

Top 10 Innovations at IFT 2011

BUZZWORDS COME AND BUZZWORDS GO, but the trends that emerged at the 2011 IFT Annual Meeting & Food Expo—food safety, natural, healthy and sustainable—likely have staying power. Following are some more key findings from the show floor, along with the **Food Product Design** editorial team's picks for the Top 10 innovations at IFT 2011.

Not surprisingly, sodium reduction was a hot topic. Several companies showcased ingredients developed to help manufacturers lower sodium in their products, including: Jungbunzlauer, with sub4 salt®; Kikkoman's NFE natural flavor enhancer; Morton Salt's potassium chloride and Lite Salt™ mixture; Nexcel, with Solo® low-sodium sea salt; Wild Flavor's SaltTrim®; and Cargill's FlakeSelect™.

Sweeteners also were abundant, with *luo han guo* (monk fruit) showcased by Tate & Lyle (Purefruit™ monk fruit extract), Imperial Sugar Company (monk fruit/sugar blend) and Amax NutraSource. Stevia, too, seems to have become a mainstream sweetener choice, with multiple companies offering stevia-sweetened products and flavor systems designed to work with the sweetener. For example, PureCircle introduced NSF-02, a flavor modifier designed to enhance flavor and sweetness in food and beverages containing stevia, sugar or high-fructose corn syrup.

A couple of new superfruits also made the scene this year: the Saskatoon berry and Baobab fruit extract. According to Prairie Berries, the Saskatoon has higher levels of antioxidants compared to other common berries, including wild blueberries, strawberries and raspberries. Baobab fruit, according to BI Nutraceuticals, has a citrusy flavor, is packed with vitamins and minerals, acts as a prebiotic and is high in fiber.

Industry trends were also revealed by Mintel and Innova Market Insights. Lynn Dornblaser and David Jago of Mintel presented "Flavor and Ingredient Predictions,"

an update of forecasts they made in late 2010. The use of seeds in bakery and snacks is growing, they said, as is the use of coconut flavor and dark spirits, such as brandy, in food products. The pair noted there is a perhaps unexpected upshot to all the negative attention salt has been getting recently: Consumers are curious about different types of salts, especially smoked salt. Beets also are increasingly finding their way onto menus and into food and beverage products, both for their flavor and their nutritional function of lowering blood pressure and increasing strength and stamina during exercise.

Innova Market Insights' Taste the Trend Pavilion was a visual riot of displays showing the latest and greatest new products and the consumer trends bolstering the sales of these products. According to Innova, the No. 1 trend is consumers' preference for foods that aren't overly processed, i.e., those with a short ingredient list and even a short shelf life. Consumers are also looking for value, in the form of both larger package sizes and affordable indulgences.

The **Food Product Design** editors weren't the only ones looking for innovation this year. A panel of nine jurors honored four companies with the 2011 IFT Food Expo Innovation Award. Among the winners were two ingredient suppliers. Loders Croklaan North America was honored for its SansTrans VLS30 and VLS40 shortenings, which can reduce saturated fat content by up to 30%, without affecting taste or texture of the finished product. Summit Resource Group/Helios Corp., was recognized for NC-518 calcium, which is manufactured via a laser-micronization process that enhances the availability of trace minerals and zinc in the calcium. Enhancing the zinc delivery system allows calcium to be more readily absorbed in the bloodstream to support bone health.

Following are our picks for the Top 10 innovations at IFT 2011.

• **Flavor-ettes™** — QualiTech and Omega Pure



showcased their new partnership offering particulate inclusions formulated with OmegaPure® fish oil. Flavor-ettes are made with 10% OmegaPure, and contain 2,000 mg EPA/DHA per 100 grams. Designed to solubilize and available

in a range of sizes, colors and flavors (both sweet and savory), the inclusions are designed for use in a variety of bakery products, as well as RTE cereal.

