommittee for the Innovation Center for US Dairy.

"It should not be overlooked that cheese is a nutritious food that contributes calcium, protein, phosphorus and vitamin A to the diet, and it is a nice complement to other food groups that Americans need to be eating more of such as whole grains, vegetables and fruit," Kirtley added.

To date, companies involved in the Best Practices Task Force include: Bongards, Chr. Hansen, Cargill, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

Also, academic researchers from Utah State University, the University of Wisconsin's Center for Dairy Research and Food Research Institute, California Polytechnic State University and representatives from the International Dairy Foods Association and US Dairy Export Council also participated.

The group will continue to work together to address three areas: ensuring food safety, education outreach and process control.

Meanwhile, at an event Thursday in Washington, DC, Walmart unveiled a comprehensive effort to provide its customers with healthier and more affordable food choices.

Among the five key elements of the program: reformulating thousands of packaged food items by 2015 by reducing sodium 25 percent and added sugars 10 percent, and by removing all remaining industrially produced trans fat.

Walmart will reformulate key categories of its Great Value private brand and collaborate with suppliers to reformulate national brands within the same categories by 2015. The effort is designed to help reduce the consumption of sodium, sugar and trans fat.

Key sodium categories include such dairy items as processed cheese, cottage cheese, semi- and hard cheese and egg substitutes. Other categories include packaged prepared foods such as frozen entrees, pizza, frozen vegetables in sauce, and boxed dinners; snacks such as potato chips and cheese puffs; and sauces and condiments such as salad dressings and pasta sauce.

Walmart defines added sugars as sugars and syrups that are added to foods during processing or preparation; added sugars do not include naturally occurring sugars such as those that occur in milk. Targeted added sugar categories include dairy products such as yogurt, flavored milk and pudding.

For sodium and added sugars, as well as industrially produced trans fat (partially hydrogenated fats and oils), suppliers will be asked to voluntarily fill out a scorecard annually

so that Walmart can assess and report its progress toward its target.

"With more than 140 million customer visits each week, Walmart is uniquely positioned to make a difference by making food healthier and more affordable to everyone," said Bill Simon, president and CEO of Walmart US. "We are committed to working with suppliers, government and non-governmental organizations to provide solutions that help Americans eat healthier and live a better life."

"Our customers tell us they want a variety of food choices and need help feeding their families healthier foods. At Walmart, we are committed to doing both," said Andrea Thomas, senior vice president of sustainability at Walmart.

"We support consumer choice so this is not about telling people what they should eat," Thomas added. "Our customers understand that products like cookies and ice cream are meant to be an indulgent treat. This effort is aimed at eliminating sodium, sugar and trans fat in products where they are not really needed."

Michael Jacobson, executive director of the Center for Science in the Public Interest, applauded Walmart "for moving the food industry in a healthier direction."

Focus Of 1st US Dairy Sustainability Progress **Report: Cutting Greenhouse Gas Emissions**

Rosemont, **IL**—The Innovation mately 35 million metric tons. Center for US Dairy has published and made available for download the first annual US Dairy Sustainability Commitment Progress Report.

Information in the report covers the period from 2007 through August 2010 and focuses primarily on greenhouse gas (GHG) emissions and energy impacts. The report lists several reasons why GHG reduction has been prioritized as the starting point for the industrywide sustainability commitment:

■ The world's energy source is currently based on fossil fuel, which causes GHG emissions to be released into the atmosphere. Fuel efficiency can offer dairy businesses, both large and small, the opportunity to reduce costs and GHG emissions.

Further, converting manure and processing by-products into renewable energy could provide new sources of revenue for farms and processors.

- Seeking efficiencies responding to consumer trends, retailers are asking their suppliers to provide quantifiable information on how they are working to reduce their carbon footprint.
- Competitors in the beverage and snack industries are measuring their footprint as a way to show consumers that they are good stewards.

Last July, the Innovation Center completed the first national GHG life cycle assessment (LCA), or carbon footprint study, of fluid milk. The study's goal was to determine GHG emissions associated with production and consumption of one gallon of milk to the US consumer.

Based on data from 2007-08, the carbon footprint of a gallon of milk, from farm to table, is 17.6 pounds of carbon dioxide equivalents per gallon of milk consumed, with a range from 15.3 to 20.7 pounds of carbon dioxide equivalents due to natural variability and uncertainty in input

Among the learnings from the footprint study: there are opportunities for improvement across the supply chain. The study identifies opportunities to be more efficient and further reduce GHG emissions along the entire dairy supply chain.

For example, the average milk bottling plant processes 25 million gallons of milk a year and uses 27,500 million BTUs during milk processing. Activities causing GHG emissions are the pasteurization, refrigeration and cleaning processes.

About 75 percent of emissions are due to electricity use, 23 percent from fuel use for heating and 2 percent from refrigerant leakage.

Pasteurization and cleaning require significant energy and present opportunities to cut both GHG emissions and energy costs.

Non-thermal processes, such as ultraviolet (UV) technology, have the potential to increase shelf life of milk when used as an adjunct process to pasteurization. While some countries have explored these technologies, there have been no commercial demonstrations of UV milk processing in the US. Proof of concept and regulatory change are the primary hurdles.

Emerging technology is enabling reduced-temperature cleaning that can lower a processing plant's fuel demands and GHG emissions. Benefits of reduced-temperature cleaning include easy installation, no changes to the monitoring systems, less rinse water and less waste.

In the area of milk packaging, there are currently more than 6.0 billion gallons of fluid milk processed and packaged in the US each year. Material production alone accounts for more than 25 percent of the emissions due to the energy required to transport, process and convert raw materials into fluid milk containers of different formats and sizes.

nies and industry to calculate and benchmark environmental impacts and improvements to existing and emerging packaging formats and technologies for fluid milk.

Emissions from the milk transportation, retailing and consumption phase of the value chain are dominated by tailpipe emissions from the trucks. Insulated tank trucks are used for transportation of raw milk from dairy farms to processors; the average round trip was 515 miles, delivering 5,800 gallons of milk.

Adopting fuel-efficiency best practices can save trucking companies a substantial amount in fuel costs while also reducing emissions.

The storage and sales of fluid milk to retail consumers carries a GHG burden from energy use in the form of refrigeration, electricity and overhead electricity and from fugitive emissions associated with refrigerant loss.

Refrigeration and overall energy management can reduce fugitive refrigeration emissions and increase energy efficiency and reductions at retail outlets, the report noted.

Studies of the environmental footprint for cheese and packaging are underway, as is a comprehensive life cycle assessment of fluid milk that considers other factors such as water use and quality and eco-toxicity.

The report can be downloaded at: www.usdairy.com/sustainability.r

SOUNDER THAN EVER

Ontario Market Investment Fund Invests In Project To Popularize Pine River Co-op's Cheese Curds

Guelph, Ontario—Through the Ontario Market Investment Fund, the Pine River Cheese and Butter Cooperative will receive a \$54,500 grant to promote the benefits of locally produced cheese curds.

A refrigerated van will travel throughout the province, allowing Ontarians to sample the cheese curds and learn more through demonstrations at local grocery stores, shopping malls and foodrelated events.

"We at Pine River Cheese are very pleased to have received this grant," commented Vijay Kumar, general manager at Pine River Cheese. "This will go a long way in the project to popularize Ontarioproduced cheese curds made at Pine River Cheese in Bruce county."

Pine River Cheese and Butter Cooperative was founded in 1885. The co-op's plant, which is being restored following a 2010 fire, is located six kilometers south of Kincardine, Ontario.

Pine River Cheese makes a variety of products, including Cheddar, Colby, Monterey Jack, Mozzarella and Brick, as well as flavored cheeses. r





For more information, circle #6 on the Reader Response Card on p. 22

For more information, circle #7 on the Reader Response Card on p. 22

DAIRYPROFITWEEKLY

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Coming up

USDA's Cold Storage
report was released after
DairyProfit Weekly's
Friday press deadline,
DPW's editor heads to
the International Dairy
Foods Association's 'Dairy
Forum 2011' next week,
(with the flight inappropriately scheduled during the
Packer-Bear game).
Check for (almost) daily
DairyProfit Weekly
news updates at
www.dairybusiness.com.

This Issue

- Dean settlement provisions opposed
- DPW Trends: Milk production, Class I base price up
- DPW Numbers: 2010 dairy cull cow slaughter recap
- DPW Industry: Country Classic Dairies plea deal
- DPW Washington;
 Democrats named to House Ag
 Committee; DIAC documents posted

Dean lawsuit settlement objections filed

A proposed settlement in a class-action autitrust lawsuit involving northeast U.S. dairy farmers against major dairy co-ops and processors has drawn objections.

Based on terms of the settlement, announced early last December, Dean Foods agreed to pay \$30 million into a fund for dairy farmers. Dean is also required to buy up to 60 million lbs. of milk per month, for a period of 30 months, from sources other than co-defendants in the suit, Dairy Farmers of America (DFA) and Dairy Marketing Services (DMS). The milk would supply three Dean plants – at East Greenbush, N.Y., and Franklin and West Lynn, Mass. DMS, a milk marketing joint venture between dairy co-ops DFA, Dairylea and St. Albans, currently supplies about 140 million lbs. of milk per month to those plants, with about half of all St. Albans' milk going to Dean.

Objections to the proposed settlement were filed in the

U.S. District Court in Burlington, Vt., Jan. 18, including affidavits from about two dozen individual dairy farmers. One objection was filed by DFA/DMS, who charge the proposed settlement pits two groups of farmers involved in the class-action suit – members of their organizations, against non-members. DFA/DMS said its member farmers would suffer damages due to the lost market at the Dean plants, and did not receive adequate legal representation as a group of plaintiffs when the settlement was drafted.

While the settlement has been portrayed as a win for Northeast dairy farmers, DFA/DMS said \$10 million of the \$30 million settlement will go to plaintiff attorneys, sharply reducing payments for farmers.

DFA/DMS said the agreement has the potential of

(continued on page 2)

DPW TRENDS

♠ Class I base

February's federal order Class I base milk price is \$15.89/cwt., up 69¢ from January 2011 and \$1.05 more than February 2010. National Milk Producers Federation's Roger Cryan predicts a Milk Income Loss Contract program payment of about 55¢/cwt.

♠ Milk output

December 2010 milk production in the 23 major states totaled 15.04 billion lbs., up 2.8% from December 2009. Cow numbers totaled 8.385 million head, up 74,000 head from December 2009 and 15,000 head more than November 2010. Production per cow averaged 1,794 lbs., 33 lbs. more than December 2009.

Nationally, December milk output was estimated at 16.16 billion lbs., up 2.5% from December 2009. Production per cow averaged 1,769 lbs., up 32 lbs. Total cows were estimated at 9.136 million head, up

Decemb	er 20	09 &	2010	" milk	produ	ction	
		consi		per cow		production	Change
	2009	2010	2009	2010	2009	2010	from 200
State	1,000	head	lbs, pç	r month	mill	ion lbs.	percent
Arizona	167	184	2,005	1,970	335	362	+8.1
California	1,762	1,748	1,865	1,930	3,286	3,374	+2.7
Colorado	116	123	1,900	1,985	220	244	+10.9
Florida	112	114	1,535	1,580	172	180	+4.7
Idaho	550	574	1,850	1,860	1,018	1,068	+4.9
Illinois	101	98	1,600	1,640	162	161	-0.6
Indiana	169	171	1,675	1,695	283	290	+2.5
lowa	215	207	1,750	1,775	376	367	-2.4
Kansas	115	122	1,785	1,805	205	220	+7.3
Michigan	354	361	1,910	1,920	676	693	+2.5
Minnesota	470	470	1,630	1,630	766	766	n.c.
Missouri	103	95	1,230	1,230	127	117	-7.9
New Mexico	318	321	2,015	2,065	641	663	+3.4
New York	610	611	1,675	1,750	1,022	1,069	+4.6
Ohio	272	270	1,580	1,620	430	437	+1.6
Oregon	114	121	1,625	1,650	185	200	+8.1
Pennsylvania	539	542	1,620	1,640	873	889	+1.8
Texas	411	420	1,795	1,845	738	775	+5.0
Utah	82	86	1,795	1,780	147	153	+4.1
Vermont	134	135	1,545	1,585	207	214	+3.4
Virginia	95	95	1,525	1,545	145	147	+1.4
Washington	243	252	1,940	1,945	471	490	+4.0
Wisconsin	1,259	1,265	1,705	1,710	2,147	2,163	+0.7
23 states	8,311	8,385	1,761	1,794	14,632	15,042	+2.8
U.S. total	9,082	9,136	1,737	1,769	15,775	16,164	+2.5
Annual U.S.*	9,201	9,113	20,576	21,148	189,320	192,726	+1,8

1/ Includes dry cows, excludes heifers not yet fresh */ Preliminary

54,000 head from December 2009 and up 16,000 head from November 2010.

Total 2010 U.S. milk production was estimated at 192,73 billion lbs., up

3.41 billion lbs. (1.8%) from 2009. Cow numbers averaged 9.113 million, down 88,000 head; milk per cow was 21,148 lbs., a 572-lb. gain from 2009.

Source: USDA

(continued from page 1)

lowering milk prices paid in the northeast. In addition to having to find a home for 60 million lbs. of milk per month, potentially to lower class utilization markets, co-op representatives said they are better able to negotiate higher milk prices for farmers, and are able to save milk balancing, transportation and handling costs, returning more money to farmers through over-order premiums. The co-ops allege Dean could negotiate lower prices for milk it buys from other suppliers, and then use those prices to leverage lower prices for DFA/DMS milk.

According to DFA/DMS estimates, the average dairy farmer payment would be about \$1,500 under the settlement. They contend a 5¢/

cwt. milk price decline as a result of the settlement would reduce income for a 300-cow dairy farmer by about \$3,400/year.

Approval of the settlement is likely months away, U.S. District Court Judge Christina Reiss must give preliminary approval; all parties affected by the settlement must be notified; and then a hearing must be held for final approval.

Membership enrollment is reportedly slow and a bit controversial, but the National Dairy Producers Organization (NDPO) posted a "Contract with Producers" on its website. The contract identifies its "Top 10" issues, including: establishing a national supply management program; improving dairy price discovery; supporting dairy product country-of-origin labeling; tightening regulation of dairy imports; lowering maximum somatic cell counts to 400,000 cells/ml; and imposing higher national solids standards in fluid milk. Board members will meet at the World Ag Expo, in Tulare, Calif. on Feb. 8-10. Visit www.nationaldairyproducers.org.

Table 1. U.S. dairy trade

	Exports	Imports	Difference	
Month	\$ million	S million	\$ million	
Nov. '10	309	264	+45	
Oct. '10	350	222	+128	
Sept. '10	353	201	+152	
Aug. '10	347	242	+105	
July '10	317	207	+110	
June '10	351	200	+151	
May '10	364	206	+158	
April '10	297	201	+.86	
March '10	296	219	+77	
Feb. '10	225	198	+27	
Jan. '10	225	195	+30	
	DA Economi	c Research S	Service	

Dairy product trade

November 2010 U.S. dairy exports, estimated at \$309 million, were down 12% from October 2010, but 34% more than November 2009. At \$264 million, imports were up 19% from October 2010 and 17% more than November 2009.

Year-to-date (Y-T-D) January-October 2010 exports total \$3.436 billion, up 65% from the same period in 2009. Y-T-D 2010 imports total \$2.354 billion, up 3%, resulting in a \$1.08 billion Y-T-D dairy trade surplus.

According to the U.S. Dairy Export Council and National Milk Producers Federation, November 2010 exports were equivalent to 13.4% of monthly U.S. milk solids production, bringing the Y-T-D percentage to 12.8%. Imports as a percent of milk solids production were 3.2% in November.

Dairy cattle exports

November 2010 U.S. female dairy cattle exports totaled 3,762 head, January-November 2010 exports totaled 33,664 head, more than double the 16,209 for all of 2009. Mexico and Turkey are the leading markets for U.S. female dairy cattle, at about 15,900 head each through the first 11 months of 2010; 1,615 were also exported to Canada.

Source: USDA/FAS

DPW

January 24, 2011

DPW NUMBERS

CME futures annual averages

C. L.	*********	0	
As of closing Jan. 20	2010	2011	2012
*Class III milk (\$/ewt.)	14.41	15.78	15.51
*Class IV milk (\$/ewt.)	15.09	17.63	14.38
**Cheese (\$/lb.)		1.601	1.695
As of closing Jan. 20	2011	2012	2013
**Corn (\$/bu.)	6.40	5.69	5.41
**Soybeans (S/bu.)	13.98	12.98	12.12
**Soybean meal (\$/ton).	373.30	335.59	305.70
*/ includes previously se	ttled m	onths for	year.
**/ average for remaind	er of th	e year on	dy

Corn for ethanol; co-products Week ending Jan. 14

Ethanol yield (gallons) 38.35 million/day
Ethanol % of daily gasoline use 10.4%
Corn used (million bushels) 13.8/day
DDGS yield (metric tons) 91,000/day
DDGS = Dried distillers grains w/solubles

Source: Renewable Fuels Association

Heifers imported from Canada Y-T-D week ending Dec. 25 7,517

Source: USDA

Monthly dairy cull cows

USDA estimated 264,800 culled dairy cows were slaughtered under federal inspection in December 2010, up about 23,600 head from November 2010, and 33,600 head more than December 2009.

Throughout the year, 2010 dairy cull cow slaughter trailed 2009 totals by 60,000 to 85,000 head. However, more than 500,000 culled dairy cows were slaughtered in the final two months of 2010, closing the gap.

Total 2010 dairy cull cow slaughter was estimated at about 2.807 million head, down just 8,300 from 2009. The closing gap, at the same time

the U.S. dairy herd is growing, indicates an adequate number of available replacement dairy heifers.

November 2010 fluid sales

Dairy Market News estimated 4.6 billion lbs. of packaged fluid milk products were sold in the United States in November 2010 (adjusted for calendar composition), 1.3% less than November 2009. Through the first 11 months of 2010, sales of conventional fluid products (48.3 billion lbs.) decreased 1.8% from the same period in 2009; sales of organic fluid products (1.64 billion lbs.) increased 12.2%.

Dairy CPI

The U.S. Bureau of Labor Statistics reported the December 2010 Consumer Price Index for most dairy products was up from November 2010 and December 2009, and outpaced the increase for all food purchased for home consumption.

Dairy Consumer Price Index

	Retail price compared to		
Nov.	Dec.		
2010	2009		
+0.2%	+1.7%		
+0.4%	+3.7%		
+0.5%	+5.1%		
-0.4%	+4.3%		
-3,4%	+21.9%		
+2.0%	+2.6%		
+0.3%	+1.4%		
	2010 +0.2% +0.4% +0.5% -0.4% -3.4% +2.0%		

This week on DairyLine www.dairyline.com

Log on to www.dairyline.com to read — and hear — conversations with dairy newsmakers.

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V MARKETS

Dairy	Rep.	lacements
	S/he	end

Norwood, Mo. (Jan. 13)
Fresh/open cows	980-1,075
Heifers (bred 7-9 mos.)	950-1,240
(Crossbreds)	875-1,100
(bred 4-6 mos.)	885-1,125
(Crossbreds)	900-1,025
(bred 1-4 mos.)	910-975
Open heifers (400-475 ll	os.) 430-510
(573 lbs.)	590
(650-675 lbs.)	640-660
(725-800 lbs.)	675-780
Heifer calves (small)	110
(Jersey/Jersey cross)	110-115
Smiths Grove, Ky. (Jan	. 18)

8)
60-1,530

(bred 5-8 mos)	1,050-1,490
(bred 1-4 mos)	850-1,120
Open heifers (200-300	lbs.) 250-380
(300-400 lbs.)	310-420
(400-500 lb.)	410-640
(500-600 lbs.)	470-520
(800-900 lbs.)	76-83/cwt
(900-1,100 lbs.)	77-82/cwt
Heifer calves (small)	45-75
(medium-large)	110-190

Toppenish, Wash. (J	an. 10)
Springing heifers	880-1,075
(bred 1-3 mos)	825-875

Open heifers	
(320-470 lbs.)	98-105/cwt.
(670-780 lbs.)	90-93/cwt.
(880 lbs.)	80/cwt.

New Holland, Pa. (Jan. 19) 1.100-1.700 Fresh cows

Cows (bred 1-3 mos.)	925-1,450
Heifers (bred 7-9 mos.)	1,050-1,275
(bred 1-3 mos.)	950-1,100

Sulphur Springs, Texa	s (Jan. 13)
Fresh cows	900-1,325
Springers	900-1,325
Heifers (breeding age)	NA
Small	175-510
Calves	40-175
Prices for supreme & ap	proved only
Holsteins unless otherw	ise noted.

USDA	/NASS pi	ices/S/Ib.
Week	NFDM	Dry whey
Jan. 15	1.2560	0.3956
Jan. 8	1.2239	0.3870
Jan. 1	1.2175	0.3884

CME Class III Futures 200,000 lbs.: \$/cwt.

	200,0	on ingit	SIC IT C		
	2011		20	2012	
Month	1/20	1/13	1/20	1/13	
Jan.	13.50	13.55	15.71	15,44	
Feb.	15.34	14.91	15.50	15.10	
March	15.50	14.92	15.45	15.20	
April	15.67	15.32	15.50	15.20	
May	15.90	15.47	15.40	15.15	
June	16.00	15.70	15.50	15.30	
July	16.25	15.99	15.50	15.44	
Aug.	16.28	15.94	15.50	15.45	
Sept.	16.27	16.00	15.49	15.47	
Oct.	16.27	15.93	15.55	15.55	
Nov.	16.20	15.85	15.47	15.47	
Dec.	16.15	15.86	15.49	15.49	
* Actual (Class III pi	ice			

CME Cheese Futures 20,000 lbs.; \$/lb.

Jan 1	3 2010	
1.408	Aug. '11	1.636
1.540	Sept. '11	1.649
1.531	Oct. '11	1.632
1.560	Nov. '11	1.644
1.565	Dec. '11	1.639
1.600	Jan. '12	1.630
1.635	Feb. '12	1.646
	1.408 1.540 1.531 1.560 1.565 1.600	1.540 Sept. '11 1.531 Oct. '11 1.560 Nov. '11 1.565 Dec. '11 1.600 Jan. '12

	CME C	ash Spo	t	
	Cheddar Cheese		Butter	
	Barrel	Block	Grade A/	
	(S/lb.)	(\$/lb.)	(S/lb.)	
Jan. 20	1.4875	1.5000	2.1000	
Jan. 13	1.4625	1.5100	2.1000	
Jan. 6	1.3400	1.3600	1.9500	

Nonfat Dr	y Milk/Whe	y (\$/lb.)
	East/Central	West
Nonfat dry milk	1.33-1.43*	1.25-1.40
Dry whey	.3640*	.39543*
Animal feed whe	y .2638	
* Most sales in th	is range	

Source: USDA Dairy Market News, Jan. 20

Order Class Prices - \$/cwt Rederal orders

	reuci	ui ni uc	13	
Month	I base	11	111	IV
Nov. '10	17.24	17.21	15.44	16.68
Dec. '10	16.96	15.77	13.83	15.03
Y-T-D*	15.35	16.02	14.41	15.09
Jan. '11	15.20			
Feb. '11	15.89			
	Califo	rnia ar	der	

Month	1 North	1 South	4a	41)
Nov. '10	18.71	18.98	16.34	13.14
Dec. '10	18,28	18.55		
'10 Y-T-D*	16,97	17.24	14.82	13.25
Jan. '11	16.45	16.72		
Feb. '11	16.88	17.15		

	U	SDA/NAS	S Chedda	r Cheese		
	ι	i.S.	MA	ł/WI	Ott	her
Week ending	Barrel (S/lb.)	Block (S/lb.)	Barrel (S/lb.)	Block (S/lb.)	Barrel (S/lb.)	Block (S/lb.)
Jan. 15	1.3787	1.3471	1.3810	1.4459	1.3767	1.3378
Jan. 8	1.3762	1.3457	1.3845	1.4422	1.3671	1.3378
Jan. I	1.4010	1.3746	1.4173	1.4924	1.3883	1.3672

	0		
	Jan	. 20, 2010	
	Corn	Soybeans	Soy Meal
	S/bu.	\$/bu.	\$/ton
Mar. '11	6.54	14.14	385.30
May '11	6.64	14.24	387.90
July '11	6.88	14.30	388.40
Sept. '11	6.16	13.72	367.70
Dec. '11	5.76	13.42*	351.60
Mar. '12	5.84	13.40	350.30
May '12	5.90	13.28	347.20

Grain Futures

Regional Feeds Jan. 19-20, 2011

July '12

Sept. '12 5.46

5.96

Chicago Board of Trade *Nov. '11

13.23

12.48

346.20

325.20

Jan, 13	1-20, 201		
	Cotton-	Soy	
	seed	46-49%	Com
	S/ton	S/ton	\$/bu
Madison, WI1	284	395	5.90
Zumbro Falls, MN1	294	NA	NA
Orangeburg, SC1	205	446	7.42
Okeechobee, FL1	225	445	7.51
Lynden, WA2	328	426	7.84
Turlock, CA2	325	422	7.53
Sulphur Springs, TX	2 265	408	7.42
North Java, NY2	260	420	6.60
1/ F.O.B. prices 2/ App			es
* Previous week NA	= not av	ailable	

Corn Feeds Jan. 19, USDA - (S/ton)

Distillers Dried Grain

Eastern Corn Belt	170-195
Chicago	171.50-172.50
Lawrenceburg, Ind.	180
Nebraska	175-202
Minnesota	172-180
Kansas	200-215
lowa	172-190
Northern Missouri	190-201
St. Louis	180-190
Wisconsin	165-175
California	225-240

MILC projected payments (\$/cwt.)

	(2)			
FY 2011		FY 2	012	
	Month	S/cwt.	Month	S/cwt.
	Oct. '10	0.00	Oct. '11	NA
	Nov. '10	0.00	Nov. '11	NA
	Dec. '10	0.00	Dec. '11	0.15
	Jan. '11	0.57	Jan. '12	
	Feb. '11	0.47	Feb. '12	
	Mar. '11	0.34	Mar. '12	
	Apr. '11	NA	Apr. '12	
	May '11	0.14	May '12	
	June '11	0.19	June '12	
	July '11	0.26	July '12	
	Aug. '11	0.15	Aug. '12	
	Sept. '11	0.01	Sept. '12	

Based on futures prices as of 1/20/11 by CPDMP (www.cpdmp.cornell.edu)

For USDA's weekly hay report, visit www. ams.usda.gov/mnreports/lswfeedseed.pdf.

DPW INDUSTRY

The National Milk Producers Federation added Jonathon Glueck as manager of government relations. He will assist senior vice president Dana Brooks and director David Hickey in the Government Relations department, with specific responsibility for legislative issues regarding animal welfare and care.

Michael Monforton, former chief executive office of Montana-based Country Classic Dairies, agreed to plead guilty to charges of embezzling from the dairy cooperative. Monforton was indicted last July, along with three co-defendants - Jeffrey McCown, former manager of the co-op's transportation arm; his wife, Jeanette McCown, who served as bookkeeper; and Scott McCown, who was the shop manager. Jeffrey and Jeanette McCown previously agreed to plead guilty; a plea agreement with Scott McCown is expected to be announced shortly. Published reports estimate total theft at more than \$1 million, during 2007-09. Country Classic Dairies merged its business operations with Seattle-based Northwest Dairy Association and its marketing subsidiary, Darigold, Inc. in fall of 2010.

The Innovation Center for U.S. Dairy published the first U.S. Dairy Sustainability Commitment Progress Report, designed to demonstrate the industry's progress toward reducing its environmental impact.

Based on data from 2007-2008, greenhouse gas (GHG) emissions per gallon of milk consumed, from farm to table, averaged 17.6 lbs. of carbon dioxide equivalents (CO2e). The report also estimates emissions for each step in milk's life cycle: dairy cattle feed production accounts for 20.3%; milk production (primarily the cow) accounts for 51.5%; and on-farm energy usage is 3.6%. Once the raw milk leaves the farm, other emission estimates include: milk processing - 5.7%; milk packaging - 3.5%; transport/ distribution - 7.7%; milk retailing - 6.5%; and milk consumption - 4.9%

The study, along with data from other resources, validates total U.S. dairy GHG emissions are approximately 2% of total U.S. emissions. The dairy industry's voluntary goal is to reduce GHG emissions from fluid milk by 25% by 2020. To find the full report or for more information, visit www. usdairy.com.

