

- Appealing to the next generation of snackers with innovative, complex flavors.
- Boosting positive nutrition of snacks while cutting negatives.
- Adding value to snacks seen as meal replacements—aka, the fourth meal.

SNACK FOOD Revolution



By Donna Berry
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A recent report from the Center for Science in the Public Interest (CSPI), Washington, D.C.—aka, the food police—indicates that most movie theater popcorn, along with the beverages and candy sold at the snack counter, are nutritional nightmares. “Who expects about 1,500 calories and three days’ worth of heart-stopping fat in a popcorn and soda combo? That’s the saturated fat of a stick of butter and the calories of two sticks of butter,” says Jayne Hurley, senior nutritionist, CSPI.

Unfortunately, many moviegoers consider their admission ticket an escape from reality, where calories don’t count. The rules are different once they return to the real world, where Nutrition Facts labels exploit the contents of a bag of chips or a candy bar.

The truth is, Americans love to snack, and packaged snack goods are in the midst of a makeover, with many product designers revolutionizing the way Americans snack.

Little gastronomical events

Snack time has become the fourth meal for many, and as a result, expectations of what constitutes a snack are changing.

“Over the past decade, more consumers have developed an interest in their health and are trying to live a healthy lifestyle,” says Carlos Rodriguez, marketing manager, Cargill Salt, Minneapolis. “These consumers are looking for snack options that will help them in their goals, but they must not only be healthy for them, they must also taste good. Taste continues to be among the key drivers in consumer purchase decisions.”

This desire stems, in part, from the recession, which has snackers embracing a value mentality that prizes quality and whole ingredients, better-for-you recipes, and green production practices. While low prices are always a draw, consumers are seeking snacks with fewer additives and/or preservatives, and are spending extra dollars for organic and



premium snack treats that can boost their flagging spirits over the long climb back to prosperity.

Overcoming complications

Separating trend from fad is critical before embarking on any snack-food formulating endeavors.

“Trends are long-term influences in the market that are played out over long periods. Fads are momentary blips on a sales graph that represent product news and promotions,” says Tom Rieman, senior business manager, cheese solutions, Kraft Food Ingredients, Memphis, TN. “Trends in salty snacks are centered around better-for-you products, such as baked vs. fried, as well as the elimination of *trans* fatty acids and saturated fatty acids.” The problem is eliminating some of these also eliminates some of the appeal. To help solve the problem, he suggests “unique flavor ingredients to improve the taste profile of better-for-you snacks, such as fried flavor, which imparts the flavor of fried to products that have been baked.”

A range of snack seasoning flavors spice up traditional snack time. “Trends have indicated that the current economy has steered people toward comfort foods, including snacks,” says Leda Strand, director of technology applications and industrial ingredients, Wixon, Inc., St. Francis, WI. She points to new snack-seasoning flavors designed “to be your parents’ idea of comfort food—with a twist.” The seasonings include flavor modifiers, which allow for a reduction in sodium and sugar content. Examples include dill pickle, which delivers the taste of a fresh pickle infused with whole dill weed, vinegar, onion, garlic and pepper; blue cheese and apple, which provides the distinctive bite of blue cheese with tangy apple and rich buttermilk; and refried bean and three-cheese flavor with an added kick of jalapeño and onion, among others.

Sweet heat is showing up on all types of snack foods, and the trend is being reflected in current seasoning offerings. “Our raspberry-chipotle seasoning has an unexpected sweet-and-heat combination of fruit and spice,” Strand adds. “Just the right amount of smoky chipotle pepper note is paired with refreshing raspberry flavor and a hint of lime.”

Another snack-food trend focuses on “clean ingredient lines and simplified formulations, as well as lower sodium levels,” Rieman adds. Traditional flavorings are being modified to address these needs, and “a number of cheese powders are available to meet the varied needs of this market segment,” he says.

