

by Karen Nachay

Feast on Formulation Inspiration

Looking for some formulation inspiration? It will be available in abundance at the 2013 IFT Annual Meeting & Food Expo®. Many of the hundreds of ingredient suppliers who will be on hand will introduce brand new ingredients. Others will feature their most successful ingredients to help food technologists solve formulation challenges. Several will present technical sessions and poster sessions to explain the latest research and sound science about both current and novel ingredients. This ingredients preview section provides an overview of some of the ingredient innovation that will be on display in Chicago this summer.

The Annual Meeting & Food Expo will offer attendees a chance to learn about texturizing solutions, formulating with whole grains, sweetener solutions, lowering sodium in foods, ingredients for gluten-free applications, global cuisines, improving product performance, and much more. Attendees will get a close-up look at ingredients that can help in formulating foods and beverages that address consumer and product development trends ranging from convenience to clean label. It will also be a chance for products developers to speak one-on-one with ingredient experts about their own formulation challenges.

To illustrate how ingredients behave in formulations, ingredient suppliers will invite attendees to sample prototypes like colorful cereal, rich and creamy Greek yogurt, beverages in a variety of on-trend flavors, crisp crackers, chewy cookies, gluten-free options, granola bars formulated with whole grains, meat accented with flavorful seasoning blends, dairy desserts like ice cream, and so much more. Check out the “Taste the Expo” section of the IFT Annual Meeting & Food Expo mobile app and read the digital show daily, *IFTLive*, each day to learn about some of the ingredient suppliers featuring product concepts available for sampling.

The IFT Food Expo will be a great opportunity to interact with experts, especially those responsible for developing some of the ingredients showcased at the event, learn about the science behind the creation of the ingredients, and see, touch, and taste many ingredients and prototypes formulated with them. Attendees are guaranteed to walk away with new ideas to inspire their food and beverage product development efforts.



Join exhibitors as they present ingredients and food and beverage prototypes representing a broad array of themes. Food Expo attendees will have the opportunity to learn about sustainability efforts, sample a

number of Greek cuisine-inspired prototypes, discover how music inspires flavor chemists, and more.

Finding solutions to development challenges

Ingredion Inc. will feature prototypes and demonstrations to show how it can help food formulators and manufacturers address the most important issues facing the industry. These include cost efficiencies, nutritional enhancement, clean label, sugar and fat reduction, and global food trends. The company will formulate a menu of prototypes made with a wide range of its specialty starches, nutritional ingredients, and nutritive and non-nutritive sweeteners. Its team of culinologists will conduct live demonstrations at the booth throughout the IFT Food Expo. A yogurt bar where attendees will be

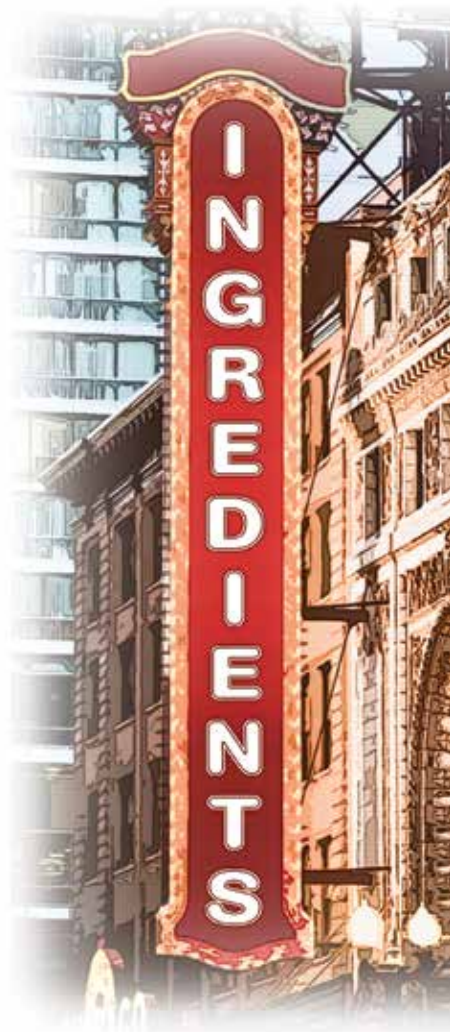


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Photo courtesy of Ingredion Inc.

able to select from a number of toppings will be among the highlights of this year's Ingredion Food Expo exhibit. A selection of beverages and baked goods are on the menu too.

Experts with the company will present at a number of symposia and poster sessions held in the

McCormick Place convention center, discussing topics like leveraging market trends in product development and overcoming challenges in gluten-free product formulating. The following are symposia that Ingredion experts will present.

"Short-chain Fructooligosaccharides (scFOS)—Overview and Technical Benefits for Commercial Applications" (session 105-02, Monday, July 15, 9:05 a.m., room N426) will give an overview of and background information on scFOS, including the technical properties and functionality benefits in commercial applications. "Novel Clean Label Functional Native Starches" (session 052-02, Sunday, July 14, 1:55 p.m., room S402) will explain how novel food starches like functional native starches can help overcome challenges in developing clean label

products. "Formulating Gluten-free Food Products with Texture Comparable to Wheat Flour-based Products" (session 243-02, Tuesday, July 16, 8:55 a.m., room S402) will examine ways to formulate gluten-free foods with specialty flours and native, native functional, and modified starches. "T-REx (Texture Robotic Experimenter)™ Analysis: Using Novel High Throughput Testing Aid in Food Ingredient Design and Selection" (session 053-03, Sunday, July 14, 2:15 p.m., room S403), will discuss how the T-REx™ analysis can be used to improve product development efforts.

The poster sessions, which will take place on Monday, July 15, at 11 a.m. on the expo hall floor, include "Improving Functionality and Quality of Cost-reduced Processed Cheese Products and Imitation Cheese

Formulations" (session 153-09), "Replacement of Gelatin in Yogurt Using Modified and Clean-label Starch Texturizing Systems" (session 153-12), "Evaluation of Consumer Attitudes and Interest in Nutrition Labels and Fiber-containing Foods" (session 144-01), "Innovative Approaches to Cost and Caloric Reduction of Up to 35% in Creamy Salad Dressings and Sauces" (session 163-13), "Creating Clean Label for Bakery Products" (session 163-24), and "Formulating Gluten-free Food Products with Texture Comparable to Wheat Flour-based Products" (session 163-37).

Ingredion Inc., www.ingredion.com/ us, Booth 1629

Order up some inspiration

Grain Processing Corp. invites attendees to visit the company's

booth—what it is calling the GPC's Deli—to "pick up your order for formulation inspiration." A toasted deli sandwich will showcase the company's fiber enhancement solutions. In particular, the sandwich roll, formulated with the fiber ingredients, will illustrate how added fiber does not mean compromising on taste and texture. The sandwich will be served with soups formulated with other Grain Processing specialty ingredients.

Attendees will also have a chance to snack on whole-grain crackers made with *TruBran*® corn bran and quench their thirst with a frozen smoothie drink made with *Maltrin QD*® quick dispersing maltodextrin. Finally, company representative will discuss the range of starches available like *Pure-Cote*® binding/coating starches, *Inscosity*® instant starches,



Pure-Gel® stabilized starches, *Pure-Set*® thin-boiling starches, and *Pure-Dent*® specialty starches. *Grain Processing Corp., www.grainprocessing.com, Booth 2414*

Photo courtesy of
Grain Processing
Corp.

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Holland highlights innovation expertise

The Holland Food Valley pavilion will present a collection of Dutch innovations to help food formulators overcome a number of challenges or inspire them in their product development efforts. Some of the ingredients, technologies, and innovations to be presented include plant-based meat replacers that have a meat- or fish-like bite, a new type of meal that can be stored up to one year without cooling processes, mushroom slices stored in flexible pouch packaging, and self-heating meals. Food industry experts and researchers will also present salt with less sodium based on the One Grain technology, cellulose gums that thicken, stabilize, and control crystallization, moisture retention, and fat uptake, a technique that can prepare food with pulsed electric fields in minutes at low temperatures with minimal effects on taste and nutrients, and more. The Holland Food Valley pavilion is an initiative of Food Valley NL, a support partner for agri-food companies in the Netherlands. *Holland Food Valley, www.foodvalley.nl, Booth 1013*

Cargill to emphasize sustainability, kids' nutrition

Focusing on ingredient solutions for a healthier future, Cargill will highlight the themes of sustainability and childhood nutrition with a variety of prototypes and news on the issues featured at its booth. Attendees will learn more about how the company's ingredient solutions and technical expertise can help to create more sustainable supply chains across the world. They will also be able to sample kid-friendly food and beverage prototypes formulated with less sodium, calories, and fat, and with more whole grains, fiber, and protein. *Cargill, www.cargillfoods.com, Booth 2329*

Flavors focus on Greek cuisine

David Michael & Co.'s booth theme is "Going Greek," and representatives will serve up a number of Greek

cuisine-inspired prototypes, all featuring some of the company's flavorings and other ingredients. Try a chicken slider with tzatziki spread. For something sweeter, two flavors of Greek frozen yogurt and a chocolate truffle with a Greek yogurt-flavored center will be available. These prototypes in particular touch on one of the hottest trends in dairy—Greek yogurt. The company has been operating since 1896 and was first known as a major worldwide supplier of vanilla. Today, David Michael supplies more than 40,000 savory flavors, spray-dried flavors, and fruit flavors. *David Michael & Co. Inc., www.dmfavors.com, Booth 2000*

An aromatic musical interlude

Jean Niel Inc. introduces its newest flavor collection, Aromatic Music Tour. Inspired by major musical themes and their specific geographical regions and cultures, the company's flavorists have developed innovative flavor combinations that will allow product developers to formulate creatively flavored foods and beverages. Jean Niel has created 10 flavors in the collection, two each under five different musical themes.

For baroque, there is *Concerto* flavor, a "breath of tasty notes" as the company says, and *Sonata* flavor, which combines fruit and sweet notes. For jazz, there is *Swing* flavor, a balance of spices and savory notes, and *Blue Note* flavor. For flamenco, the *Alegria* flavor is inspired by Cajun cuisine and the *Sevilla* flavor combines the tang of fruit and spice. For samba, there is *Maracas* flavor, which features tropical sweet and spicy notes, and *Caliente* flavor. Finally, for rock, the company offers its *Remix* flavor and *Pop* flavor. The company invites attendees to visit the booth to experience samples of these while being "rocked sweetly by the Baroque strains of a timeless sonata, energized by the powerful beat of a rock 'n' roll tune, touched by the groove of a haunting blues

refrain, carried away by the tempo of a mesmerizing flamenco, and set on fire by the rhythm of a sunny, seductive samba." *Jean Niel Inc., www.jeannel.com, Booth 4029*



COLORS

What a bland world indeed it would be without color. Learn about some of the newest innovations in naturally derived colorings, what manufacturers and researchers are doing to improve the stability of these colorings, and the latest offerings in FD&C and caramel colorings.

Introducing a new pink coloring

San Joaquin Valley Concentrates offers its new *Rosé Shade* naturally derived coloring that is a blend of fruit and vegetable anthocyanins. The pink shade has the color intensity and hue of purple sweet potato and is said to provide superior color stability. The company is the largest supplier of natural anthocyanin colorings to the food and beverage industry, and it features a wide range of color intensities and shades, from red to purple, in liquid and crystal forms. The colorings are made from fruits and vegetables like Rubired grape, purple carrot, and purple sweet potato. *San Joaquin Valley Concentrates, www.activin.com, Booth 2800*

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Photo courtesy of GNT USA Inc.

A rainbow of colorful prototypes

Attendees who visit D.D. Williamson's Color House will see a visual display of prototypes formulated with a range of colorings. Throughout the day, the company will serve colorful samples of a mochachino drink enhanced with caramelized sugar for natural flavor, fruit yogurt, pumpernickel bagel with hazelnut dairy spread, cereal, lemon and raspberry iced teas, hard cider, salad with French dressing, chicken tenders, beef tacos with caramelized onion and Cheddar cheese, yellow basmati rice, pasta, chocolate cake, pretzels coated with yogurt coating or compound coating, gummie bears, and gumballs all formulated with its colorings.