DPW

January 24, 2011

DPW WASHINGTON

We've known the Republican members of the House Ag Committee for weeks. This week, ranking member U.S. Rep. Collin Peterson named Democrats who will serve in the 112th Congress. There are 13 returning members and seven new members, including: Peterson and Timothy Walz, Minn.; Tim Holden, Penn.; Mike McIntyre and Larry Kissell, N.C.; Leonard Boswell, Iowa; Joe Baca, Dennis Cardoza, and Jim Costa, all Calif.; David Scott, Ga.; Henry Cuellar, Texas; Kurt Schrader, Ore.; Bill Owens, N.Y.; Chellie Pingree, Maine; Joe Courtney, Conn.; Peter Welch, Vt.; Marcia Fudge, Ohio; Gregorio Sablan; Northern Mariana Islands; Terri Sewell, Ala.; and James McGovern, Mass.

The names of members of Congress serving on a bipartisan Congressional Dairy Farmers Caucus have begun to trickle out. U.S. Rep. Chris Lee (R-N.Y.) will serve as chair. Others identified so far are U.S. Reps. Joe Courtney of Connecticut, Peter Welch of Vermont, Timothy Walz of Minnesota, Devin Nunes of California, Thomas Petri of Wisconsin, and Richard Hanna of New York.

Last week's *DairyPrafit Weekly* provided preliminary information from the Jan. 11-12 meeting of USDA's Dairy Industry Advisory Committee. USDA has now posted several documents from that meeting at www.fsa.usda.gov/DIAC.

USDA is expected to announce its regulatory decision on Roundup Ready alfalfa on Monday, Jan. 24. Due to an uproar over USDA's recent forum – involving anti- and pro-technology

representatives to seek "coexistence" on biotechnology issues, the House Ag Committee held a hearing, Jan. 20, grilling U.S. ag secretary Tom Vilsack on the agency's stance on science-based regulations. Vilsack told the committee USDA continues to be strongly supportive of biotechnology – but also supports the growth of organic and non-genetically engineered ag products.

President Obama directed the secretaries of State, Treasury and Homeland Security to take steps to reach out to Cuba, a move the National Farmers Union hopes will pave for the way for increased ag sales to the island nation. H.R. 4645, the Travel Restriction Reform and Export Enhancement Act, would have allowed direct financial transactions for agricultural sales to Cuba; required agricultural exports to Cuba to meet the same payment requirements as exports to other countries; and allowed U.S. citizens to travel to Cuba. The legislation died in the last Congressional session. The International Trade Commission predicts lifting restrictions on ag goods would increase U.S. exports to Cuba to between \$924 million and \$1.2 billion.

The Obama Administration set a July 1 target date for congressional approval the U.S.-Korea Free Trade Agreement. However, the National Cattlemen's Beef Association said the administration has been silent on pending agreements with Panama and Colombia, both signed at the end of 2006 and still awaiting ratification by Congress.

The Public Lands Council and more than 20

livestock producer organizations sent a letter to Secretary of Interior Ken Salazar, expressing concerns regarding a federal order directing the Bureau of Land Management to designate and manage areas with wilderness characteristics under its jurisdiction as "wild lands." The order threatens public use of areas currently managed for multiple uses, including livestock grazing, the organizations said.

The U.S. Environmental Protection Agency (EPA) plans to defer, for three years, greenhouse gas permitting requirements for carbon dioxide emissions from biomass-fired and other biogenic sources. EPA hopes to formulate rules by July 2011, covering facilities that emit carbon dioxide as a result of burning forest or agricultural products for energy, wastewater treatment and livestock management facilities, landfills and fermentation processes for ethanol production.

The National Organic Program released draft guidance for public input concerning products labeled "made with organic [specified ingredients or food group(s)]." Processed products that contain at least 70% organic ingredients can be labeled "made with organic [specified ingredients or food group(s)]." The document addresses the use of non-organic ingredients in "made with organic" products and clarifies the use of percentage statements under the "made with organic" labeling category. Comments will be accepted until March 14.

DPW

January 24, 2011

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IDFA CEO Calls for Policies that Promote Profitability

JANUARY 24, 2011 By: Dairy Today Editors

Source: International Dairy Foods Association

In her keynote speech today at Dairy Forum 2011, Connie Tipton, president and CEO of the International Dairy Foods Association, said the dairy industry, now at a crossroads, has many opportunities for achieving its greatest potential. Noting that industry participants are closer than ever to finding agreement on a package of policy reforms, she challenged industry leaders to focus on policies that will promote growth and profitability rather than protection and limitations. Tipton addressed a record crowd of dairy producers, processors, suppliers and other industry participants gathered in Miami this week for the 26th annual Dairy Forum.

Calling price volatility the "elephant in the room," Tipton explained that every agricultural commodity has price volatility but, unlike dairy, the others have tools and programs in place that help them to navigate the ups and downs. Unfortunately for dairy, current government policies actually exacerbate the volatility, which was painfully evident during what Tipton called the "Great Depression of 2009" for dairy farmers.

"The path to a prosperous future lies not in creating additional government intervention in our markets. Rather, it's by replacing our existing programs with those that protect our farms without forfeiting our opportunity for the future," Tipton said. "Let's take the road well traveled by other commodities, but less traveled by the dairy industry."

She commended the strategic leadership of Tom Gallagher, CEO of Dairy Management Inc., and his vision for creating the Innovation Center for U.S. Dairy. Shortly after its inception, the Center commissioned a comprehensive study of dairy supply and demand around the globe by Bain & Co., which identified a clear path forward for the dairy industry, provided that U.S. dairy policies could be streamlined to promote market growth.

"There's a love affair with dairy around the globe," she said, detailing growing opportunities in China, Japan, South Korea, New Zealand, Argentina, Chile and Ecuador, as well in as the United States. "We must have the guts to move in the right direction."

Tipton also applauded the National Milk Producers Federation and CEO Jerry Kozak for promoting new policies and programs that would encourage growth. But she warned against programs that would bring more government intervention.

"Government controls may sound tempting, but they're like the siren song promising to take away risk that eventually leaves you dashed against the rocks," Tipton said. "The reality is that market factors are pretty darn hard to control, and politicians steering those controls are even more unpredictable,"

Instead, she said IDFA supports an improved margin insurance program to replace programs that no longer work, like the Dairy Product Price Support Program. IDFA also believes that the antiquated Federal Milk Marketing

Order system is holding producers back from using modern risk management tools. Tipton called for simplifying the federal orders into a two-class system and urged all industry participants to support a streamlined system that would allow growing markets to thrive.

"We have an opportunity as an industry to change the game, to move from an industry focused on protection and limitations to an industry focused on growth, affordability and profitability," Tipton said. "We look forward to a cooperative approach to developing policies that will allow the U.S. dairy industry to reach its greatest potential."

The full text of Tipton's speech is available here.

#

The International Dairy Foods Association (IDFA), Washington, D.C., represents the nation's dairy manufacturing and marketing industries and their suppliers, with a membership of 550 companies representing a \$110-billion a year industry. IDFA is composed of three constituent organizations: the Milk Industry Foundation (MIF), the National Cheese Institute (NCI) and the International Ice Cream Association (IICA). IDFA's 220 dairy processing members run more than 600 plant operations, and range from large multi-national organizations to single-plant companies. Together they represent more than 85 percent of the milk, cultured products, cheese and frozen desserts produced and marketed in the United States.

See Comments

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COMMENTS

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Cheese industry pledges to do more on sodium reduction

POSTED BY THE EDITOR

January 24, 2011

US cheese companies have agreed to step up efforts to reduce the sodium content in cheese and educate consumers about the limits of sodium reduction.

(Dairyreporter.com)

At a meeting hosted by the Innovation Center for US Dairy 17 leading cheese firms, including the likes of Chr Hansen, Kraft Foods and Cargill, discussed the key challenges and opportunities related to sodium reduction.

The companies are working pre-competitively on best practice to reduce sodium levels through formulation as well as process and manufacturing control.

Some companies have already begun to reduce sodium levels with the launch of new reduced sodium cheeses and others are making reductions across product lines.

No industry-wide targets

However, there is currently no move to introduce industry-wide targets.

Carol Blindauer, SVP, health and wellness, at the Innovation Center told this publication: "While a variety of individual cheese manufacturers or multi-food companies who make cheese may have committed to a targets approach to sodium reduction for their products, the industry at large is not adopting a targets approach."

Blindauer said this is because cheese is not one single food for which a blanket sodium target would be appropriate. Swiss cheese, for example, is naturally low in sodium so there would be little merit in making cuts that would be particularly difficult to achieve without compromising on taste or risking food safety.

The industry spokesperson said sodium plays a vital role in cheese making for flavour, moisture, versatility and even food safety. Salt is a natural preservative that is not easy to replace without resorting to artificial alternatives that many consumers prefer to stay away from.

The cheese companies are agreed that more work is needed on a marketing level to put these points to the consumer. At the meeting of the task force on sodium in cheese the companies agreed that more education work was needed to inform the consumer about the nutrients in cheese, the role of sodium in cheese and the work that has already been done on sodium reduction.

Marketplace analysis

The companies are also looking to establish more clearly where the industry is as far as sodium reduction is concerned. Blindauer said a marketplace analysis has been completed and is pending publication.

She said: "Understanding where we are as an industry is the first step to being a part if the solution to addressing sodium and cheese."

Companies involved in the Best Practices Task Force on sodium reduction include: Bongards, Cargill, Chr Hansen, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino Foods, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

MANUFACTURING, NEWS



Cheese Companies Work on Best Practices for Reducing Sodium January 24, 2011

17 U.S. cheese companies have agreed to increase research and development efforts for reduced sodium cheeses. The companies met at an event hosted by the Innovation Center for U.S. Dairy to examine the challenges in developing new cheeses. The companies have agreed to work cooperatively in a pre-competitive stage in developing best practices in process and manufacturing control. The group has not adopted an industry-wide target for sodium reduction because each type of cheese must be treated differently. Reducing salt in cheese is difficult because it affects all aspects of the product from taste and texture to microbiological safety. The companies involved in the Best Practices Task Force on sodium reduction are Land O'Lakes, Bongards, Cargill, Chr. Hansen, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Leprino Foods, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

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IDFA Smart Brief

Industry News

Lifeway launches birthday-cake-flavored kefir

Lifeway Foods is celebrating 25 years since it was founded with a kefir variety that tastes like birthday cake. The beverage, which contains probiotics, is sold in packaging that touts the company's anniversary.

<u>Drug Store News</u> (1/21) Share: RELATED STORIES

Cheese companies focus on lowering sodium

Cheese makers in the U.S. say they are working to reduce sodium levels, but no industrywide targets are being set, partly because cheese is such a diverse category. Sodium is a natural preservative that also imparts flavor and moisture, said a representative for the Innovation Center for U.S. Dairy, which hosted a meeting on sodium reduction attended by 17 cheese companies. DairyReporter.com (1/21) <a href="Share: In Figure: I

Other News

Cheese-making returns to Bravo Farms after E.coli concerns

Visalia Times-Delta (Calif.) (1/20) Share: 7 [E-MAIL]



American Cheese Companies Agree to Reduce Sodium

By News Editor January 24, 2011

A meeting hosted by the <u>Innovation Center for U.S. Dairy</u>, American cheese companies agreed to step up efforts to reduce the sodium content in cheese and educate consumers about the limits of sodium reduction.

The 17 leading cheese firms, including the likes of Chr Hansen, Kraft Foods and Cargill, discussed the key challenges and opportunities related to sodium reduction. The companies are working pre-competitively on best practice to reduce sodium levels through formulation as well as process and manufacturing control.

Some companies have already begun to reduce sodium levels with the launch of new reduced sodium cheeses and others are making reductions across product lines. However, there is currently no move to introduce industry-wide targets.

Carol Blindauer, SVP, health and wellness, at the Innovation Center told this publication: "While a variety of individual cheese manufacturers or multi-food companies who make cheese may have committed to a targets approach to sodium reduction for their products, the industry at large is not adopting a targets approach."

Blindauer said this is because cheese is not one single food for which a blanket sodium target would be appropriate. Swiss cheese, for example, is naturally low in sodium so there would be little merit in making cuts that would be particularly difficult to achieve without compromising on taste or risking food safety.

The industry spokesperson said sodium plays a vital role in cheese making for flavour, moisture, versatility and even food safety. Salt is a natural preservative that is not easy to replace without resorting to artificial alternatives that many consumers prefer to stay away from.

The cheese companies are agreed that more work is needed on a marketing level to put these points to the consumer. At the meeting of the task force on sodium in cheese the companies agreed that more education work was needed to inform the consumer about the nutrients in cheese, the role of sodium in cheese and the work that has already been done on sodium reduction.

The companies are also looking to establish more clearly where the industry is as far as sodium reduction is concerned. Blindauer said a marketplace analysis has been completed and is pending publication.

She said: "Understanding where we are as an industry is the first step to being a part if the solution to addressing sodium and cheese."

Companies involved in the Best Practices Task Force on sodium reduction include: Bongards, Cargill, Chr Hansen, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino Foods, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

Source: Dairy Reporter



US cheesemakers unite to address sodium in cheese

January 25, 2011

Filed by Shaun Weston

More than 17 leading US cheese companies and manufacturers came together at a Best Practices Task Force meeting, hosted by the Innovation Center for US Dairy, to work on proactively addressing the opportunities and challenges associated with reducing sodium content in cheese.

The group has been working pre-competitively to improve consumers' health and wellness while maintaining strict expectations for food safety and taste.

The group rallied around three important aspects related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower sodium products, updating process controls in manufacturing, and educating key audiences about the necessary role of sodium in cheese (in terms of the cheesemaking process and food safety/shelf stability).

"Cheese contributes a relatively small amount of sodium to Americans' diets, less than 8%," said Nigel Kirtley, vice president cheese research, development and quality for Kraft Foods, and member of the Health and Wellness Subcommittee for the Innovation Center for US Dairy. "However, industry is steadfast in its commitment to being part of the solution to lowering sodium levels in the diet.

"Innovation efforts are under way that help the industry control and lower sodium. It should not be overlooked that cheese is a nutritious food that contributes calcium, protein, phosphorus and vitamin A to the diet, and it's a nice complement to other food groups that Americans need to be eating more of such as whole grains, vegetables and fruit."

Companies involved in the Best Practices Task Force include:

- Bongards
- Carqill
- Chr Hansen
- Dairy Farmers of America
- Davisco Foods
- Foremost Farms
- Glanbia
- Great Lakes Cheese
- Kraft Foods
- Kroger
- Lactalis
- Land O'Lakes
- Leprino Foods
- Marathon Cheese
- Sargento

- Schreiber Foods
- V&V Supremo Foods.

Academic researchers from Utah State University, University of Wisconsin's Center for Dairy Research and Food Research Institute, California Polytechnic State University and representatives from International Dairy Foods Association and US Dairy Export Council also participated.

The group will continue to work together to address three areas: ensuring food safety, education outreach and process control.

Source: Innovation Center for US Dairy

• If you enjoyed this article, you may also like this: <u>University scientists create 'healthier' cheese</u>



Cheese Industry Pledges to do More on Sodium Reduction

By Guy Montague-Jones

January 24, 2011

US cheese companies have agreed to step up efforts to reduce the sodium content in cheese and educate consumers about the limits of sodium reduction.

At a meeting hosted by the Innovation Center for US Dairy 17 leading cheese firms, including the likes of Chr Hansen, Kraft Foods and Cargill, discussed the key challenges and opportunities related to sodium reduction.

The companies are working pre-competitively on best practice to reduce sodium levels through formulation as well as process and manufacturing control.

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No Industry-Wide Targets

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Market Place Analysis

The companies are also looking to establish more clearly where the industry is as far as sodium reduction is concerned. Blindauer said a marketplace analysis has been completed and is pending publication.

She said: "Understanding where we are as an industry is the first step to being a part if the solution to addressing sodium and cheese." Companies involved in the Best Practices Task Force on sodium reduction include: Bongards, Cargill, Chr Hansen, Dairy Farmers of America, Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino Foods, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods.

Source: Food Navigatory USA



New study identifies limits of sodium reduction in dairy foods

January 26, 2011

By Guy Montague

New research suggests that reductions in the sodium content of dairy foods may be more noticeable in simpler products and require appropriate labelling to be acceptable to consumer taste buds.

Writing in the Journal of Dairy Science, scientists at North Carolina State University sought to find out if small reductions in sodium would go unnoticed and whether labelling would improve consumer acceptance.

The researchers found that panelists noticed reductions in salt concentrations of less than 20 per cent in milk-based soup, cottage cheese and cheese sauce. This suggests that gaining consumer acceptance for 'reduced sodium' dairy foods could be challenging as FDA rules require a 25 per cent reduction in usual sodium levels for 'reduced sodium' labelling to be used.

Variation between products

However, the researchers found significant differences between the different foods, with higher sodium reductions most noticeable in cottage cheese – the most mild-tasting, simple product under test.

Consumers noticed a reduction in sodium of only 8 per cent in cottage cheese, compared to a 15 per cent reduction in milk-based soups and an 18 per cent cut in cheese sauce.

The higher threshold for cheese sauce may make some salt cuts easier but how far they can go is questionable.

The researchers said: "This is good news because cheese sauce is an ingredient in many food products; however, reducing the sodium significantly could cost the food industry consumer loyalty because one driver of liking is salty taste."

Benefits of labelling

One way to keep consumers onside when cutting back on salt is to explain why the move is beneficial. The scientists said consumers were more accepting of reduced sodium cottage cheese in the study when the health benefits were explained.

"Labelling plays a key role in consumer acceptance of products," said the researchers. "Consumers tend to look upon products more favourably if there is justification for the reduction of certain attributes."

But even with the benefit of labelling and appropriate marketing, the scientists said the industry would benefit more research into salt alternatives.

"These results suggest that reducing sodium in cheese sauce, cottage cheese, and milk-based soups may be challenging and that exploration of sodium chloride alternatives in these foods is warranted."

Part of the funding for the study was provided by Dairy Management Inc. Leading cheese companies recently assembled to discuss the issue of sodium in cheese at a meeting hosted by the Innovation Center

for US Dairy, a group set up by Dairy Management. Please click here to read an article summarising the conclusions from the meeting.

Source: The Journal of Dairy Science

(Published online ahead of print) Vol 94, Issue 2, Pages 636-645

Salty taste in dairy foods: Can we reduce the salt? Authors: S.L. Drake, K. Lopetcharat and M.A. Drake



Sustainability in the Dairy Industry

Posted on: January 25, 2011





The Innovation Center for U.S. Dairy has compiled a collection of success stories from dairy businesses across the United States, highlighting those who have made strides in making the dairy industry more sustainable and economical.



Cheese Makers Unite To Address Sodium In Cheese

by Innovation Center for U.S. Dairy Posted: Thursday, January 27, 2011 at 3:18PM EST



Rosemont, Ill. — This December, hosted by the Innovation Center for U.S. DairyTM, more than 17 leading cheese companies and manufacturers united at a Best Practices Task Force meeting to work on proactively addressing the opportunities and challenges associated with reducing sodium content in cheese. The group has been working pre-competitively to improve consumers' health and wellness while maintaining strict expectations for food safety and taste.

The group rallied around three important aspects related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower sodium products, updating process controls in manufacturing, and educating key audiences about the necessary role of sodium in cheese — in terms of the cheese making process and food safety/shelf stability.

"Cheese contributes a relatively small amount of sodium to Americans' diets, less than 8 percent; however, industry is steadfast in its commitment to being part of the solution to lowering sodium levels in the diet. Innovation efforts are under way that help the industry control and lower sodium," said Nigel Kirtley, vice president cheese research, development and quality for Kraft Foods and member of the Health and Wellness Subcommittee for the Innovation Center for U.S. Dairy. "It should not be overlooked that cheese is a nutritious food that contributes calcium, protein, phosphorus and vitamin A to the diet, and it is a nice complement to other food groups that Americans need to be eating more of such as whole grains, vegetables and fruit," said Kirtley.

To date, companies involved in the Best Practices Task Force included: Bongards, Cargill, Chr. Hansen, Inc., Dairy Farmers of America, Inc., Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods. Additionally, academic researchers from Utah State University, University of Wisconsin's Center for Dairy Research and Food Research Institute, California Polytechnic State University and representatives from International Dairy Foods Association and U. S. Dairy Export Council also participated.

The group will continue to work together to address three areas — ensuring food safety, education outreach and process control.

U.S. cheese makers are dedicated to helping Americans live healthier lifestyles by working toward progress together; seeking collaborations with researchers, public health and health professional experts; and recognizing the importance of leading by example through safe and nutritious innovations that meet consumers' needs.

Innovation Center for U.S. Dairy is a volunteer based forum for the dairy industry to work together pre-competitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry. The Board of Directors for the Innovation Center includes 31 leaders representing 30 key U.S. producer organizations, dairy cooperatives, processors, manufacturers and brands. The Innovation Center is staffed by Dairy Management Inc.TM Visit USDairy.com for more information about the Innovation Center for U.S. Dairy.

Source: Innovation Center for U.S. Dairy



Cheese industry pledges to do more on sodium reduction

January 28, 2011 Uncategorized Leave a Comment

US cheese companies have agreed to step up efforts to reduce the sodium content in cheese and educate consumers about the limits of sodium reduction. At a meeting hosted by the Innovation Center for US Dairy 17 leading cheese firms, including the likes of Chr Hansen, Kraft Foods and Cargill, discussed the key challenges and opportunities related to sodium reduction. The companies are working pre-competitively on best practice to reduce sodium levels through formulation as well as process and manufacturing control.

Read more here: foodnavigator-usa.com

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INSIDE

- ◆ Cheese in cold storage up from November.
 For details, see page 3.
- ◆ Guest column: 'The writing on the wall.' For details, see page 4.
- ★ Lino Saputo receives NCI Laureate Award. For details, see page 6.
- MSA Systems provides traceability solutions for small food processors. For details, see page 8.

IDFA study uncovers high costs of NMPF stabilization program

MIAMI — A new study sponsored by the International Dairy Foods Association (IDFA) shows that the Dairy Market Stabilization Program (DMSP) proposed by the National Milk Producers Federation (NMPF) as part of its Foundation for the Future (FFTF) reform proposal would have withheld an estimated \$626 million from dairy farmers during periods when they already were under significant financial pressure.

For the study, Informa Economics, Memphis, Tenn., a

market research and consulting firm, conducted a full review of DMSP, which would withhold payments from farmers who deliver milk in excess of their "base" level when milk prices are low relative to feed costs.

IDFA last year sponsored a related study that more broadly examined supply controls. The study, also by Informa Economics and titled "An International Comparison of Milk Supply Management Programs and Their Impacts," examined what happened in Canada, the European Union and other countries when government-mandated supply controls were implemented and enforced. It showed the negative impact a government-run supply-control policy has on the industry, especially at the farm-management level. (See "New study outlines potential impact of milk-supply controls," Oct. 8, 2010, in Cheese Market News' article archive at www. cheesemarketnews.com.)

In the latest study released Tuesday, using government statistics, Informa reported the impact DMSP would have had if it had been in place from 2000-2009.

"This study shows supply management would not slow production growth at the most efficient farms," says Nate Donnay, senior dairy analyst, Informa Economics, who presented the study findings at the forum on Tuesday. "In addition, for farms experiencing financial difficulty, further reduction in revenues would put them over the edge."

According to Informa, the program would have been activated four times between 2000 and 2009, with deductions in effect 18 months during the study period.

The study shows that in 2009, the worst financial year on record for dairy farmers, \$390 million would have been withheld with \$236 million coming from just five states: Wisconsin, New York, Minnesota, Pennsylvania and Michigan.

"We support policies that help farmers in difficult times, not those that penalize them," said Connie Tipton, president and CEO, IDFA, following the report's release at the 2011 Dairy Forum this week in Miami, Fla.

"This report shows that the NMPF growth management plan will take money out of dairy farmers' pockets when they need it the most," Tipton says. "And the regional differences highlighted by the study show that this policy would impose greater penalties on some regions — for instance, during the period analyzed by

the report, the Midwest and the Northeast would have taken the biggest hit."

Compared to those regions, California, the No. 1 milk-producing state in the country, barely broke the top 10 states in amount withheld over the 10-year span and ranked 23rd as a percent of the withholding compared to total milk production in the state.

IDFA notes that Informa's study supports with facts the assumption that milk production does not respond quickly or significantly to lower prices. USDA data and Informa calculations show that the U.S. all-milk price fell from \$18.40 per hundredweight in August 2008 to \$12.10 per hundredweight in August 2009, a 33.5 percent drop in the price. However, milk production was down only 0.1 percent in August 2009 compared to August 2008.

By reducing revenue during periods of already low margins, DMSP would hit higher-cost farms harder than lower-cost farms, the study notes. While there are low-cost farms of all sizes in nearly all states, Informa reported that larger farms with lower costs would have an advantage over smaller farms facing the same percentage withholdings.

Turn to STUDY, page 15 \$\rightrightarrow\$

Industry eyes how to ramp up dairy marketing, consumption

By Alyssa Sowerwine

MIAMI — It's still a widely known fact that milk does a body good. But the explosion of new beverage options available to consumers in the past several years has jostled milk toward the back of the line for consumption choices. Industry leaders say dairy can't afford to stand by and must ramp up efforts to highlight the benefits of consuming milk and other dairy products.

Once a primary go-to beverage for many consumers, in the past decade alone milk has gone from about 10 percent of consumers' beverage consumption in 2000 to 9.3 percent in 2009 — an approximate decline of about 1.8 gallons per capita per year, according to figures from The Monitor Group, a privately-owned global management consulting firm based in Cambridge, Mass.

These and other findings — the examination of which were commissioned by the Milk Processor Education Program (MilkPEP) — were presented this week at the International Dairy Foods Association (IDFA) 2011 Dairy Forum in Miami, Fla.

"I'm really disappointed to open this presentation by saying that milk consumption over the past 30 years has been on a steady decline, but obviously that's no surprise to anybody in this room," says Terri Webb, president, Farmland Dairies LALA-USA and MilkPEP board chair. "Even worse, no matter how many cows we retire, milk production continues to rise. We need to figure out how to sell more milk."

Steven E. Goldbach, partner, The Monitor Group, notes that other beverages such as soda, soy and energy drinks, and even water, have been stealing share from milk sales over the past several years.

"Water actually represents about one-third of the decline in milk consumption," he says. He adds soy consumption has been particularly damaging as a direct substitute for milk.

Goldbach says efforts must include getting current milk drinkers to consume more and also attracting more consumers. The industry needs to drive both volume and value, he says.

"High-growth beverage categories are characterized by more successful innovation and branding," he notes.

Goldbach does acknowledge that other dairy categories, such as *Turn to CONSUMPTION, page 14* ⇒

Sodium reduction remains a priority for food industry

WASHINGTON — Sodium reduction continues to be an area of focus for the cheese and dairy industry, with several organizations taking an active role in discussion and collaboration.

Last week, International Dairy Foods Association (IDFA) staff members met with several FDA representatives to discuss the dairy industry's initial progress on lowering sodium in cheese and to outline the challenges that remain.

Seven FDA officials, including representatives from the Center for Food Safety and Nutrition's Office of Food Additive Safety, met last Wednesday with IDFA Senior Group Vice President Clay Hough and IDFA Vice Presidents Cary Frye and Ruth Saunders. The agenda included discussions on recommendations to reduce sodium intake that were issued last April by an Institute of Medicine (IOM) committee.

Turn to SODIUM, page 15 ⇒

Australian floods affect areas heavy in milk production

By Rena Archwamety

MADISON, Wis. — Australia recently has experienced unprecedented levels of flooding, which has killed dozens of people, damaged homes, closed roads and swept away livestock in some of the worst-hit areas. Waters have started to recede, but rebuilding and calculating the damage is just beginning.

Turn to FLOODS, page 11 ➪

NEWS/BUSINESS

STUDY

Continued from page 1

"The industry needs to move on legislation that will provide support to dairy farmers," Tipton says. "Margin insurance and other proposals where processors and producers agree should be part of that plan. Programs to limit milk supply or impose penalties on producers should not even be on the table in our industry discussion."

Tuesday's forum also included a panel discussion on the study with David Ahlem, site manager/vice president of dairy procurement and policy, Hilmar Cheese Co., Hilmar, Calif.; Ian Cumming, dairy farmer and columnist, Glengarry Farms, Apple Hill, Ontario; and Patricia Stroup, group manager, dairy, for Nestle USA Inc. Bob Yonkers, vice president and chief economist for IDFA, moderated.

"As we look to expand, looking at variables in the marketplace, supply management offers a new economic variable — it has the potential to disincentivize investment," Ahlem says.

Stroup notes she has concerns with the regional impacts DMSP would have on the industry.

"I'm concerned about our plants in affected areas being able to supply and compete with other regions," she says. "Supply management makes us think the U.S. is not serious about the export market."