• **Immune1™** — Wild Flavors, Inc., offered samples



of a zero-calorie water enhanced with a milk-peptide, immune-health ingredient. According to the company, the powder has been shown to increase the number of immune cells, activate NK (natural killer) cells, protect cells from oxidative damage and more. Typical usage levels are 50 mg to 100 mg per serving. The ingredient is GRAS and does not impact the color, flavor or texture of food and beverages.

• **Lactium®** — Ingredia Nutritional showcased Lac-



tium in chewing gum designed to help manage stress. According to the company, the milk protein hydrolysate contains a bioactive peptide with soothing, stress-relieving properties. The creamy white powder has a neutral flavor and can be

used in dairy products, bakery, confectionery and beverages. It is heat-stable, water-soluble and pH stable from 2 to 9. The clean-label ingredient is listed in the United States as casein hydrolysate, and in Europe and Asia as milk protein hydrolysate.

• **Lactosalt®** — Sodium reduction is a priority for food



manufacturers, and ingredient suppliers are offering a range of low-salt solutions. Among them is

Armor Proteines' line of milk salt. Derived from minerals produced from the fractionation of milk, the ingredient contains five times less sodium than salt, yet provides the same flavor and ionic strength. The company says the product serves as a 1:1 replacement for salt in formulations, and its dairy origin prevents the bitterness and aftertaste typical of other salt replacers.

• **Micro Pellet Crisps** — J. R. Short used



micro-pellet extrusion technology to develop crisps with enhanced texture and low fat content. The technology has typically been used for potatoes, but the company has applied it to corn, rice and other grain-based products.

Recently, the company extended the crisp category to include whole grains and whole-multigrain combinations. Two new crisps, chickpea and black bean, offer the high fiber and protein of beans in an extruded form suitable for use in snack mixes, bars, crackers, cookies and more.

• **Omega-9 sunflower oil** — Dow AgroSciences'



answer to consumer demand for healthier products is this *trans*-free, saturated fat-free sunflower oil. High in heart-healthy monounsaturated fats and containing a combination of high-oleic (omega-9) and low-linolenic fatty

acids, the oil has a light, clean flavor, is highly stable and can withstand demanding processing conditions. It can be used for deep-frying, sautéing, baking, and spraying, and as an ingredient in salad dressings.

• **pHase™** — Bisulfate of soda from Jones-Hamilton Co.



went beyond its pH-lowering role and was used to reduce acrylamide formation in white tortilla chips. The company presented results of a test at 0.5% and 0.75% addition rates. The control chips' acrylamide levels measured 514 ppb. With 0.5% pHase, acrylamide levels dropped to 195; with 0.75% pHase, levels dropped significantly, to 70 ppb.

• **SafeGuard™** — This treatment and delivery



system from ConAgra Mills mitigates the microbiological risks associated with raw flour. This "comprehensive, integrated solution" produces flour with up to a 5-log validated pathogen reduction while maintaining important

flour characteristics, including absorption, starch quality, gluten and enzyme activity, to preserve flavor, texture, appearance and performance.

• **Sweet 'n' Neat Hon-E-Shine™** — ADM/



Matsutani's offerings included this liquid honey and sugar replacer with 78% soluble fiber on a dry-solids basis (dsb). Suited for use in reduced-calorie, reduced-sugar and added-fiber applications, it offers

high solubility, humectant properties, and is heat- and acid-stable. According to the company, 3.4 grams dsb of the ingredient provides 2.5 grams fiber per serving for a "good source of fiber" claim; 6.7 grams dsb provides 5.0 grams fiber per serving for an "excellent source of fiber" claim. Suitable applications include baked goods, cereals, snack foods, confectionery, beverages and dairy.

• **Texture Revolution™** — TIC Gums developed



this lexicon to describe the texture of solid, liquid and semi-solid foods. It will enable food product developers to more accurately express the desired texture for food products during the development stage. The lexicon includes a texture

mapping process and more than 30 complete texture-attribute maps. Currently, the list has 78 texture attributes with definitions—for example, adhesiveness is described as the tendency to stick to lips, tongue, mouth or spoon, but not necessarily to itself. The lexicon and maps can be downloaded for free on the company's website.



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