The company will also focus on some of its newest innovations, including oil dispersible technology to color seasonings, decorative sugars, compound coatings, dairy spreads, and buttercream icing; *Caramelized Onion* powder for natural flavor and incidental color; *Caramelized Apple* for natural flavor and incidental color; *Caramel Color 520*, acid-proof, Class 1 plain; and certified organic annatto extracts, including a powdered version. *D.D. Williamson*, www.ddwcolor.com, Booth 2352

Roha announces rebranding

Roha USA LLC will introduce its new rebranding identification at a press conference on Sunday, July 14, and

the company says that the rebranding and positioning initiative "promises to be more colorful, more vibrant, and more innovative than anything to date." Visit Roha's booth to learn how it will be reinventing its products and services to better serve customers' needs on a global basis. The company is structured to serve the growth of not only natural (exempt) and FD&C food colorings but other food additives as well following the completion of new and expanded production facilities in the United States and India. *Roha USA LLC*, www.roha.com, Booth 3142

Natural color blend powders debut

ColorMaker Inc. will introduce custom natural color blends in powdered form for use in palm kernel oil. The color blends develop a complete range of natural colors in palm kernel oil by quickly dispersing into the oil and permit the end-user to retain control over the palm kernel oil, according to the company. Using the colorings will allow the food formulator to issue a "clean label" for products like baked goods, nutritional bars, candies, and cakes. The company will have samples of products formulated with these colorings at its booth. *ColorMaker Inc.*, www.colormaker.com, Booth 2352

Showcasing functions of caramel colors

Sethness Products Co. offers a range of caramel colorings for food and beverage applications. These ingredients include Class 1 plain caramel color, Class 2 caustic sulfite process caramel color, Class 3 ammonia process caramel color, Class 4 sulfite ammonia process caramel color, Low 4Mel alternatives for Class 4 caramel colors, and organic and non-GMO caramel colors. Its caramelized sugar syrups add color and flavor to products. *Sethness Products Co.*, www.sethness.com, Booth 3055

Study examines natural colors

Dina Dix, a senior scientist in the Food and Beverage Development and

Applications Department at Chr. Hansen Inc., will present information about the company's research on the performance of naturally derived colors in confectionery at a session, "Colors in Confectionery: A Stability Project," on Tuesday, July 16, at 9:35 a.m., room S403. The confectionery stability study, referred to as "C-Stab," is a long-term study that provides real-time stability data for the performance of natural colors in confectionery products when exposed to light over time. *Chr. Hansen*, www.chr-hansen.com, Booth 3838 and Session 242-04

Two colorings promise stability

GNT USA Inc. will highlight two naturally derived colorings from fruits and vegetables. *Exberry® Shade Ruby Sunset—Product #18150* can deliver shades from light pink to dark red, is stable throughout processing, and can be formulated into many applications such as beverages, dairy, fruit preparations, and confectionery. *Exberry Shade Valentine—Product #152512* is purple-red in hue and is well-suited for use in products that are raspberry- or pomegranate-flavored. Like the other coloring, this one is stable throughout processing. All of the *Exberry* colorings are GMO-free, kosher, and organic compliant. The company also offers other naturally derived ingredients like *Nutrifood®* fruit and vegetable concentrates. *GNT USA Inc.*, www.gnt-group.com, Booth 1019

Advancing development of colorings

Sensient Colors LLC, a business unit of Sensient Technologies Corp., has developed an advanced emulsion technology for the development of naturally derived colorings. The technology combines multiple oil- and water-based natural colors to provide a color matrix in a single delivery system that makes new shades of naturally derived colorings possible, according to the company. *Sensient Technologies Corp.*, www.sensient.com, Booth 3229

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Adding color naturally

Tomat-O-Red® naturally derived coloring is produced using a patented process by which lycopene crystals are extracted from ripe tomatoes, micronized, and formulated to provide a number of different shades of red. The ingredient is said to be stable over a wide range of pH values and at high temperatures. It can also be used with ascorbic acid. *Lyc-O-Beta*® is produced through the fermentation of *Blakeslea trispora* fungus. The ingredient produces shades from light yellow to deep orange in a number of food and beverage products. *LycoRed Corp.*, www.lycored.com, Booth 3167

coatings, cookies and bars, snacks, and more. Meet with experts from the company, including food safety and R&D specialists. The prototypes will feature many of the company's trend-setting ingredients.

Ultragrain is an all-natural, 100% whole-wheat flour with the taste, texture, and appearance of white flour. *Ultragrain High Performance* delivers the benefits of *Ultragrain* with gluten strength and water absorption, which helps to lower costs by reducing the amount of additional vital wheat gluten needed, reports the company. *Ultragrain Pasta Plus* is a new protein-enriched line of whole-grain-rich pasta made with 51% *Ultragrain* whole-wheat flour that qualifies as an excellent source of fiber and a good source of protein. *Ultragrain Pasta*® provides whole-grain nutrition and a mild flavor, light color, speck-free appearance, and al dente bite—the same benefits as refined-flour pasta. *Ultragrain Pasta* is now whole-grain-rich, which makes it suitable for school foodservice applications. *Sustagrain*® is an all-natural, ultra-high fiber whole grain with three times the soluble and total fiber of oats. *SafeGuard™ Ready-To-Eat Flour* is the first and only line of fully functional RTE flour on the market with up to a 5-log pathogen reduction, according to ConAgra.

Specialty grains and custom products are also available. *ConAgra Mills Ancient Grains* include amaranth, millet, quinoa, sorghum, teff, buckwheat, spelt, and rye and deliver whole-grain nutrition with unique flavors and textures. The grains are also available in gluten-free and custom blends, including *ConAgra Mills Gluten-Free All-Purpose Multigrain Flour Blend* (51% whole multigrain). Finally, ConAgra Mills creates custom multigrain blends to product developers' specifications using its whole-grain portfolio as a base, helping to meet the changing health and taste needs of consumers. *ConAgra Mills*, www.conagramills.com, Booth 1033

Rice fiber for gluten-free products

SunOpta recently commercialized a fiber ingredient that adds functionality and fiber without contributing an allergen to the ingredient statement. The ingredient, *SunOpta Rice Fiber 310*, is a highly concentrated fiber ingredient with more than 91% total dietary fiber derived from long-grain rice hulls, making it a gluten-free alternative to other insoluble fibers on the market, says that company. SunOpta has developed and commercialized a proprietary process that significantly reduces ash levels to result in a fiber ingredient with moderate water absorption, smooth texture, and extremely bland flavor.

The high-fiber and gluten-free nature of the ingredient plus its water-holding capability makes it useful in baked goods, baked and extruded snacks, cereals, and nutrition supplements/drink mixes. For example, the ingredient has been used in extruded corn meal snacks (3 g of fiber per 28 g serving), gluten-free waffle mix (8 g of fiber per 85 g serving), and yellow cake (2.5 g of fiber per 50 g serving). The company will offer samples of a "good source" of fiber, gluten-free extruded snack made with *SunOpta Rice Fiber 310* at its booth. The company also offers a range of cereal grains, wheat, corn, rice, barley, and oat ingredients.

At 2 p.m. on July 16, in room S404, SunOpta will present more information about the rice fiber ingredient at a session, "SunOpta Rice Fiber 310: A Novel Concentrated Fiber Product for Gluten-Free Applications." *SunOpta*, www.sunopta.com, and *SunOpta Grains and Food Group*, www.sunopta.com/foods, Booth 1921 and Session 287-03

Go with the grain

Bay State Milling Co. has developed three varieties of multigrain blends. Marketed under the brand names *Flavorful 5 Grain*, *Savory 7 Grain*, and *Nourishing 9 Grain*, the blends each contain a combination of assorted grains in the forms of flours, flakes, cuts, and cracks for adding flavor,



GRAINS

The latest innovations in whole grains, grains for gluten-free applications, and more will be featured at the Food Expo. Various prototypes will spotlight the different flavors and textures of the grains, their functionalities, and how they can add nutrition to food and beverage products.

Grain options abound

Visit ConAgra Mills to taste the possibilities of the company's portfolio of ingredients in applications like breakfast foods, pizza, pasta, children's menu selections, breadings and

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texture, visual appeal, and nutrient density to a variety of grain-based foods. Each blend was created and assessed at the Rothwell GrainEssentials Center in Quincy, Mass., and was successfully tested in a range of baked goods to ensure the best performance, both internally and topically. The grain blends are available to food manufacturers, commercial bakers, foodservice operators, and bakery distributors in pallets of 50-pound bags. *Bay State Milling*, www.baystatemilling.com, Booth 1177

Grain ingredients for distillers

Stop by MGP Ingredients' booth to learn more about its newest offerings for distillers. These include six mash bills for the production of rye, malt, and wheat whiskey and bourbon. Two of the new mash bills are rye whiskeys. One is made with 51% rye and 49% barley malt and the other made with 51% rye, 45% corn, and 4% barley malt. The company says that both of these will provide a deeper flavor than traditional rye whiskey. The other two mash bills for the production of rye, malt, and wheat whiskeys are a 95% wheat whiskey and a 100% barley malt whiskey. There are also two mash bills for the production of bourbon.

Photo courtesy of SunOpta



MGP Ingredients, www.mgpingredients.com, Booth 4543

Showcasing rice's versatility

Learn about how rice and rice products can be included in formulations for a wide range of food products. One of the highlighted rice ingredients is parboiled milled rice. It is made from rough rice that has been soaked in hot water, steamed under pressure, and dried before milling, which gives it a more separate appearance and firmer texture after cooking. In addition to instant rice products that are quick rehydrating and cook in 5 minutes or less, the company also offers various forms of crisp rice made from whole-grain medium rice. Its crisp rice product line includes *Crisp Rice*, *Tiny Crispies*, *Malt Free Tiny Cereal Crisp Rice*, and *Whole Grain Cereal Crisp Rice*.

Riviana Foods Inc., www.rivianaindustrial.com, Booth 710

Going gluten-free with oats

Market research firms continue to point to the popularity of gluten-free food and beverage products. To help product developers formulate these products, Grain Millers Inc. will highlight its full line of gluten-free oat flakes, whole flours, oat bran, and steel cut and whole oats. For those who are not formulating gluten-free products, ask about the company's lines of wheat, barley, rye, triticale, corn, and flax. *Grain Millers Inc., www.grainmillers.com, Booth 1547*

Using grains to add texture

Coated grains and clusters provide flavor and texture to differentiate products. Choose from oats, wheat, barley, toasted coated grains, and clusters to add whole grains and fiber to products as well as optimize consumer appeal. There are also more than 150 shapes of pasta and versions like *Whole Lot Better*™ enriched whole-grain pasta and *VeggieServe*™ pasta with nutrients equivalent to a ½ cup serving of vegetables and 28 g of whole grains. *Viterra, www.viterra.com, Booth 2942*



FLAVORS

Come learn about the latest flavor trends and see how exhibitors illustrate these trends in their prototypes and new ingredient developments.

The flavors of Puerto Rico

Stop by the Innova®/A Griffith Laboratories Co. booth for some traditional Puerto Rican food featuring flavorings from the company's new line. The flavorings in the line capture the flavor of some of the beloved Puerto Rican home-style family recipes that attendees will have a chance to sample: carne guisada (beef stew), caldo de pollo (chicken soup), and arroz con gandules (rice with pigeon peas). The company designed the new flavors to offer an authentic experience to those food technologists looking for the next one-of-a-kind flavor idea, line extension, or new product. *Innova/A Griffith Laboratories Co., www.innovaflavors.com, Booth 3236*

Savor the flavor of coffee and tea

Virginia Dare invites attendees to "Come Visit with Us" at its booth where it will introduce several products made with its new coffee concentrates. Several roasts and popular flavors will be available for tasting. The company will also

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feature many of its other flavors in a variety of beverages like iced rooibos tea with a hint of ginger, a vanilla-flavored beverage, ready-to-drink iced tea made with *Natural Tea Concentrate*, and an alcohol-free brut chardonnay peach tea ready-to-drink beverage. Virginia Dare will also be giving out samples of its *Pure Bourbon Vanilla*. *Virginia Dare*, www.virginiadare.com, **Booth 1024**

A focus on savory

Scientists and representatives from Flavorchem will be on hand to discuss the latest trends in savory flavors and how these can be applied to product development projects. These flavors are used in products like snacks, sauces and marinades, seasonings, meat and poultry, soups, and prepared foods. In addition to this information, attendees can speak with the Flavorchem team to learn how the scientists can deliver results by tailoring ingredient solutions to unique products and expectations. The company, which was founded in 1971, not only provides flavorings for use in bakery, dairy, savory, and beverage applications, but it also offers artificial and naturally derived colorings, masking agents, and botanical extracts like coffee, cocoa, vanilla, and tea. *Flavorchem*, www.flavorchem.com, **Booth 1991**

Trending toward flavor advances

Looking to experience what is new in flavor trends? Stop by the Gold Coast Ingredients Inc. booth for a sampling of products that showcase the company's flavor development capabilities. The company offers an extensive line of sweet and savory flavors in natural and artificial versions to help product developers formulate products with flavors that touch on today's top food and beverage trends. *Gold Coast Ingredients Inc.*, www.goldcoastinc.com, **Booth 1665**

Extracts add flavor, not heat

Blue Marble Biomaterials will

highlight some new extracts from its supercritical extract line. These include *Grains of Paradise Supercritical Extract*, *Nigella Sativa Supercritical Extract*, *Pink Peppercorn Supercritical Extract*, *Szechuan Peppercorn Supercritical Extract*, *Habanero Pepper Supercritical Extract*, *Cayenne Pepper Supercritical Extract*, and *Ghost Pepper Supercritical Extract*. The company made some adjustments to its extract-producing process so as not to extract the heat compound capsaicin from the peppers. The process isolates the flavor and aroma molecules of the peppers and brings them to the forefront of the flavor. This means that the complex flavors of these peppers is what stands out, not the overpowering heat sensations. *Blue Marble Biomaterials*, www.blue-marblebio.com, **Booth 4541**

Maverick to make its debut

Maverick Innovations LLC, a company specializing in natural ingredients and flavors, will officially launch at IFT. This sister company of Omega Ingredients specializes in creating an extensive range of flavors and ingredients. The company's expertise can help to solve technical challenges and create trendsetting food and beverage formulations. Company experts, information, and samples will be on hand for attendees. *Maverick Innovations LLC*, www.maverick-innovations.com, **Booth 2938**

Botanicals, extracts add dimension

Teawolf provides all-natural, premium botanicals, extracts, and distillates, including exotic signature teas, vanilla, and cocoa. The company focuses on advanced technology and new innovations to provide its food and beverage customers unique, high-quality ingredients. Teawolf recently doubled the size of its state-of-the-art manufacturing facility in New Jersey, and it plans additional expansion this year. *Teawolf*, www.teawolf.com, **Booth 3835**

Solutions for taste challenges

NTC Natural Taste Consulting will showcase a number of its ingredients designed to help improve the overall flavors of finished food and beverage products. Its *Natural Polyphenol Bitter Blocker* is a plant-derived extract that functions to reduce bitterness and astringency in foods and beverages like dark chocolate and coffee. It is GMO-free and stable during pasteurization/UHT. The vegetable-derived *Natural Salt Enhancer* can replace up to 30% salt, masks the metallic notes of potassium chloride, and has no added yeast, HVP, MSG, potassium chloride, or ribotides, reports the company.