Ahlem also notes the current dairy system promotes chronic supply and incentives to continue to produce regardless of demand, which has been damaging to the industry.

"We need to have something that is flexible and adaptable to changing market conditions," he says. "We're making long-term policy decisions in the midst of short-term politics."

Stroup also notes that when looking to reform policy, it is important not to craft it around reactions to specific situations.

"It's like shopping when you're hungry you come home with something you don't really want," she says. "U.S. producers and processors don't know how to use risk management yet. We need to use policy to encourage private use."

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Following the study's release, NMPF President and CEO Jerry Kozak, who also attended the Dairy Forum, issued a statement noting FFTF has been carefully designed to offer protection for dairy farmers' hard-earned equity.

"Dairy farmers in every state saw their collective milk income drop more than \$10 billion in 2009, which doesn't even include billions more in lost equity," Kozak says.

"This catastrophe was the result of current dairy policy that doesn't offer farmers of any size, in any state, the protections they need against catastrophic financial losses," Kozak says. "While providing all farmers in all regions a better safety net, Foundation for the Future also discourages periodic marketplace imbalances that generate enormous volatility, hurting all dairy producers."

The Wisconsin Dairy Business Association (DBA) also commented on the study following its release. DBA President Jerry Meissner notes that at a time when Wisconsin's dairy farmers were forced to use all of their equity to stay in business, DMSP would add another financial burden on them, while at the same time causing economic damage to the state's No. 1 industry.

"Wisconsin cheesemakers have repeatedly told us there is a shortage of milk in Wisconsin. In fact, they import 13 percent of their milk from other states," Meissner says.

Laurie Fischer, DBA executive director adds it is clear DMSP would be detrimental to all of Wisconsin's dairy farmers, dairy processors, the state of Wisconsin and jobs.

"This is not a good program for our farmers in Wisconsin — it will penalize us unfairly," she says. "We need to find programs that will support farmers, not penalize them."

The full report is available on IDFA website (www.idfa.org) and at www. KeepDairyStrong.com, a new effort by IDFA to provide information about government-run milk supply control programs that would set limits on how much milk a dairy can produce and impose penalties on dairies that produce excess milk.

SODIUM

Continued from page 1

The IOM committee recommended a regulatory and mandatory strategy of lowering the sodium levels in foods in steps to allow consumer tastes to adjust to lower levels of salt and sodium in products over time. In its report, the IOM committee also encouraged the food industry to continue voluntary efforts to reduce sodium in foods.

At the meeting, IDFA said the dairy industry is doing just that by offering consumers new reduced-sodium options, including reformulations from Sargento, Sartori and others.

In addition, IDFA explained that salt serves many functions in cheese, and reformulations are complicated. Salt not only affects the flavor and texture of cheese, it also affects its performance characteristics such as melting and moisture control, and too many changes could make the product unpalatable to consumers. Salt also plays an important food-safety role in the making of cheese.

IDFA highlighted current industry research, funded in part by Dairy Management Inc. (DMI), that aims to determine best practices for sodium reduction in the cheesemaking process. The research is looking at food safety, new technologies, process controls and tools to optimize salt distribution in products.

"We had a great exchange of information at the meeting, and look forward to continuing a dialogue where we can provide information and research findings that the agency can use in its sodium-related work," Frye says.

IDFA also hopes to learn in the near future what activities the agency may be undertaking in relation to salt as a generally recognized as safe (GRAS) food additive. Currently, salt is GRAS, but there has been ongoing debate

about whether or not its status should be changed.

In addition, the Innovation Center for U.S. Dairy recently announced that more than 17 cheese companies as well as representatives from IDFA have been working as part of a Best Practice Task Force looking into the opportunities and challenges to reducing sodium content in cheese.

The group has been working precompetitively to improve consumers' health and wellness while maintaining strict expectations for food safety and

The group rallied around three important aspects related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower-sodium products; updating process controls in manufacturing; and educating key audiences about the necessary role of sodium in cheese—in terms of the cheesemaking process and food safety/shelf stability.

"Cheese contributes a relatively small amount of sodium to Americans' diets (less than 8 percent); however, industry is steadfast in its commitment to being part of the solution to lowering sodium levels in the diet. Innovation efforts are underway that help the industry control and lower sodium," says Nigel Kirtley, vice president, cheese research, development and quality, Kraft Foods, and member of the Health and Wellness Subcommittee for the Innovation Center for U.S. Dairy. "It should not be overlooked that cheese is a nutritious food that contributes calcium, protein, phosphorus and vitamin A to the diet, and it is a nice complement to other food groups that Americans need to be eating more of such as whole grains, vegetables and fruit."

To date, companies involved in the Best Practices Task Force include: Bongards, Cargill, Chr. Hansen Inc., Turn to DIET, page 16 \$\rightrightarrow\$



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NEWS/BUSINESS



OSHA withdraws proposal regarding noise-reduction requirements

WASHINGTON — The Occupational Safety and Health Administration (OSHA) last week announced it will withdraw a controversial proposal that would have required businesses to meet extensive and costly noise-reduction requirements, according to the International Dairy Foods Association (IDFA).

IDFA, which filed comments opposing the proposal, says it applauds the move and urges the agency to focus on existing and proven solutions that would be much less expensive. OSHA's proposal had noted current noise reduction methods for plant employees, such as wearing ear plugs, were no longer sufficient, and facilities would have been required to take on costly upgrades, IDFA officials say.

"While the design, construction and equipment in a dairy processing facility can create a noisy environment, the noise concern us easily addressed with ear plugs and other protective equipment," IDFA says. "The thought of pursuing re-engineering our facilities for a problem that is under control is troubling, especially since we believe new engineering control solutions are not economically feasible."

OSHA's announcement came a day after President Obama ordered federal agencies to reconsider regulations that could hinder economic and job growth.

"It is clear from the concerns raised about this proposal that addressing this problem requires much more public outreach and many more resources than we had originally anticipated," says David Michaels, assistant secretary of labor for occupational safety and health. "We are sensitive to the possible costs associated with improving worker protection and have decided to suspend work on this proposed modification while we study other approaches to abating workplace noise hazards."

OSHA now plans to conduct a thorough review of the comments received and hold a stakeholder meeting to elicit the view of employers and employees, as well as noise-control and public health professionals. The agency also expects to offer enhanced guidance on inexpensive engineering controls that may help to reduce noise levels. CMN

DIET

Continued from page 15

Dairy Farmers of America Inc., Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kraft Foods, Kroger, Lactalis, Land O'Lakes, Leprino, Marathon Cheese, Sargento, Schreiber Foods and V&V Supremo Foods. Additionally, academic researchers from Utah State University, University of Wisconsin-Madison's Center for Dairy Research and Food Research Institute, California Polytechnic State University and representatives from IDFA and U.S. Dairy Export Council also are participating.

The group will continue to work together to address food safety, education outreach and process control.

Walmart also is actively working to address the "sodium challenge," along with other issues relating to health and nutrition. At an event held earlier this month in Washington, D.C., the grocer unveiled its program to provide customers with healthier and more affordable food choices.

During the event, Walmart outlined five key elements of the program including:

- Reformulating thousands of everyday packaged food items by 2015 by reducing sodium 25 percent and added sugars 10 percent, and by removing all remaining industrially-produced trans fats. The company will work with suppliers to improve the nutritional quality of national food brands and its Great Value private brand in key product categories to complete the reformulations;
- Making healthier choices more affordable, saving customers approximately \$1 billion per year on fresh fruits and vegetables through a variety of sourcing, pricing, and transportation and logistics initiatives that will drive unnecessary costs out of the supply chain. Walmart also will reduce or eliminate the price premium on "betterfor-you" items, such as reduced sodium, sugar or fat products;
- Developing criteria for a front-ofpackage seal that will help consumers instantly identify healthier food options such as whole grain cereal, whole wheat pasta or unsweetened canned fruit;
- Providing solutions to address food deserts by building stores in underserved communities in need of fresh and affordable groceries; and
- Increasing charitable support for nutrition programs that help educate consumers about healthier food solutions and choices.

The program builds on the First Lady's "Let's Move" campaign to make healthy choices more convenient and affordable for families, and is consistent with Walmart's commitment to lead on social issues that matter to its customers, company representatives say.

Walmart will reformulate key product categories of its Great Value private brand and collaborate with suppliers to reformulate national brands within the same categories by 2015. CMN





Got Filth? If Industrial Dairy Makes a Mess, Greenwash It!

by Chris Hunt | 02.01.2011 | No Comments |



Photo courtesy of Socially Responsible Agricultural Project and CARE, Washington State.

As the cold, dark winter months wear on, you might be inclined to find a good book, curl up on a comfy couch and immerse yourself in the captivating realm of well-crafted literature. Or you can sit at your desk in front of a computer and read the latest disingenuous propaganda churned out by industrial dairy's marketing department. Which is actually kind of captivating, too, in a make-yourself-want-to-bang-your-head-against-a-wall sort of way...

I've written before about Big Ag's use of junk science and greenwashing to conceal the ugly reality of industrial food production and instead portray its reckless practices as the paragon of social and environmental responsibility. Sadly, the trend is unlikely to end in the near future. Indeed, just in time to kick off 2011 with green-spin, the industry group, Innovation Center for US Dairy (which includes such luminaries of environmental and social responsibility as Monsanto, Dean Foods and Walmart), released its *US Dairy Sustainability Commitment Progress Report*.

One might expect a document with such a title to address issues like the widespread water and air pollution caused by industrial dairy's irresponsible waste management practices, or the public health threat posed by overuse of antibiotics, or the dramatic blow to animal welfare induced by

extreme confinement and wanton use of rBGH, or the socioeconomic degradation incurred by communities in which dairy CAFOs are located. And of course, if the project were an honest attempt to assess the industry's commitment to sustainability, it would. But Big Ag has never been big on self-reform, so instead, the report focuses exclusively on dairy's greenhouse gas (GHG) emissions, and outlines a few strategies that the industry claims *might* be able to cut an underwhelming 11% of dairy emissions by 2020 (which, according to the report, constitutes a paltry 0.22% of total US emissions).

Clearly, reduction of GHG emissions is an important and laudable endeavor. And as a guy who commutes on a bicycle and is currently typing this post in a 56-degree apartment because he opts to avoid burning gas for heat, I recognize that even small efforts to cut GHG emissions are worthwhile and, collectively, are capable of effecting meaningful change. So it's nice that dairy developed a reduction strategy (albeit remarkably modest).

But what's lamentable about this report is that it's really just a thinly veiled attempt by the dairy industry to depict a distinctly unambitious plan to address GHGs as a sincere and meaningful effort to transform itself into a pioneer of sustainability.

And here's where we call greenwash!

The thing is, GHG emissions are only one of the multitude of environmental and social problems created by industrial dairy production. And really, many of these other problems are much more serious than GHGs (*e.g.*, the contamination of ground and surface waters with nitrogen, phosphorous, pathogens and other pollutants, the release of hydrogen sulfide, ammonia, VOCs, endotoxins and particulate matter into the air, the overuse of water, the tendency to promote the proliferation of antibiotic-resistant bacteria due to irresponsible overuse of antibiotics, etc.). Furthermore, while there are plenty of ways to reduce overall GHG emissions (*e.g.*, promoting renewable energy, improving automotive fuel efficiency, implementing energy conservation policies, etc.), the other Big Dairy damages can only be addressed by abandoning the existing system of industrial livestock production.

In short, industrial dairy operations are far from sustainable; suggesting that minor GHG emission reductions will make the industry "sustainable" is kind of like claiming that if you inflate your Hummer's tires to the recommended pressure, the resulting improvement in gas mileage will instantly transform the Hummer into an environmentally and socially responsible super vehicle.

Why resort to greenwashing?

Because it helps sell stuff! The paper's authors are actually surprisingly forthright about this aspect of industrial dairy's motivation for funding the project; as noted in the report:

Most importantly, this initial research shows that if consumers believe dairy is not only nutritious, good-tasting and delivered at a good value, but also environmentally friendly, then their consumption could increase.

But in this case, greenwashing also serves the less obvious (and more insidious) function of enabling Big Dairy to position itself as the sort of responsible, upstanding industry whose great virtue should render it immune to public scrutiny or meaningful regulatory oversight. This is the sort of PR move that makes it easier for dairy factory farms to gain exemption from environmental regulation, and to avoid having to test milk for antibiotics residue.

The exclusive focus on GHG emissions reduction is also pretty clever because it allows the industry to promote methane digesters. This topic warrants a post of its own, but here's a quick overview: digesters capture methane released during the decomposition of the massive quantities of manure generated by factory farms, then burn the gas in order to produce electricity. This reduces the amount of methane (a potent GHG) released into the atmosphere – but doesn't eliminate solid waste or address many of the other environmental, public health, socioeconomic or animal welfare problems created by industrial livestock production.

Furthermore, the technology is costly, and generally not economically viable except when heavily subsidized and/or implemented on enormous factory farms (otherwise, it's tough to get enough manure in one place to produce a sufficient amount of methane). As a result, the construction of methane digesters ultimately serves to subsidize factory farms and further entrench the industrial livestock production system. And by the way, 48% of the emissions reductions proposed in the report are derived through use of digesters.

Stripping away the greenwash

Despite the utility of the modest GHG reduction strategies described in the report, it's disingenuous to present this profit-driven scheme as anything but a carefully calculated (and entirely self-serving) marketing campaign. But hey, if you're still convinced that industrial dairies are the sort of "green" business that you'd like to have built in your community, maybe you should see what they actually look like. Or better yet, spend a few minutes standing downwind of one.



First 'dairy sustainability' report looks at greenhouse gases

BY RON JOHNSON, DAIRY EDITOR

February 2, 2011



In its continuing quest to shrink the size of its "carbon footprint," the U.S. dairy industry has published its first "sustainability progress report."

A carbon footprint is a measure of the amount of carbon dioxide equivalents generated. Carbon dioxide is one of the greenhouse gases (GHG) thought to contribute to climate change.

The average carbon footprint of a gallon of U.S. milk, measured from a dairy farm to a consumer's kitchen table, is 17.6 pounds of carbon dioxide equivalents, according to the Innovation Center for U.S. Dairy. The center released its 60-page "U.S. Dairy Sustainability Commitment Progress Report" last week.

This report summarizes dairy industry efforts to make dairying more economically, socially and environmentally sustainable, according to the center. One dairy industry goal is to cut by 25 percent the amount of greenhouse gas emissions that producing, processing and transporting a gallon of milk creates. The industry hopes to accomplish that by 2020.

Thomas Gallagher, chief executive officer of the Innovation Center for U.S. Dairy and Dairy Management Inc. (DMI), says, "U.S. dairy is an industry of great people with strong values, who are passionate about the nutrient-rich products we supply, and about our commitment to healthy people, healthy products, (and a) healthy planet. As we move forward, we are committed to continuous collaboration to realize our collective vision of forging a more sustainable and profitable U.S. dairy industry."

Among other things, the report discusses the state of carbon production by the U.S. dairy industry. It also looks at key findings of the first national GHG life-cycle assessment—or carbon footprint study—of fluid milk.

The report goes on to discuss some of the advancements from 10 projects aimed at reducing greenhouse gas emissions. Those projects, says the center, should also "create business value across the industry."

Back to that gallon of milk, the report says the carbon footprint can range from a low of 15.3 pounds of carbon dioxide equivalents to a high of 20.7. Meanwhile, the report pegs the "total fluid milk carbon footprint" of the U.S. dairy industry at roughly 35 million metric tons. Even so, it adds that dairying is responsible for approximately just two percent of all U.S. greenhouse gas emissions.

REDUCTIONS POSSIBLE

It is possible to lower the amount of GHG dairying produces, says the report. Using "best management practices" makes the greatest difference in the amount of greenhouse gases produced. The size or location of the farm or milk processor is not as important as the use of certain practices, the report states.

"There are opportunities for improvement across the supply chain," according to the report.
"...For example, on the farm, feed efficiency (how effectively a cow's diet helps her produce milk),
and manure management represent the greatest opportunities to further reduce GHG emissions."

It's not only farms and processors that can cut their greenhouse gas emissions.

"Businesses at each stage of the value chain have opportunities to cut costs and emissions from fossil fuels and electricity," the report says. "Refrigerants are a key source of emissions in the retail sector."

FEED

The road to producing greenhouse gases begins on farms when feed is grown, notes the report. Tilling soil, making commercial fertilizer, and using energy to power <u>equipment</u> all contribute to the carbon footprint. The report says feed production contributes 20.2 percent of dairying's carbon footprint.

According to the report, "While many farmers currently incorporate best (management) practices into their crop production, they often lack the specific data that is relevant to their farm in terms of climate, air quality, soil, land and watershed—information that can lead to "greener" decisions, as well as reduced costs in the production of feed."

There are "opportunities," says the report, to "explore the relationship among manure and feed efficiency, precision agriculture, good no-till management, better grazing management and better irrigation and fertilization management."

MILK

As for milk production itself, greenhouse gases are released to the atmosphere in three general ways: from dairy cattle themselves (enteric emissions), from manure, and from using energy.

Milk production is said to account for 51.5 percent of dairying's greenhouse gas emissions. Dairy cattle account for 25.1 percent of the milk production emissions, according to the report.

"In milk production, the primary source of GHG emissions is the cow herself," the report says. "A dairy cow's unique, four-chambered stomach allows her to digest the high-fiber feed necessary for milk production. This process also produces methane gas, which is 25 times more potent than carbon dioxide as a greenhouse gas. Methane...is released by dairy cows primarily through burps or enteric emissions."

Opportunities to lower the emissions that emanate straight from cows include changing their feed, putting additives into the feed, and cutting back on the number of organisms in cows' rumens.

Changing the feed includes using mineral supplements and probiotics, along with making feed particles smaller. "Improving dairy feed can create a more efficient dairy cow, meaning fewer cows are needed to meet production requirements—resulting in less methane emissions all

around," the report says.

Natural additives for feed include fatty acids, like flax seed, and plants like yucca and brown seaweed. Both, say the report's authors, "have shown potential in reducing methane emissions."

When it comes to reducing the number of rumen organisms, the report notes that they are "a significant contributor to the enteric methane emissions. Developing safe and effective methods of reducing or eliminating these microorganisms could contribute to the overall reduction of a cow's methane emissions."

MANURE

Dairy cattle manure is said to be responsible for 22.8 percent of the greenhouse gas emissions involved in the farm aspect of producing milk. When manure decomposes, methane is released.

The report suggests two ways of lessening methane emissions from manure. They are: "applying manure to fields, as fertilizer" and using anaerobic digestion and capturing and using the gas that's released.

ENERGY USAGE

Finally, on the energy used on farms to produce milk, the report says the average amount spent per year for electricity, per cow, is \$40. That electricity is used for cooling milk, ventilating buildings, the actual milking, and lighting.

"Some best (management) practices might be as simple as starting up motors at different times so as not to trigger high peak-use rates, and repairing outdated machinery and <u>equipment</u>," suggests the report. "Other common energy conservation practices include variable-speed vacuum pumps, water-cooled plate coolers, and energy-efficient...fans."

In all, energy usage accounts for 3.6 percent of the greenhouse gases emitted on dairy farms in the process of producing milk.

The "U.S. Dairy Sustainability Commitment Progress Report" is available at: <u>usdairy.com/sustainability</u>.

First 'dairy sustainability' report looks at greenhouse gases

By Ron Johnson DAIRY EDITOR

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Among other things,

milk.

The report goes on

Back to that gallon

SEE REPORT, ON PAGE 7

Report

CONTINUED FROM PAGE 6 Meanwhile, the report report states. pegs the "total fluid milk carbon footprint" sions.

REDUCTIONS POSSIBLE

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MANURE

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The "U.S. Dairy Commitment Progress Report" is available at: The report suggests usdairy.com/sustain-



First-ever dairy industry sustainability report released



February 3, 2011



Early this year the Innovation Center for U.S. Dairy released its first-ever Sustainability Progress Report. Progressive Dairyman interviewed Erin Fitzgerald (pictured below left), the center's vice president of sustainability, to review some of the highlights of the report. Below are her comments about excerpts from the report.

Q. How did this sustainability effort get started?

In 2008 we brought together 200 stakeholders including NGOs, academics, producers, retailers from across the dairy value chain and asked them how we could reduce greenhouse gas emissions and produce value.

What came out of that was a clear vision for our sustainability commitment as well as 10 projects that are worth conservatively \$238 million and a 10% reduction in our overall greenhouse gas footprint.

Q. Why do a report like this?



"The goal of this report is to serve as a resource to stakeholders who are increasingly asking qualitatively and quantitatively what the dairy industry is doing toward sustainability."

Q. Who are these stakeholders you mention?

Consumers, environmental organizations, government, milk buyers, co-ops.

Q. What's an example of a quantitative piece of sustainability included in the report?

We contribute to 70 percent of the nation's calcium needs. Our carbon footprint is approximately 2% of greenhouse gas emissions. Qualitatively we have some amazing stories in the dairy industry, but the work of this initiative will be to back those up with science.

Q. Should dairy producers be alarmed or encouraged by this report's findings on their portion of the value chain emissions (51 percent)?

Most life-cycle assessments will show environmental impact at the source of where raw materials are made or are interacting with land, air and water. What they should feel proud of is that the industry is supporting and aligning around the producer. We all deliver the final product to our consumer. We are in this together.

Q. Why would you encourage a dairy producer to review a copy of the report?

A dairy producer should be incredibly proud of their industry's willingness to be a leader in sustainability. I think this report and its framework give producers the right language to express their story of stewardship to their neighbors and communities.

Q. What should producers be proud of in this report?

We were able to quantify our environmental impact. The top highlight is the publication of the life- cycle assessment. This report really does quantify where environmental impact occurs along the value chain.

Q. What parts of this report would you like to improve?

We know the scope of what we are trying to do is immense. We already have 500 stakeholders contributing approximately 14,000 man-hour days of time. It is our goal to continue to build the resources required to support the industry's sustainability efforts. Last year we raised \$1.6 million of investment. We need more people to bring the best of the best to solve problems and capture sustainability's opportunities.

Q. How will this report help the industry market more milk?

Increasingly, consumers are asking these questions. There is an upward increase trend in corporate social responsibility reporting. Consumers in this digital age want to see transparency. They want information and fact. We hope this report will serve as a guide for brands and co-ops to point those consumers to solid resources.



Q. What is Dairyville 2020?

This picture was one of our projects called Dairy Power. We hosted a summit in New York in 2009 and asked how we could process 40 percent of manure into digesters and what would be the social, environmental and community benefit of doing so. This is representative of looking at a dairy farm as part of a community solution.

Click here to view the image at full size in a new window.

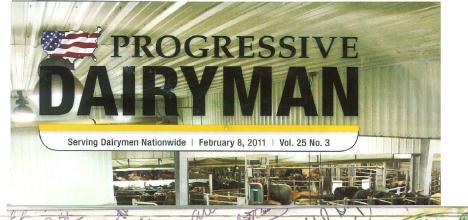
Q. How are producers getting involved?

Producers noted in the sustainability progress report are providing leadership and helping to drive innovation by

participating on the Sustainability Council, Innovation Center board of directors and the Common Voice team.

Many more producers participate in the sustainability commitment through volunteering their time to work on the 10 GHG reduction projects, telling the stories of their own efforts to reduce environmental impact, and providing data for life-cycle assessments and other research. **PD**

Access the report online at: www.usdairy.com/sustainability/



SUSTAINABILIT

THE DAIRY INDUSTRY COMMITTED TO:

Recognizing and appreciating all members in the Value Chain from form to table.

Working in a unified and a collabora way with all stakeholders consist with the VISION

ity report released

We believe that

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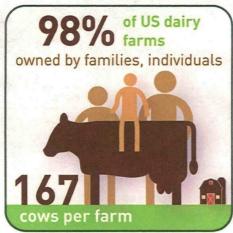
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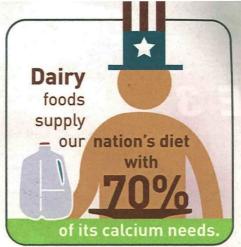


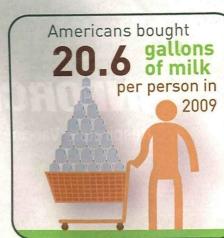
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Continued on page 32









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First-ever dairy industry sustainability report released, cont'd from page 30

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Access the report online at: www.usdairy.com/sustainability/

Dairies, producers and co-ops named in the report:

Anderson Erickson Dairy
Besancon Farms/Brent Besancon
Byrne Dairy
California Dairies Inc
C Bar M Dairy/Greg Ledbetter
Clauss Dairy Farms
Emerald Dairy/John Vrieze
Fair Oaks Farms/Mike McCloskey
Fiscalini Farms & Cheese/John
Fiscalini

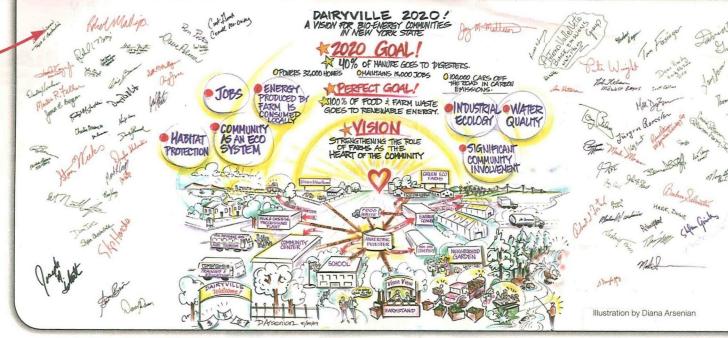
Foremost Farms USA
Foster Brothers Farm
Gar-Lin Dairy Farm/Dana Allen
Graywood Farm
Green Meadow Farms
Haubenschild Farms/Dennis
Haubenschild

HAR-GO Farms/John Goud Holsum Dairy/Ken Beulow Land O'Lakes McArthur Farms Inc/Robert

Rydzewski
Nobis Dairy Farms
Otsquago View Farms/Craig Stevens
Paul Rovey Dairy/Paul Rovey
Prairie Farms Dairy
Prairieland Dairy/Dan Rice
Rice Dairy/Peter Turk
River-View Farm/Dave Forgey
Select Milk Producers

Shamrock Farms
Spruce Haven Farm
Stonyfield Farm
Stouder Holsteins/Bill Stouder
Swiss Valley Farms
Twin Birch Dairy/Dirk Young

Twin Birch Dairy/Dirk Young Wanner Farm/Alfred Wanner



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How Innovation Center helps your business

February 10th, 2011 editor Leave a comment Go to comments

Your Dairy Checkoff At Work

By Tom Gallagher

As a dairy producer, you operate in a much broader and complex world than did your parents or grandparents. To be successful in your business today, dairy producers, through their investment in the dairy checkoff, must work with and through the dairy industry to grow sales by identifying common goals and building on producer investments.

This approach, working through the Innovation Center, benefits dairy producers because it provides the opportunity to influence the supply chain and the marketplace – by sharing knowledge and insights that affects how the industry processes, packages and promotes dairy products.

The Innovation Center is not a physical entity. Rather, it is an industrywide forum that allows a cross-section of the dairy industry – from farm to fridge – to work together to foster innovation and give consumers more of what they want, when and where they want it.

Already, the Innovation Center has engaged more than 180 companies and organizations, and more than 500 people, to address barriers and opportunities pre-competitively to protect and grow dairy sales.

Here are some examples to date of how the Innovation Center is helping the industry work together:

- Consumer Confidence: The Consumer Confidence Committee has completed quantitative research of consistent messages that reinforce consumer trust and confidence in dairy's health and wellness, environmental stewardship, animal care, community, innovation and food safety. Results are being packaged for co-ops and processors to use in marketing and communications to promote more dairy sales. In 2011, we will start a proactive campaign to activate an army of ambassadors through the dairy marketing chain to promote dairy's image with the public.
- Food Safety: This industry-led Food Safety Task Force, comprised of 24 senior executives and content experts from 11 processors and co-ops, assessed in-plant risks and vulnerabilities. It also built a plan to establish uniform pathogen control standards, auditing practices and industry and supplier education and training. Such efforts will reduce financial/business risk, maintain consumer confidence and create easily

adoptable practices across all U.S. dairy and ingredient processors.