As concerns mount about excess sodium consumption, salty snacks are in the direct line of fire. However, an increasing array of effective ingredients for sodium reduction are on the market, notes Rodriguez, “including a system we offer that allows for a 25% to 50% reduction, while still delivering the same salty taste as a full-sodium snack. We also offer a flake salt that has a large surface area and rapidly dissolves in the mouth, creating a burst of flavor when used in topical applications. This means you can use less flake salt to get a great salty taste. The flake salt is created from a process that starts with a hollow pyramid shape. Its tiny, multifaceted crystals have a large surface area and a low bulk density, providing superior adherence, blendability and solubility compared with cube-shaped granular salt. It is suitable for low-sodium applications when used on products such as potato or corn chips, crackers and bread sticks, salted nuts and seeds.”

Layers of flavors

"Another trend is the continued segmentation of the market, including the proliferation of more upscale snacks," says Rieman. "Such higher-quality snacks typically include exotic flavor profiles that call out multiple flavor elements in the name and often note a particular flavor of cooking. For example, it is now possible to put 'roasted red pepper, sun-dried tomato and mozzarella cheese' seasoning on a potato chip."

Chris Kelly, director of technical services, Advanced Food Systems, Somerset, NJ, concurs and notes the introduction of world-cuisine-type flavors to the snack market: "Snack-food formulators are exploring sophisticated flavors. Many are layers of flavors, and often with an ethnic twist. Indian and Asian flavors, such as curry, soy sauce and wasabi, are very popular on rice crackers, which are considered a lower-calorie, lower-fat snack chip. An emerging

snack flavor is kimchi, which is based on a fermented Korean cabbage dish that has a sweet and sour flavor profile with heat from red chile pepper." Bold flavors like these are particularly useful in products lacking flavor due to healthier formulations that limit fat and salt.

"Cooking-style flavors are also popular on salty snacks," Kelly says. He points to "Jamaican jerk, grilled steak and onion, and Cajun Creole topical seasonings for snack chips." Chips with such hearty flavors support the suggestion of snacks as the fourth meal of the day.

Nutritional boosts

Meal-replacing snackers are increasingly craving varied and vibrant flavors from their snacks, as well as punches of protein, fiber and vitamins that yield performance benefits. Snack designers are responding with a range of options that either offer nutrition in themselves, such as protein and fiber in baked vegetable snacks, or that play on the perception of health suggested by the raw ingredients, such as seasoned nori sheets and vegetable chips.

Chia seeds are appearing in a number of new snack foods. "This gluten-free whole grain provides nutrition, flavor and visual appeal to all types of snack foods. They have a pleasant, mild, nutty flavor," says Rodger Jonas, director, national sales, P.L. Thomas & Co., Morristown, NJ. "Our chia powder is approximately 47% fiber, 29% protein and 3% omega-3 fatty acid in the form of alpha-linolenic acid."

Another way to pump-up nutrition is to formulate snack foods with high-quality protein. “The high-quality protein in eggs provides all of the nine essential amino acids the body needs to build and maintain muscle mass. The protein also provides a source of sustained energy and promotes satiety, which prevents one from over-

MARKET SNAPSHOT

Snack Market Bites

According to the “Snack Foods Culinary Trend Mapping Report” from the Center for Culinary Development, San Francisco, and Packaged Facts, Rockville, MD: “Time-crunched Americans are doing more nibbling than ever, and in a serious way. In lieu of more-traditional meals, consumers are turning to snacks as meal stand-ins—oatmeal bars and bottled smoothies in the car for breakfast, a container of yogurt and a handful of nuts at the desk for lunch, and a fast-food snack wrap and soda for dinner. They are also munching on more mini-meals throughout the day to avoid energy crashes. Because snacks are less and less the hunger-soothing bridge between formal meals and more valuable gastronomical events in their own right, consumers want more from their snacks.”



According to Mintel, Chicago, two in three (65%) adults say they're interested in healthier snacks, such as whole-grain or baked varieties, while another 57% say they're interested in healthier alternatives to salty snacks, like pita chips or crackers. Admittedly, however, half of survey respondents confess they think lower-fat and lower-sodium snacks don't taste as good as the originals.