The company also offers *Natural Stevia Improver*, a plant-derived ingredient that is said to reduce the licorice flavor profile of reb A. To develop *Natural Onion & Garlic Replacer*, the company reports that it identified plant-derived byproducts that contained the precursors converted to the key aroma compounds of garlic and onion using a proprietary fermentation process. *NTC Natural Taste Consulting*, www.ntcflavors.com, **Booth 1217**

Creating new taste sensations

Representatives from French's Flavor Ingredients will work from a kitchen set up at the booth to serve a variety of samples featuring innovative flavor combinations. Chef Trip and his culinary team will showcase *Frank's® RedHot®* Dryingredients in compound butters, breading, and batters. They will also use *French's® French Fried Onions* with bread inclusions and breading to illustrate exciting new flavor and taste sensations. Attendees are encouraged to stop by the booth to view culinary demonstrations and try some of the chef's creations. There is also an

Photo courtesy of Virginia Dare



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Photo courtesy of French's Flavor Ingredients

opportunity to learn about the company's other ingredients like French's prepared and dry mustards, Worcestershire sauce, Rochester sauce, and fried onions/potato sticks, *Cattlemen's*® barbecue sauces, and *Frank's RedHot* sauces. *French's Flavor Ingredients*, www.frenchsflavoringredients.com, Booth 3722

Szechuan pepper moves beyond Asian cuisine

Szechuan pepper extracts have a unique citrus and herbal aroma and flavor that is distinctively different from black, white, or chili peppers. Kalsec has captured these in its *Szechuan Pepper Extract*, the latest addition to its portfolio of pepper extracts. The active ingredient in Szechuan pepper, sanshool, gives a tingling, numbing sensation in the mouth. Szechuan peppers are traditionally used in Asian cuisines, but as more consumers become accepting of different flavors and ingredients, the pepper is finding use in other cuisines. *Kalsec Inc.*, www.kalsec.com, Booth 1678

Cool, flavorful treats await

Cool, creamy treats await attendees at the Synergy Flavors Inc. booth. There, the company will feature its

red Thai curry flavor, basil flavor and essence, and caramel flavor in ice cream applications. *Synergy Flavors Inc.*, www.synergytaste.com, Booth 1614

Ingredients add meaty flavors

Taste samples of a number of different dehydrated ingredients and liquid broths and fats to see how they add and enhance savory meaty flavors in foods. As part of its dehydrated ingredients portfolio, International Dehydrated Foods offers spray-dried broth powders, spray-dried fat powders, and spray-dried meat powders. They can be used in a range of applications from soups and sauces to noodles and pancake mix. Its line of liquid broths and fats includes frozen concentrated chicken broth, shelf-stable concentrated chicken broth, and shelf-stable chicken fat. They are particularly useful in adding flavor to soups, broths, and sauces. *International Dehydrated Foods Inc.*, www.idf.com, Booth 2110

On trend with the flavors of Peru

Come taste the flavors of Peru, one of the hottest emerging cuisines in the culinary world. Attendees can choose from *Peruvian Cheese Fries*, *Tres Leches Cupcakes*, *Kola Champagne*, and *Chicha Morada*. After sampling some of these treats, ask about the flavors used in each prototype and how they can be formulated in a number of other applications. Experts will also discuss the company's other ingredient capabilities like botanicals, flavor enhancers and masking agents, essential oils, and salt replacers. *Bell Flavors & Fragrances Inc.*, www.bellff.com, Booth 2360

Offering expertise in flavorings

A range of beverages and sweet and savory treats that illustrate the various flavors, naturally derived colors, and healthy ingredients offered by WILD Flavors Inc. will be showcased in the company's booth, where its new technologies and capabilities will also be in the spotlight. The company will give particular attention to its

expertise in mint, extracts, and juices. For example, WILD has an extensive portfolio of mint flavors in imaginative flavor combinations like *Tahiti Lime Mint*, *Grapefruit Mint*, *Cucumber Mint*, *Dutch Chocolate Cinnamon Mint*, *Green Tea Mint au Lait*, and *Raspberry Mint* to help product developers formulate foods and beverages that stand out from the rest. Stop by the booth to also learn about WILD's expanded line of taste modification ingredients that now includes *WILD Sweetness Enhancer*. This proprietary blend of ingredients can be labeled as "natural flavor," and it is said to add sweetness perception and reduce sugar and calorie contents. *WILD Flavors Inc.*, www.wildflavors.com, Booth 900

Hop distillate can improve beer flavor

Treant recently introduced a new distillate, *Cascade Hop Treantatome*® 9305. The distillate gives beer a strong aroma and flavor of hops, which, according to the company, can be lost during the brewing process. This clear, water-based liquid is an unmodified hop essence that is distilled from *Humulus lupulus*. It reportedly does not leave a bitter taste to the beer because it is free from alpha-acids and beta-acids. It is incorporated at usage levels of 100–300 ppm at the end of fermentation. Come and experience samples of Treant's other distillates in its *Treantatome* line. *Treant*, www.treant.com, Booth 1934

Coffee, tea extracts add rich flavor

Coffee and tea extracts are a way to add on-trend flavors to a variety of food and beverage products. S&D Coffee & Tea Food Innovation & Ingredients produces customized liquid coffee flavor extracts and concentrates from more than 70 bean varieties. It offers cold brew coffee extracts, hot brew coffee extracts, coffee flavor bases, coffee varieties, coffee concentrates, and flavor syrups. The company produces tea extracts from 50 different leaf varieties from varying origins. There

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are tea extracts from black tea, green tea, white tea, rooibos, and chai tea, as well as tea flavor systems. *S&D Coffee & Tea Food Innovation & Ingredients*, www.sdextracts.com, Booth 2910

Prototypes highlight array of flavors

A wide range of flavors for beverage, bakery, ice cream, marinade, and sauce applications is available from Carmi Flavor & Fragrance Co. Since 1979, the company has been a supplier of flavors to the entire food industry. Attendees will get the chance to sample the flavors in a variety of different prototypes. *Carmi Flavor & Fragrance Co.*, www.carmi-flavors.com, Booth 1037

Sauce shows its flavor potential

The maker of the iconic *Tabasco® Brand Original Red Sauce*, Tabasco Brands/McIlhenny Co., will serve up prototypes made not only with its famous hot sauce, but with a number of other sauces and dry blends. Attendees will learn that the *Tabasco* brand products provide more than just heat; they impart a unique flavor that has been enjoyed for more than a century. The prototypes will showcase the versatility of the company's sauces and dry blends and illustrate how product developers can add flavor and heat in unexpected applications. *Tabasco Brands/McIlhenny Co.*, www.tabascoingredients.com, Booth 2311

used in both sweet and savory foods and beverages. Here is a sampling of exhibitors offering enough chocolate and cocoa ingredients to satisfy anyone's sweet tooth or add new dimensions to products.

Chocolate ingredients join lineup

Global Organics Ltd. recently announced the addition of organic semi-sweet chocolate chips, chunks, and couvertures made without soy lecithin to its line of *Agostoni®* organic chocolates. Agostoni is a modern artisan producer of premium organic and all-natural chocolates operating in Italy since 1946. These chocolates made without a soy-based emulsifier are available to product developers looking to remove soy allergens from their products. The company has added Italian gianduia chocolate to its line. This ingredient is a blend of roasted hazelnut paste and dark chocolate.

Other chocolate ingredients that the company offers are dark chocolate (47.5%, 60%, and 70%), milk chocolate, white chocolate, and chocolate chips (1K, 2K, 4K, and 8K), chocolate chunks (dark and white), low-melt chocolate-flavored chunks, cocoa butter, cocoa liquor, cocoa powder, natural, and cocoa powder, Dutch. Chocolate is not the only ingredient that Global Organics offers. It has lines of various coconut and coffee ingredients, dried fruits, nuts, flavorings, colorings, fruit juices and concentrates, oils and shortenings, and sweeteners. *Global Organics Ltd.*, www.global-organics.com, Booth 3343

Enjoying specialty chocolate

Barry Callebaut is world renowned for its chocolate and chocolate ingredients. These include a range of standard and specialty ingredients like chocolates, fillings, decorations, compounds, cocoa- and nut-based products, single-origin chocolate, organic fair trade cocoa and chocolate, cocoa nibs, and colored and flavored chocolates. For artisans and chefs, Barry Callebaut offers



chocolate ingredients under a number of different brands. *Barry Callebaut*, www.barry-callebaut.com, Booth 3786

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Company emphasizes sustainability

Founded in 1939, Blommer Chocolate Co. manufactures chocolate, cocoa powder, specialty coatings, signature and organic lines of chocolate, and high-end alkalized cocoas. Stop by the booth for samples of some of the company's chocolate ingredients as well as to learn about its global sustainability efforts, for which it has received recognition from the Rainforest Alliance and other organizations. The company is also proud to say that it is the largest cocoa bean processor and chocolate manufacturer in North America. *Blommer Chocolate Co.*, www.blommer.com, Booth 859

Reduce costs with smaller blocks

To help processors minimize costs and save time on cleaning, Cocoa Family offers one-, two-, and four-pound cocoa liquor bars for wholesale and bulk purchase. These cocoa liquor bars are for manufacturers who use large-sized bars (55 pounds, for example). The company says that using the smaller bars means that manufacturers will not have to break down the large blocks into smaller pieces to move more easily through processing equipment, which saves time from cleaning equipment. *Cocoa Family*, www.cocoafamily.com, Booth 3959



CHOCOLATE

CHOCOLATE

Chocolate is one of those foods loved the world over. As an ingredient, it is

Feast on Formulation Inspiration continued...



LIPIDS

Developments in plant breeding and biotechnology have led to an array of next-generation oils that help reduce trans and saturated fat levels, add omega-3 fatty acids to foods and beverages, and give food manufacturers and foodservice operators a cost advantage. Other exhibitors at the IFT Food Expo are focusing on oils from a variety of sources, and some are calling attention to their palm oil sustainability efforts.

De-bittered flax oil joins lineup

One of the newest additions to Heartland Flax's line of oils is de-bittered flax oil. This oil is identity preserved and has a maximum shelf-life stability of more than one year. The company produces it using a custom de-bittering microfiltration process on custom-designed oil presses, tanks, and piping. It is what is known in the edible oil production industry as real cold pressed. Other flax ingredients produced by Heartland Flax are real cold milled

flax seed, whole flax seed, custom roasted flax seed, flax seed oil (full flavor and de-bittered), and flax lignans. The company reports that all of its flax seed is non-GMO and is tested for GMOs using PCR quantitative analysis. *Heartland Flax, www.heartlandflax.com, Booth 3241*

Oil offers functionality benefits

Dow AgroSciences will discuss how its *Omega-9 Oils* offer a number of functional advantages to food processors. The oils' fatty acid profiles of greater than 70% oleic acid and less than 3% linolenic acid help the oils to have a longer fry life (up to 50% longer) with less oil buildup on frying equipment, according to the company. This means that processors could save money on ingredient, labor, and cleanup costs. The oil is versatile, too, and can be used for frying, par-frying, and spraying and in salad dressings and reduced-saturated fat shortenings, margarines, and spreads.