- Food Retailer Engagement: The Research and Insights Committee is working with eight grocery store chains on new strategies for improving dairy innovation and merchandising to drive increased sales. The retailers will do store testing of strategies that deal with "meal solutions" for shoppers.
- Comprehensive Business Case: The Research and Insights Committee has used comprehensive product, nutrition and consumer research to guide the industry to new growth opportunities related to: the Hispanic market, lactose intolerance, snacking, "dairy aisle reinvention" in grocery stores, and reduced sodium in cheese. This work has already helped industry leaders expand product lines and make company acquisitions that can lead to additional sales for the industry. New growth opportunities in 2011 include breakfast and sweeteners.
- Cheese and Sodium: The Health and Wellness Committee is working with more than 50 industry players on key "pre-competitive" barriers to reducing sodium in dairy products without sacrificing consumer satisfaction and product quality. The "action plan" for 2011 includes thought leader education on the role of sodium in cheese-making, a vendor solution for rapid-testing of sodium levels, and an industry-wide approach to assuring quality and safety in processing cheese with less sodium.
- Flavored Milk: In association with MilkPEP and IDFA, the Health and Wellness Committee has brought together dairy industry marketers, DMI and state and regional dairy promotion representatives, school foodservice directors and nutrition professionals to identify the challenges that drive schools to consider flavored milk bans, and action plans that can be used locally.
- Promoting the Positive: Based on thorough consumer research, new marketing strategies, messages and communications tools are being made available to dairy marketers. To date, more than a dozen dairy brands including Kemp's, Dean Foods, Kraft, Hood, Anderson Erickson, LALA, and Shamrock are promoting dairy's positive health benefits, such as multiple nutrients and protein, in their marketing efforts.
- Sustainability: The Innovation Center conducted the first national life cycle assessment (LCA) for fluid milk, advancing a science-based approach recognized as "best practice" around the world. This work has given the dairy industry the data it needs to help tell its story and set the record straight regarding dairy's impact on greenhouse gas emissions. The study establishes a baseline for the U.S. dairy industry to use in demonstrating continued progress in reducing its carbon footprint. The Innovation Center is raising \$1.6 million in outside funds to implement 10 greenhouse gas reduction projects throughout the value chain. Other studies are underway, including an LCA for cheese.
- Globalization: The landmark Bain study has served as a critical strategic guide for the U.S. industry to address the impacts of globalization on U.S. domestic and international trade and move U.S. dairy farther along the path of being a consistent global supplier. The study was aimed at addressing fundamental barriers to U.S. global competitiveness, as well as taking advantage of an anticipated shortfall of global supply. Efforts in this area include dairy pricing reform, volatility risk management, customer product specifications, net-export benefit trade treaties, and more competitive quality traceability systems.
- Communications: The Innovation Center has created a password-protected web site at usdairy.com to allow secure sharing of pre-competitive science, insights and information.

Through the combined efforts of cooperatives, processors, manufacturers and other businesses, the industry has contributed more than \$7 million in donated time to the Innovation Center to help advance dairy producer priorities in the marketplace. That's just one indicator of the increasing unity that is forming to keep the dairy industry strong and secure, assuring a continued home for the milk you work so hard to

produce. I encourage you to let me know your thoughts as we continue to work together to grow the market.

FYI

■ Tom Gallagher is chief executive officer of Dairy Management Inc. (DMI), the domestic and international planning and management organization that works to increase sales of and demand for U.S.-produced dairy products and ingredients on behalf of America's dairy producers. For more information on dairy checkoff programs, visit www.dairycheckoff.com.

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First 'dairy sustainability' report looks at greenhouse gases

BY RON JOHNSON, Agri-View Dairy Editor February 10, 2011

In its continuing quest to shrink the size of its "carbon footprint," the U.S. dairy industry has published its first "sustainability progress report."

A carbon footprint is a measure of the amount of carbon dioxide equivalents generated. Carbon dioxide is one of the greenhouse gases (GHG) thought to contribute to climate change.

The average carbon footprint of a gallon of U.S. milk, measured from a dairy farm to a consumer's kitchen table, is 17.6 pounds of carbon dioxide equivalents, according to the Innovation Center for U.S. Dairy. The center released its 60-page "U.S. Dairy Sustainability Commitment Progress Report" last week.

This report summarizes dairy industry efforts to make dairying more economically, socially and environmentally sustainable, according to the center. One dairy industry goal is to cut by 25 percent the amount of greenhouse gas emissions that producing, processing and transporting a gallon of milk creates. The industry hopes to accomplish that by 2020.

Thomas Gallagher, chief executive officer of the Innovation Center for U.S. Dairy and Dairy Management Inc. (DMI), says, "U.S. dairy is an industry of great people with strong values, who are passionate about the nutrient-rich products we supply, and about our commitment to healthy people, healthy products, (and a) healthy planet. As we move forward, we are committed to continuous collaboration to realize our collective vision of forging a more sustainable and profitable U.S. dairy industry."

Among other things, the report discusses the state of carbon production by the U.S. dairy industry. It also looks at key findings of the first national GHG life-cycle assessment—or carbon footprint study—of fluid milk.

The report goes on to discuss some of the advancements from 10 projects aimed at reducing greenhouse gas emissions. Those projects, says the center, should also "create business value across the industry."

Back to that gallon of milk, the report says the carbon footprint can range from a low of 15.3 pounds of carbon dioxide equivalents to a high of 20.7. Meanwhile, the report pegs the "total fluid milk carbon footprint" of the U.S. dairy industry at roughly 35 million metric tons. Even so, it adds that dairying is responsible for approximately just two percent of all U.S. greenhouse gas emissions.

REDUCTIONS POSSIBLE

It is possible to lower the amount of GHG dairying produces, says the report. Using "best management practices" makes the greatest difference in the amount of greenhouse gases produced. The size or location of the farm or milk processor is not as important as the use of certain practices, the report states.

"There are opportunities for improvement across the supply chain," according to the report.
"...For example, on the farm, feed efficiency (how effectively a cow's diet helps her produce milk), and manure management represent the greatest opportunities to further reduce GHG emissions."

It's not only farms and processors that can cut their greenhouse gas emissions.

"Businesses at each stage of the value chain have opportunities to cut costs and emissions from fossil fuels and electricity," the report says. "Refrigerants are a key source of emissions in the retail sector."

FEED

The road to producing greenhouse gases begins on farms when feed is grown, notes the report. Tilling soil, making commercial fertilizer, and using energy to power equipment all contribute to the carbon footprint. The report says feed production contributes 20.2 percent of dairying's carbon footprint.

According to the report, "While many farmers currently incorporate best (management) practices into their crop production, they often lack the specific data that is relevant to their farm in terms of climate, air quality, soil, land and watershed—information that can lead to "greener" decisions, as well as reduced costs in the production of feed."

There are "opportunities," says the report, to "explore the relationship among manure and feed efficiency, precision agriculture, good no-till management, better grazing management and better irrigation and fertilization management."

MILK

As for milk production itself, greenhouse gases are released to the atmosphere in three general ways: from dairy cattle themselves (enteric emissions), from manure, and from using energy.

Milk production is said to account for 51.5 percent of dairying's greenhouse gas emissions. Dairy cattle account for 25.1 percent of the milk production emissions, according to the report.

"In milk production, the primary source of GHG emissions is the cow herself," the report says. "A dairy cow's unique, four-chambered stomach allows her to digest the high-fiber feed necessary for milk production. This process also produces methane gas, which is 25 times more potent than carbon dioxide as a greenhouse gas. Methane...is released by dairy cows primarily through burps or enteric emissions."

Opportunities to lower the emissions that emanate straight from cows include changing their feed, putting additives into the feed, and cutting back on the number of organisms in cows' rumens.

Changing the feed includes using mineral supplements and probiotics, along with making feed particles smaller. "Improving dairy feed can create a more efficient dairy cow, meaning fewer cows are needed to meet production requirements—resulting in less methane emissions all around," the report says.

Natural additives for feed include fatty acids, like flax seed, and plants like yucca and brown seaweed. Both, say the report's authors, "have shown potential in reducing methane emissions."

When it comes to reducing the number of rumen organisms, the report notes that they are "a significant contributor to the enteric methane emissions. Developing safe and effective methods of reducing or eliminating these microorganisms could contribute to the overall reduction of a cow's methane emissions."

MANURE

Dairy cattle manure is said to be responsible for 22.8 percent of the greenhouse gas emissions involved in the farm aspect of producing milk. When manure decomposes, methane is released.

The report suggests two ways of lessening methane emissions from manure. They are: "applying manure to fields, as fertilizer" and using anaerobic digestion and capturing and using the gas that's released.

ENERGY USAGE

Finally, on the energy used on farms to produce milk, the report says the average amount spent per year for electricity, per cow, is \$40. That electricity is used for cooling milk, ventilating buildings, the actual milking, and lighting.

"Some best (management) practices might be as simple as starting up motors at different times so as not to trigger high peak-use rates, and repairing outdated machinery and equipment," suggests the report. "Other common energy conservation practices include variable-speed vacuum pumps, water-cooled plate coolers, and energy-efficient...fans."

In all, energy usage accounts for 3.6 percent of the greenhouse gases emitted on dairy farms in the process of producing milk.

The "U.S. Dairy Sustainability Commitment Progress Report" is available at: <u>usdairy.com/sustainability</u>.



Cheese industry task force trying to 'get out in front' of sodium issue

February 11, 2011 Volume: 52 Issue: 47 By Joan Murphy

With pressure mounting for lower sodium dairy choices, more than 17 cheese companies have banded together to identify processing techniques that might reduce sodium content in cheese. The Institute of Medicine recommended in April that FDA set mandatory maximum sodium levels for foods, including processed foods and menu items, and follow gradual reductions to acclimate consumers to less salty foods during a 10-year process (see FCN April 26, Page 1). The just-released 2010 Dietary Guidelines for Americans also call for reductions in sodium intake (see FCN Feb. 4, Page 1). But salt is an integral part of cheese and plays a significant role in giving cheese its texture, taste and making products safe, the International Dairy Food Association told FDA regulators in a meeting last month.

The cheese industry might see the writing on the wall, however. Cargill, Kraft Foods, Land O'Lakes, Sargento and 13 other companies have formed a "Best Practices Task Force" through the Innovation Center for U.S. Dairy, a three-year-old nonprofit organization that brings together milk producers, processors and manufacturers on different issues. The task force agreed in December to look at the opportunities and challenges of reducing sodium content in cheese.

The task force plans to meet next month and discuss improvements in measuring sodium in cheese, which demands outside laboratory analysis and expensive instruments.

Specifically, the task force is looking at three issues: (1) maintaining taste and functionality of low-sodium products; (2) updating process controls during manufacturing to reduce sodium; and (3) educating audiences about the role of sodium in making the product safe and shelf stable.

"Cheese has calcium and protein but concerns have been raised about sodium," says Nigel Kirtley, vice president of cheese research, development and quality for Kraft Foods and member of the Health and Wellness Subcommittee for the Innovation Center.

After looking at the United Kingdom's experience in encouraging the food industry to reduce sodium in foods, it's important for the cheese industry "to get out in front of this issue," he says. "It's better to tackle this issue head on."

Kirtley says the recent movement in the UK and the U.S. against salt has sparked discussions within industry about whether sodium is used in the most effective way during processing and, if there are sodium cut backs, at what level will consumers reject products.

First, industry needs to know how much sodium is in an array of cheese products, though a landmark study is expected to be published in the next few weeks that will, for the first time, release baseline levels of sodium content found in different cheeses pulled from the U.S. marketplace, Kirtley says. With baseline levels in hand, "now we can have real discussions when people say cut 10% of sodium," Kirtley says. The results of the study are likely to be of interest to people in other countries, too, he adds. While he couldn't comment on the study's findings, he hinted that they will show a wide variation of sodium content even in the same cheddar cheese products packaged by the same manufacturer. There might be opportunities to tighten process control within the same plant to reduce sodium content, he says. It might come down to simple steps, such as making sure the same employee is adding the salt or that it's the right grain size.

But this information has to jibe with consumer studies that show there is a "narrow window of tolerance" for consumers to still enjoy the taste of cheese when sodium levels are lowered, he says. There is a misunderstanding that cheese is one simple food but the sodium levels vary depending on the cheese type, says Erin Coffield, vice president of communications at the National Dairy Council. Some cheese products already contain low levels of sodium, such as Swiss cheese and fresh mozzarella.

The industry also needs to educate people on the necessary role of sodium in making the product shelf stable and to control microflora, Kirtley adds.

Other companies represented on the task force are: Bongards, Chr. Hansen Inc., Dairy Farmers of America Inc., Davisco Foods, Foremost Farms, Glanbia, Great Lakes Cheese, Kroger, Lactalis, Leprino, Marathon Cheese, Schreiber Foods and V&V Supremo Foods.



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Anaerobic Digesters To Tackle the Dairy Industry (Do They Need Lactaid?)

Posted February 14, 2011

by Green Mien in Agriculture, Anaerobic Digestion, Biogas, Climate Change, Greenhouse Gas Emissions, USDA. Leave a Comment

Just a few short months ago, the Innovation Center for U.S. Dairy (the "Center") published their first Sustainability Commitment Progress Report.



Photo by Joe Shlabotnik. Some rights reserved.

The report was born out of a sustainability commitment launched by the dairy industry in 2007 and, while it aims to cover sustainability broadly – and annually – in the future, the current focus is on greenhouse gas emissions. (A quick glance through the report suggests little more than a glorified milk ad, but some of the aesthetically pleasing charts do have substantive data. At least two infographics are in the shape of milk jugs.)

Back in the summer of 2008, a U.S. Dairy Sustainability Summit resulted in an "industrywide, voluntary goal" to reduce GHG emissions for "fluid milk" by 25 percent by the year 2020. If a nice, cool glass of the white stuff doesn't already give you gas, consider this: from farm to table, a gallon of milk has an average carbon footprint of 17.6 pounds of carbon dioxide equivalents. The same data has shown that the dairy industry is responsible for a full 2% of the total GHG emissions in the US.

Luckily the dairy industry sees in this disturbing revelation a good business opportunity:

"Research shows that many frequent milk users — people who drink milk at least once per day — are concerned with their personal impact on the environment, and may even increase their consumption of milk if they believe it is not only healthy, affordable and good-tasting, but also responsibly produced."

So they made an honest commitment of their goal in late 2009, when the Center signed a Memorandum of Understanding (MOU) with the USDA, pledging cooperation and establishing a roadmap and process with which to reach the 25% reduction in GHG emissions by 2020.

One particular focus of the MOU was anaerobic digestion. Anaerobic digester technology is, according to the USDA press release, "a proven method of converting waste products, such as manure, into electricity." (The captured methane – a powerful greenhouse gas – is also thus prevented from entering the atmosphere.) Digesters use microorganisms to break down organic material in the absence of oxygen, and a waste product of the digestion is biogas, which can then be used as a fuel. Though dairies that have digesters can generate enough electricity to power up to 200 homes, apparently only 2 percent of operations that could be using the technology have implemented it.

As much fuss as the digesters were given in the wake of the MOU, the 2010 sustainability report only touches on them briefly. It points out the benefits (the electricity created can be used *on* the farm, as well as sold for profit, *and* the anaerobic digestion process can reduce "odors normally associated with manure"), but it's also quick to point out the obstacles, such as "high-capital outlays, regulatory barriers, low renewable energy prices and limited financing programs."

Still, attendees at another dairy industry summit in 2009 set a 2020 goal of putting 40 percent of all manure from New York dairy farms through the anaerobic digestion process.

I'll drink to that!



Cheese Industry Tackles Sodium Challenges

February 22, 2011

ROSEMONT, III.—In December 2010, more than 17 leading cheese companies and manufacturers gathered at a Best Practices Task Force meeting hosted by the Innovation Center for U.S. Dairy to address opportunities and challenges associated with reducing sodium content in cheese.

The group recognized three important aspects related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower sodium products, updating process controls in manufacturing, and educating key audiences about the necessary role of sodium in cheese in terms of the cheese making process and food safety/shelf stability.

A recent **cheese-sodium study** spearheaded by the Dairy Research Institute analyzed Cheddar, mozzarella and process cheeses in 16 U.S. cities across four regions found sodium variability among cheese types and even within varying brands of the same cheese type.

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The task force will continue to work together to meet the challenges of cheese and sodium, with the ongoing goal of providing timely educational resources and guidance to industry partners. Industry members are invited to participate and apply research and insights to their business practices.

"While cheese contributes less than 8% of the sodium in the U.S. diet, the Dairy Research Institute and our industry partners continue to investigate process improvements and solutions that industry can employ to help Americans manage their sodium consumption," said Gregory Miller, Ph.D., president, Dairy Research Institute and executive vice president, National Dairy Council®. "To move forward with goals to reduce sodium in cheese or attempt to meet arbitrarily pre-determined target levels, the industry must determine where sodium levels currently stand through benchmark studies."



Cheese industry works together to address sodium challenge

SOURCE: U.S. DAIRY

February 22, 2011

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The study comes at a critical time, as sodium levels in a variety of foods have gotten the attention of the public health community. The recently released 2010 Dietary Guidelines for Americans people consume less than 2,300 mg of sodium per day (significantly less than the current national average consumption of approximately 3,400 mg per day).\[2\] On behalf of the Innovation Center for US Dairy, the Dairy Research Institute proactively administers cheese research efforts—such as addressing cheese and sodium—to help industry meet consumers' health and wellness needs. The two organizations are working in partnership with industry to establish best practices in cheese making process controls that minimize variability and improve manufacturers' ability to reduce the sodium content of cheese.

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http://www.usdairy.com/DairyResearchInstitute/Pages/Home.aspx

\[1\] Agarwal S, McCoy D, Graves W, Gerard PD, Clark S. "Sodium Content in Retail Cheddar, Mozzarella and Process Cheeses Varies Considerably in the United States," Journal of Dairy Science, March 2011.

\[2\] U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S Government Printing Office, January 2011.

\[3\] Hentges E. Sources of sodium in the food supply. Paper presented at: Institute of Medicine Committee on Strategies to Reduce Sodium Intake, Information-Gathering Workshop; 2009; Washington D.C.

\[4\] Symphony IRI Group, 2010, data sourced through September 27, 2009.

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*Application pending.

Innovation Center for U.S. Dairy™is a forum for the dairy industry to work together pre-competitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry. The Board of Directors for the Innovation Center includes 31 leaders representing 30 key U.S. producer organizations, dairy cooperatives, processors, manufacturers and brands.

The Innovation Center is staffed by Dairy Management Inc.™ Visit USDairy.comhttp://www.usdairy.com/DairyResearchInstitute/Pages/Home.aspx> for more information about the Innovation Center for U.S. Dairy™.

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U.S. Dairy, NPI Center February 22, 2011

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FOOD INGREDIENTS first

Cheese Industry Works Together to Address the Sodium Challenge

February 23, 2011

Summary: The industry will take a leadership role to identify opportunities to implement process improvements that can minimize variability and ultimately reduce the sodium content in cheese.

Against the backdrop of growing public health concern about Americans' sodium consumption, the Innovation Center for U.S. Dairy Health and Wellness Committee identified the need for a large, independent, blinded retail analysis of the sodium content in cheese. This research was spearheaded by the Dairy Research Institute and published online prior to print publication in the March issue of Journal of Dairy Science. The findings will be used to establish a benchmark for sodium levels in the most commonly consumed cheeses Cheddar, mozzarella and process cheese. The industry will take a leadership role to identify opportunities to implement process improvements that can minimize variability and ultimately reduce the sodium content in cheese.

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Agri-Pulse February 23, 2010

USDA ratchets up push for anaerobic digestion on dairy farms

USDA officials, in cooperation with the dairy industry, are setting ambitious goals to make anaerobic digestion a widespread technology on U.S. dairy operations. Utilizing on-site generators fueled by methane captured from a livestock operation's animal manure, the technology is cited as a source of economic benefits, while providing environmental benefits through the reduction of nutrient runoff.

USDA and industry organizations are seeking 1,300 digesters in operation by 2020 in order to reduce the industry's carbon emissions by 25%. The public-private initiative to promote the technology has its origins in December 2009, when USDA agencies entered into a partnership with the Innovation Center for U.S. Dairy (IC), an industry research collaborative on U.S. dairy farms.

At the time the partnership was announced, only about 2 percent of U.S. dairies that were candidates for a profitable digester utilized the technology. With only 150 operations across the country, including feedlots, having methane digesters, Agriculture Secretary Tom Vilsack admitted the department needed "to do a better job" of promoting and seeing to the implementation of this "powerful renewable resource." The aim was to better utilize the Renewable Energy for America Program (REAP) and the Environmental Quality Incentive Program (EQIP) to reapportion available funding and improve cost-sharing for methane digestion projects.

Since the agreement was signed, funds have been provided to establish 51 anaerobic digesters, said Todd Campbell, of USDA"s Rural Development program and moderator of a Webinar held on the technology Tuesday. Campbell and other officials said USDA is helping dairy farmers conduct economic feasibility studies that could lead to the construction and implementation of more digesters. Officials with the Farm Service Agency (FSA), Rural Development and the Natural Resources Conservation Service (NRCS) emphasized interagency cooperation as a key factor in the facilitation of sustainability programs on dairy operations, including the financing of digesters. (An example of cross-agency collaboration cited during the Webinar is a project in Vermont that is leading to the construction of an anaerobic digester on an 850-head dairy operation in there. For more information on the project, click HERE.)

Drawing more than 200 participants, including dairy producers and digester developers, researchers, financers, and state and federal staff, the Webinar addressed key goals of the partnership and offered "best practices" for digester funding applications. Guidance also was provided on loan guarantees and how applicants can work across many different USDA

programs to get the most advantageous mix of program assistance.

Advocates say the application and benefits of anaerobic digestion go beyond the dairy sector, as evidenced by a recent study undertaken in the Chesapeake Bay watershed that cites the technology as providing one of several opportunities in the region to transform excess manure nutrients from animal agriculture operations, including feedlots and poultry operations, into value added by-products that enhance net farm income and simultaneously offset the costs of containing or treating waste streams that cause environmental problems. To access the Webinar material, click HERE.





















Sustainability on the Farm

MARCH 2, 2011
By: Top Producer Editors



In an effort to move toward more economic and environmental sustainability, Kimberly Clauss of Hilmar, Calif., is analyzing her dairy's carbon footprint.

When dairy leaders started talking about moving toward a more sustainable industry, green was not the color that came to mind for Hilmar, Calif., producer Kimberly Clauss.

"I saw red," she admits. "I was definitely skeptical. I didn't understand that sustainability is really about protecting the industry's markets and ensuring that a farmer's business is profitable by improving efficiencies. I had to learn more to fully understand it."

It didn't take long for Clauss to start thinking green. "This is about becoming a better industry," she says. "It is about things we can do to cut costs and keep producers in business."

Major U.S. food retailers and other segments of the agricultural supply chain are taking a hard look at the key components of sustainability—which includes not just economic profitability, but environmental performance and community support as well.

The dairy industry, Clauss says, was an early leader in analyzing its sustainability performance, largely because major retailers were taking stock of products in the marketplace, initially by examining the carbon footprint of key segments, such as dairy.

It Starts on the Farm. When the dairy industry took a look at its carbon footprint from field to retail shelf, it discovered that the bulk of the carbon emissions took place on the farm. A second round of stakeholder discussions and analysis resulted in several key initiatives for farmers that would not only improve their carbon footprint, but also improve basic profitability.

The end result was a dairy industry goal to cut greenhouse gas (GHG) emissions 25% by 2020. Recently, Wal-Mart announced a goal to eliminate 20 million metric tons of GHG emissions from its global supply chain by the end of 2015—the equivalent of taking more than 3.8 million cars off the road for a year.

"Energy efficiency and carbon reduction are central issues around the world today," notes Wal-Mart President Mike Duke. "We know that we have an opportunity to do more and that we have the capacity to do more."

When Wal-Mart made the commitment to reduce its own carbon footprint—and the footprint of the supply chain—it wasn't operating in a vacuum. Studies have found that more than half of today's consumers "lean green" (see chart), which means they will choose one product instead of another based on its sustainability profile.

Shoppers Influenced by Green Initiatives



Wal-Mart's effort to reduce its carbon footprint may mean it prefers to buy products from crop producers who practice no-till and minimum till, efficient nutrient use and other efforts that sequester or eliminate GHG. Livestock producers can reduce or limit methane production and use nutrition or range management to cut carbon.

Sustainability is about more than containing carbon, of course, but that is one of the more defined aspects that many companies, such as Wal-Mart, are focusing on first.

Technology Lends a Hand. These initiatives have many in the agricultural industry taking notice. Clint Reiss of Southwest Family Farms in Plains, Kan., says his operation is assessing what it does well and where it can improve—with sustainability in mind, not just profitability. Southwest Family Farms grows corn on thousands of acres, supplying the cattle and ethanol industries.

"Things are changing and we need to be ready for it," Reiss says. Southwest Family Farms has found technology to be a key part of improving the operation's overall environmental and economic sustainability as well as being able to capture sustainability data that will likely become more important to processors and retailers in the coming years.

"We use a lot of variable-rate technology and can pinpoint what we do," Reiss says. "This allows us to be more efficient and, from a carbon viewpoint, cleaner."

Along with reducing his carbon footprint, precision application has allowed Reiss to reduce the amount of fertilizer he applies, avoid accidental overseeding and increase yields over time—all things that reduce the farm's impact on the environment while improving its economic bottom line.

Reiss points out that larger farm operations might have a leg up on some sustainability measures because they can spread the cost of technology over more acres. They often have established an efficiency-of-scale that can end up benefiting the environment.

Producers need to do what makes economic sense for their own operation, adds dairy producer Clauss.

"Dairy farmers have been sustainable for generations because it has made good economic sense for their operation as well as their family," she says.

From the Ground Up. Farmers who know they produce a commodity that doesn't immediately end up on a grocery shelf may think they don't need to worry about sustainability.

A large part of the dairy industry's carbon footprint (and likely that of other meat products) comes from the grain that feeds the cows, Reiss notes.

When looking at the life-cycle analysis of any product, the place to start is in a field or a mine. Without access to that initial data, sustainability efforts will be incomplete—which is one of the strongest reasons why sustainability is likely to impact grain producers.

With that in mind, Reiss' operation is working to assess what it can do within a changing marketplace dynamic.

"It is better to have a partnership and work on the ground floor. This is different from a regulatory or legislative framework. We, as farmers, will have limited impact," he says.

By staying ahead of the curve, it is Reiss' belief that buyers, food retailers and others "will be surprised by all [farmers] do that is, in fact, sustainable."

You can learn more about the Reiss family's sustainability efforts by visiting www.southwestff.com.

Defining Sustainability

During a panel discussion at this year's Top Producer Seminar, a farmer, a consultant and an ecology professor discussed what sustainability means to them.

"Sustainability means taking actions that promote efficiency and effectiveness and contribute to the well-being of an operation, its employees and the community," said Sara Hessenflow Harper, partner with The Clark Group.

Embedded within this definition is the triple bottom line that classic corporate sustainability encompasses: economic, environmental and community elements, she added.

A critical issue when considering sustainability is the global nature of the resource challenges we face. Too often, agricultural sustainability is defined as small, organic and local when these attributes cannot answer the global problems of hunger, resource scarcity or abuse and poor human management systems that exist worldwide.

"Does it really improve sustainability to make conditions so difficult for large efficient farms in the U.S. that we end up needing to import more food from China? How is that better for the environment, our economy or human rights?" Harper asked. "I'm all for free trade, don't get me wrong. But when assigning attributes to a food system, we must think of the big picture and what expanding demand for an inherently inefficient system means for the very attributes proponents are trying to expand."

What we consider sustainable may change if we factor in developing countries and the nearly 3 billion extra people expected to join the planet by 2050, seconded Marty Matlock, director of the Center for Agriculture and Rural Sustainability at the University of Arkansas.

"As more people come, it will drive costs and change the way you as ag producers do business. Our challenge with sustainable agriculture is to understand what is coming and prepare for tomorrow," Matlock said.

"I believe sustainability is meeting the needs of current society while enhancing the opportunities for future generations. Sustainability is agriculture's legacy," he added. Matlock also believes that sustainability is market-driven by companies that are buying farm products.

A Farmer's View. For Indiana farmer Kip Tom, sustainability is multidimensional—it's economic and environmental.

Tom has given long thought to sustainability and has incorporated the following in his farm's corporate social responsibility statement: "To create a supply system that profitably yields high quality, safe products without supply interruption from generation to generation while creating a net benefit for employees, their communities, our global customers, biodiversity and the environment."

"We can feed the world, and we can do it in a sustainable manner if we are proactive about it," Tom told the audience.

See Comments

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Capico International Update

Capico International is a firm that deals with small, emerging franchises or chain operations, predominantly in the food, bakery & gourmet coffee field (although our extensive resources are often utilized by non-food related organizations as well!)