Further, consumer research firm Iconoculture, Minneapolis, reports that consumers today see snacking as an integral part of their lifestyles, and they want snacks that provide health, convenience, enjoyment, indulgence and sustenance.

“Snack producers must do their best to accommodate the changing dynamics and multiple tastes and moods of snack consumers,” says Don Montuori, vice president of publishing, Packaged Facts. “Not only do these producers have to cater to diverse tastes, but the pressure is on to keep prices low, health benefits high and production green; fold in a battle between big brands and private label; add a cultural yearning for simple, real and natural; and factor in the long-term effects of the global financial fallout—and you have a complicated snack market.”

eating during snacking,” says Elisa Maloberti, director of egg product marketing, America Egg Board, Park Ridge, IL. “Egg products can also assist with the binding of other ingredients in snack applications such as bars, crackers and fabricated chips.”

A wide variety of snacks are formulated with whey proteins, too. Traditionally included as part of a topical seasoning for its flavor-enhancement properties, whey also boosts protein levels, and can add highly bioavailable calcium. All whey ingredients add calcium, but at varying levels (for instance, typically 500 to 700 mg calcium per 100 grams with whey protein concentrate and 600 mg per 100 grams with whey protein isolate).

“For baked applications, water absorption is lower for whey ingredients than for flour,” says Sharon Gerdes, senior account manager, Dairy Management Inc.™ (DMI), Rosemont, IL. Water absorption increases as protein denaturation levels increase.

“Whey proteins can also be used in extruded snacks, and typically a lower extrusion temperature is used with whey protein,” Gerdes continues. “Extruded whey crisps, which come in different sizes, shapes and protein levels, can be coated with a cheese or savory seasoning mix, and incorporated into a trail mix or snack mix.”

The health halo around veggies like sweet potatoes and parsnips can also give snacks an instant better-for-you status. “But the last thing consumers want are chips that ‘taste’ healthy,” according to Don Montuori, vice president of publishing, Packaged Facts, Rockville, MD. “Instead, alternative chips offer indulgence fused with a perception of healthfulness.”

Such alternative chips are made from a vegetable other than the potato, and usually a root veggie, such as beets, sweet potatoes and cassava. Crispy vegetable snacks made from green beans, soybeans and chickpeas can be minimally processed and offer maximum nutrition along with crunch and salty, spicy flavors.

Flavoring nuts

Nuts are perceived as a good-for-you snack and recent science backs up that perception. There is an increasing trend toward seasoning nuts with ethnic-inspired flavors. These are divided according to consumers' age range, according to Packaged Facts, Rockville, MD, with consumers under 40 craving nuts flavored with wasabi,


chili, lime and soy sauce, while baby boomers are interested in mellower, herby flavors. All ages are interested in the promise of added performance benefits, such as increased energy and stamina.

Because some consumers crave the crunch and flavor of nuts, but severe allergies prevent consumption, formulators can design nut analogues using allergen-free nut flavors. "Our nut flavors have been made with natural ingredients and contain none of the allergens found in nuts. This means snack-food manufacturers can produce nut-flavored products to meet consumer preferences without the danger of provoking allergic reactions," says Greg Bach, director of business development, Synergy Flavors, Wauconda, IL. "They also avoid the introduction of allergens into production lines so nut-free claims can be made confidently."

Effectively adhering seasonings to nut-type snacks is key to their success. "Film-forming starches provide excellent adhesive properties, functioning as strong binders for topical seasonings applied to nut-style snacks," says Mike Kramer,

laboratory supervisor, Grain Processing Corporation, Muscatine, IA. "Maltodextrins are also often incorporated into the dry seasoning mix, as maltodextrins improve adhesion of particulates and help provide film formation for uniform coatings."

Another emerging snack food with a health-conscious twist is high-end popcorn in sophisticated flavors such as black truffle, curry or Parmesan cheese.

With such a wide range of options available, snack-food formulators can continue to explore innovative flavors and nutritional ingredients to keep consumers interested in the fourth meal of the day. 

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