The company also emphasizes that the oils are stable and reduce the need for antioxidants and stability additives. The oils have zero grams of *trans* fat, low saturated fat, and high monounsaturated fat. Dow AgroSciences will promote its new health-related campaign, Good Fats 101, at the booth to educate about the importance of fats, what makes a "good" fat, and the differences of omega-3, 6, and 9 fatty acids. *Dow AgroSciences, www.omega-9oils.com, Booth 3516*

Oils to improve bakery products

Richardson Oilseed offers two ingredients to help improve bakery applications. *Bake-It Soft White NH* is a soft, white baking margarine for general baking applications. It is non-hydrogenated, salted, and preservative-free. Because it has a smooth formulation, it can be easily mixed into product. What's more, it is a lower-cost alternative to butter. *Shorten-It Puff NH* is a roll-in shortening for puff pastry and laminated dough applications. This

non-hydrogenated ingredient has 20% less saturated fat than high palm content shortenings, reports the company. *Richardson Oilseed Ltd., www.richardson.ca, Booth 3351*

Palm oils receive certification

Ciranda announces that the organic palm oils it has offered since 1995 have been granted RSPO certification. The palm oils are also certified EcoSocial by IBD, showing the company's commitment to sustainability, environmental conservation, and fair trade principles for its employees. Learn more about the *trans*-fat-free, non-hydrogenated oil that helps to promote an extended shelf life and high yields and meet representatives from Agropalma, the Brazilian palm oil producer, at the booth. Ciranda will also introduce an organic pre-gel potato starch, which, according to the company, yields better texture and has higher water absorption, neutral taste, good binding strength, and minimal foaming. *Ciranda, www.ciranda.com, Booth 3691*

Portfolio of soybean oils available

CHS Inc. supplies refined edible soybean oils to the commercial foods marketplace for use in salad dressings, margarine and shortenings, mayonnaise, whipped toppings and confections, cooking oils and sprays, sauces, soups, nondairy creamers, frozen and prepared foods, bread, crackers, and snack foods. The company also supplies refined vegetable oils, soy and wheat flours, textured soy protein, specialty soy protein ingredients and isoflavones, sunflower seeds, grains, and processed nut ingredients. *CHS Inc., www.chsinc.com, Booth 3832*

USB focuses on soybean oils

Speak with experts at the United Soybean Board's Soy Connection Booth to learn about commodity and next-generation soybean oils and soy protein. Attendees will have a chance to sample products made with high-oleic soybean oils. The United Soybean Board is also

Photo courtesy of Dow AgroSciences



Feast on Formulation Inspiration continued...

sponsoring two sessions: "Build Consumer Confidence in Food Technology" on Monday, July 15, at 12 p.m., and "GMOs and the Food Industry: A Global Perspective," on Tuesday, July 16, at 8:30 a.m. The United Soybean Board is made up of 69 farmer-directors who oversee the investments of the soybean checkoff on behalf of all U.S. soybean farmers. *United Soybean Board, www.soyconnection.com, Booth 1904*

Bakery prototypes show oil functionalities

To satisfy a sweet tooth and showcase how various types of oils and shortenings function, Bunge North America will present a number of different baked goods. The company has particular expertise in oils, shortenings, saturate sparing technology, margarine, EIE, interesterified soybean oil, high-oleic canola, high-oleic soy, palm oil, and emulsified shortenings. In addition to these oil-processing capabilities, Bunge also mills corn to create grits, meal, and flour for snack food, cereal, and pet food manufacturers. *Bunge North America, www.bungenorthamerica.com, Booth 1523*

Peanut oil, extract to be highlighted

An aromatic roasted peanut oil made from roasted peanuts will be featured. This light amber-colored oil is also available with antioxidants TBHQ and BHA/BHT to extend shelf life. Its high smoke point makes it popular for frying applications. It is *trans*-fat-free and low in saturated fats. Peanut extract is dark amber, high-oleic oil that has the aroma and flavor of roasted peanuts. It functions in compounded peanut flavors, peanut flavor enhancers, reactionary peanut flavors, and sauces and dressings. *Golden Peanut Co., www.goldenpeanut.com, Booth 3036*

Solutions to product development challenges

Depending on the application and the overall nutrition of the finished product, there is a range of lipid



Photo courtesy of Ciranda

ingredients in the *SansTrans* line to solve any challenge. These no *trans* fat and non-hydrogenated fats are for use in bakery and snack food applications, and each has a specific function like aerating, creaming, extending fry life, crystallizing, and stabilizing. For baked goods there are bakery fats and oils, structuring fats, cake shortenings, and pastry fats, and for snack foods there are snack food fats and oils, frying fats and oils, structuring fats, pastry fats, and high-stability oils.

Representatives from IOI Loders Croklaan Americas will also discuss the company's line of fats and oils, including coating fats, filling fats, and peanut butter stabilizers, for the confectionery industry. Palm oil is the main oil used by the company, and some in the industry are working to develop sustainable sources. Loders Croklaan offers several ingredients that are certified sustainable, including some in the *SansTrans* line of ingredients. Ask about them at the booth. *IOI Loders Croklaan Americas, <http://northamerica.croklaan.com>, Booth 2324*

New oil offerings to be presented

A non-GMO canola oil is produced using a double expeller-pressed process that maintains the nutritional value of the oil. Two oils are offered:

*verraUltra*TM canola oil and *verraUltra9*TM omega-9 canola oil. Both have higher stability than commodity canola oils, 0 g of *trans* fat, and do not add flavor to products, according to the company. The oils are Non-GMO Project Verified from the Non GMO Project. *Viterra Canola Processing, www.viterra.com/canolaoil, Booth 868*

Benefits of high-oleic soybean oil

DuPont Pioneer will feature *Plenish*[®] high-oleic soybean oil in daily cooking demonstrations and samples. The oil is said to have higher heat stability for frying, increased fry life, improved flavor, increased shelf life for manufactured products, decreased equipment maintenance, and blending opportunities. The company reports that the oil has exceptional oxidative stability compared to other natural oils and within the range of hydrogenated oils. It says that test results show that *Plenish* high-oleic soybean oil extends fry life two to three times over conventional soybean oil in industry standard testing. The oil is said to provide the stability necessary for 0 g *trans* fat shortening and produce shortenings with the same functionality but with 15–20% lower saturates than palm-based products.

French fries and fried meats

Feast on Formulation Inspiration continued...

cooked in *Plenish* have preferred flavor, texture, and appearance over the same products cooked in other oils. Most important for manufacturers and foodservice operators is that the oil has reduced polymer build-up on equipment, which means less time and money is spent on cleaning. The oil has 0 g of *trans* fat, less saturated fat, and more than 75% oleic content. *DuPont Pioneer*, www.plenish.com, Booth 3906



DAIRY

Dairy's healthful halo and deliciousness makes it a desirable characterizing ingredient in all types of foods. Formulators can use the "real" thing or nondairy ingredients designed to simulate buttery, cheesy, creamy, and more.

Dairy ingredient developments focus on consumer demands

The U.S. Dairy Export Council (USDEC) will showcase ways that U.S. dairy ingredients can provide innovative solutions to meet the demands of consumers around the world. Experts from USDEC will lend their expertise to help formulators develop products that meet consumer needs as they relate to sodium reduction, simple ingredient labels, weight management, and healthy aging. With an emphasis on

breakfast and snacking, prototypes for ways to include protein throughout the day are *Chilled Yogurt Espresso*, *Vegetable Dumplings*, *Mint Protini Mixer*, and *Soft Pretzels*. Food formulators use permeate, which is naturally derived from milk, to help achieve salty flavor characteristics while replacing salt to reduce sodium levels, as illustrated in the soft pretzels and lower-sodium dumpling sauce. *U.S. Dairy Export Council*, www.innovatewithdairy.com, Booth 1565

Whey-based ingredients for texture, nutrition, and cost savings

The Best Whey ... to (reduce fat, improve texture, reduce costs) is Grande Custom Ingredients' theme. The company combines whey protein products and technical expertise to help manufacturers solve formulation challenges. A portfolio of proprietary whey ingredients can assist with texture improvement, cost and fat reduction, and nutritional enhancement. Ingredient lines include *Grande Bravo*®, *Grande*® *Yogurt Powder*, *Grande Ultra*®, and *Grande WPCrisp*®. *Grande Custom Ingredients Group*, www.grandecig.com, Booth 3117

Clean-label, flavor-intensified Parmesan cheese

DairyFusion™ *PARMPLUS* provides flavor impact and cost-in-use savings

in commercially prepared foods for retail and foodservice markets when used to replace Parmesan cheese in formulations. The ingredient is designed to combat the ever-fluctuating prices of cheese. With *PARMPLUS*, formulators get full cheese flavor at reduced cheese usage rates while maintaining a clean-label declaration. *PARMPLUS* delivers a sharper, more assertive flavor than traditional Parmesan cheese. Sensory evaluations through DairyConcepts' quantitative descriptive analysis panel verified the product's more intense Parmesan and overall total flavor notes compared to standard Parmesan cheese. Because of the increased flavor intensity, *PARMPLUS* works well to lower standard cheese usage up to 25% while matching full-flavored, traditional Parmesan profiles. Applications include Alfredo and other white sauces, red sauces, soups, dressings, dips, pizzas, entrees, and select baked goods. *DairyConcepts L.P.*, www.dairiconcepts.com, Booth 4165

Dairy flavors and acidulants for real dairy taste

DairyChem produces a full line of natural dairy flavors, including pure starter distillates, as well as blended ingredients designed for specific flavor profiles. These might include ingredients such as milk, cream,



Photo courtesy of U.S. Dairy Export Council



Feast on Formulation Inspiration continued...

lactic acid, and food acidulants. The company's portfolio of natural dairy flavors includes butter, cultured dairy, cottage cheese, sour cream, cream, yogurt, and milk. These flavors are available in liquid or dry form. In addition to flavors, DairyChem also offers custom acidulant blends and buffered acidulants, including pH stabilizers, acidifiers, glazing agents, and preservatives. *DairyChem Laboratories Inc., www.dairychem.com, Booth 3700*

Whey proteins appeal to today's consumers' needs

Hilmar Ingredients says to start with whey protein, the ingredient that delivers a sustained source of energy, complete protein for lean muscle, and stability across processing methods. The company will show how its extensive line of whey proteins and other ingredients can be used to create a variety of better-for-you foods, such as a *Chocolate Protein Drink Mix*, a *Protein Energy Shot*, and a *PB & J Crispy Bar*. *Hilmar Ingredients, www.hilmaringredients.com, Booth 1914*

Kosher dairy flavors for reducing fat and sugar

Edlong Dairy Flavors has released two new functional dairy flavors. These flavors are especially useful in the better-for-you category when reducing fat and sugar. *Natural & Artificial Mouthfeel Flavor #1412189* is a spray-dried powder that is water soluble, oil dispersible, and non-dairy kosher pareve certified. It adds desired creamy, fatty, butter, cooked, and rich notes. It is proven to perform in high-heat applications such as bakery, in addition to beverages, sauces, yogurt, cheese, and sour cream analog products. *Natural Potentiator Flavor #1412073* adds a perception of sweetness to reduced-sugar foods and

beverages. Also nondairy and kosher pareve, the flavor has application in beverages, yogurts, and sauces. *Edlong Dairy Flavors, www.edlong.com, Booth 517*

Trans fatty acid-free cheese powders

The *Land O'Lakes®* brand of dairy ingredients encompasses cheese and dairy powders, seasoning blends, performance cheeses, and butter blends. The company's specialty is cheddar-based cheese powder blends developed from premium aged cheddar cheese. Recently reformulated economical cheese powders are now *trans* fatty acid-free and do not have partially hydrogenated on the ingredient statement. The company also offers classic dairy powders such as those based on real buttermilk and sweet whey. The subtle dairy flavors from these powders can be used to leverage other flavors in a food system. For example, buttermilk powder is often used in cream-style soups for its rich mouthfeel. It also contains phospholipids, which help stabilize the soup emulsion. *Land O'Lakes Inc., www.landolakes-ingredients.com, Booth 2004*

Enzyme-modification technology provides vegetarian bacon flavor

Butter Buds® Bacon is made using the same proprietary enzyme modification technology to unlock the potent flavor elements in butter, cream, cheese, and other flavorful fats as other Butter Buds ingredients. *Butter Buds Bacon* provides bacon flavor along with fatty mouthfeel. It is labeled as natural flavor and, since it contains no animal fat, it can be used in vegetarian food products. The ingredient is also kosher certified. It can be used in a wide range of applications, including snack seasoning, processed

Feast on Formulation Inspiration continued...

cheese, salad dressing, and dips. *Butter Buds Bacon* has also been used in a brine solution or meat marinade to add savory notes to poultry and lunch meat. *Butter Buds Food Ingredients*, www.butterbuds.com, Booth 1647

tapioca syrup, cereal bars sweetened with white sorghum syrup, and what the company is calling *Malt-lasses Cookies* sweetened and flavored with a specialty malt extract in place of molasses. *Briess Malt & Ingredients Co.*, www.briess.com, Booth 3334



SWEETENERS

Sugar is one of many different ingredients used to sweeten foods and beverages. Development continues on improving both naturally derived sweeteners and high-intensity sweeteners. Other sweeteners are not only used to add or enhance sweetness but to help improve the overall finished product in a number of ways.

Sweeteners provide functionality

For those looking to formulate products to have "simple labels," Briess Malt & Ingredients Co. will feature three lines of natural sweeteners made in the United States that add only simple, descriptive names to the label. *BriesSweet™* tapioca syrups are enzyme-produced and made from 100% tapioca starch. Depending on their dextrose equivalent, the syrups can provide bulking, binding, sweetness, flavor enhancement, freezing point depression, humectancy, browning reaction, and more.