Wednesday, February 23, 2011

Cheese Industry Tackles Sodium Challenges

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About Me

Ca R

Capico International

Ronald S. Hari is President &

CEO of Capico International,

with over three decades of experience in the bakery and food service industry. Visit www.capico.net for additional information

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Sources:

* Innovation Center for U.S. Dairy: Cheese Industry Works Together to Address the Sodium Challenge

Posted by Capico International at 6:55 AM

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CHEESE MARKET NEWS® — February 25, 2011

NEWS/BUSINESS



New study finds actual sodium content may vary from what is on manufacturers' labels

ROSEMONT, III. — A new cheese study — which was designed to determine the differences between analytical sodium and label sodium as well as identify areas for the industry to adopt best practices — was initiated after the Innovation Center for U.S. Dairy Health and Wellness Committee identified the need for a large, independent, blinded retail analysis of the sodium content in cheese. It was spearheaded by the Dairy Research Institute and published online prior to print publication in the March issue of the Journal of Dairy Science.

The study found that sodium levels vary among cheese types as well as within different brands of the same cheese type. There also are variations based on cheese form (for example, shredded or string) and differences from sample to sample. Cheeses analyzed include the most commonly consumed cheeses — Cheddar, Mozzarella and process cheese.

In addition, study results indicate manufacturers tend to be conservative with reporting higher sodium levels on the label, as analytical levels are most commonly below the label declaration, but within allowable reporting standards.

"These research findings already are being used to develop industry-adopted best practices to minimize variability in sodium content, which then needs to be reflected in labeling," says Nigel Kirtley, vice president cheese research, development and quality for Kraft Foods, and member of the Health and Wellness Committee for the Innovation Center for U.S. Dairy. "The industry will continue to use the findings to develop guidance and support to help manufacturers put this information into action for better process controls that will allow for consistently lower sodium and improved quality."

On behalf of the Innovation Center for US Dairy, the Dairy Research Institute says it administers cheese research efforts — such as addressing cheese and sodium — to help industry meet consumers' health and wellness needs. The two organizations are working in

partnership with industry to establish best practices in cheesemaking process controls that minimize variability and improve manufacturers' ability to reduce the sodium content of cheese.

"While cheese contributes less than 8 percent of the sodium in the U.S. diet, the Dairy Research Institute and our industry partners continue to investigate process improvements and solutions that industry can employ to help Americans manage their sodium consumption," says Gregory Miller, president, Dairy Research Institute and executive vice president, National Dairy Council. "To move forward with goals to reduce sodium in cheese or attempt to meet arbitrarily predetermined target levels, the industry must determine where sodium levels currently stand through benchmark studies."

According to according to Bill Graves, seniorvice president of product research, Dairy Research Institute, the analysis shows that difficulties in achieving uniform salt distribution in commercial settings stems from a variety of factors.

"To date, research does show a number of approaches available to improve consistency, including greater formalization of cheesemaking steps and operations, improved design of equipment for uniform curd distribution and block forming, and improved quick and easy testing methods to check sodium levels during production," Graves says. "Continued evaluation of best methods to reduce sodium and establish process controls are underway with cooperation among universities and dairy industry partners." CMN

Global opportunities abound for DFA, dairy industry



Rick Smith President and Chief Executive Officer

"The global marketplace ... is an opportunity to grow our Cooperative and the U.S. dairy industry." A few months ago, I had the opportunity to travel to Asia with a few members of our Board of Directors. We went to learn first-hand what opportunities were available for DFA and the U.S. dairy industry in that part of the world, and what we needed to do to take advantage of those opportunities.

When we met with representatives from some of China's largest dairy companies, their reaction to our trip was "what took you so long?"

China has become a land of rapidly growing population and wealth, which has resulted in changing dietary needs and desires. China's domestic supply of dairy products is insufficient and unreliable in terms of safery, and consumers there are willing to pay more for a dependable source of safe, nutritious dairy products.

This means the door is open for U.S. dairy products. However, becoming a key player in a global market is not as easy as simply shipping our products overseas. Foreign consumers have different preferences in taste, presentation, functionality, and packaging.

Approximately one year ago, Bain & Company issued a report commissioned by the Innovation Center for U.S. Dairy that highlighted the need for change in the industry if the United States is

to become a consistent exporter. (Read page 46 for more about the industry's globalization initiative.) Our trip only confirmed those findings.

As an industry and as a Cooperative, we will have to change the way we do business in order to meet the needs of global customers. We need to produce products that are in demand abroad. We need to listen to consumers' demands for innovative flavors and packaging. We need to be responsive to our customers' needs and maintain the safety and quality of our products — just as we do for our domestic customers. The global market can no longer be a place to sell excess inventory. It is an opportunity to grow our Cooperative and the U.S. dairy industry.

Part of DFA's strategic plan is to position the Cooperative for growth in the global marketplace. One way we can do that is to continue to work with our U.S. customers who have a presence overseas, and establish close relationships with foreign companies where appropriate. Our trip to Asia proved that there exist opportunities for collaborating with leading dairy companies outside the United States. It will take time and perseverance, but it is something we must do. Φ

ith a world population estimated to grow to more than 9 billion people by 2050, the global market presents a huge opportunity for U.S. dairy. But, it is an opportunity that needs to be seized quickly.

In late 2009, the Innovation Center for U.S. Dairy released the results of a globalization study conducted by Bain & Company, which outlined how the U.S. dairy industry could best accommodate its inescapable emergence as part of a larger global marketplace. The study concluded that there was a window of approximately 10 years for the United States to adjust its policies and practices to stabilize and grow its global role. Now, approximately one year later, it is time to see if there has been any progress.

The industry-led Innovation Center for U.S. Dairy, whose globalization work is staffed by the U.S. Dairy Export Council (USDEC), has developed a "Dairy Globalization Dashboard" to measure the industry's progress.

"We can see that the industry as a whole has recognized the issues we face and is pursuing solutions to overcome these issues," says Tom Suber, USDEC president. "It's hard to say that anything has been completely finalized, because these are long-term issues with long-term solutions."

The dashboard measures four main goals for the industry's stakeholders, especially producers: increase global competitiveness, strengthen the domestic market, improve commercial focus and provide value to producers. Progress under all of these goals has been rated as "positive" or "neutral." (See the dashboard chart on page 49.)

These goals all support one main objective: establish the United States as a consistent supplier in the global dairy market. Several industry initiatives are underway to achieve these goals, Suber says. Dairy pricing policy reform, such as National Milk Producers Federation's Foundation for the Future, is a crucial element to success, he says.

"There has been substantial progress on coming up with the right plan in regard to reforming pricing policy," Suber says. "Foundation for the Future took significant direction from the findings of the Bain report. But, obviously there is still a lot of work before we can say that's been accomplished."

Suber also identifies the imminent passage of several trade treaties as indicators of progress, but points out that one of the largest hurdles for the industry is a mindset.

"We're a very production-driven industry," he says. "Many too often sell what

we make, rather than make what people are buying."

The U.S. dairy industry has historically used the export market as a means for divesting of excess supply while solely focusing on growing its internal market. In order to become a key player in the global market, U.S. dairy must become more customer-centric, says Les Hardesty, chairman of USDEC and chairman of Dairy Farmers of America, Inc.'s Mountain Area. Hardesty also serves on the Innovation Center's global operating committee.

"The United States has been and continues to be very competitive in whey and lactose products on the world market," he says. "We are leading the global industry in some products. But there are also opportunities we need to work on to modify the products we manufacture in the United States to meet customer

needs around the world."

How Innovation Center helps your business

As a dairy producer, you operate in a much broader and complex world than did your parents or grandparents. To be successful in your business today, dairy producers, through their investment in the dairy checkoff, must work with and through the dairy industry to grow sales by identifying common

goals and building on producer investments.



This approach, working through the Innovation Center, benefits dairy producers because it provides the opportunity to influence the supply chain and the marketplace – by

sharing knowledge and insights that affects how the industry processes, packages and promotes dairy products.

The Innovation Center is not a physical entity. Rather, it is an industrywide forum that allows a cross-section of the dairy industry – from farm to fridge – to work together to foster innovation and give consumers more of what they want, when and where they want it.

Already, the Innovation Center has engaged more than 180 companies and organizations, and more than 500 people, to address barriers and opportunities pre-competitively to protect and grow dairy sales.

Here are some examples to date of how the Innovation Center is helping the industry work together:

- Consumer Confidence: The Consumer Confidence Committee has completed quantitative research of consistent messages that reinforce consumer trust and confidence in dairy's health and wellness, environmental stewardship, animal care, community, innovation and food safety. Results are being packaged for co-ops and processors to use in marketing and communications to promote more dairy sales. In 2011, we will start a proactive campaign to activate an army of ambassadors through the dairy marketing chain to promote dairy's image with the public.
- Food Safety: This industry-led Food Safety Task Force, comprised of 24 senior executives and content experts from 11 processors and co-ops, assessed in-plant risks and vulnerabilities. It also built a plan to establish uniform pathogen control standards, auditing practices and industry and supplier education and training. Such efforts will reduce financial/

business risk, maintain consumer confidence and create easily adoptable practices across all U.S. dairy and ingredient processors.

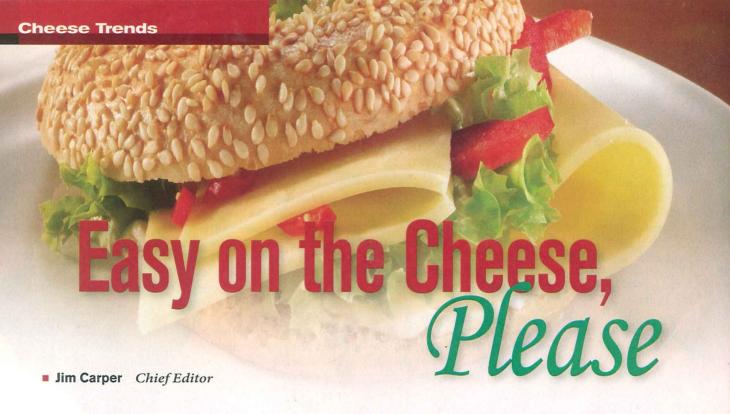
- Food Retailer Engagement: The Research and Insights Committee is working with eight grocery store chains on new strategies for improving dairy innovation and merchandising to drive increased sales. The retailers will do store testing of strategies that deal with "meal solutions" for shoppers.
- Comprehensive Business Case: The Research and Insights Committee has used comprehensive product, nutrition and consumer research to guide the industry to new growth opportunities related to: the Hispanic market, lactose intolerance, snacking, "dairy aisle reinvention" in grocery stores, and reduced sodium in cheese. This work has already helped industry leaders expand product lines and make company acquisitions that can lead to additional sales for the industry. New growth opportunities in 2011 include breakfast and sweeteners.
- Cheese and Sodium: The Health and Wellness Committee is working with more than 50 industry players on key "pre-competitive" barriers to reducing sodium in dairy products without sacrificing consumer satisfaction and product quality. The "action plan" for 2011 includes thought leader education on the role of sodium in cheese-making, a vendor solution for rapid-testing of sodium levels, and an industry-wide approach to assuring quality and safety in processing cheese with less sodium.
- Flevored Milk: In association with MilkPEP and IDFA, the Health and Welfness Committee has brought together dairy industry marketers, DMI and state and regional dairy promotion representatives, school foodservice directors and mutrition professionals to identify the challenges that drive schools to consider flavored milk bans, and action plans that can be used locally.
- Promoting the Positive: Based on thorough consumer research, new marketing strategies, messages and communications tools are being made available to dairy marketers. To date, more than a dozen dairy brands including Kemp's, Dean Foods, Kraft, Hood, Anderson Erickson, LALA, and Shamrock are promoting dairy's positive health benefits, such as multiple nutrients and protein, in their marketing efforts.
- Sustainability: The Innovation Center conducted the first national life cycle as-

- sessment (LCA) for fluid milk, advancing a science-based approach recognized as "best practice" around the world. This work has given the dairy industry the data it needs to help tell its story and set the record straight regarding dairy's impact on greenhouse gas emissions. The study establishes a baseline for the U.S. dairy industry to use in demonstrating continued progress in reducing its carbon footprint. The Innovation Center is raising \$1.6 million in outside funds to implement 10 greenhouse gas reduction projects throughout the value chain. Other studies are underway, including an LCA for cheese.
- Globalization: The landmark Bain study has served as a critical strategic guide for the U.S. industry to address the impacts of globalization on U.S. domestic and international trade and move U.S. dairy farther along the path of being a consistent global supplier. The study was aimed at addressing fundamental barriers to U.S. global competitiveness, as well as taking advantage of an anticipated shortfall of global supply. Efforts in this area include dairy pricing reform, volatility risk management, customer product specifications, net-export benefit trade treaties, and more competitive quality traceability systems.
- Communications: The Innovation Center has created a password-protected web site at usdairy.com to allow secure sharing of precompetitive science, insights and information.

Through the combined efforts of cooperatives, processors, manufacturers and other businesses, the industry has contributed more than \$7 million in donated time to the Innovation Center to help advance dairy producer priorities in the marketplace. That's just one indicator of the increasing unity that is forming to keep the dairy industry strong and secure, assuring a continued home for the milk you work so hard to produce. I encourage you to let me know your thoughts as we continue to work together to grow the market.

FYI

■ Tom Gallagher is chief executive officer of Dairy Management Inc. (DMI), the domestic and international planning and management organization that works to increase sales of and demand for U.S.-produced dairy products and ingredients on behalf of America's dairy producers. For more information on dairy checkoff programs, visit www.dairycheckoff.com.



he new Dietary Guidelines for Americans contain some good news/bad news for U.S. cheesemakers. Good news: Americans like to eat cheese. The food is among the Top 25 sources of calories for children and adults. Bad news: eat dairy foods other than cheese, the government says.

The DGA recommends that Americans "increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese or fortified soy beverages." But that suggestion is tempered by the government's message that Americans should consume "more fat-free or low-fat vitamin D-fortified milk or yogurt than cheese."

While Uncle Sam does encourage the consumption of low-fat cheeses (along with low-fat milk), the DGA comes down hard on full-fat dairy products. That's because the guidelines recommend that Americans decrease their intake of solid fats and sodium. Both elements are found in full-fat cheeses.

Regular cheese accounts for 3.5% and pizza for 6.3% of the sodium in the American diet. The guidelines recommend that an adult consume no more than 2,300 milligrams of sodium daily, meaning adults have their work cut out for them. They already consume more than that quantity on a daily basis.

Shoppers do have choices and alternatives. As Dairy Management Inc., Rosemont, Ill., points out, "There are currently reduced- and low-sodium cheeses in the marketplace and some cheeses are naturally lower in sodium like Swiss and fresh mozzarella."

Under the auspices of DMI's Innovation Center for U.S. Dairy, a best practices group of nearly 20 cheese companies and manufacturers are addressing the opportunities and challenges associated with reducing sodium content in cheese. The group says it has been working "pre-competitively to improve consumers' health and wellness while maintaining strict expectations for food safety and taste." The group also is working to maintain taste and functionality in lower-sodium products, update process controls in manufacturing and educate key audiences about the necessary role of sodium in cheese.

Calcium in Cheese Stacks Up Favorably With Other Foods

Food	Standard portion size	Calories	Calcium (mg)
Fortified ready-to-eat cereals (various)	about 1 ounce	100-210	250-1,000
Orange juice, calcium fortified	1 cup	117	500
Plain yogurt, nonfat	8 ounces	127	452
Romano cheese	1½ ounces	165	452
Pasteurized process Swiss cheese	2 ounces	189	438
Evaporated milk, nonfat	½ cup	100	371
Tofu (regular, prepared with calcium sulfate)	1/2 cup	94	434
Ricotta cheese, part skim	1/2 cup	171	337
Swiss cheese	1½ ounces	162	336
Sardines, canned in oil, drained	3 ounces	177	325
Pasteurized process American cheese food	2 ounces	187	323
Provolone cheese	1½ ounces	149	321
Mozzarella cheese, part-skim	1½ ounces	128	311
Cheddar cheese	1½ ounces	171	307
Low-fat milk (1%)	1 cup	102	305
Muenster cheese	1½ ounces	156	305
Skim milk (nonfat)	1 cup	83	299
Ricotta cheese, whole milk	1/2 cup	216	257

Source: U.S. Department of Agriculture, www.ars.usda.gov/ba/bhnrc/ndl

Cut down on fats

Major sources of solid fats in Americans' diet are "grain-based desserts (11% of all solid fat intake); pizza (9%); regular (full-fat).

Cheese Trends

cheese (8%); sausage, franks, bacon and ribs (7%); and fried white potatoes (5%)," according to the DGA.

The DGA sends a mixed signal regarding cheese. On one hand, the guidelines state, "When selecting cheese, choose low-fat or reduced-fat versions." On the other, there's this: "Choose fat-free or low-fat milk or yogurt more often than cheese. Milk and yogurt are better sources of

potassium and are lower in sodium than most cheeses. Also, most milk is fortified with vitamin D."

The guidelines do see a companion role for cheese. For example, to encourage the consumption of more vegetables, the government suggests pairing them with reduced-fat cheese sauces.

Dairy products rate highly for their calcium content, and cheese fares particularly



■ Tillamook rolls out its mini-bus, called the Loafster, to groceries and farmers' markets.

well, compared to other dairy foods (see table). Cheesemakers and cheese marketers need to be creative to ensure that consumption does not drop off in light of the government's latest recommendations. First Lady Michelle Obama has made it clear that she's not against eating or serving high-fat foods for herself or her family. The White House served bratwurst, cheeseburgers and deep dish pizza at a Super Bowl party in February, and Mrs. Obama allows her daughters to eat pizza on weekends.

Cheesemakers are taking their message about cheese directly to consumers with marketing campaigns and traveling exhibits.

Non-traditional pairings

Wine and cheese, cheese and crackers and macaroni and cheese are classic pairings. In California, the cheese industry is pushing a new partner. Instead of roses for Valentine's Day, the California Milk Advisory Board told lovers to "say it with cheese" with a menu of chocolates and California cheeses. The CMAB called the pairing "a savory-sweet love connection sure to stand the test of time and taste."

The state's 50-plus cheesemakers produce more than 250 varieties and styles of cheese, including bandage-wrapped. Cheddar and Brie. The board says foods with similar flavor profiles go well together. Darker chocolates pair best with more complex aged cheese, while sweet milk chocolates complement buttery cheeses like Brie. Fruity chocolates and sharper cheeses go together, as do nuttier chocolates and high butterfat cheeses.

The board created a tasting table at its website, RealCaliforniaCheese.com/recipes. A smart phone app called "Pair Savvy" for iPhone and Android devices is available at pairsavvy.realcaliforniamilk.com.

Taking it to the streets

In February, Tillamook Cheese, the 102-year-old farmer-owned dairy brand, embarked on the second annual cross-country event, which started in Phoenix. A custom-refurbished convertible mini-bus, called the Loafster, is traveling through Arizona, California, Colorado and Utah to "bring tasty cheese to the people," the company says. The Loafster, created from a 1966 VW Microbus, resembles baby loafs of Tillamook Cheddar cheese. The on-the-road campaign is akin to the Oscar Mayer's traveling Wienermobile.

Product demonstrators set up a 10-foot by 10-foot tent in a supermarket parking lot or at farmers' markets and distribute cheese samples, coupons and recipe cards. They encourage shoppers to "like" the Tillamook Facebook page and visit the

company's website.

The demonstrators are all "marketing professionals" who engage visitors in conversation about how cheese is made, who makes it and how to use it, says Mary Cecchini, the brand communications manager. Tillamook emphasizes its cheeses are made from milk with no artificial growth hormones by a co-operative of family farmers. Cecchini says a goal of the tour is to convert shoppers to Tillamook's premium-



priced medium and sharp Cheddars and its newly formulated Monterey Jack (made creamier and milder). Another goal is to cement relationships with its fan base. The company has 100.000 Facebook fans.

The bus stops in Los Angeles on April 23, where it is the sponsor of Los Angeles' Grilled Cheese Invitational.

Cheese is on a roll

Cheesemakers know how to have fun. At the eighth annual Sonoma Valley Cheese Conference in California (which ended March 2), chefs, cheesemakers and local officials vied for the title of "Big Cheese" as they rolled their favorite cheeses down a custom-built ramp. Rollers of cheeses that rolled the furthest were named winners. Among those scheduled to compete were Ari Weinzweig (Zingerman's Creamery, Ann Arbor, Mich.), Mariano Gonzalez (Fiscallini Cheese Co., Modesto, Calif.), Marilyn Wilkinson (Wisconsin Milk Marketing Board, Madison, Wis.) and Jacquelyn Buchanan (Laura Chenel Cheese, Sonoma).

Artisan cheesemaker Sheana Davis of The Epicurean Connection in Sonoma organized the activity at the city's MacArthur Place. The conference is open to the public on the first day, when there are cheese, beer and wine tastings. The following days are devoted to business issues related to the artisan cheese industry.

■ Sonoma residents Rich Lee, Sheana Davis and Rhonda Stallings roll cheeses

SUSTAINABILITY ON THE FARM | The ag supply chain is looking back to the farm for sustainability

the farm for sustainability

BY LAURA SANDS

TopProducer@farmjournal.com

hen dairy leaders started talking about moving toward a more sustainable industry, green was not the color that came to mind for Hilmar, Calif., producer Kimberly Clauss. "I saw red," she admits.

"I was definitely skeptical. I didn't understand that sustainability is really about protecting the industry's markets and ensuring that a farmer's business is profitable by improving efficiencies. I had to learn more to fully understand it."

It didn't take long for Clauss to start thinking green. "This is about becoming a better industry," she says. "It is about things we can do to cut costs and keep producers in business."

Major U.S. food retailers and other segments of the agricultural supply chain are taking a hard look

"When Wal-Mart made the commitment to reduce its own carbon footprint-and the footprint of the supply chain—it wasn't operating in a vacuum."

at the key components of sustainability-which includes not just economic profitability, but environmental performance and community support as well.

The dairy industry, Clauss says, was an early leader in analyzing its sustainability performance, largely



> In an effort to move toward more economic and environmental sustainability, Kimberly Clauss of Hilmar, Calif., is analyzing her dairy's carbon footprint.

PHOTO: CLAUSS DAIRY FARMS

because major retailers were taking stock of products in the marketplace, initially by examining the carbon footprint of key segments, such as dairy.

It Starts on the Farm. When the dairy industry took a look at its carbon footprint from field to retail shelf, it discovered that the bulk of the carbon emissions took place on the farm. A second round of stakeholder discussions and analysis resulted in several key initiatives for farmers that would not only improve their carbon footprint, but also improve basic profitability. The end result was a dairy industry goal to cut greenhouse gas (GHG) emissions 25% by 2020.

Recently, Wal-Mart announced a goal to eliminate 20 million metric tons of GHG emissions from its global supply chain by the end of 2015—the equivalent of taking more than 3.8 million cars off the road for a year.

"Energy efficiency and carbon reduction are central issues around the world today," notes Wal-Mart President Mike Duke. "We know that we have an opportunity to do more and that we have the capacity to do more."

When Wal-Mart made the commitment to reduce its own carbon footprint—and the footprint of the supply chain—it wasn't operating in a vacuum. Studies have found that more than half of today's consumers "lean green" (see chart on page 42), which means they will choose one product instead of another based on its sustainability profile.

Wal-Mart's effort to reduce its carbon footprint may mean it prefers to buy products from crop producers who practice no-till and minimum till, efficient nutrient use and other efforts that sequester or eliminate GHG. Livestock producers can reduce or limit methane production and use nutrition or range management to cut carbon.

Sustainability is about more than containing carbon, of course, but that is one of the more defined aspects that many companies, such as Wal-Mart, are focusing on first.

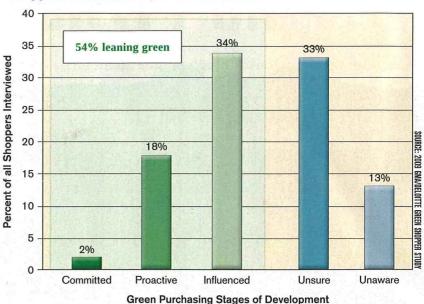
Technology Lends a Hand. These initiatives have many in the agricultural industry taking notice. Clint Reiss of Southwest Family Farms in Plains, Kan., says his operation is assessing what it does well and where it can improve—with sustainability in mind, not just profitability. Southwest Family Farms grows corn on thousands of acres, supplying the cattle and ethanol industries.

"Dairy farmers have been sustainable for generations because it has made good economic sense for their operation and their family."

"Things are changing and we need to be ready for it," Reiss says.

Southwest Family Farms has found technology to be a key part of improving the operation's overall environmental and economic sustainability as well as being able to capture sustainability data that will likely become more important to

Shoppers Influenced by Green Initiatives



processors and retailers in the

"We use a lot of variable-rate technology and can pinpoint what we do," Reiss says. "This allows us to be more efficient and, from a carbon viewpoint, cleaner."

coming years.

Along with reducing his carbon footprint, precision application has allowed Reiss to reduce the amount of fertilizer he applies, avoid accidental overseeding and increase yields over time—all things that reduce the farm's impact on the environment while improving its economic bottom line.

Reiss points out that larger farm operations might have a leg up on some sustainability measures because they can spread the cost of technology over more acres. They often have established an efficiency-of-scale that can end up benefiting the environment.

Producers need to do what makes economic sense for their own operation, adds dairy producer Clauss. "Dairy farmers have been sustainable for generations because it has made good economic sense for their operation as well as their family," she says.

From the Ground Up. Farmers who know they produce a commodity that doesn't immediately end up on a grocery shelf may think they don't need to worry about sustainability. A large part of the dairy industry's carbon footprint (and likely that of other meat products) comes from the grain that feeds the cows, Reiss notes.

When looking at the life-cycle analysis of any product, the place to start is in a field or a mine. Without access to that initial data, sustainability efforts will be

Sustainability by the Numbers | Field to Market: The Keystone Alliance for Sustainable Agriculture (www.keystone.org/spp/environment/sustainability) is the source of these figures:

million metric tons: the amount Wal-Mart has agreed to reduce its greenhouse gas emissions

17% the increase in worldwide water demands by 2030

60%

the reduction in energy use per unit of output of corn, beans in 20 years incomplete—which is one of the strongest reasons why sustainability is likely to impact grain producers.

With that in mind, Reiss' operation is working to assess what it can do within a changing marketplace dynamic.

"It is better to have a partnership and work on the ground floor. This is different from a regulatory or legislative framework. We, as farmers, will have limited impact," he says.

By staying ahead of the curve, it is Reiss' belief that buyers, food retailers and others "will be surprised by all [farmers] do that is, in fact, sustainable."

You can learn more about the

Reiss family's sustainability efforts by visiting www.southwestff.com.



DEFINING SUSTAINABILITY

During a panel discussion at this year's Top

Producer Seminar, a farmer, a consultant and an ecology professor discussed what sustainability means to them.

"Sustainability means taking actions that promote efficiency and effectiveness and contribute to the well-being of an operation, its employees and the community," said Sara Hessenflow Harper, partner with The Clark Group. Embedded within this definition is the triple bottom line that classic corporate sustainability encompasses: economic, environmental and community elements, she added.

A critical issue when considering sustainability is the global nature of the resource challenges we face. Too often, agricultural sustainability is defined as small, organic and local when these attributes cannot answer the global problems of hunger, resource scarcity or abuse and poor human management systems that exist worldwide.

"Does it really improve sustainability to make conditions so difficult for large efficient farms in the U.S. that we end up needing to import more food from China? How is that better for the environment, our economy or human rights?" Harper asked. "I'm all for free trade, don't get me wrong. But when assigning attributes to a food system, we must think of the big picture and what expanding demand for an inherently inefficient system means for the very attributes proponents are trying to expand."

What we consider sustainable may change if we factor in developing countries and the nearly 3 billion extra people expected to join the planet by 2050, seconded Marty Matlock, director of the Center for Agriculture and Rural Sustainability at the University of Arkansas. "As more people come, it will drive costs and change the way you as ag producers do business. Our challenge with sustainable agriculture is to understand what is coming and prepare for tomorrow," Matlock said.

"I believe sustainability is meeting the needs of current society while enhancing the opportunities for future generations. Sustainability is agriculture's legacy," he added.

Matlock also believes that sustainability is market-driven by companies that are buying farm products.

A Farmer's View. For Indiana farmer Kip Tom, sustainability is multidimensional-it's economic and environmental.

Tom has given long thought to sustainability and has incorporated the following in his farm's corporate social responsibility statement: "To create a supply system that profitably yields high quality, safe products without supply interruption from generation to generation while creating a net benefit for employees, their communities, our global customers, biodiversity and the environment."

"We can feed the world, and we can do it in a sustainable manner if we are proactive about it," Tom told the audience. - Jeanne Bernick



> Danny Klinefelter, Texas A&M University economist, moderates a sustainability panel that includes (from left to right): Kip Tom, Tom Farms; Sara Hessenflow Harper, The Clark Group; and Marty Matlock, University of Arkansas.