BriesSweet white sorghum syrups offer a gluten-free solution to help promote browning in cereals, crackers, snack foods, particulates, baked goods, and other products that are formulated to be gluten-free. The ingredient was originally developed for the production of gluten-free beer. *Maltoferm®* malt extracts are made from whole grains and add browning, sweetness, flavor, color, viscosity in beverages, syrups, and sauces, and humectancy.

Try samples of puffed corn sweetened with

Feast on Formulation Inspiration continued...



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Chicory root fiber adds sweetness

Sensus America Inc., a leading manufacturer of chicory root fiber (inulin), will highlight *Frutalose® SF75*, a low-calorie sweetener to help food formulators reduce the amount of added sugar in finished products. The ingredient, a prebiotic, soluble dietary fiber, has a high solubility and is said not to impart any flavors to the finished products such as sweet baked goods, dairy, and cereal bars. *Sensus America Inc.*, www.sensus.us, **Booth 2953**

Discover a range of sweeteners

Domino Specialty Ingredients supplies a variety of sweet ingredients to food and beverage manufacturers. At the booth, attendees can learn about these sweeteners like brown rice syrup, which has a light caramel color, is a natural binding agent and humectant, and enhances a variety of flavors. The company has a line of flavor and texture modifiers

produced using its patented co-crystallized technology to produce sugar-based ingredients that allow product developers to control the sweetness of their finished products. *Domino Specialty Ingredients*, www.dominospecialtyingredients.com, **Booth 2043**

Session details stevia successes

Learn about some of the successful product category launches formulated with stevia at a session, "What Has Worked and What Has Not: Successful Product Categories with Stevia Extracts," on Sunday, July 14, at 11:45 a.m., room S503. John Martin, Global Director of Technical Development and Innovation at PureCircle Ltd., will lead the discussion to provide insights into the technical rationale for why some product categories are more successful than others, ingredients selections, and caloric reduction levels. *PureCircle USA*, www.purecircle.com, **Booth 313 and Session 021-05**

Take your pick of sweeteners

Learn about a range of organic and natural sweeteners that serve a variety of different functions in food and beverage applications. Some of the sweeteners are even gluten-free, non-GMO, or vegan, which will help product developers with formulating those types of products. The offerings include sugar, turbinado sugar, demerara, agave syrup, evaporated cane juice, clarified rice syrup, brown rice syrup, maltodextrin, dextrin, syrup solids, inulin, liquid inulin, inulin powder, tapioca starch, tapioca syrup, molasses, barley malt, and honey. *Suzanne's Specialties Inc.*, www.suzannes-specialties.com, **Booth 3239**

Beverages feature high-intensity sweeteners

Sample beverages made with several sweetener ingredients and learn about Nutrinova's new way to help product developers achieve the sweetness they desire in food and

beverage products. *Sunett®* acesulfame potassium high-intensity sweetener is 200 times sweeter than sugar and is said to solubilize quickly and have excellent blending characteristics. *Sunett SL* is a drop-in solution that improves the sweetness and mouthfeel perception of sugar-free and sugar-reduced food and beverage products, according to Nutrinova, the food ingredients business of Celanese. *Nutrinova*, www.nutrinova.com, **Booth 4342**

Booklet describes stevia ingredients

EPC Natural Products Co. will distribute a booklet with comprehensive information about its *EPCevia™* stevia extracts. *EPCevia Pure* stevia extract can be used in applications with high sugar equivalence value and is less bitter than the stevia extract reb A 97, according to tests conducted by the company. *EPCevia Dual* was designed for use in fruit juices and other juice-flavored beverages. It is a combination of stevia extracts reb A and reb D. Company research shows that the ingredient has a quick onset of sweetness perception. *EPCevia Omega* is said to provide a mouthfeel similar to high fructose corn syrup, which is why the company promotes its use in soft drinks. The company also offers *EPCevia Opti-liquid* and *EPCevia Super-fine Powder*, which is a micronized powdered stevia extract. *EPC Natural Products Co.*, www.epc-naturalproducts.com, **Booth 4106**

Monk fruit shows sweet possibilities

A sweetener made from monk fruit and stevia offers product developers a way to formulate no-sugar-added applications with a naturally derived sweetener. *Lovia®* is a proprietary combination of monk fruit and stevia; inclusion of monk fruit helps to temper the bitterness of the stevia. The company also offers *Go-Luo®* monk fruit sweetener in several concentrations up to 55% mogroside-v. The ingredient is about 250 times sweeter than sugar, reports the company. *Layn USA Inc.*, www.layncorp.com, **Booth 2783**

Feast on Formulation Inspiration continued...



SAVORY

Formulators are often unsure about how to describe savory. When you look at the five human tastes—bitter, salty, sweet, sour, and umami—savory is closest to umami, but also can possess some salty, bitter, and sour, just never sweet. Savory, much like umami, is often described as

piquant, pungent, and meaty—a brown flavor that magically completes or rounds out the taste of a food. Here formulators learn how umami can assist with sodium reduction, as well as assist with the layering of flavors. There are even new salt and sodium replacement systems available for a range of applications.

Mushrooms as salt replacer

Mushroom concentrate serves as a base for soups and sauces. It can also be used as a flavor enhancer for a variety of dishes without imparting a pronounced mushroom flavor. It is a 100% natural ingredient with the potential to replace monosodium glutamate and reduce the use of salt. The concentrate contains 95% of the healthy vitamins and minerals from the original mushroom. By adding as little as 0.06% to a product formulation, salt reductions up to 50% are possible in some applications. Scelta Mushrooms is introducing a mushroom concentrate designed specifically for salt reduction in soups, sauces, and meats, as well as one especially for the bakery industry. *Scelta Mushrooms, www.sceltamushrooms.com, Booth 1316*



Photo courtesy of Scelta Mushrooms

Feast on Formulation Inspiration continued...



Photo courtesy of Tate & Lyle

Salt microspheres enable sodium reduction

SODA-LO™ Salt Microspheres are a salt-reduction ingredient that is said to taste, label, and function like salt. Using a patent-pending, spray-drying technology, the company is able to turn standard salt crystals into free-flowing, hollow salt microspheres. The microsphere structure is facilitated by the all-natural hydrocolloid gum acacia. In most applications, the residual gum acacia level is less than 0.1% and is considered a processing aid. Thus, when *SODA-LO* is used in most applications, it is declared on the ingredient statement as salt or sodium chloride.

Typical salt molecules range from 40 to 800 microns in diameter and are solid. *SODA-LO* ingredients are a consistently smaller in size, and they are hollow. The hollow format efficiently delivers salty taste by

maximizing surface area relative to volume. The molecules also dissolve more rapidly on the tongue, further contributing to that desirable initial impact of salty taste.

SODA-LO works best in low-moisture systems or when a fat or oil phase is used as the delivery vehicle, as it is necessary that these smaller, lower-density crystals are intact when they reach the tongue. It is available in two grades: extra fine and fine. Extra fine has an average particle size of 20 microns and provides the best distribution in a food matrix. Fine is best for topical applications, as the average particle size is 200 microns and it is designed to provide the appearance of salt. *Tate & Lyle*, www.tateandlyle.com, Booth 1640

Savory solutions for sodium reduction

The *Bionis®* and *Bioenhance®* ingredient lines work together to allow for a 25% reduction of sodium in various meat products. The *Bionis* line of yeast extracts provides body, mouthfeel, and umami. It is produced from a specially selected strain of *Saccharomyces cerevisiae*. The *Bioenhance* line of natural flavor enhancers is produced through a bacterial fermentation. The ingredient creates and harmonizes taste, increasing the intensity of salt perception without salt addition. The *Biotaste®* line of taste enhancers provides an additional dimension of flavor through its contribution of roasted flavor notes, at the same time it enhances flavor, body, and mouthfeel. *Biorigin Ingredients Ltd.*, www.biorigin.net, Booth 2307

Salt grades for every application

With 165 years of industry experience, Morton Salt is a well-known salt specialist for the food and beverage industry. The company offers more than 50 grades and mixtures of salt, including *Morton® Sea Salt*, *Star Flake® Dendritic*, and *Top Flake*, as well as sodium alternatives such as *KaliSel Potassium Chloride*. In order for formulators to better understand

the varying taste impact of the different grades of salt, the company will be sampling its many salts in different applications at the Salt Inspiration Station. Experts can assist with recommendations for the best salt grade to achieve finished product specifications. *Morton Salt, Inc.*, www.mortonsalt.com, Booth 2410

Sodium-reduction technology uses spices and herbs

PuraQ® Arome NA4 is a new sodium-reduction technology that enhances taste and increases the impact of spices and herbs. This naturally derived ingredient allows food processors to reduce sodium content by up to 40%, while maintaining product quality and shelf life. The *PuraQ Arome* ingredient line caters to food companies aiming to provide consumers with healthy products that are full of flavor. The variety of products can be optimized for refrigerated meals and meal components, dressings, condiments, and processed meat. Purac markets an array of ingredients that assist with natural preservation, food safety, mineral fortification, and flavor enhancement and masking. *Purac*, www.purac.com, Booth 2121

Sea salt blend for sodium reduction

A&B Ingredients recently introduced *Two Seas Sea Salt*, which is based on a blend of sea salts harvested from both the Dead Sea and the Red Sea. According to the company, *Two Seas Sea Salt* cuts sodium intake in half without sacrificing taste, contains 50% of the sodium found in traditional sea salt, and is an excellent source of potassium. In fact, in many instances, because of its rich mineral properties, *Two Seas Sea Salt* enhances flavor of the food product, the company adds.

The company says that sea salt contains many essential trace minerals that the body requires, which can assist with building a strong immune system. *Two Seas Sea Salt* can replace regular salt at a one-to-one

Feast on Formulation Inspiration continued...

ratio. *A&B Ingredients*, www.abingredients.com, Booth 560

Salt-reduction toolbox includes yeast extracts and natural flavors

DSM Food Specialties' comprehensive salt-reduction toolbox helps manufacturers to deliver home-style tastes with a natural label declaration. These savory ingredients can reduce sodium in a wide range of products by up to 50%. DSM's application specialists will demonstrate how to combine savory building blocks to create flavors in a range of different snacks and ready meals.

The toolbox includes DSM's latest yeast extract innovation, *Multirome® LS*, which has been developed to help food manufacturers reduce the sodium levels without affecting the quality of the finished product.

The *Maxavor® YE All Natural* range of natural flavor ingredients delivers a more authentic flavor profile compared to conventional process flavors for similar cost. In addition, *Maxagusto™* natural flavors are said to deliver authentic taste and flavor, and are up to four times more concentrated than alternatives on the market, which helps to reduce costs. *DSM Food Specialties*, www.dsm.com, Booth 2439

Low-sodium salt for dry applications

FONA International will present ingredient details and application information on the company's new sodium reduction solution *SALiTe™* on Monday, July 15, at 11 a.m., on the expo hall floor. Because regular salt is not readily soluble in saliva due to its high density and large particle size, regular salt often provides low-intensity, spotty salty taste in dry food applications. *SALiTe* delivers a much improved dissolution, providing a satisfying salty taste at a lower sodium usage level.

SALiTe is a powder produced from regular salt and a bulking agent by a novel patent-pending process, which results in low-sodium micron to sub-micron particles. The micro

particles dissolve faster and are perceived faster in dry applications, allowing for reduced use in foods where the salt and spices are applied to the surface. *SALiTe* is a 1:1 replacement for regular salt for topical application on all types of snack foods, including potato and corn chips, popcorn, and French fries. As much as a 50% sodium reduction is possible, depending on the food substrate. *FONA International*, www.fona.com, Booth 1506 and Session 149-08

Single-grain salt for sodium reduction

Suprase® OneGrain® offers a direct, one-to-one replacement for regular salt in all types of applications. The *OneGrain* technology turns salt into a free-flowing, easy-to-handle carrier of flavors, nutrients, or whatever ingredients are required for effective sodium reduction. All of the necessary ingredients are combined into a single homogenous grain, much like a grain of regular salt. Depending on the application, this might be regular salt, potassium chloride and flavor, or sea salt and flavor. It stores like salt, behaves like salt, and is used exactly like salt. It is a single product that blends and dissolves easily. There is no risk it will lump, de-mix, or produce dust, according to the company. *OneGrain* allows for up to a 50% reduction in sodium. *AkzoNobel*, www.akzonobel.com, Booth 1313

Low-sodium soy and teriyaki sauces

Kikkoman, the world's leading soy sauce manufacturer, will highlight its full line of authentic, on-trend Asian sauces and ingredients, plus innovative sodium-reduction and flavor-enhancement solutions. This includes *Kikkoman® Less Sodium Soy Sauce*, which is made from naturally brewed *Kikkoman Soy Sauce* through a process that reduces sodium chloride. Lactic acid is added to adjust the taste due to the reduction of salt, but the final product is refined and pasteurized in the same way as regular soy sauce. It is used similar to regular soy sauce to enhance the

natural flavor of foods.

The company also offers *Kikkoman Less Sodium Teriyaki Sauce*. This product can be used alone or as a foundation in developing a wide variety of other products, when a lower-sodium alternative is desired. The natural amino acid content brings out the flavor in various savory meat, poultry, seafood, and vegetable dishes. Kikkoman also offers liquid, powdered, granulated, clear, gluten-free, and preservative-free soy sauces. *Kikkoman Sales USA*, www.kikkoman.com, Booth 1533

Yeast extracts provide natural savory flavor

Bio Springer offers a broad range of building blocks to create natural savory flavors. The *Springer®* line of yeast extracts includes high-umami yeast extracts, dried yeasts, autolyzed yeasts, and process flavors with unique poultry, roasted meat, and cheese notes. A glutathione-rich yeast extract provides the taste of kokumi, while a nucleotide yeast extract delivers umami. These clean-label extracts allow for sodium reduction in a range of products, including soups, frozen entrees, sauces, spices, seasonings, and dry blends. Bio Springer also offers a full range of bakers, brewers, and torula yeasts. *Bio Springer*, www.biospringer.com, Booth 3510

Sodium reduction and preservation ingredients for meat

Jungbunzlauer is showcasing its extensive line of ingredients of natural origin for the meat industry. *sub4salt® Cure* is a new, stable and ready-to-use substitute for curing salt. By 1:1 replacement of conventional nitrite curing salt, *sub4salt Cure* allows a sodium reduction of up to 35% in the final product. Lactates and blends guarantee improved preservation and sodium reduction in processed meat products. Sodium gluconate is a cost-effective stabilizer, allowing for up to a 60% phosphate reduction in cooked sau-

sages without compromise in bite and taste.

The company also markets **ERYLITE® Erythritol**, a naturally occurring sugar alcohol produced commercially by microbial fermentation of a carbohydrate substrate. **ERYLITE Stevia** is a blend of erythritol and rebaudioside A. Both are used as sweetening agents and sugar replacers. *Jungbunzlauer Inc., [www. Jungbunzlauer.com](http://www.Jungbunzlauer.com), Booth 1006*

Non-GMO hydrolyzed vegetable proteins

Genetically modified products continue to be scrutinized by the public and various consumer activist organizations. In fact, Whole Foods Markets announced that it will mandate labeling of all GMO products by 2018. Genetic modification is common in corn and soy production so hydrolyzed vegetable proteins (HVP) are at high risk for containing GMOs. Savoury Systems International has a new line of corn, soy, and wheat *Non-GMO HVPs* to help formulators with removing GMOs from product formulations. The line includes profiles such as *Fermented Soy Sauce, Light Corn, Beef Type Flavor, and Chicken Type Flavor*. *Savoury Systems International, www.savourysystems.com, Booth 3114*

With the Dietary Guidelines for Americans, 2010, along with MyPlate and other nutritional authorities emphasizing that increased fruit and vegetable intake can positively impact health, Americans are looking for easy ways to work more produce into their diet. Formulators are

presented with a myriad of ingredients that allow for fruit and vegetable content claims on all types of foods.



FRUITS & VEGETABLES

Blueberries for color, flavor, and health

Wild blueberries not only provide color and flavor, they are loaded with natural antioxidants and vitamins for health and wellness. Bleuët Nordic wild blueberries are grown without any pesticides. They are harvested on the company's own land in Northern Quebec. Its state-of-the-art processing facility uses renewable energy to keep its environmental footprint to a minimum. Both infused and dried forms, as well as juice concentrates, are available for all types of applications. *Bleuët Nordic Inc., www.bleuëtnordic.com, Booth 3192*

Vegetable ingredients for ethnic cuisine development

Vegetable Juices develops and manufactures a broad variety of vegetable juices, concentrates, purees, diced/brined veggies, and blends. From custom wet spice blends to ready-to-ship, on-trend sauces, the company offers the flavors and culinary convenience food developers desire. Hot new blends being showcased this year include *Jerk Seasoning Blend, Asian Dipping Sauce, Mae Ploy-style Chili Sauce, and Ancho Chili*. For beverage developers, there is an array of vegetable juices, concentrates, and purees that deliver quality natural goodness, convenience, and health benefits. The company will be

Feast on Formulation Inspiration continued...



Photo courtesy of U. S.
Highbush Blueberry
Council

sampling its award-winning *Purple Ginger Lemonade* and a variety of savory blend applications. *Vegetable Juices Inc.*, www.vegetable-juices.com, Booth 1256

Versatile blueberries used in many food innovations

Blueberries: Little Blue Dynamos® is the theme at the U.S. Highbush Blueberry Council in the Healthy Food Pavilion, with displays and data on the fruit's increasingly broad appeal and global reach. New blueberry products surged to more than 1,300 in 2012 and included everything from baby formulations to millennial choices and grown-up options. Popular as both healthy and delicious for all age groups and lifestyles, blueberries are found in energy bars, sports beverages, breakfast cereals, sauces, dairy products, and pet food. Easy to formulate with, cultivated blueberries are available year-round in fresh, frozen, liquid, and dried forms. *U.S. Highbush Blueberry Council*, www.blueberry.org, Booth 1251

Gentle drying process for fruit and veggie ingredients

The first *MicroDried®* vegetable ingredients and two fruit varieties have been added to Milne Fruit Products' line of dried ingredients. *MicroDried* corn and peas were introduced in March 2013, and are expected to be followed by more vegetables, including carrots, red beets, and organics. Pomegranate and aronia, two nutrient-laden



fruits, join blueberry and blackberry in the *MicroDried* line of dried fruit products. The *MicroDried* drying process gently heats the product to reduce the microbial load and uses a vacuum-microwave dehydration technology to finish, producing 100% all-natural dried fruit and vegetable ingredients with no added sugars, flavors, colors, or preservatives. Most *MicroDried* products are available whole, fragmented, or in powders. The aronia is being offered as individually quick frozen and in juice concentrate and puree forms for different product applications. *Milne Fruit Products Inc.*, www.milnefruit.com, Booth 704

Fruits add flavor to ethnic recipes

For 2013, the culinary trendsetters at Dole Packaged Foods have set their compasses with needles pointing to Central and South America. Across the U.S., foodservice customers will be experiencing the ingredients and tastes of Argentina, Brazil, Chile, Peru, and Mexico, with chefs reimagining indigenous dishes with signature flair. Join Dole to explore innovative, fruit-forward, Latin menu applications. Think *Jicama Salsa with Pineapple and Cilantro* and *Pineapple Quinoa Grilled Chicken Salad*. With the use of *DOLE® Fruit Ingredients*, many foodservice concepts can be translated into packaged products for retail. Fresh frozen fruits come in a variety of packs and forms, including aseptic concentrates and purees. *Dole Packaged Foods Co.*, www.dolefoodservice.com, Booth 1551

Low-moisture blackberries for all seasons

Using *Low-Moisture Blackberries* from Van Drunen Farms is a perfect way to add blackberry flavor to a variety of food products. The water in the raw material is replaced with sugar or other sweeteners, which gives these blackberries an extended shelf life. This process also helps to preserve the natural color of the blackberries and give them a sweeter taste. Applications include baked goods (muffins, pies, and cakes), breakfast foods (hot and cold cereals, waffles, and pancakes), dairy products (yogurt and ice cream), trail mixes, salad toppings, and various sweet treats. *Low-Moisture Blackberries* do not add unwanted liquid to foods, reports the company. *Van Drunen Farms*, www.van-drunenfarms.com, Booth 3204

Versatile carrots come in many forms

Today's cutting-edge chefs and food scientists use carrots in creative ways, whether in California cuisine, fusion preparations, Latin plates,

Feast on Formulation Inspiration continued...

or Asian-inspired dishes. From soup to dessert, carrots add flavor, color, and nutrition. Naturally sweet, delicious, and crunchy, carrots complement most other food flavor profiles. These root vegetables are loaded with beta-carotene, vitamin A, minerals, and antioxidants. Grimmway Farms is the largest grower and shipper of carrots in the United States, as well as the largest grower and shipper of organic vegetables. The company offers through its juice division an extensive array of vegetable juices, purees, and concentrates for all types of applications. *Grimmway Farms, www.grimmway.com, Booth 1347*



Photo courtesy of TIC Gums



HYDROCOLLOIDS

When it comes to keeping moisture in a product, many product designers turn to the category of ingredients known as hydrocolloids. The primary function of all hydrocolloids is alluded to in the name, where the prefix "hydro" means water and "colloid" means a gelatinous substance. Basically hydrocolloids bind with water to create gels. Most hydrocolloids are carbohydrates and are classified as gums and starches. Suppliers are continuously exploring synergies between hydrocolloids to use them in the most effective and economical way.

Gum blend for improved adhesion

TIC Gums now offers *Add-Here™ CSA*, a blend of gums designed for applications that require reliable sticking functionality. Seeds, salt, sugar, and spices remain in place on bagels, crackers, and crisps for an improved consumer experience.

Add-Here CSA also seals products, such as taquitos, during the manufacturing process to improve product quality. This gum system is cold-water dispersible, dissolves quickly, and can be sprayed easily.

TIC Gums offers food and beverage companies an extensive range of ingredient systems to improve the texture, stability, consistency, nutritional profile, and shelf appeal of their products. TIC Gums, www.tic-gums.com, Booth 3124

Gum replacement for guar in baked goods

Alpha Gum is made via a special milling process of all-natural ingredients. It is designed to be free flowing and easy to hydrate. This ingredient is a direct replacement for guar gum in a range of baked goods, including breads, rolls, sweet goods, and tortillas. *Alpha Gum* has been shown to enhance textural attributes, improve structure and viscosity, and increase moisture binding, according to the company. This product is also high in fiber and

omega-3 fatty acids. Thymly Products offers bakers an array of ingredients, including baking powder, yeast foods, dough conditioner, grain blends, shelf-life systems, and dry milks. *Thymly Products, www.thymlyproducts.com, Booth 4129*

Guar gums for a range of viscosities

Guar gum binds water and can form highly viscous colloidal dispersions at low concentrations without heat. Guar gum is considered to be more soluble than locust bean gum and also more effective at stabilizing solutions. *Edicol®* guar gums are available in a viscosity range of 50 cps to 7000 cps (1% solution) in various particle sizes and hydration rates. Applications include baking, beverage, condiments, dairy, meat, soups, and sauces. *Lucid Colloids America Inc., www.lucidgroup.com, Booth 3965*

Hydrocolloids for reducing oil uptake

Ashland Specialty Ingredients will present "Maximizing Hydrocolloid Efficacy to Reduce Oil Uptake in Fried Coatings" on Monday, July 15, at 11 a.m. on the expo hall floor. Because fried foods absorb costly oil and result in calorically dense foods, it is highly desirable to use ingredients that minimize fat content, reduce calories, and save money.

Ashland has studied the most effective ways to use hydrocolloids to minimize the amount of oil in fried coatings. Scientists will show that when hydrocolloids are blended, it is possible to improve the reduction in oil uptake in fried coatings, as compared to a single hydrocolloid. The results show that fried food manufacturers can reduce caloric content effectively and save money on cost of oil when using hydrocolloid blends at a low rate.

Ashland Specialty Ingredients, www.ashland.com, Booth 118, Session 163-52

Tara gum is multi-functional in applications

Tara gum is a natural hydrocolloid obtained mechanically from the endosperm of the seeds of the tara tree. This gum, which is soluble in both cold and hot water solutions, is said to control moisture and assist with stabilization. Tara gum is used in many food applications for its wide variety of functionalities and is an effective replacement for locust bean gum and guar gum. It has good interaction behavior with carrageenan, xanthan, agar, and other gums. It is particularly effective in dairy foods, as it prevents syneresis in yogurt and other cultured products, enhances the texture of ice cream, and can improve the sliceability and spreadability of processed cheeses. In baked goods, tara gum is said to prevent staling and improve cell structure. *Exandal Corp., www.exandal.com, Booth 3392*

Blending gums for best performance

Gum solutions are mostly pseudoplastic, which means viscosity reduces with agitation or shear, and then returns to the same thickness when it is still. Depending upon the application, this may or may not be useful. Gumix International's line of natural hydrocolloids includes gum tragacanth, guar gum, xanthan gum, gum ghatti, gum arabic (acacia), agar, locust bean gum, carrageenan, and others.

Understanding this pseudoplastic attribute, as well as how the various gums interact with each other, allows the company's technical experts to assist formulators with selecting the best ingredient mix for an application. Gumix International, Inc., www.gumix.com, Booth 3207

Gum and starch systems for enhanced functionality

The comprehensive *Coyote Brand® GumPlete™* systems are blends of gums and starches that provide added benefits above and beyond using a single gum or starch. Starches and gums are widely used in the food industry; however, incorporating these hydrocolloids together or independently in an efficient way can be complex. There are many

variables to take into consideration to ensure that both the gums and starches achieve their full functionality. *Coyote Brand GumPlete* systems are designed to ensure that starches and gums work synergistically with each other, rather than compete with one another, which can often be a problem when gum/starch combinations are not

Feast on Formulation Inspiration continued...

formulated properly, reports the company. *Gum Technology Corp.*, www.gumtech.com, Booth 4132



PROCESSING AIDS

Designed to improve the manufacturing process, processing aids are used in the production of a variety of foods. In the final product, they are barely present, if at all, and do not affect appearance or taste. But without

them, there might not be a final product. These tools are essential for effective, consistent, and affordable food and beverage manufacturing.