PHOTO: GREG VINCENT



Many cheeses already meet New York sodium targets; others will need reformulation

Friday March 4, 2011 Volume: 52 Issue: 50

By Joan Murphy

The first study to test sodium levels in cheese products found many already meet the 2012 voluntary sodium targets set by the New York's National Salt Reduction Initiative (NSRI), but processed cheese would have to undergo significant reformulation to make the cut.

Researchers with the Dairy Research Institute, in Rosemont, Ill., analyzed 650 samples of cheddar, 746 samples of low moisture part skim Mozzarella, and 269 samples of processed cheese from 16 U.S. cities to help the industry get a handle on how much sodium is in cheese. They looked for variability in sodium levels across brands and compared the sodium test results with the levels donned on Nutrition Facts labels, says the new study, published in the latest issue of the Journal of Dairy Science.

Processed cheese contained the highest mean (average) level of sodium (1,124 mg/100 g) among all of the cheeses tested by DRI, followed by string cheese (724 mg/100 g) and Cheddar cheese (615 mg/100 g). The New York target for processed cheese is 1,250 mg/100 g by 2012 but ratchets down to 1,040 mg/100 g by 2014.

Most samples of Cheddar and some of Mozzarella were close to their 2012 New York target of 630 mg/100 g, and this suggests processors would need to make small changes to qualify for the voluntary program. The target for Cheddar, Colby, Jack, Mozzarella, Muenster, Provolone and Swiss cheese drops to 600 mg/100g by 2014.

String cheese manufacturers will need to make changes and process cheese makers "will need major reformulations" to meet New York's voluntary targets, lead researcher S. Agarwal says in the study. "Reduction of sodium in process cheese will be a greater challenge when compared with Cheddar or Mozzarella cheese."

A sodium shockwave

New York City sent a shockwave through the food industry last year when it set voluntary targets for food companies and pledged to monitor sodium in 62 categories of packaged food and 25 categories of restaurant food.

It's no surprise processed cheese contains higher sodium levels than Cheddar because salt is added for functionality, so the cheese melts, says Nigel Kirtley, vice president of cheese research, development and quality for Kraft Foods and member of the Health and Wellness Committee for the Innovation Center for U.S. Dairy. It will pose a technical challenge for cheese manufacturers to reduce sodium levels, he says.

"Kraft and other companies will be looking at this one," Kirtley says, as companies need to maintain taste and functionality.

Kraft announced last year that it pledged to reduce 10% of sodium across its portfolio of food products and is one of the companies participating in the New York program. New York has set a goal of reducing salt in products and menus by 25% over five years. Many of the cheese products already would meet the 2012 goal but still would have to make process change to make the future targets, Kirtley says.

The study picked New York's targets because they are the "bellweather" for where public health advocates would like the industry to move to, he adds.

The study also finds variations in sodium levels even among the same cheese types, and string cheese had higher sodium levels compared to chunk or shredded cheese.

The analysis shows that difficulties in achieving uniform salt distribution in commercial settings stems from a variety of factors, says Bill Graves, senior vice president of product research for the Dairy Research Institute, in a Feb. 21 statement.

"To date, research does show a number of approaches available to improve consistency, including greater formalization of cheese making steps and operations, improved design of equipment for uniform curd distribution and block forming, and improved quick and easy testing methods to check sodium levels during production," Graves says.

"Continued evaluation of best methods to reduce sodium and establish process controls are underway with cooperation among universities and dairy industry partners."

In December, the Innovation Center's Best Practices Task Force agreed to work on reducing sodium in cheese. The task force is working on three facets: maintaining taste and functionality in lower sodium products; updating process controls in manufacturing; and educating audiences about the role of sodium in cheese.

Kirtley calls the study "elaborate" and says the data would be valuable for the industry. "It's a very significant investment for the dairy industry." With cheese contributing to 8% of America's sodium intake, cheese manufacturers are looking to ways to reduce sodium.

The study also finds that cheese manufacturers tend to be conservative with their reporting of sodium on product labels. About 10% of the products tested contained 20% less sodium than the label declaration, the study says.

"This may be a bit of a surprise," Kirtley says. Cheese is a natural product and can vary depending on the seasonality of milk, for example, and other factors, so manufacturers are conservative on their labels. The task force is looking at developing a rapid measurement tool for sodium in the cheese process that may help make labeling more accurate, he says.



What is the dairy industry doing to "go green?"

March 17, 2011

This year, the Innovation Center for U.S. Dairy released its first-ever Sustainability Progress Report, a detailed review of the industry's work to reduce its carbon footprint. The report provides an update on key challenges in the efforts to reduce greenhouse gas emissions and energy impacts of the dairy industry since the 2007 launch of the U.S. Sustainability Commitment.

Progressive Dairyman interviewed Erin Fitzgerald, the Center's vice president of sustainability, on some of the highlights of the report. Check out the interview here.

For another look at environmental sustainability and the Innovation Center for U.S. Dairy, watch the video, "Ag Report: Dairy's Carbon Footprint and Sustainability," a report examining the entire dairy process from start to finish.

Innovation Center for U.S. Dairy



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Dairy Research Institute



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U.S. Dairy Sustainability Commitment

Vision & Guiding Principles

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Sustainability Newsroom

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Roadmap

Projects

Best Practices

Science

Working Together for a Healthy Planet

For generations, the people who have brought fresh, delicious milk and other wholesome dairy foods to America's tables have also cared for the land and contributed to strong local communities and family businesses. That same legacy is the foundation for what we are calling the U.S. Dairy Sustainability Commitment.

All those involved in U.S. dairy — from local farmer to neighborhood grocer — are uniting to foster environmental sustainability while continuing to provide nutritious dairy products, support our communities, and strengthen our economic viability. We're joined by leading environmental, academic and scientific organizations from across the country and around the world.

Creating goals and measuring progress

Our first goal: Reduce greenhouse gas emissions for fluid milk by 25 percent by the year 2020.

In December 2010, we published the first annual <u>U</u>.

S. Dairy Sustainability Commitment Progress

Report to demonstrate the industry's progress toward reducing our environmental impact.

We welcome your feedback on this report.



Sustainability in Practice Stories



Read how dairy businesses across the country are reducing their environmental impact and lowering operating costs.

It's my hope that this work will help put ar end to small farms going out of business because they will have new streams of revenue and new ways to more more efficient.

> -Clay Detlefsen, International Dairy Foods Association



Sustainability focus in dairy moving from talk to action

Cheese Market News

April 8, 2011 By Alyssa Sowerwine

MADISON, Wis. — A decade ago, sustainability was a word few were familiar with. Now, it is a key buzzword in the dairy industry and marketplace at large, and manufacturers are beginning to move beyond defining sustainability and discussing its merits into implementing practices that show results.

With this in mind, Wisconsin's Dairy Business Innovation Center (DBIC) and Wisconsin Cheese Makers Association (WCMA) are hosting a panel discussion on sustainability April 14 during WCMA's 2011 Wisconsin Cheese Industry Conference next week in La Crosse, Wis.

The session, "Sustaining Sustainability: Retailer and Industry Activity," will include retail grocer and marketer perspectives on sustainability as well as proven examples of sustainable practices. Featured company speakers include Cathy Strange, global cheese buyer, national procurement and distribution, Whole Foods Market Inc., Austin, Texas; Vicki Decker-Smith, specialty cheese category manager, Schnuck Markets Inc., St. Louis, Mo.; Andrea Asch, manager of natural resources, Ben & Jerry's Ice Cream, South Burlington, Vt.; and H. Hulst, president, CONO Cheesemakers, Middenbeemster, Netherlands.

"We're moving beyond a discussion about defining sustainability or discussing its merits," says John Umhoefer, WCMA executive director. "This session is about implementing measures and learning how sustainability is selling at retail."

Measuring environmental impact

Franco Milani, assistant professor of food science at the University of Wisconsin-Madison, also will be on hand to discuss an ongoing life cycle assessment (LCA) for cheese.

The dairy industry last year completed the first LCA for milk, which showed that the carbon footprint of a gallon of milk is 17.6 pounds of carbon dioxide equivalents per gallon of milk consumed. The study also found that, combined with data from additional studies, total U.S. dairy emissions are approximately 2 percent of total U.S. emissions.

The Innovation Center for U.S. Dairy commissioned the Applied Sustainability Center at the University of Arkansas to conduct the greenhouse gas LCA of fluid milk, also called the carbon footprint study, which was completed in July 2010 (see "New study 'sets record straight' on U.S. dairy industry emissions," Sept. 24, 2010, in Cheese Market News' article archive at www.cheesemarketnews.com). The study is part of the industry's overall goal to reduce the carbon footprint of fluid milk 25 percent by 2020.

Now, a new LCA study focusing on the environmental impact of cheese is underway.

Milani says the Innovation Center still is looking for more companies to participate; there are about 17 plants participating now, but ultimately they would like to bring that number to 50. Researchers hope to release preliminary results this summer.

Regarding the conference panel, Milani notes that in the past, discussion has focused primarily on the environmental side of sustainability, or reducing the carbon footprint.

"This year, we're focusing more on how environmental is only part of the total package for businesses," he says.

Noting the retail focus of the session, Milani says that retailers today are looking for three major things when looking to select cheeses for sale at retail.

"For cheese companies, retailers now want to know that you are at least conversant in issues of sustainability related to your product; that you are aware of what it would take to provide baseline information on your operation; and that you are currently working toward a more sustainable bottom line," he says.

Practical application

One company at the forefront of helping manufacturers realize actual ways to gain operational efficiencies is EPS Corp., Costa Mesa, Calif., an energy intelligence company.

According to Jay Zoellner, president and CEO, EPS Corp., when it comes to helping manufacturers increase energy efficiency and reduce carbon emissions on a sustained basis, EPS Corp. has a three-step process: control energy use, replace inefficient equipment and shift to renewable energy.

EPS Corp. offers xChange Point, a software-as-a-service solution that transforms enterprise-wide energy usage data into real-time, actionable information for executives and managers at the corporate, regional and plant level.

The software identifies and presents low/no-cost energy saving opportunities, as well as areas that can be made more efficient with capital improvements, Zoellner says.

According to Zoellner, xChange Point enables manufacturers to quantify, monitor and compare energy use, down to the sub-system level, across facilities; identify, prioritize and track the best return-on-investment energy opportunities; calculate emissions data for carbon accounting requirements; and reduce energy costs and carbon emissions by up to 25 percent.

Once the software identifies where and how energy is used across a business enterprise, EPS Corp.'s Energy Solutions Team analyzes the information and provides no/low-cost and capital equipment recommendations to increase efficiency across the operation.

Zoellner notes that typically for dairy companies, the most energy-intensive sub-systems are steam boilers, refrigeration and compressed air. Some of the more common opportunities for improvements in these areas are setting the right discharge pressure in steam boilers, discharge pressure for refrigeration and overall pressure settings in the compressed air system.

He adds that it is not abnormal to find that set points are higher than what's needed for optimal production, and by optimizing those set points, companies can cut overall energy consumption by 2-3 percent.

In addition, once a baseline is established for a standard production cycle, minimum and maximum rules are set up, and an e-mail message is sent directly to a manager alerting him/her when operating data fall outside of these parameters.

"In this way, xChange point is almost like a technical social networking software, and it allows companies to monitor operations to realize the most savings long term," Zoellner says.

He notes that EPS Corp. also encourages companies with multiple plants to do an enterprise-wide assessment and implement changes across the board, rather than on a plant-by-plant basis.

"I think part of why energy efficiency is so slow to catch on is that for many companies, each plant tends to be its own profit/loss center, and each plant manager makes his own decisions, while we've found the most savings are realized when changes are made on an enterprise-wide basis," Zoellner says.

He also points out that xChange Point and the EPS Corp. team help companies who have good ideas bring those ideas to fruition.

Within the technical social networking aspect of xChange Point, a company has an idea — for example, operating boilers more efficiently by making the control system automatic instead of manual. EPS Corp. then does calculations to bring the idea to implementation.

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EPS Corp. also recently released a new white paper on best practices for energy savings and reduced carbon emissions in the food and beverage industry.

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The paper breaks down energy intelligence best practices into four basic steps:

- Establish a baseline to fully understand the company's current energy usage;
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Zoellner notes that continuous monitoring throughout and following the improvement process is very important.

"Having a formal ongoing monitoring and reporting process also instills the perspective that energy is a core procured material resource, one that needs to be managed closely on a regular basis," he says. "This works to raise awareness and counter the danger of unnoticed degradation of equipment performance over time, and establishes the foundation for continuous improvement over time."

Real results

Kraft Foods Inc., Northfield, Ill., is one company that has realized energy savings as a result of xChange Point technology. The company recently expanded the deployment of the software to all manufacturing facilities in its Grocery Business Unit.

According to Diane Wolf, global vice president of safety and environmental sustainability, Kraft Foods, the decision to roll out the software to additional sites was based on the success of its initial implementation in one facility.

"The test yielded significant savings opportunities as well as the desire to accelerate further reductions in the Business Unit's energy use and carbon emissions as part of Kraft's global sustainability efforts," Wolf says. "We see xChange Point as a key tool to help us reach and exceed our corporate sustainability goals."

Kraft Foods late last year also was named to the Carbon Disclosure Index, which recognizes companies that demonstrate good internal data management practices for understanding greenhouse gas emissions, including energy use. To be added to the index, companies also must demonstrate clear consideration of how climate change impacts their business.

The index is created by the Carbon Disclosure Project (CDP), an independent not-for-profit organization that collects the data on behalf of 534 institutional investors as well as purchasing organizations and government bodies.

"We hold the Carbon Disclosure Project in high regard," says Steve Yucknut, vice president, sustainability, Kraft Foods. "Making the CDP's Leadership Index is evidence of the important changes we've made and the actions we've taken, which we'll continue to improve upon."

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The company has worked with EPS to create the Land O'Lakes Energy Management System (LEMS), a standards-based strategic system for guiding and achieving its energy reduction goals.

"Since beginning our relationship with EPS, we have seen very positive results in curtailing our energy usage and carbon emissions," says Ken Litke, vice president of operations and supply chain, Land O'Lakes. "We're looking forward to continued success as we work toward achieving our overall corporate sustainability goals."

Download the white paper:

<u>Making Sustainability a Reality:</u> Best Practices for Energy Savings and Reduced Carbon Emissions in the Food and Beverage Industry

CHESE MARKET NEWS®

The Weekly Newspaper Of The Nation's Cheese And Dairy/Deli Business

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Turn to ENERGY, page 49 ⇒

NEWS/BUSINESS

(600)

ENERGY

Continued from page 1

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Turn to EFFICIENCY, page 50 ⇒

NEWS/BUSINESS



EFFICIENCY

Continued from page 49

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Dairy Industry Greens its Fleets



Rising fuel prices might be a good enough reason to improve transportation efficiencies, but the dairy industry is working with carriers to be more environmentally sound as well.

By Jim Mulvenna and Matt Hayden

ransportation and distribution is responsible for 7.7 percent of the greenhouse gas (GHG) emissions associated with the production and disposal of a gallon of fluid milk in the United States. That may not seem like a lot in the scheme of the rest of the value chain. However, GHG emissions in the transport and distribution links of the fluid milk value chain come almost entirely from diesel fuel use in trucks - which means transport and distribution companies can reduce costs and emissions simultaneously.

Retrofitting trucks with trailer aerodynamics, idle-

Dairy Fleet Smart members aim to help the industry reduce greenhouse gas emissions by more than 542,000 metric tons—a \$58 million fuel cost reduction.

reduction systems and tire upgrades can reduce fuel consumption by more than 8 percent while driving and up to 60 percent while idling. Driver training on simple techniques like proper shifting and braking can save 5 to 25 percent on fuel usage. Additional fuel savings can be achieved by ensuring efficient routing during all phases of dairy transport operations. When applied solely to the largest private haulers associated with dairy, these improvements can achieve annual savings of more than 13 million gallons of diesel fuel.



Driver scorecards have inspired friendly competition among the employees of HP Hood to see who can get the best scores from incorporating SmartWay practices including the use of cruise control; coasting when appropriate; and progressively shifting.

Working With and Through the Industry

In 2009, the Innovation Center for U.S. Dairy (www.usdairy.com) announced that the dairy industry is working across the value chain toward a voluntary goal of 25 percent reduction in GHG emissions of fluid milk by 2020. Dairy Fleet Smart is one of 10 GHG reduction projects aimed to get the industry about halfway to its

Dairy Fleet Smart provides a forum for dairy industry leaders and trucking companies to exchange successes and key learnings resulting from their efficiency programs, as well as consider technologies and practices of EPA SmartWay (www. epa.gov/smartwaylogistics), which provides tools and resources for increasing fuel efficiency.

Later this year, the team plans to develop and distribute dairy-specific tools and guidelines to processors and transportation

companies, including case studies on refrigeration technologies, driver best practices and aerodynamics. The goal of Dairy Fleet Smart is to accelerate the adoption of transportation and distribution best practices that reduce fuel consumption, costs and GHG emissions.

By sharing information on a pre-competitive basis, the Dairy Fleet Smart team aims to help the industry reduce GHG emissions for fluid milk by more than 542,000 metric tons, which translates to a fuel cost reduction of nearly \$58 million. Following are a few success stories from the field.

Healthy Competition

As the senior director of environmental health and safety for HP Hood LLC, Dave Crowley uses best practices from the EPA SmartWay program to improve the fuel efficiency of HP Hood's trucks. He encourages other companies to do the same by using aids like electronic onboard

recorders (EOBRs) and driver scorecards that promote fleet efficiency.

HP Hood LLC (www.hood.com), a national dairy products company based in Lynnfield, Mass., leverages best practices with the SmartWay Program, along with EOBRs and driver scorecard tools to aid the responsible management of fuel consumption.

EOBRs help monitor the fuel-efficiency behaviors of individual drivers and are installed on almost the entire fleet. These recorders measure speed, total and moving miles per gallon, idle time, abrupt starts and stops, and more. This data can be shared with drivers to help modify their driving habits and improve fuel efficiency.

Driver scorecards have inspired friendly competition among the employees of HP Hood to see who can get the best scores from incorporating SmartWay practices including the use of cruise control; coasting when appropriate; and progressively shifting.

Not only has HP Hood achieved substantial fuel and cost savings with the program, but drivers have realized a renewed sense of control and an increased sense of job pride and contribution.

More and Less

Ruan Transport Corporation (www. ruan.com), headquartered in Des Moines, Iowa, has found that hauling larger loads at shorter distances is not only the most efficient and cost-effective, but it is one of the easiest opportunities for transport and distribution companies to employ. Ruan recently reduced a major client's transportation costs by 4 percent by rerouting more than 80 percent of its milk to travel less than 10 miles to its destination.

The transportation company has implemented multiple environmental efficiencies to its fleet, including longer-lasting, lower-emitting engines with improved performance and lower fuel consumption; larger capacity tanks in order to transport loads up to the legal limit; and, where feasible, lighter power units which further increase payload size.

Operationally, Ruan focuses on optimizing its transportation network through the use of their exclusive RedTrak information system, which improves efficiency in all aspects of milk pickup, transportation and delivery. Network optimization allows the company to put fewer trucks on the road and to drive those trucks fewer miles.

The result has been a cost savings Ruan can pass on to its customers.

Technological Advancement

The Dairy Farmers of America (www. DFAmilk.com) Mountain Area offers a service unique to DFA's cooperative members by operating a fleet of 150 trucks for milk transport from their eight-state region to locations across the country. In November 2007, the DFA Mountain Area worked with Zonar Systems to install an electronic fleet management system. The system is a GPS-based inspection, tracking and management solution that gives fleet managers specific data about fuel consumption, route information, inspection data, driver speeds and more. Trip-level, driver-specific data is collected automatically and uploaded wirelessly to fleet managers, who can then evaluate driver performance and needs to make the most economical and environmentally sound transport decisions.

Since implementing the electronic fleet management system, the DFA Mountain Area experienced improvements in fuel savings, fleet maintenance, driver safety and route management. Return on investment was six months, based on an annual

fuel savings of 377,000 gallons of diesel fuel at \$4/gallon. The savings in fuel represents a reduction of more than 949 metric tons of CO2 emissions per year.

The Zonar Systems trip data revealed significant fuel savings could be achieved by reducing idle time during milk pickup or delivery. Based on this information, the

can improve driver behavior and safety. And by monitoring pick-up and delivery routes, DFA Mountain Area transportation managers have been able to more accurately predict arrival times at farms and processing plants. In some cases, managers have been able to plot shorter delivery routes to save fuel.

By taking a leadership role in sustainability, the dairy industry can ensure the health and well-being of the planet, communities, consumers and the industry — now and for future generations.

DFA Mountain Area established a fleet policy to limit idling to 13 minutes per trip. It was a simple solution that yielded impressive results: the fleet saved 24,000 gallons of diesel fuel in the first quarter of 2008. Idling fuel costs for the first half of 2008 decreased from \$17,000 per month to \$2,500 per month, an 85 percent savings in idling-time fuel costs - without additional investment in trucks or equipment.

The electronic system allowed the DFA Mountain Area fleet to automate and standardize their pre- and post-trip inspections, ensuring that inspections are performed consistently and that maintenance and compliance issues are addressed immediately. The system also helps with driver training, guiding new drivers through the proper inspection process. Better fleet maintenance helps ensure trucks are running as efficiently as possible, often saving even more fuel over time.

In terms of driver safety, DFA Mountain Area fleet managers now can use clear, concise driver specific data, including route information and road speed, to address training and safety issues. This information, combined with inspection data, then can be used to identify training needs that

The dairy transportation industry is facing both economic and environmental challenges. Profit margins are being squeezed, while prices are rising on the diesel fuel used to transport fluid milk. Transportation companies must develop sustainable solutions if they are to attract new customers and new employees, improve operations and provide solutions that impact clients' business.

By taking a leadership role in sustainability, the dairy industry can ensure the health and well-being of the planet, communities, consumers and the industry now and for future generations. MH&L

Jim Mulvenna is senior vice president and general manager of the dairy and bulk food transport division at Ruan Transport Corporation; Matt Hayden is director of sustainability and new business development at Hi-Cone, a division of ITW. Both men serve as co-captains of the Dairy Fleet Smart project, and are writing on behalf of the Innovation Center for U.S. Dairy. For more information contact innovationcenter@usdairy.com.

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Later this year, the team plans to develop and distribute dairy-specific tools and guidelines to processors and transportation

companies, including case studies on refrigeration technologies, driver best practices and aerodynamics. The goal of Dairy Fleet Smart is to accelerate the adoption of transportation and distribution best practices that reduce fuel consumption, costs and GHG emissions.

By sharing information on a pre-competitive basis, the Dairy Fleet Smart team aims to help the industry reduce GHG emissions for fluid milk by more than 542,000 metric tons, which translates to a fuel cost reduction of nearly \$58 million. Following are a few success stories from the field.

Healthy Competition

As the senior director of environmental health and safety for HP Hood LLC, Dave Crowley uses best practices from the EPA SmartWay program to improve the fuel efficiency of HP Hood's trucks. He encourages other companies to do the same by using aids like electronic onboard

recorders (EOBRs) and driver scorecards that promote fleet efficiency.

HP Hood LLC (www.hood.com), a national dairy products company based in Lynnfield, Mass., leverages best practices with the SmartWay Program, along with EOBRs and driver scorecard tools to aid the responsible management of fuel consumption.

EOBRs help monitor the fuel-efficiency behaviors of individual drivers and are installed on almost the entire fleet. These recorders measure speed, total and moving miles per gallon, idle time, abrupt starts and stops, and more. This data can be shared with drivers to help modify their driving habits and improve fuel efficiency.

Driver scorecards have inspired friendly competition among the employees of HP Hood to see who can get the best scores from incorporating SmartWay practices including the use of cruise control; coasting when appropriate; and progressively shifting.

Not only has HP Hood achieved substantial fuel and cost savings with the program, but drivers have realized a renewed sense of control and an increased sense of job pride and contribution.

More and Less

Ruan Transport Corporation (www. ruan.com), headquartered in Des Moines, Iowa, has found that hauling larger loads at shorter distances is not only the most efficient and cost-effective, but it is one of the easiest opportunities for transport and distribution companies to employ. Ruan recently reduced a major client's transportation costs by 4 percent by rerouting more than 80 percent of its milk to travel less than 10 miles to its destination.

The transportation company has implemented multiple environmental efficiencies to its fleet, including longer-lasting, lower-emitting engines with improved performance and lower fuel consumption; larger capacity tanks in order to transport loads up to the legal limit; and, where feasible, lighter power units which further increase payload size.

Operationally, Ruan focuses on optimizing its transportation network through the use of their exclusive RedTrak information system, which improves efficiency in all aspects of milk pickup, transportation and delivery. Network optimization allows the company to put fewer trucks on the road and to drive those trucks fewer miles.

The result has been a cost savings Ruan can pass on to its customers.

Technological Advancement

The Dairy Farmers of America (www. DFAmilk.com) Mountain Area offers a service unique to DFA's cooperative members by operating a fleet of 150 trucks for milk transport from their eight-state region to locations across the country. In November 2007, the DFA Mountain Area worked with Zonar Systems to install an electronic fleet management system. The system is a GPS-based inspection, tracking and management solution that gives fleet managers specific data about fuel consumption, route information, inspection data, driver speeds and more. Trip-level, driver-specific data is collected automatically and uploaded wirelessly to fleet managers, who can then evaluate driver performance and needs to make the most economical and environmentally sound transport decisions.

Since implementing the electronic fleet management system, the DFA Mountain Area experienced improvements in fuel savings, fleet maintenance, driver safety and route management. Return on investment was six months, based on an annual

fuel savings of 377,000 gallons of diesel fuel at \$4/gallon. The savings in fuel represents a reduction of more than 949 metric tons of CO2 emissions per year.

The Zonar Systems trip data revealed significant fuel savings could be achieved by reducing idle time during milk pickup or delivery. Based on this information, the

can improve driver behavior and safety. And by monitoring pick-up and delivery routes, DFA Mountain Area transportation managers have been able to more accurately predict arrival times at farms and processing plants. In some cases, managers have been able to plot shorter delivery routes to save fuel.

By taking a leadership role in sustainability, the dairy industry can ensure the health and well-being of the planet, communities, consumers and the industry — now and for future generations.

DFA Mountain Area established a fleet policy to limit idling to 13 minutes per trip. It was a simple solution that yielded impressive results: the fleet saved 24,000 gallons of diesel fuel in the first quarter of 2008. Idling fuel costs for the first half of 2008 decreased from \$17,000 per month to \$2,500 per month, an 85 percent savings in idling-time fuel costs - without additional investment in trucks or equipment.

The electronic system allowed the DFA Mountain Area fleet to automate and standardize their pre- and post-trip inspections, ensuring that inspections are performed consistently and that maintenance and compliance issues are addressed immediately. The system also helps with driver training, guiding new drivers through the proper inspection process. Better fleet maintenance helps ensure trucks are running as efficiently as possible, often saving even more fuel over time.

In terms of driver safety, DFA Mountain Area fleet managers now can use clear, concise driver specific data, including route information and road speed, to address training and safety issues. This information, combined with inspection data, then can be used to identify training needs that

The dairy transportation industry is facing both economic and environmental challenges. Profit margins are being squeezed, while prices are rising on the diesel fuel used to transport fluid milk. Transportation companies must develop sustainable solutions if they are to attract new customers and new employees, improve operations and provide solutions that impact clients' business.

By taking a leadership role in sustainability, the dairy industry can ensure the health and well-being of the planet, communities, consumers and the industry now and for future generations. MH&L

Jim Mulvenna is senior vice president and general manager of the dairy and bulk food transport division at Ruan Transport Corporation; Matt Hayden is director of sustainability and new business development at Hi-Cone, a division of ITW. Both men serve as co-captains of the Dairy Fleet Smart project, and are writing on behalf of the Innovation Center for U.S. Dairy. For more information contact innovationcenter@usdairy.com.



On-Farm Anaerobic Digester Trends In The United States

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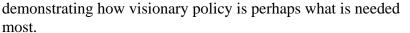
AgSTAR point person ruminates on the successes, challenges and future of livestock methane as viable renewable energy source.



Dan Sullivan

U.S. EPA's AgSTAR is a voluntary outreach and educational program promoting the recovery and use of methane from livestock manure. EPA and USDA — whose Rural Energy for America Program (REAP) and other mechanisms has helped fund on-farm biogas projects — have been working together since AgSTAR's inception in 1993 and in May 2010 signed an interagency agreement to promote digester systems nationwide. AgSTAR is also working closely with the Innovation Center for U.S. Dairy and its Dairy Power Program, which signed a Memorandum of Understanding with USDA in December 2009 with the intent of helping reduce the carbon footprint of the dairy industry by 25 percent by 2020.