New defoamers for powdered applications

Foam Blast® PDR 10 and Foam Blast PDR 21 are new defoamers for use in powdered food and beverage applications such as instant soups and noodles, teas, and flavored waters. All components of the two ingredients are in compliance with FDA regulation 21 CFR 173.340. Under this regulation, Foam Blast PDR 10 may be used at a level up to 100 ppm. There are no limitations for use for the Foam Blast PDR 21. These defoamers are produced and marketed by Emerald Performance Materials, a company that specializes in technologically advanced specialty

chemicals for a broad range of food and industrial applications. This includes *Kalama®* and *Purox®* benzoates, which are used as antimicrobials and preservatives in food and beverage applications. *Emerald Performance Materials*, www.emeraldmaterials.com, Booth 3547

Propionic acid antimicrobial controls for *Listeria*

A recent Kemin petition has led to the U.S. Dept. of Agriculture's approval of a new antimicrobial ingredient—*BactoCEASE™*—for the ready-to-eat meat and poultry industry to help control *Listeria monocytogenes* more consistently than traditional lactates. Propionic acid, the active ingredient in *BactoCEASE*, is an antimicrobial recognized as a food safety feature. The

Photo courtesy of Kemin Industries Inc.



different types of emulsifiers. Add to this the same number of different carrier materials and this makes for a long list of ingredients. *Palsgaard SA 6600* is the simplest ingredient when it comes to labeling, as it contains one emulsifier and one carrier. *Palsgaard Inc., www.palsgaard.com, Booth 219*

ingredient is applied at a lower application rate than traditional lactates, meaning less ingredient cost-per-pound of meat or poultry produced, as well as a significant impact from an operational perspective. In addition, studies have shown that *BactoCEASE* does not impact any sensory attributes. And because *BactoCEASE* has a low-sodium contribution due to its lower application rate than traditional lactates, it assists with keeping sodium contents down in the finished product. *Kemin Industries Inc., www.kemin.com, Booth 2947*

Activated cleaner label cake emulsifiers

Cake factories today are challenged by their customers to deliver high-quality cakes at low cost and often with a demand for more consumer-friendly labeling. *Palsgaard® SA 6600* activated cake emulsifier can meet this challenge by providing simple labeling in addition to convenience, security, and low cost. Activated cake emulsifier is a term used to describe the instant properties of *Palsgaard SA 6600* when adding the ingredient to a cake batter. The activation is achieved by placing the emulsifier on the surface of very small starch granules by means of an extrusion process. The emulsifier on the surface of a starch granule has to be in a stable alpha crystal form as this special crystal form is essential for proper aeration of the cake batter. Often cake emulsifiers contain four or more

Feast on Formulation Inspiration continued...

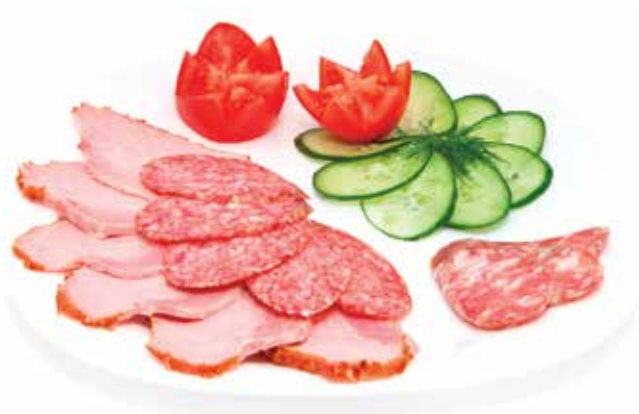


Photo courtesy of Mantrose-Haeuser Co.

Solutions for meat preservation

Mantrose-Haeuser has partnered with Chemital S.A. to introduce a line of effective, low-dosage preservatives and antimicrobial ingredients that prolong shelf life and protect cooked meat and poultry products from harmful bacteria and spoilage organisms. Chemital S.A. is a private Spanish company located in Barcelona, Spain, that specializes in additives and ingredients for the processed meat industry. Chemital's portfolio of ingredients includes antimicrobials, antioxidants, gelling and thickening agents, colorings, and seasonings. The inclusion of meat preservatives is a natural extension of Mantrose's preservation technology that it offers to the confectionery and food markets, as well as the shelf-life extension technology in fresh-cut and whole produce. *Mantrose-Haeuser Co., www.mantrose.com, Booth 2372*

A powerful boost for baking processes

Power-Baking Boosters™ contains a series of newly formulated bakery ingredient additions that give large-scale bakeries the technological upgrade they need to update traditional baking methods. *Power-Baking Boosters* provide the first step in ensuring productive and optimal use of ingredients. They are made with ingredients that meet the needs of today's consumers. Plus, they optimize baking ingredients for profitability. *Power-Baking Boosters* provide better baking initiatives that

target higher product yield, optimum water absorption, and more product line extensions. *Equichem International, Inc., www.equichem.com, Booth 2607*

Low-inclusion line of antimicrobials to extend shelf life

Hawkins brings innovation to shelf life science. The company's new food ingredient division—Ingredient Works—is focused on all aspects of shelf life, including yield, moisture management, color stability, flavor protection, pathogen control, and texture modification. Custom and unique dry functional blends have been developed to meet these challenges. As a leader in the research, production, and application of liquid food ingredients, Hawkins has also commercialized the *e(Lm)inate®* antimicrobial product line. *e(Lm)inate* is a scientifically proven low-inclusion line of antimicrobials. Combined with the company's wide range of other functional liquid ingredients, Hawkins can assist with solutions for shelf life, functionality, and clean label in meat, poultry, seafood, prepared foods, soups, sauces, dressings, and more. *Hawkins Inc., www.hawkinsinc.com, Booth 3886*

Fermentates for improved safety and quality

Fermentation science allows for the production of natural solutions that can be used to improve the safety and quality of a food product throughout its shelf life. *Galastar™* is composed of lactic acid bacteria and is designed to preserve food, adjust pH, and enhance flavor profile. The *Galacin™* range, based on bacteriocins naturally produced by bacteria, enables better food preservation. The existing *Galimax-ProMeat™* line has been enhanced with plant extracts that have antioxidant properties. *Galimax-Ferment™* is based on extracts from the fermentation process and can be used as a natural flavor in meat, fish, sauces, and ready meals. Galactic has also established the *Food Doctor™* service in order to

help businesses improve the quality and safety of their products using the latest technology. This service provides a detailed inventory of all the microbiological flora of a product. Based on this information, it is possible to assess how the presence of certain species will impact the organoleptic properties and shelf life of the product. *Galactic Inc., www.lactic-us.com, Booth 4862*

Enzymes may assist with reducing carbon footprint

Novozymes scientists have produced the first review of existing studies into the use of enzymatic solutions in various industries, including foods and beverages, confirming that enzymes provide significant savings on water, energy, and raw materials, as compared to conventional processes. The review shows that enzymes, when used as an alternative to conventional processes, have helped reduce industries' emissions and thereby contribution to global warming and acid rain, as well as their impact on agricultural land use and pollution of aquatic resources. Typically, small amounts of enzymes are used in industrial processes in a targeted way to speed up reactions and reduce the temperature at which processes take place, thereby saving water, energy, and chemicals. *Novozymes, www.novozymes.com, Booth 521*

Multi-phase encapsulated release system for baked goods

Clabber Girl's preserving, leavening, and dough/batter improving systems for bakers have been designed using the *InnovaPhase™* process. In this proprietary multi-phase encapsulation release system the active ingredient being controlled is released during several phases. Traditional encapsulates are released only when heat is applied (in the oven), and this can be a problem particularly if the heat or baking stage is short. Using *InnovaPhase*, the first release occurs at mixing in the bowl, while the second release

takes place in the oven. This gives finished baked goods a much more consistent time-released approach for dispersing the encapsulate. *Clabber Girl Corp., www.clabbergirl.com, Booth 3122*

Low-sodium baking powder

Caravan Ingredients will highlight its *Low-Sodium Baking Powder* for chemically leavened baked goods. It is designed and formulated to release the proper amounts of leavening gas at the various stages of mixing to facilitate scaling and depositing of batters. Through utilizing a non-sodium aluminum phosphate-based leavening system, *Low Sodium Baking Powder* is able to reduce sodium by up to 44% over standard baking powders. The company offers the baked goods industry a broad portfolio of ingredients including vitamin and mineral premixes, functional ingredients, emulsifiers, flour fortification, bread mixes, specialty bases, and frozen dough. *Caravan Ingredients, www.caravaningredients.com, Booth 1625*

Dietary fiber functions as a whipping agent

Wacker Chemical Corp., will present *Cavamax® W6 Alpha Cyclodextrin: A*

Dietary Fiber as a New Whipping Agent on Monday, July 15, at 11 a.m. on the expo hall floor. Whipping agents play a key role in many food formulations. They normally consist of emulsifiers, proteins, and fats, and provide pleasing textural smoothness and mouthfeel. Often they are heat-, pH-, and acid-sensitive. Alpha cyclodextrin is a new low-calorie whipping agent that creates a highly controllable overrun in a variety of food matrices. It has excellent organoleptic properties. Non-fat whipped products are possible, as well as low-fat products. The donut-shaped molecule has a hydrophobic cavity inside and a hydrophilic surface outside. These characteristics enable alpha cyclodextrin to attract hydrophobic molecules, as well as build hydrogen bonds with its outer surface. It is not sensitive to low pH or high heat and works in environments where proteins would denaturize. The naturally occurring alpha cyclodextrin also represents a new non-digestible, but fully fermentable soluble dietary fiber with positive effects on blood lipids and glycemic index as shown in clinical studies, says the company. *Wacker Chemical Corp., www.wacker.com, Booth 3842 and Session 149-07*

Leavening agent for sodium reduction

Leavening is a critical component of the baking process, contributing to the lightness and success of most baked goods. *ARM & HAMMER® bicarbonates* can leaven cakes, cookies, crackers, muffins, biscuits, cereals, tortillas, pizza dough, pretzels, and confections through the release of carbon dioxide bubbles, which cause batters and doughs to rise and expand. There are a number of bicarbonate grades, including ingredients specifically for tortillas, as well as *Flow K®* potassium bicarbonate as a replacement for sodium bicarbonate for sodium reduction. *Church & Dwight Co., www.ahperformance.com, Booth 2221*

Licorice extract functions as an antioxidant

Licresse™ is a licorice extract that is naturally high in antioxidants to break the chain of oxidation in a variety of foods. Antioxidants slow down oxidation that occurs when food is exposed to oxygen or sunlight. *Licresse* is naturally high in phenolic compounds, which have antioxidant activity. With this ingredient, food manufacturers can keep the nutritional value, color, and flavor of food while also extending shelf life and

Feast on Formulation Inspiration continued...

palatability. *Licresse* functions as a free radical scavenger or reducing agent. This natural food ingredient is extracted from the root of the licorice plant and is minimally processed. Applications include meat, beverage, bakery, and dairy. It can be labeled as licorice, licorice extract, or natural flavoring. *ICL Food Specialties*, www.iclfood.com, Booth 913

Specialty enzymes for improved functionality

Cellulases and pectinases have long been used to improve filtration rates for the production of dried aloe vera powder from whole leaf. Both enzyme types function to reduce viscosity and to allow higher recovery rates. One of the questions has always been how to reduce the hydrolysis of the desirable mannans by the cellulose or pectinase. *Enzeco® Pectinase PL* solves that problem, as there are no mannanases, cellulases, or polygalacturonases present in this enzyme. Enzyme Development Corp. also offers a wide range of enzyme solutions for food processing and dietary supplements, including amylase, bromelain, catalase, lactase, lipase, lysozyme, papain, and more. *Enzyme Development Corp.*, www.enzymedevelopment.com, Booth 968

Protease improves quality of whey protein hydrolysate

Biocatalysts offers the food processing industry a wide variety of enzymes to assist with increasing yield and throughput, reducing waste, producing new flavors, improving textures, and more. For example, *Flavorpro™ 750MDP* has been designed as a single-step enzyme system that produces a superior-tasting whey protein hydrolysate without bitterness. This neutral flavor is said to reduce the need to add bitter-masking agents, meaning production time is less and profits are increased. *Flavorpro 750MDP* also improves the solubility

of whey protein hydrolysate. *Biocatalysts Ltd.*, www.biocatalysts.com, Booth 1689



POTPOURRI

Balsamic reductions to enhance products

Modena Fine Foods Inc. will showcase a range of its balsamic vinegars, balsamic-style condiments, specialty wine vinegars, and more. Two of the ingredients that it is highlighting at its booth are a reduction of white balsamic with saffron and a reduction of balsamic vinegar with curry. The first ingredient, infused with saffron, has the bright yellow/golden color of saffron combined with the sweetness of white balsamic. The second with curry lends flavorful nuances to chicken, lamb, pork, fish, rice, vegetables, and more. If an application does not call for balsamic flavor, Modena does offer a number of specialty wine vinegars like sherry, champagne, kalamata, and Italian wine. The company also states that its ingredients are gluten free and non-GMO and some of them can be certified as organic and kosher. *Modena Fine Foods Inc.*, www.modenafinefoods.com, Booth 4505

Solving ingredient needs

Batory Foods distributes a full range of food ingredients to food processors across the United States.

These include bakery mixes, dairy ingredients, proteins, salt and salt replacers, cereal grains like wheat, corn, rice, barley, and oats, cocoa, cocoa powder, chocolate, starches, sweeteners, and whey. *Batory Foods*, www.batoryfoods.com, Booth 1370

Diversified ingredient supplier

Product developers have global access to more than 1,500 specialty and commodity food ingredients through Brenntag North America. The company combines its global resources with local expertise, logistics, and storage to supply ingredients to meet the formulation needs of food and beverage manufacturers.

The company's portfolio of ingredients includes amino acids, colors, enzymes, excipients and processing aids, flavors, gums, humectants, preservatives, vanillin, vitamins, and more. *Brenntag North America*, www.brenntagnorthamerica.com, Booth 1634

AEB to offer egg info DVD

The American Egg Board will distribute copies of its updated Egg Product Information Resource DVD to attendees. This DVD is a comprehensive source of modern egg production practices as well as science-based technical information, new product formulations, nutritional information reference data, and more. Experts will be available to discuss formulating with eggs and egg products. *American Egg Board*, www.aeb.org, Booth 2408

Reducing casein in imitation cheese

A non-GMO casein replacer, *PenTech™ 8500*, can reduce casein usage down to 10% in imitation cheese products like pizza cheese, shredded cheese, sliced cheese, and block cheese. This modified potato-based food starch can reduce cost, maintain excellent shredding, matting, melting, and stretching, and enhance water and oil stability, reports Penford Food Ingredients.

Also, the ingredient has a low viscosity during cooking, forms gels that will melt when heated, and will not interfere with the flavors of the imitation cheese product.

Company representatives will be available at the booth to discuss other starch and starch-based ingredients to help solve a number of product formulation challenges in applications like cheese, gluten-free, dairy, protein, snacks and crackers, clear coatings, tortillas, pasta and noodles, flour-based coatings, salad dressing, dips and spreads, soups, sauces, gravies, and condiments. *Penford Food Ingredients, www.penford.com, Booth 1590*

Prototypes stress ingredients' functions

Archer Daniels Midland Co. will feature a number of its ingredients that provide function and nutrition in

several prototypes for sampling at its booth. One of the ingredient lines that ADM will spotlight is *Clarisoy*[™], the world's first vegetable-based protein ingredient line that provides clarity and complete protein nutrition for beverage applications.

There are two ingredients in this line. *Clarisoy 100* is an isolated soy protein that allows for protein fortification in transparent and low-pH beverages such as citrus-based drinks, fruit juice blends, and fortified waters. The benefits of this ingredient, according to the company, are that it is heat stable and requires no homogenization or stabilizers in low-pH beverages. The second ingredient, *Clarisoy 150*, is an isolated soy protein for use in beverage systems with a pH of less than 4.0 with cloud systems or neutralized to a pH of 7.0 or greater. The ingredient is

heat stable and can be formulated into dairy-based protein sources. It also functions in mildly flavor-neutral beverages like soymilks and smoothies. One of the prototypes formulated with *Clarisoy* will be *Citrus Cooler*.

ADM Milling provides a number of flours, blends, and other baking ingredients. One of these ingredients is *Harvest Pearl*[™] sorghum flour, which is light in color and neutral in flavor. It is also available in a whole-grain option. And because it is gluten-free, the flour can be used in a variety of gluten-free baked goods.

Another ingredient that ADM will showcase at the IFT Food Expo is *VegeFull* cooked ground beans. It takes just minutes to reconstitute *VegeFull*, and it is a cost-effective way to add protein and fiber to products. It is available in pinto bean, navy bean, black bean, red bean, and

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Photo courtesy of
Clasen Quality Coatings



chickpea in quick-prep whole, grits, noodle, and powder forms. ADM will feature navy bean *VegeFull* in a *Maple Bacon-flavored Navy Bean Puff*. Stop by the booth to learn about these ingredients as well as ADM's cocoa, starch, gum, soy, fat, and sweetener ingredients. ADM, www.adm.com, Booth 2447

Coatings feature on-trend flavors

A line of flavored confectionery coatings, *Flavorburst*, features such trending flavors as sea salt caramel, marshmallow, white peppermint, cream cheese, key lime, pumpkin, and more. The wide range of flavors included in the line from Clasen Quality Coatings means that product developers can create a number of products based on seasonality or market trends.

Some applications that the coatings can be used for are granola, protein bars, truffles, and cake pops.

The company will highlight its *Strained Greek Yogurt Flavored Coating* made with strained Greek yogurt powder that lends the characteristic Greek yogurt flavor to finished products. The coating is available in drop and wafer forms for use as an inclusion or for re-melt to enrobe, drizzle, pan, and coat a number of food products. Clasen's *Geneva Chocolate* line of milk and dark chocolates are for use as coatings or to complement finished products.

To add color to confectionery and other products, the company provides *Vibrant Colors*, an extension to its Alpine Product line. *Vibrant Colors* are gluten-free

colored coatings that are vanilla flavored with the exception of *Vibrant Black*, which is cocoa flavored. Some of the colored coatings in the line include *Vibrant Pink*, *Vibrant Blue*, and *Vibrant Green*. The company reports that all of its products are gluten free and can be used in confectionery, baked goods, cookies, snack bars, cakes, toaster pastries, and more. *Clasen Quality Coatings*, www.clasen.us, Booth 771

Culinary demos highlight ingredients

Tulkoff Food Products Inc., a third-generation family-owned manufacturer of condiments, sauces, dressings, and ingredients, will feature three culinary demonstrations at its booth—a different one on each of the three days of the IFT Food Expo. The company will serve a *Bloody Mary* drink made with its horseradish on Sunday, July 14, *Baltimore Crab Cakes* made with crab cake base on Monday, July 15, and *Ginger Salad Dressing* formulated with ginger puree on Tuesday, July 16. The company will also have some of its other ingredients like garlic, shallots, and roasted garlic available for sampling, and representatives will discuss how these and other ingredients can be formulated in applications like beverages, gravies, sauces, soups, and stocks. Attendees can pick up copies of Tulkoff's company guide, industrial guide, industrial product information guide, and co-pack guide. *Tulkoff Food Products Inc.*, www.tulkoff.com, Booth 3956

Improving coffee creamers

The results of a study on two ingredients for the coffee creamer industry will be presented by representatives from Roquette America at the session "Dairy-free Reduced-fat Liquid Coffee Creamer Using a Novel Pea Protein Isolate and a Novel Liquid Maltodextrin" on Monday, July 15, at 11 a.m. on the expo floor. A pea protein isolate, *Nutralys*®, was used to replace sodium caseinate and a liquid maltodextrin, *Glucidex*® C1867, replaced corn syrup solids to compensate for the fatty mouthfeel loss caused by the 25% fat reduction in a reduced-fat dairy-free liquid coffee creamer. *Roquette America Inc.*, www.roquetteamerica.com, Booth 2147

Two new offerings from SK Food

SK Food International has added non-GMO and certified organic azuki beans and black soybeans to its line of Premium Quality



Ingredients. Traditionally used in Southeast Asian cuisines, the beans are becoming more popular in other cuisines, too. Some chefs and product developers are incorporating them in soups, chili, snack foods, and

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prepared side dishes. The black soybeans can be used like yellow soybeans in soy sauce, for making tofu, or roasted. The beans are available in whole bean form, raw flour, and precooked powder and flakes. *SK Food International*, www.skfood.com, Booth 3339

Candy showcases gelatin

Rousselot manufacturers gelatin and collagen peptides and recently developed a candy it calls *Rousselot Delight™* to illustrate the functionalities of its gelatins and other ingredients. The gummy candy has a soft texture, which can be modified by adjusting the pH and syrup qualities, has better heat resistance, and can be stored in warm environments, according to the company. *Rousselot*, www.rousselot.com, Booth 1971



Photo courtesy of Solazyme Roquette Nutritionals

Fiber ingredients improve products

Corn Z-Trim® is made from refined, dry milled corn bran. The ingredient, which is labeled as corn fiber, is said to help retain moisture and reduce syneresis, reduce surface tension, build viscosity and texture, exhibit freeze/thaw stability, and withstand extreme pH, temperature, shear, and pressure. *Oat Z-Trim* is derived from refined ground oat hulls. Some of its functions include extending shelf life, limiting moisture migration, and withstanding extreme pH, temperature, shear, and pressure. The company will demonstrate the ingredients in prototypes. *Z-Trim Ingredients*, www.ztrim.com, Booth 1203

Microalgae ingredients enhance mouthfeel

An ingredient derived from a sustainable source of microalgae, *Almagine™*, is said to help improve the texture, taste, mouthfeel, and other characteristics of food products. It provides a healthy source of fats to products without *trans* fats or cholesterol. In chocolate chip cookies, for example, the ingredient *Almagine HL* whole algalin flour allows for eggs to be replaced with egg whites and for

less butter and oil to be used. The resulting cookie has decreased total fat, reduced saturated fat, and lower cholesterol than a control cookie. In a vanilla frozen dessert, the butter or cream used in the formulation can be reduced by up to 25–75%. Again, this leads to a finished product with decreased total fat, reduced saturated fat, fewer calories, and lower cholesterol. What's more, the ingredient is vegan, *trans* fat-free, cholesterol-free, gluten-free, and free of any known allergens, according to the company, Solazyme Roquette Nutritionals. *Solazyme Roquette Nutritionals*, www.slnutritionals.com, Booth 2348

Enhancing flavor

Ajinomoto is featuring *Advantame*, an ingredient derived from aspartame and vanillin used to enhance flavors such as dairy, fruit, citrus, mint, and more. The ingredient can also help extend the chew time of chewing gum, improve the flavor profile of many confectionery products, and mask the off tastes of sweeteners like reb A, sucralose, and ace-K, reports the company. *Ajinomoto North America Inc.*, ajiusafood.com, Booth 2300

Matcha green tea with improved functionalities

A more flowable and water-soluble matcha green tea is available for use in ready-to-drink beverages as well as in energy powders and in packets. The tea is blended with maltodextrin to increase its water solubility and make it flow more easily without affecting the delicate flavor of the matcha green tea. In addition to this ingredient, there are matcha green tea powder, black tea powder, and rooibos tea powder for use in beverages and confections. Try samples of tea and chocolate formulated with matcha green tea and rooibos tea powder from Aiya American Inc., a producer of matcha green tea since 1888. *Aiya America Inc., www.aiya-america.com, Booth 1052*

The market for sweeteners

Learn about which sweeteners are being used around the world and what types of claims are being made about them. Lu Ann Williams of Innova Market Insights will present timely information on this topic during the session, "Current Global Market Trends and Product Launches for Natural Sweeteners, Specifically Stevia-sweetened Products," on Sunday, July 14, at 11:15 a.m. in room S503. *Innova Market Insights, www.innovadatabase.com, Booth 1576 and Session 021-03*

Egg replacer helps reduce cost

Using *OptiSol 3000* is a cost-effective way to replace whole eggs in cakes, muffins, pancakes, sweet bakery mixes, baked bars, egg rolls, wantons, and refrigerated cookie doughs, says Glanbia Nutritionals. The company's ingredient can be used in a one-to-one inclusion rate for dried whole eggs, and it can be listed as flaxseed meal and whey protein concentrate. It

is certified kosher, low in cholesterol, GMO-free, and gluten-free. *Glanbia Nutritionals, www.glanbianutritionals.com, Booth 1029*

Flours for many applications

Minsa Corp. is now offering a line of corn flour premixes for the bakery industry. Formulated for use in pancakes, muffins, pizza crust, cookies, cakes, and more, these flours are available in white, yellow, blue, purple, and red corn varieties. It also features corn flours for producing extruded products, snacks like chips, and tortillas. The company will highlight some of its flours at the booth. *Minsa Corp., www.minsa.com, Booth 4135*

Functions of pulse ingredients in gluten-free foods

As the trend of gluten-free lifestyles continues to expand, many food manufacturers are looking for ingredients to help them develop gluten-free foods. Mehmet Tulbek, Global Director of Research, Development, and Innovation for Alliance Grain Traders will explain the benefits of formulating gluten-free foods with pulse ingredients and detail the functionalities that these ingredients have at the session "Using Pulse Ingredients in Gluten-free Foods" (Tuesday, July 16, 9:15 a.m., room S402). In addition to their functions in gluten-free food applications, pulse-based ingredients like flour, semolina, protein, starch, and fiber can also be used to replace eggs, dairy, and soy, according to the company. *Alliance Grain Traders/Saskcan Pulse Trading, www.alliance-grain.com, Booth 3825 and Session S402 FT*



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