BioCycle caught up with AgSTAR National Program Manager Chris Voell just as his office had finished crunching the latest numbers related to trends in on-farm anaerobic digestion (AD) systems in the United States (see sidebar, "AD Trends at a Glance"). Voell offered some perspective behind the statistics regarding what is driving the growth of AD in America. In a nutshell, he says, if we want to realize the environmental and economic benefits that digester systems can bring, business models must be developed to make the projects viable (e.g., revenue, financing), a more conducive environment to attract investors must be created and energy policy has to be altered to be more supportive of smaller, distributed generation projects like AD. While government incentives and private investment are helping to drive growth, a handful of states are





"You look at places like Vermont and a few other states with policies and financial incentives that allow for investment in farm-based projects, and that's where you find the digester system growth," he says. Voell points to volunteer programs such as "Cow Power," a Central Vermont Public Service (CVPS) voluntary program that allows customers to purchase electricity generated from dairy digesters at a premium (the generating farms receive 4 cents per kilowatt hour if they participate in the program). He also touted the Vermont-based standard offer program, which guarantees 14 to 16 cents per kWh to participating projects.

Vermont also has net metering rules that allow projects to flourish on smaller operations.

Programs such as these, Voell says, allow citizens the opportunity to encourage development of smaller renewable energy projects in their communities and realize the improved quality of life that they bring (odor control, enhanced revenue generation, air and water quality improvements). New York, Pennsylvania and Wisconsin are other states with equitable rate structures and utility and energy policies in place that have led to the growth of AD. "But for a small- or medium-sized farm to invest in an AD system in most places in the country is not feasible," he elaborates. "That's why farmers and project developers who are currently investing time and money are looking at larger farms and codigestion to realize economies of scale and a decent return on investment. Also, a major issue is that for investors and project developers, it's certainly not cookie cutter across the county. Every state and every utility has different requirements. This makes it very difficult to plan for long term investments."

Since the USDA first added an energy title to the federal Farm Bill in 2003, the agency has awarded more than \$40 million in grants to more than 100 on-farm digester systems. About 20 AD projects have come online annually since 2003 (many of these received USDA funding assistance), accounting for more than 140 of the 167 currently in existence in the United States, according to AgSTAR data. "One of the biggest reasons we have a start on the digester industry is the USDA's REAP," Voell says, adding that this and other federal assistance such as USDA Natural Resources Conservation Service (NRCS) EQIP (Environmental Quality Incentive Program) funds have been bolstered by state programs. These include Focus on Energy in Wisconsin, Cow Power in Vermont and programs of the California Energy Commission and NYSERDA (New York State Energy Research and Development Authority). Still, he says, much work remains to be done.

UTILITY RATES, REQUIREMENTS

"Getting appropriate rates for the energy, while probably the single largest hurdle, is only one part of the challenge," he says. "Interconnection standards and studies, and the fees charged for those by utilities, vary widely as well. These fees can often be enough to kill a project — there are many cases where they have been multiple hundreds of thousands of dollars."

Net metering — basically the deduction of an energy outflow from metered energy inflows —is a frequently discussed issue with regard to energy offsets. "While you might hear that 35 or 38 states have net metering as part of their energy policy," he says, "the actual details and application varies widely." He offers that a "good" net metering policy is one that allows for aggregation of all meters across the farm and contiguous properties, letting the farmer offset a higher level of energy use than they can in a lot of places. A "bad" net metering policy, he says, is where the farmer is required to pick a single meter to offset. Many digester projects will generate more energy than would be used by a farmer through one electricity meter.

"There are typically multiple meters all across the farm, for example, at the barn, for the irrigation pumps, the farmer's residence, etc.," Voell explains. "Say you are generating 100 kW from your digester project and your highest use at a single meter is 50 kW. You often cannot get credit for the remainder, and it is forfeited." Some states, such as Pennsylvania and Vermont, go

one step better with "virtual" aggregate metering, he adds, meaning that the meters do not have to be physically connected to allow for more energy use to be offset.

As a not-so-good example of utility policy — and Voell was reluctant to name a specific state or utility — he referenced a farmer "down South" who abandoned the electricity generation portion of his AD system (the digester is working fine with the gas being flared) because the standby charges he had to pay when his system was down for regular operation and maintenance were so exorbitant that it basically obliterated any profit that might be realized in the project. Standby charges are a fee for the privilege of being hooked up to regular utility service when a self-generating system is shut down. "When negotiating with utilities, pay attention to every detail," he adds. "Hire someone who is fluent in utility contract negotiations. When you get down into the weeds in terms of negotiating contracts, net metering, standby charges, interconnection fees — that's where the rubber hits the road." Voell predicts this type of situation will happen less frequently as farmers become more savvy, these projects become more commonplace and support organizations such as AgSTAR become more involved.

NEW ENERGY POLICIES

Status quo policies built around centralized output of nonrenewables put up another major roadblock. "The way we've set up energy policy in this country is not conducive to the growth of distributed energy projects," he says. "It's traditionally been built around fossil fuel generated electricity at a much larger scale. The policy paradigm needs to change if we want to see proliferation of these kinds of projects." Voell adds that the current difficulty is that energy policy is all done state by state. "Sometimes the federal government steps in, but for the most part states and individual utilities set their own policies," he says. "And policy change at any level comes slowly. It takes a champion to get it done."

He suggests several energy policy fixes that could help digesters along and allow smaller operations to be more economically viable. These include rates paid for the energy that recognize the broad suite of benefits these projects bring, streamlined permitting process and appropriate fees for interconnection and standby charges. "If on the back end there's no return on investment, these projects aren't going to happen," he explains. "That's why we have 160 when there could be easily 10 or 20 times that many. Until we have a fundamental shift in business models, energy policy and public support, the transition to seeing hundreds or thousands of these projects grow in the near future will not occur. Energy policy is not set up, in most cases, to encourage these. I know of instances where it costs people 8 cents to generate energy through this process, and they receive 4 cents for it — that's not going to get it done." Voell points to the 100 percent shift in production by the Big Three automakers at the behest of President Roosevelt to support the war effort during WWII and America winning the race to the moon as two examples of our country being able to make necessary innovations when circumstances require action. "I think the country is trying to go in that direction in terms of energy usage and policy, but right now we are relying on market forces and volunteer efforts, which is not quite as commanding as FDR making a decision in time of war," Voell says.

ONE FARMER, MANY HATS

The reality today is that embarking on a digester project requires business acumen that includes an awareness of all the potential financial benefits, counsels Voell. These include energy

production (gas production for direct use or to power a genset and produce electricity and heat), codigestion (bringing in organic waste materials to boost gas production and generate tipping fees) and use of the liquid digestate as fertilizer and the manure fibers as bedding material or for other beneficial purposes. "Basically you have to cobble together every benefit you can get for these to make a project viable in today's environment," he says, adding to that laundry list management of on-farm nutrients and odors. "The way [odor control] translates to money is that when a dairy wants to add cows and the neighbors are happy about the operation, things tend to go much more smoothly."

There is no question that the digester route is more expensive than "business as usual" manure management, Voell says. "The reality is that without government assistance up to this point at the state and federal level, we would not even have a start on the digester industry. The ultimate goal is to have projects that can generate revenue to pay the debt service with a reasonable profit. But in reality we heavily subsidize all the traditional energy sources in this country. If we would like to move toward alternatives like anaerobic digesters and biogas, we would have to expect to prime the pump for those new energy sources to be able to compete. If we want to achieve energy independence and energy security, helping promote systems like manure digesters offers an excellent way to get there. There is also a growing desire to be more self-sufficient at the local level and not always having to rely on large central infrastructure."

Benefits of these projects go well beyond energy generation, he says. "They provide more stable revenues to farmers in rural communities. There's a direct greenhouse gas reduction benefit of less methane into the atmosphere. And they provide for a better quality of life for the people who live in these communities. As we talk about investment of state and federal dollars, we have to realize the comprehensive benefits that come out of these projects."

Helping other regional businesses such as food processors manage their wastes more sustainably is another plus, he adds. "Everybody I talk to is looking for that potential if it can be done appropriately. Securing a year-round supply of organics is no small task, but I think it's a trend that's on the rise. And we're definitely seeing growth of third party owner/operated projects — capital being brought in by a third party. This reduces the risk to the farmer, and it brings in technical expertise as well as expertise in contract negotiations." Nutrient management — keeping nitrogen and phosphorus out of waterways — has been another big driver, he notes.

ENERGY INTERDEPENDENCE

Backdropped by rising petroleum prices and dire times for other energy sectors such as nuclear power, Voell sees biogas from organics recycling as a growth industry with great, if largely untapped, potential. "The recently formed American Biogas Council (ABC) is another leg of the stool in helping move the industry forward," he says. "Without appropriate technology and service providers, this industry will not thrive. We're also seeing a definite convergence of the agriculture, livestock, waste management and organics recycling sectors. Folks in all of these sectors see anaerobic digestion as an opportunity to help them meet their goals of greenhouse gas reduction, green energy production, improved waste management, building a supply chain that's more sustainable and providing a home for the organics waste stream. It is definitely moving beyond just an idea at the farmer level."

Sidebar p. 37 AD TRENDS AT A GLANCE

Following is a snapshot of current digester projects across the United States.

- 167 currently operating digesters in 33 states
- 137 dairy, 23 swine, 5 poultry, 2 beef
- Top 5 states (in terms of total number of operating digesters): Wisconsin -26, New York -23, Pennsylvania -19, California -14, Vermont -10. (Pennsylvania has had the most new systems become operational in the past year)
- 156 farm-scale, 11 centralized/regional
- Energy generation in 2010 was 453,000 MWh equivalent (compared to 374,000 MWh in 2009)
- For 2010, direct emission reductions were estimated at 51,200 metric tons of methane per year, or 1,075,000 metric tons CO2 equivalent per year
- Currently there are 146 operating energy-generating projects (electricity or thermal as opposed to flare or unknown gas usage)
- Current operational energy projects estimated to generate: 427,000 MWh from electricity and 51,000 MWh equivalent from boiler/other projects (478,000 MWh equivalent, total)
- These numbers include digesters that operate with livestock manure owned by farmers or third-parties, on farms or at a centralized location

 More information on currently operating systems is available at:

 http://www.epa.gov/agstar/projects/

— Compiled by Allison Costa, AgSTAR Program Manager

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index.html.



Dairy's Carbon Footprint = Two Percent

Dairy farmers are using innovative management practices to sustain our natural resources and reduce dairy's carbon footprint.

Scientists and food enthusiasts at the 2010 International Food LCA (Life Cycle Assessment) Conference in Italy learned that greenhouse gas emissions of all dairy products equal about 2 percent of total U.S. emissions.

Researchers followed the journey of a gallon of milk from the beginning of the life cycle when crops are grown to feed cows; milk is produced and delivered to processors; through processing, packaging and distribution; all the way to the purchase and disposal of the gallon of milk by the consumer.

The two percent mark is far less than earlier figures reported about the global livestock industry that were incorrectly attributed to U.S. dairy.

"Calculating, managing and reducing the emissions of everyday products is a growing quest for companies across the business spectrum," writes Joel Makower, Executive Editor of GreenBiz.com. "But most products are multi-company affairs. It's one thing for a company to do this. It's altogether another thing to address climate change across an entire industry."

Despite the logistical challenges, tracking the carbon footprint of a process or a product is becoming more and more common as more consumers are considering environmental impact when making food choices.

"It's one thing for a company to do this. It's altogether another thing to address climate change across an entire industry."

~ Joel Makower, Greenbiz.com

"The entire dairy industry—dairy producers, processors, manufacturers and brands—is working together to build on its long history of sustainability. We are committed to providing the nutritious dairy products consumers want in a way that makes the industry, people and the earth economically, environmentally, and socially better, now and for future generations," said Thomas P. Gallagher, CEO of the Innovation Center for U.S. Dairy and Dairy Management Inc.TM, speaking on behalf of the nation's farmers.

One of the key findings of the study, according to the Innovation Center for U.S. Dairy, is that "management practices are an important driver of the carbon footprint," for farms, plants and transportation within the industry. In fact, the findings indicate that good management practices are more important than geographic region, business model or the size of the dairy farm.

As a result, dairy businesses across the country are making changes that are environmentally and economically beneficial. A variety of case studies and best practices is available from the Innovation Center for U.S. Dairy, which has coordinated an industry-wide roadmap to reduce carbon emissions.

Since the 2010 study results were released, the Center also has published a progress report which summarizes the efforts currently under way to increase the economic, environmental and social sustainability of the dairy industry.

Find more details on the research and examples of dairy businesses that have implemented sustainable practices at www.usdairy.com/Sustainability.

Dairy Case Cash

Dairy Case Cash

Reinventing the dairy case can better engage customers, drive larger basket sizes and increase sales. Read more>>





By Kelley Devaney, Natural Food Network Contributor

Reinventing the dairy case can better engage customers, drive larger basket sizes and increase sales.

Fluid milk is recovering from a severe recession slump and new products and merchandising innovations are showing promising results but the full potential in dairy cases nationwide remains largely untapped.

This year the Innovation Center for U.S. Dairy, which is supported by Dairy Management, Inc. (DMI) released:

"The One Billion Dollar Industry Opportunity" a blueprint for dairy department reinvention.

"To date, applying the reinvention principles has helped retailers lift units sold by 2.2 percent and dollar sales by 1.6 percent," says Rebecca MacKay, vice president of sales & marketing for DMI. Applied nationwide this would result in an incremental \$1 billion dollars for grocers and 600 million units sold, she says.

Back in 2006, convinced that the dairy department was not fulfilling its potential, DMI formed a coalition with Dannon Yogurt and Kraft Foods to develop a set of proven principles to grow sales. The coalition funded convincing research based on 2,500 consumer interviews and merchandising tests in more than 1,000 dairy cases.

Unleash Dairy's Potential

Read the full version of the report for detailed recommendations, but every grocer can benefit by following these simple steps:

Optimize space, flow and adjacencies: Segment the space into smaller shopping zones with vertical banners that contain educational health & wellness messages. For example, one way to better organize the space is to put fluid milk at one end of the aisle, cheese at the other with yogurt in the middle and related categories filling the case. This helps consumers shop the entire department, spending more time and money.

Establish meaningful messaging: Educate about health and wellness benefits. Create solution-based interest areas, such as snack suggestions or probiotic products.

Introduce secondary placements: Consider grab & go end caps – even for fluid milk gallons (why let c-stores get the "quick trips"?).

Stores willing to invest in a reset can also:

Improve navigation and segmentation: with more permanent signage and updated colors. Enhance merchandising by breaking up the single shelf across many categories: change shelving and create visual interest.

New and remodeled stores are advised to:

Create a defined dairy environment with an updated look and feel. Increase space.

MacKay says "properly executed, a dairy department reinvention can better engage customers, and thus drive larger basket sizes and increased sales."



Fluid Milk Recovers

The big news in dairy this year is healthier growth for organic and natural milk in the natural channel, and reversal of the downturn in the conventional channel. SPINSscan Natural (which does not include Whole Foods) reports that sales of fluid milk are up 8.9 percent to \$120.2 million for the 12 months ended Oct. 31, compared to 2.9 percent growth in 2009. Natural and organic milk are up 4.7 percent to \$888 million in the conventional channel, almost back to the 2008 level of \$896.4 million, according to SPINSscan Conventional (which does not include Wal*Mart).



An April 2010 Mintel International report on U.S. Milk points out that "while consumers may be willing to pay a premium for natural food products sold in these supermarkets that does not appear to be the case for milk as it can be found in a variety of locations and is often used as a loss leader, and priced aggressively low.

The report states: "The lingering effects of the recession may have retrained consumers to buy their milk elsewhere, so it is not likely that natural foods supermarkets will enjoy much growth in milk sales for the foreseeable future."

Given more recent sales figures, however, David Browne, senior analyst at Mintel is more optimistic about the prospects for fluid milk, but cautions "natural channel sales are growing faster than conventional channels anyway; milk will never be a great profit center."

One interesting fluid milk innovation is Omega-3 milks. Horizon Organic's Omega-3 milk, fortified with DHA using an algae-based source, has been so successful that they are launching a fat free version in January. In April, Organic Valley countered with its own Omega-3 milk, complete with Omega-3 fatty acids ALA, DHA and EPA. The whole and 2% milks are fortified with both DHA and EPA using fish oil. "Our pasture-based organic milk already contains elevated levels of naturally occurring ALA Omega-3 due to our feed and pasture quality", points out Tripp Hughes, director of category management at Organic Valley.

"Omega-3 is a darling ingredient right now" says Kate Geagan, America's Green Nutritionist™ and author of "Go Green, Get Lean: Trim Your Waistline with the Ultimate Low-Carbon Footprint Diet". "This is because the typical American diet has too many Omega 6s in it and few Omega-3 fats for optimal health. The science suggests that the ideal ratio is somewhere between 4:1-1:1 (Omega 6:Omega 3) in the diet but the average American diet has upward of 20:1. Readjusting your ratio by including more Omega 3 rich foods (and supplements if necessary) and reducing intake of Omega 6 is a key for promoting cardiovascular health, mood, memory and to reduce systemic inflammation. If you're not taking an Omega-3 supplement like fish oil, products like Omega-3 milk can help you meet your needs, especially if

you have picky eaters who don't like fish, but keep in mind they can vary in how much they provide per serving. For example, one serving of Horizon Omega-3 milk provides 10 percent of the daily recommended amount, whereas Organic Valley Omega-3 milks provide about 30 percent."

Yogurt Still Hot

The Yogurt & Kefir sales grew 14.3 percent to \$144.7 million in the natural channel for the 52 weeks ending Oct. 31, according to SPINSscan Natural. The category was up a whopping 38 percent to \$832.6 million for natural products in the conventional channel for the same period.

Kerry Watson, Manager, SPINS Product Library, says that kefir and Greek yogurt are key drivers behind this growth. "We've seen a flood of kefir product launches enter the market over the last two years, in fact 35 percent of all kefir is new." Watson feels that the natural channel tends to be ahead of the curve when it comes to many new product trends and innovations. "One reason growth is higher in the conventional channel right now could be because these items are just gaining popularity in mainstream markets, while they have been around for a while in natural food stores."

Yogurt alone was up 8 percent to \$4.2 billion for the 52 weeks ended October 31, according to SymphonyIRI Group, a Chicago-based market research firm. Greek style yogurts are truly mainstream; Chobani's market share is 6th at 240 percent growth, Fage is 10th with 61 percent growth, and Oikos is 18th with 83 percent growth.

Kefir, a cultured milk drink with live probiotic cultures most Americans cannot even pronounce, is also making inroads into the mainstream. Lifeway is leading the charge, with the sixth highest market share according to SymphonyIRI Group's kefir/milk substitutes/soymilk category. Sales are \$30 million and 17 percent growth. "I think even Lifeway is surprised by its own growth" says Browne.

Cheese

"Vegan cheese alternatives are an important trend to pay attention to" says Tim Sperry, president & owner of The Tim Sperry Group, and former Whole Foods grocery director. Browne agrees: "I think Daiya has a great package, and it looks both premium and accessible, which means it has a great chance of bringing cheese alternatives more into the mainstream".

"We are also continuing to see a trend toward "real" cheese, less processed" in the conventional market, notes Browne. According to Mintel's May 2010 Cheese Report: "Natural cheese [which relates to less-processed cheese, not all natural cheese] is by far the largest of the segments for FDMx sales with 65.9 percent share of the market in 2009, and a 2.4 percentage point market share gain. . . However, natural cheese sales have waned at a time when they should be growing as more people are cooking at home in a down economy, as well as paying greater attention to the "natural" buzzword." In the conventional channel, private label cheese dominates in this "Natural" category, alone accounting for 43 percent market share (\$3.2 billion for the 52 weeks ending Oct. 31, according to SymphonylRI Group).



Cheese & cheese alternatives are up 13 percent to \$100.4 million in the natural channel for the 52 weeks ended Oct. 31, according to SPINSscan Natural. This category is the same size at \$103.5 million in the conventional channel - with low, 2.2 percent growth. If the natural channel is ahead of the curve, and the "natural" buzzword is hot in the conventional channel, then this would mean that the cheese/cheese alternative category is poised for serious growth in the conventional channel.

Dairy Alternates

Refrigerated non-dairy alternates are the highest growth dairy category in the natural channel with 18.1 percent growth and \$33.7 million for the 52 weeks ended October 31, according to SPINSscan Natural. "I believe that food sensitivities, newcomers to the vegan/vegetarian consumer group and expanded product variety have helped to increase interest in the category", says Watson. "I'm seeing consumers gravitating more towards non-dairy soy alternatives like coconut, almond, hemp and grain based products. Consumer concern over several potential harmful effects of soy, including hormonal issues, digestibility problems and GMO concerns are helping to drive this trend."

Almond milk is rocketing, led by Blue Diamond's Almond Breeze, with \$49.7 million and 549 percent growth for the 52 week period ended October 31 according to SymphonyIRI Group, followed by Silk Pure Almond, with \$37.8 million amassed in only six months on the market! "We think it is doing so well because of taste, anti-oxidants via vitamin E, and only 60 calories per serving in the original flavor," says Sara Loveday, marketing communications manager at WhiteWave. "It has done so well that we will be launching an unsweetened version with only 35 calories in January."

Coconut milk is another non-soy milk to watch. WhiteWave is launching Silk Pure Coconut Milk in January, "an expansion of our plant-based offerings", says Loveday. "It has an alternative taste, is fortified with 50% more calcium than milk, is an excellent source of vitamin B12 and the original flavor has only 80 calories."

The most exciting news in soy milk, a relatively mature category, is the introduction of the first refrigerated Non-GMO-Project verified soy milk by Earth Balance. "Our new soymilk line is also certified organic, and only uses U.S. grown soy beans to minimize food miles and also commit to U.S. farmers," says TJ McIntyre, General Manager for Earth Balance. "We believe consumers and retailers will be hearing a lot more about the Non-GMO Project in 2011." White Wave has also enrolled its soy, coconut and almond milks in the process, and expects to be "verified" in the first half of 2011, according to Loveday.

Probiotics



Probiotics are a fascinating new product/ingredient trend. Nutritionist Kate Geagan observes that "while Activia put probiotics on the map and helped make them mainstream, keep in mind that there are many cultured products on the market with helpful probiotic cultures. For so many of us bacteria are associated with illness, so the idea of eating them for health can seem almost counterintuitive. But probiotics are important because 70 percent of your immune system is in your gut. With over a trillion "good bugs" bacteria in your system, introducing probiotics helps to prime your immune system, aide with digestion and nutrient absorption, and can prevent urinary tract infections in women."

A special data cut courtesy of SPINS shows that the top probiotic food category is Yogurt & Kefir, growing at 13.6 percent to \$140 million in the natural channel for the 52 weeks ending October 31. Yogurt & Kefir in the conventional channel are growing at triple the natural rate at 38 percent growth with \$830.3 million in sales.



"Our consumer research showed that two of the top health and nutrition interests were in omega-3 and probiotics," says Hughes of Organic Valley. "We looked at both yogurt and kefir when considering what type of product to launch. Yogurt already has 80% household penetration of consumers shopping in the natural channel, versus only 17% for kefir. We also wanted to serve the everyday needs of our family target, so we launched Live Organic Yogurt with probiotics."

Yakult is the oldest "new" probiotic product on the scene. First introduced in 1935 in Japan, this shot-size beverage is designed to be consumed daily, as it is across Asia. Another shot-style probiotic drink, Lifeway's Biokefir, was launched in September and was exclusive to Whole Foods through Dec. 31st, 2010. It offers "twice the amount of probiotic power" found in their regular kefir, as well as additional functional benefits.

Mintel analyst Browne says probiotics are far from good for them, but they still don't know what they	m the mainstream: "many people know probiotics are vare!"
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May 5, 2011

Innovation Center to Present Latest Findings, New Initiatives at IDFA's Dairy Sustainability Symposium in May

Contacts:

Peggy Armstrong, IDFA, 202-220-3508 Elizabeth Hockerman, Innovation Center for U.S. Dairy, 262-938-5565

Washington, D.C. - May 5, 2011 The Innovation Center for U.S. Dairy TM will kick off the IDFA Dairy Sustainability Symposium on Wednesday, May 25, with an update on the U.S. Dairy Sustainability Commitment and progress made on key initiatives to reduce the dairy industry's carbon footprint and build business value.

The Dairy Sustainability Symposium is designed to help members of the dairy industry and related businesses to better understand sustainability and to target ways to decrease carbon footprint and increase efficiency. It will be held May 25-26 at The James Hotel in Chicago.

The Innovation Center's presentation will highlight the industry's scientific research efforts, including life cycle assessments for fluid milk and cheese and how these findings will benefit the entire dairy industry. Speakers from the Innovation Center include Ying Wang, Ph.D., director of research, and Gail Barnes, Ph.D., vice president of technology and packaging. Dr. Barnes will be joined by industry experts who will discuss energy efficiency best practices.

"While sustainable practices have long been a part of our industry, this commitment is producing model programs and processes for the whole industry," said Clay Detlefsen, IDFA vice president of regulatory affairs. "During the symposium, we will be able to examine how far we've come and where we want to go moving forward."

The discussion also will introduce a new sustainability initiative that responds to the growing interest and activity in sustainability reporting and product score carding. Sandra Vijn, director of sustainability metrics and evaluation for the Innovation Center, will present on the trend, as well as the dairy industry's progress in this increasingly important field.

"Sustainability reporting is gaining traction as a method to measure, describe and respond to questions from brands, investors and retailers," Vijn said. "The U.S. dairy industry is working together to develop a framework for consistent measuring and reporting, and to promote supply chain innovations, continuous improvement and increased transparency in line with the U.S. dairy vision and guiding principles."

For more information or to <u>register</u> for the Dairy Sustainability Symposium, visit http://www.idfa.org/events--trade-show/interactive-event-calendar/details/97/.

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Innovation Center for U.S. Dairy provides a forum for the dairy industry to work together precompetitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry. The Board of Directors for the Innovation Center includes 32 leaders representing 30 key U.S. producer organizations, dairy cooperatives, processors, manufacturers and brands. The Innovation Center is staffed by Dairy Management IncTM. Visit www.USDairy.com for more information about the Innovation Center for U.S. Dairy.



Innovation Center presenting findings at IDFA's Symposium

By a Dairy Herd news source | Updated: May 5, 2011

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Source: The International Dairy Foods Association

DAIRYBUSINESS

Innovation Center to present dairy 'sustainability' findings

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Sustainability to be focus of Dairy Technology Day

May 5, 2011

The daylong event is expected to draw some 200 milk processors and others involved with the California dairy industry to the UC Davis Conference Center from 8 a.m. to 6 p.m. to discuss sustainability issues that are of special importance to the dairy industry.

Topics will include the dairy industry's commitment to sustainability; dairy products, nutrition and sustainability; and UC Davis' commitment to sustainability. Speakers will be from the dairy industry and UC Davis.

The morning keynote speaker will be Gail Barnes, vice president of technology and packaging for Dairy Management Inc., a nonprofit organization that works with state and regional dairy promotion organizations to ensure the future success of the dairy industry.

The event is open to the public; registration is \$95 per person for industry members or \$20 for Friends of the Robert Mondavi Institute members and UC Davis faculty, staff and students.

More information and registration are available at: http://robertmondaviinstitute.ucdavis.edu/dairy-technology-day-ii or by contacting Kim Bannister, (530) 752-5171, kbannister@ucdavis.edu.

The event is sponsored by these organizations: the Robert Mondavi Institute for Wine and Food Science, California Institute for Food and Agricultural Research, Agricultural Sustainability Institute, Foods for Health Institute, and Department of Food Science and Technology.



Innovation Center to Present Latest Findings, New Initiatives at IDFA's Dairy Sustainability Symposium in May

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Effective Date: 5/6/2011

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Latest Findings, New Initiatives From Innovation Center At IDFA Symposium

by The International Dairy Foods Association Posted: Friday, May 6, 2011 at 3:56PM EDT



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Source: The International Dairy Foods Association



New national research program to benefit U.S. dairy farms

By a Dairy Herd news source | Updated: May 11, 2011

Rosemont, Ill. — Representatives of the U.S. dairy industry today announced an agreement to work jointly with a national energy research laboratory to advance the science and best management practices of renewable energy, environmental stewardship and life cycle analysis of dairy systems and processes.

The Innovation Center for U.S. DairyTM, the Dairy Research InstituteTM and Idaho's Center for Advanced Energy Studies (CAES) are working to develop a national research program focused on enhancing the economic viability of dairy farms and rural communities.

"This partnership directly aligns with the dairy industry's science-based effort to measure and improve the sustainability of the U.S. dairy industry, across every segment of the supply chain," said Kevin Ponticelli, chair of the Dairy Research Institute and senior executive vice president of the Innovation Center for U.S. Dairy and Dairy Management Inc.TM, which manages the dairy checkoff on behalf of the nation's farmers. "The only way that we can accomplish this commitment is by working with and through partners like CAES to leverage the latest data, current and emerging technologies, and innovative thinking and practices."

CAES is a national research partnership representing the U.S. Department of Energy, Idaho National Laboratory and the state of Idaho through its research universities. As part of the research program, CAES and the Innovation Center will bring together the science-based information and funding needed to accelerate the development and the commercialization of innovative technologies for the dairy industry.

"I'm pleased that the Innovation Center and our state resources through the CAES national research partnership are working collaboratively on renewable energy, sustainability and environmental impacts of the national dairy industry," said U.S. Rep. Mike Simpson of Idaho, chairman of the House Appropriations Subcommittee on Interior and the Environment. "The combined effort of private industry with state and federal partners is an example of sound use of public and private resources on behalf of Idaho and the rest of the United States."

The agreement outlines the following key partnership objectives:

• Collect baseline data on nutrient and manure management practices to assist in the identification of best practices for dairy farms

- Identify opportunities for dairy farms of all sizes to increase renewable energy production through anaerobic digesters, gasification and composting
- Research best management practices for farm-based renewable energy production on small, medium and large farms
- Analyze the U.S. utility grid infrastructure, electric rates and renewable energy incentives applicable to dairy farm operations
- Identify opportunities to increase funding of national research on sustainable dairy practices, manure management, substrates, renewable energy technologies and smart grid applications
- Facilitate technology-based economic development

"The collaboration between CAES, the Innovation Center and Dairy Research Institute will pursue the development of research and pilot project funding sources and facilitate technology-based economic development, which is a priority of the U.S. Department of Energy," said Dr. Harold Blackman, director of the Center for Advanced Energy Studies. "Through this industrywide effort, CAES will serve as a model for other U.S. Department of Energy labs in the advancement of sustainability research and transfer of technology to the broader industry."

Mike Roth, an Idaho dairy farmer, president of the Idaho Dairymen's Association and board member of the Dairy Research Institute, said the outcomes of this cross-industry partnership could greatly benefit dairy farms across the country.

"As one of the largest dairy-producing states in the country, we're happy to see a national relationship like this develop in our own backyard," said Roth. "Making the most efficient use of natural resources, such as energy, water and waste byproducts, not only contributes to profitability, it also lessens environmental impact."

Source: Innovation Center for U.S. Dairy

HOLSTEINWORLD

NEWS

New National Research Program to Benefit U.S. Dairy Farms and Communities

Agreement focuses on the development of sustainability best management practices

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Dairies, Idaho energy research center to cooperate on renewable energy projects

May 11, 2011

BOISE, Idaho — The dairy industry and an Idaho energy research center announced a plan to advance the science and best management practices of renewable energy as more farmers get interested in poop-to-power operations.

The Innovation Center for U.S. Dairy, the Dairy Research Institute, and Idaho's Center for Advanced Energy Studies on Wednesday announced cooperation on a national research program to boost the economic viability of dairy farms and rural communities.

The Center for Advanced Energy Studies, based in Idaho Falls, includes the U.S. Department of Energy, Idaho National Laboratory and Idaho's research universities.

With this partnership, the parties say they will marry science-based information with funding to accelerate the development and commercial rollout of innovative technologies for farmers.

Idaho currently has several anaerobic digesters at dairies producing electricity for the power grid.



New National Research Program to Benefit U.S. Dairy Farms, Communities

May 11, 2011

By: Dairy Today Editors

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"This partnership directly aligns with the dairy industry's science-based effort to measure and improve the sustainability of the U.S. dairy industry, across every segment of the supply chain," said Kevin Ponticelli, chair of the Dairy Research Institute and senior executive vice president of the Innovation Center for U.S. Dairy and Dairy Management Inc.™, which manages the dairy checkoff on behalf of the nation's farmers. "The only way that we can accomplish this commitment is by working with and through partners like CAES to leverage the latest data, current and emerging technologies, and innovative thinking and practices."

CAES is a national research partnership representing the U.S. Department of Energy, Idaho National Laboratory and the state of Idaho through its research universities. As part of the research program, CAES and the Innovation Center will bring together the science-based information and funding needed to accelerate the development and the commercialization of innovative technologies for the dairy industry.

"I'm pleased that the Innovation Center and our state resources through the CAES national research partnership are working collaboratively on renewable energy, sustainability and environmental impacts of the national dairy industry," said U.S. Rep. Mike Simpson of Idaho, chairman of the House Appropriations Subcommittee on Interior and the Environment. "The combined effort of private industry with state and federal partners is an example of sound use of public and private resources on behalf of Idaho and the rest of the United States."

The agreement outlines the following key partnership objectives:

- Collect baseline data on nutrient and manure management practices to assist in the identification of best practices for dairy farms;
- Identify opportunities for dairy farms of all sizes to increase renewable energy production through anaerobic digesters, gasification and composting;
- Research best management practices for farm-based renewable energy production on small, medium and large farms;
- Analyze the U.S. utility grid infrastructure, electric rates and renewable energy incentives applicable to dairy farm operations;
- Identify opportunities to increase funding of national research on sustainable dairy practices, manure management, substrates, renewable energy technologies and smart grid applications;
- Facilitate technology-based economic development.

"The collaboration between CAES, the Innovation Center and Dairy Research Institute will pursue the development of research and pilot project funding sources and facilitate technology-based economic development, which is a priority of the U.S. Department of Energy," said Dr. Harold Blackman, director of the Center for Advanced Energy Studies. "Through this industrywide effort, CAES will serve as a model for other U.S. Department of Energy labs in the advancement of sustainability research and transfer of technology to the broader industry."

Mike Roth, an Idaho dairy farmer, president of the Idaho Dairymen's Association and board member of the Dairy Research Institute, said the outcomes of this cross-industry partnership could greatly benefit dairy farms across the country.

"As one of the largest dairy-producing states in the country, we're happy to see a national relationship like this develop in our own backyard," said Roth. "Making the most efficient use of natural resources, such as energy, water and waste byproducts, not only contributes to profitability, it also lessens environmental impact."

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The Center for Advanced Energy Studies (CAES) is a partnership between the Department of Energy through the Idaho National Laboratory and Idaho's public research universities, Boise State University, Idaho State University and the University of Idaho. Through this collaborative structure, CAES combines its partner's capabilities to execute energy research, promote education programs, conduct public policy analysis, and facilitate technology-based economic development. Bioenergy is one of CAES' primary focus areas; each year, CAES commits resources to the study of total biomass solutions such as dairy management technologies that yield both bioenergy and bio-products while mitigating environmental consequences.

Innovation Center for U.S. Dairy™ provides a forum for the dairy industry to work together precompetitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry. The Innovation Center was established in 2008 under the leadership of America's dairy farmers through

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Dairy Research Institute™ is a 501(c)(3) non-profit organization affiliated with the Innovation Center for U.S. Dairy™ and was created to strengthen the dairy industry's access to and investment in the technical research required to drive innovation and demand for dairy products and ingredients, globally. The Institute works with and through industry, academic, government and commercial partners to drive precompetitive research in nutrition, products and sustainability on behalf of the Innovation Center for U.S. Dairy™ and the National Dairy Council®.

See Comments

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Dairy industry sets goal to launch 1,300 anaerobic digesters

By Blair Koch Times-News writer Magicvalley.com | Posted: Thursday, May 12, 2011 1:30 am



On Wednesday, The Innovation Center for U.S. Dairy, the Dairy Research Institute and Idaho's Center for Advanced Energy Studies (CAES) announced plans to have 1,300 anaerobic digesters operating across the country by 2020.

The Center for Advanced Energy Studies, based in Idaho Falls, includes the U.S. Department of Energy, Idaho National Laboratory and Idaho's research universities.

The focus is on increasing the economic viability of dairy farms and rural communities country wide.

"This is really good news, not only for the dairy industry but for the citizens of Idaho as well," said Bob Naerebout, Idaho Dairymen's Association executive director. "Seeing this initiative through will substantially reduce our industry's carbon footprint."

INL Director of Education Programs Melinda Hamilton, also the Bioenergy Initiative Lead Center for Advanced Energy Studies, said bringing together many stakeholders will help address how to convert animal and farm waste into biofuels in a cost effective and efficient manner.

"Bringing more entities together means we'll be able to identify more solutions," Hamilton told the Times-News during a phone interview, adding that more partners and more solutions increases opportunities for funding- both private and public.

"Research has to be done to find viable options," she said.

Idaho currently has several anaerobic digesters at dairies producing electricity for the power grid.

Digesters hold environmental and economic potential but their adoption in the U.S. is challenged by technology application, high-capital outlays, regulatory barriers and limited financing programs.

Many dairymen, especially small producers can't afford the \$1 million (minimum) up-front investment, Hamilton said.

We have to identify opportunities for dairy farms of all sizes and research best management practices," Hamilton said.

In a prepared statement, Jerome dairyman and Idaho Dairymen's Association President Mike Roth said the partnership could greatly benefit dairy farms across the country.

"As one of the largest dairy-producing states in the country, we're happy to see a national relationship like this develop in our own backyard," said Roth. "Making the most efficient use of natural resources, such as energy, water and waste by products, not only contributes to profitability, it also lessens environmental impact."

Blair Koch may be reached at <u>bkoch@magicvalley.com</u> or 735-3295.

DAIRYBUSINESS

Dairy, energy organizations announce research effort

Agreement focuses on the development of sustainability best management practices

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Meeting the Challenge of Sodium Reduction

May 1, 2011

It seems that hardly a week goes by without another food company announcing its commitment to sodium reduction, or another group proposing voluntary targets for food producers. The debate on whether sodium was an issue or not ended last year with the Institute of Medicine's report, "Strategies to Reduce Sodium Intake in the United States."

The message was reinforced in the revised 2010 Dietary Guidelines for Americans with an increased focus on a recommended daily allowance of 2,300 milligrams sodium for most adults and a new, reduced daily allowance of 1,500 milligrams for a significant portion of the population such as children and at-risk adults.

However, this now raises two important questions. Firstly, what's the route forward to achieving an overall 33% reduction in dietary sodium (from the current 3,436 milligrams daily average)? Secondly, in the quest to limit sodium consumption, how do we avoid creating shortfalls in other positive nutrients such as calcium and protein?

Protein, calcium and sodium

Consider this. Dairy products deliver approximately 11% of the sodium in the U.S. diet, with much of that (8%) coming from cheese. Even a simple glass of pure 2% milk contains 130 milligrams of sodium. So if you follow the three-servings-of-dairy-a-day rule, you'll likely consume at least 390 milligrams of sodium, or 17% of your daily guidance. However, dairy products are also very important sources of calcium (21% of dietary calcium comes from cheese), protein and other valuable nutrients. Hitting 2,300 milligrams sodium a day (let alone 1,500 milligrams a day) by relying on reduced consumption and avoidance while avoiding any shortfalls is not going to work for most consumers.

Even minimally processed products such as cheddar cheese or cottage cheese have added salt as part of their traditional make process, which cannot be easily removed or reduced without sacrificing quality. Sodium plays a complex role in cheese and is more than just salt added for taste. In natural cheese, salt is vital for curd formation and curing. Even relatively small reductions in sodium change the environment for the micro-flora, which results in change to taste and texture that goes much further than simply being less salty. In process cheese, sodium salts play a critical role in delivering not just the flavor, but also the creamy melt characteristic.

It is possible to exchange some of the sodium salts with other salts, such as potassium. Yet this creates another set of challenges with unwanted taste changes in the form of increased bitterness. Reductions can be made, but even slight decreases of 10% are not always straightforward and can alienate loyal consumers.

Looking beyond reduction

Despite these challenges, Kraft Foods, Northfield, Ill., has been actively working on sodium reduction for more than two decades and in 2010, we announced further plans to reduce sodium across our U.S. portfolio by an average of 10% by 2012. That's equivalent to 750 million teaspoons of salt. In cheese, for example, we reduced the sodium in Kraft Velveeta by 10% in 2010.

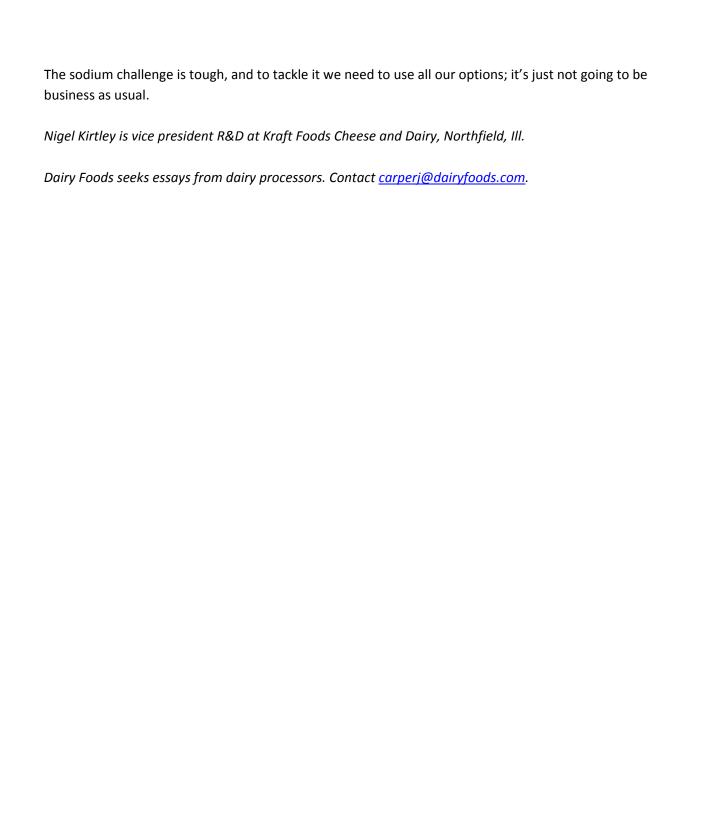
However, to reach the recommended consumption levels, we need to look beyond sodium reduction in existing products. The industry has three other parallel paths: 1) introduce reduced-sodium alternatives to existing products; 2) innovate with new products that offer great taste but are naturally low in sodium; and 3) invest in new technology to better manage how we use sodium in our products.

Within Kraft cheese, we are making progress on offering reduced-sodium versions of products. The challenge is the balance between a meaningful reduction in sodium while still delighting the consumer with taste. As part of this strategy, Kraft Foods now offers reduced sodium (30% lower) versions of both Breakstone's and Knudsen cottage cheeses as well as other cheese varieties, such as Swiss, which are lower sodium.

Innovating with new products that are naturally low in sodium also needs to be part of the solution. It is also the hardest and riskiest strategy, which has to be rooted in a broader business rationale and not just lower sodium. One recent example from Kraft is the launch of Athenos Greek yogurt, which has only 100 milligrams of sodium and 0 grams fat per serving while still delivering great taste and texture with 23 grams of high-quality protein.

In March, the Dairy Innovation Center of Dairy Management Inc., Rosemont, Ill., published a paper on the sodium content of various retail cheeses in the United States. It is a unique and substantial piece of scientific work based on real marketplace data. One of the interesting findings was the relatively wide range in sodium content (as measured analytically) across cheeses. Even within one cheese type, such as cheddar, there was significant variation (470-730 milligrams per 100 grams) and even still within individual brands there was variation. Perhaps that should not be a surprise as cheese is made directly from milk, a natural material, which itself varies.

Many of our manufacturing processes are based on long-established traditional methods with the focus for a cheesemaker on amount of added salt rather than final sodium content, which is more difficult to measure. As an industry, improving our control of sodium has to go in parallel with any steps in reductions.



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The sodium challenge is tough, and to tackle it we need to use all our options; it's just not going to be business as usual.

Nigel Kirtley is vice president R&D at Kraft Foods Cheese and Dairy, Northfield, Ill.

Dairy Foods seeks essays from dairy processors. Contact carperj@dairyfoods.com.

Dairy Herd Network 5/5/11

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Innovation Center presenting findings at IDFA's Symposium

By a Dairy Herd news source | Updated: May 5, 2011

Washington, D.C. – The Innovation Center for U.S. Dairy™ will kick off the IDFA Dairy Sustainability Symposium on Wednesday, May 25, with an update on the U.S. Dairy Sustainability Commitment and progress made on key initiatives to reduce the dairy industry's carbon footprint and build business value.

The Dairy Sustainability Symposium is designed to help members of the dairy industry and related businesses to better understand sustainability and to target ways to decrease carbon footprint and increase efficiency. It will be held May 25-26 at The James Hotel in Chicago.

The Innovation Center's presentation will highlight the industry's scientific research efforts, including life cycle assessments for fluid milk and cheese and how these findings will benefit the entire dairy industry. Speakers from the Innovation Center include Ying Wang, Ph.D., director of research, and Gail Barnes, Ph.D., vice president of technology and packaging. Dr. Barnes will be joined by industry experts who will discuss energy efficiency best practices.

"While sustainable practices have long been a part of our industry, this commitment is producing model programs and processes for the whole industry," said Clay Detlefsen, IDFA vice president of regulatory affairs. "During the symposium, we will be able to examine how far we've come and where we want to go moving forward."

The discussion also will introduce a new sustainability initiative that responds to the growing interest and activity in sustainability reporting and product score carding. Sandra Vijn, director of sustainability metrics and evaluation for the Innovation Center, will present on the trend, as well as the dairy industry's progress in this increasingly important field.

"Sustainability reporting is gaining traction as a method to measure, describe and respond to questions from brands, investors and retailers," Vijn said. "The U.S. dairy industry is working together to develop a framework for consistent measuring and reporting, and to promote supply chain innovations, continuous improvement and increased transparency in line with the U.S. dairy vision and guiding principles."

For more information or to register for the Dairy Sustainability Symposium, visit http://www.idfa.org/events--trade-show/interactive-event-calendar/details/97/.

Source: The International Dairy Foods Association

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New national research program to benefit U.S. dairy farms

By a Dairy Herd news source | Updated: May 11, 2011

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"The collaboration between CAES, the Innovation Center and Dairy Research Institute will pursue the development of research and pilot project funding sources and facilitate technology-based economic development, which is a priority of the U.S. Department of Energy," said Dr. Harold Blackman, director of the Center for Advanced Energy Studies. "Through this industrywide effort, CAES will serve as a model for other U.S. Department of Energy labs in the advancement of sustainability research and transfer of technology to the broader industry."

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Source: Innovation Center for U.S. Dairy

Find this article at:

http://www.dairyherd.com/dairy-news/New-national-research-program-to-benefit-US-dairy-farms-121636349.html?ref=349

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Project to Study Renewable Energy Production on Dairies

By Cindy Zimmerman Posted: May 12, 2011

The dairy industry is working on a new national research project designed to "to advance the science and best management practices of renewable energy, environmental stewardship and life cycle analysis of dairy systems and processes."



The joint project between the <u>Innovation Center for U.S. Dairy</u>™, the Dairy Research Institute™ and Idaho's <u>Center for Advanced Energy Studies (CAES)</u> hopes to develop a national research program focused on enhancing the economic viability of dairy farms and rural communities.



"I'm pleased that the Innovation Center and our state resources through the CAES national research partnership are working collaboratively on renewable energy, sustainability and environmental impacts of the national dairy industry," said U.S. Rep. Mike Simpson of Idaho, chairman of the House Appropriations Subcommittee on Interior and the Environment. "The combined effort of private industry with state and federal partners is an example of sound use of public and private resources on behalf of Idaho and the rest of the United States."

Among the objectives of the partnership are to collect baseline data on nutrient and manure management practices to assist in the identification of best practices for dairy farms; identify opportunities for dairy farms of all sizes to increase renewable energy production through anaerobic digesters, gasification and composting; and analyze the U.S. utility grid infrastructure, electric rates and renewable energy incentives applicable to dairy farm operations.

Source: Innovation Center for U.S. Dairy announcement

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Innovation Center to

present dairy 'sustainability' findings

The Innovation Center for U.S.Dairy will kick off the IDFA Dairy Sustainability Symposium on May 25, with an update on the U.S. Dairy Sustainability Commitment and progress made on key initiatives to reduce the dairy industry's carbon footprint and build business value.

The Dairy Sustainability Symposium is designed to help members of the dairy industry and related businesses to better understand sustainability and to target ways to decrease carbon footprint and increase efficiency. It will be held May 25-26 at The James Hotel in Chicago.

The Innovation Center's presentation will highlight the industry's scientific research efforts, including life cycle assessments for fluid milk and cheese and how these findings will benefit the entire dairy industry. Speakers from the Innovation Center include Ying Wang, Ph.D., director of research, and Gail Barnes, Ph.D., vice president of technology and packaging. Dr. Barnes will be joined by industry experts who will discuss energy efficiency best

"While sustainable practices have long been a part of our industry, this commitment is producing model programs and processes for the whole industry," said Clay Dellefsen, IDFA vice president of regulatory affairs. "During the symposium, we will be able to examine how far we've come and where we want to go moving forward."

The discussion also will introduce a new sustainability initiative that responds to the growing interest and activity in sustainability

reporting and product score carding. Sandra Vijn, director of sustainability metrics and evaluation for the Innovation Center, will

present on the trend, as well as the dairy industry's progress in this increasingly important field.

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"Sustainability reporting is gaining traction as a method to measure, describe and respond to questions from brands, investors and retailers," Vijn said. "The U.S. dairy industry is working together to develop a framework for consistent measuring and reporting, and to promote supply chain innovations, continuous improvement and increased transparency in line with the U.S. dairy vision and guiding principles."

For more information or to register for the Dairy Sustainability Symposium, visit www.idfa.org/events-trade-show/interactive-event-calendar/details/971/(http://www.idfa.org /events--trade-show/interactive-event-calendar/detail s/97/).

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World Dairy Diary 5/12/11

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Source: Innovation Center for U.S. Dairy announcement

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US Dairy Industry To Work With Energy Research Lab On Best Sustainability Practices For Dairy Farms

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The Innovation Center for US Dairy, the Dairy Research Institute, and Idaho's Center for Advanced Energy Studies (CAES) are working to develop a national research program focused on enhancing the economic viability of dairy farms and rural communities.

CAES is a national research partnership representing the US Department of Energy, Idaho National Laboratory and the state of Idaho through its research universities. As part of the research program, CAES and the Innovation Center will bring together the science-based information and funding needed to accelerate the development and commercialization of innovative technologies for the dairy industry.

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"Through this industrywide effort, CAES will serve as a model for other US Department of Energy labs in the advancement of sustainability research and transfer of technology to the broader industry," said Dr. Harold Blackman, director of the Center for Advanced Energy Studies. F



New National Research Program to Benefit U.S. Dairy Farms and Communities

May 11, 2011

Agreement focuses on the development of sustainability best management practices

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Monday, 16 May 2011 04:43

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—From Innovation Center for U.S. Dairy news release



Dairy, energy organizations announce research

Written by Innovation Center for U.S. Dairy

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Hoard's Dairyman 5/18/11

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Blog Entry: Cost-benefit of an Idaho digester Date: Wed, 05/18/2011

While at the sixth annual AgSTAR conference last week, Jerry Bingold had plenty to announce. First, he explained all the initiatives that the Innovation Center for U.S. Dairy was taking part in, and they were plentiful. Beyond their own initiative to map the carbon footprint of the U.S. dairy industry (the only industry to take a full-fledged look at the statistic: http://bit.ly/Hoards GHGReduction (http://bit.ly/Hoards GHGReduction) other companies and industries are now working with the dairy industry to find opportunities to work together to symbiotically benefit from renewable energy.

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While scaling down the technology to the under-500-cow-size farm is taking some time, showing proof of a 3,000-cow digester is a step in the right direction. At the AgSTAR conference last week, the stated goal was to have 1,300 anaerobic digesters operating on farms across the country by 2020. While many presenters mentioned the lofty goal (that's one every other week), most agreed to keep moving towards it.

We're at about 165 on-farm digesters today (and growing), but the landfill industry in the U.S. has over 300 biogas collection units as of 2008 (though their "digester" is inexpensive, as the landfill itself is the digester).

To see a cost breakdown, click here. (/sites/default/files/Digester_numbers.pdf)

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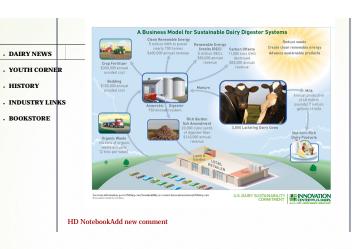
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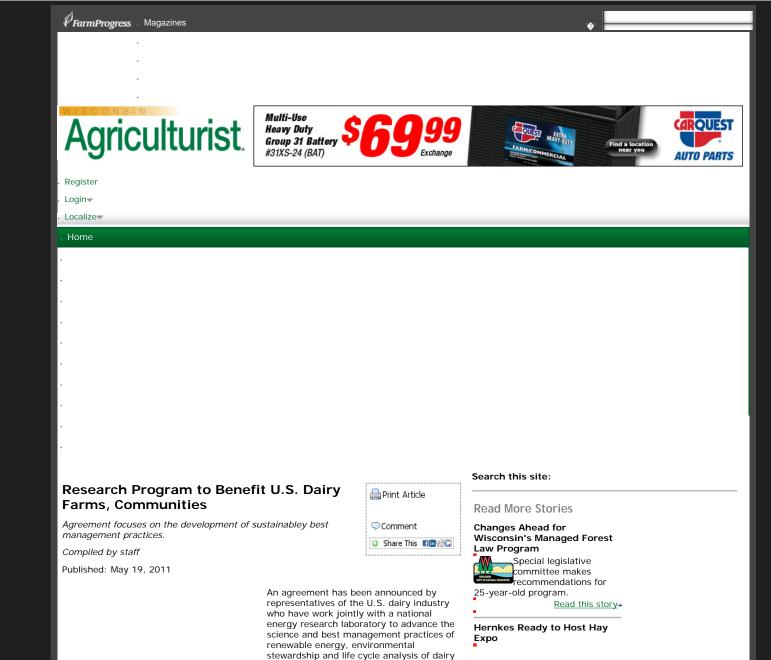


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The Hernke family is looking forward to hosting the first Farm Progress Hay Expo to be held in Minnesota.

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national relationship like this develop in our own backyard," said Roth. "Making the most efficient use of natural resources, such as energy, water and waste byproducts, not only contributes to profitability, it also lessens environmental impact."

Source: Center for Advanced Energy Studies and Innovation Center for U.S. Dairy

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Project renews focus on methane digester adoption

Research to help meet targets for emissions reduction

May 19, 2011

By CAROL RYAN DUMAS

Capital Press

An agreement between the dairy industry and Idaho's Center for Advanced Energy Studies to bring renewable-energy technology to dairies has won praise from Idaho Dairymen's Association.

The objective is to identify opportunities for dairy farms to increase renewable-energy production through anaerobic digesters, gasification and composting.

"It demonstrates, not only for Idaho dairymen but the national industry, how proactive (dairymen) are in looking at the environmental problems they make and how to resolve them," said Bob Naerebout, executive director Idaho Dairymen's Association.

The partnership between the Innovation Center for U.S. Dairy, the Dairy Research Institute and CAES was announced last week in Boise.

The initiative is a step in the U.S. dairy industry's agreement with USDA to reduce greenhouse gases 25 percent by the year 2020, Naerebout said.

When USDA Secretary Tom Vilsack announced in December 2009 an agreement to reduce greenhouse gases, dairymen raised concerns because digesters are too costly for most producers and the technology is still unreliable.

This initiative is to address those hurdles and will focus on how to successfully bring digesters to dairies of all sizes, Naerebout said.

"The Innovation Center's goal is to have 1,300 digesters operating in the U.S. dairy industry by the year 2020," he said.

On research topic is the feasibility of manure from multiple dairies going to a shared digester, he said.

The partnership will identify best management practices for farm-based renewable energy, analyze utility grid infrastructure and incentives and identify opportunities to increase funding of related national research.

The partnership could benefit dairy farms across the country, said Mike Roth, president of the Idaho Dairymen's Association and board member of the Dairy Research Institute.

"As one of the largest dairy-producing states in the country, we're happy to see a national relationship like this develop in our own backyard," he said.

The research might have led to a better outcome at one Idaho dairy. Intrepid Technology had installed a digester on Tony VanderHulst's Wendell dairy a few years ago, but it didn't work out and isn't currently operating.

The digester never created enough gas to capture. Some digesters seem to be working, but the trouble is the technology is still new, VanderHulst said.

He still supports using manure to create renewable energy.

"It'll help the environment and get rid of some of our waste and transfer it into energy," he said.