



# 'Made with yogurt'

The dairy industry's hottest product also is making inroads as an ingredient

Yogurt is the “food of the decade,” said Harry Balzer, vice-president and chief industry analyst for The NPD Group, Port Washington, N.Y., and all types of food and beverage marketers are trying to capitalize on the cultured dairy product’s success. From salad dressings to baby food, yogurt is showing up as a characterizing ingredient in

refrigerated, frozen and shelf-stable foods.

The NPD’s National Eating Trends research shows that per capita yogurt consumption has more than doubled during the past decade, with now nearly one in three individuals eating yogurt regularly. The trend has been fueled by yogurt’s versatility, as yogurt is consumed for breakfast, lunch, dinner and in between meals. So why not incorporate yogurt into other foods that fit different day parts?

For example, in January, Post Foods L.L.C., Parsippany, N.J., introduced Honey Bunches of Oats Greek Honey Crunch cereal. The cereal features whole grain flakes and two distinct granola clusters made with Greek yogurt — one that has the Greek yogurt baked into the cluster and one that blends it into a creamy Greek yogurt-style coating.

At the end of last year, Tryst Gourmet L.L.C., Alpharetta, Ga., debuted Eat Well Enjoy Life (E.W.E.L.) Hummus with Greek Yogurt. Lower-fat hummus products are typically made by reducing the tahini and oil and adding more water and beans, according to the company. This, unfortunately, results in a hummus that has little or no flavor and a greatly

reduced smooth, creamy texture. The E.W.E.L. product development team looked at different ways to overcome the flavor issue and finally found that by adding Greek yogurt they were able to achieve improved nutrition without sacrificing taste or texture.

Through the combination of two of today’s hottest trends — Greek yogurt and hummus — the company is able to reduce the product’s fat by 50% and the calories by a third, as compared to regular hummus. The product comes in five flavors: classic, roasted garlic, roasted pine nuts, roasted red pepper and spice.

“We see this marriage of Greek yogurt and hummus as the perfect union of flavor, texture and superior nutrition all rolled into one sure-fire deli winner,” said Bob Ferraro, vice-president of sales.

### Yogurt as an ingredient

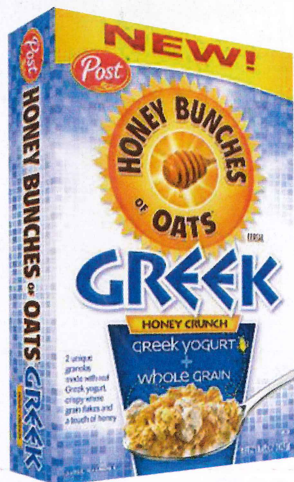
Like so many of the innovations rolling out in the marketplace that highlight the inclusion of yogurt, both companies introducing the cereal and hummus are banking on the fact that yogurt’s health halo will further boost the product’s already good-for-you image. But not all yogurt ingredients deliver the same benefits.

The hummus is made with fresh yogurt using a process that preserves the live and active cultures. Numerous yogurt manufacturers sell product in bulk for use as an ingredient in food manufacturing. The yogurt may be highly viscous and designed for inclusion in a parfait or dip, or it may be more fluid, so that it readily blends with other ingredients to make a beverage or a dressing. In some instances, it is more economical for the food manufacturer to produce the yogurt on site.

The cereal is made using yogurt powder, an ingredient that no longer contains any viable cultures.

“When yogurt powders are used in the formulation of non-dairy foods, yogurt’s healthful halo transfers to that product,” said Peter Gilmartin, vice-president of the Commercial Creamery Co., Spokane, Wash. “And rightfully so, as the powders deliver the same dairy protein, calcium and other nutrients that you would find in the original yogurt product before it was dried.

“What is missing are the live and active cultures, as the heat in the drying process kills these helpful bacteria. If a consumer wants live and active cultures, they will reach for a cup of refrigerated or frozen yogurt. But if they are looking for inherent





dairy nutrients as well as the great taste that yogurt provides, a yogurt-flavored product is an option. This is why yogurt as an ingredient continues to be incorporated into so many products.”

#### Understanding yogurt powders

Food and beverage manufacturers who want to capitalize

on yogurt’s healthful halo but do not have refrigerated storage or processing facilities to work with regular yogurt or cultured milk, are turning to yogurt powders. The ingredient is being formulated into a variety of food applications, including baby foods, bakery items, confections and snack foods. It is

also often used in compound coatings that enrobe dried fruit, nutrition bars and pretzels.

“Even though yogurt powder does not provide a living matrix of probiotics, it is still a nutritious food that allows for convenient and novel uses of the tangy yogurt flavor profile,” said Tom Havran, product expert at

Frontier Natural Products Co-op, Norway, Iowa. “Yogurt powder is very high in calcium, energy-providing carbohydrates, sugars and proteins, and is also a rich source of vitamin A. Our yogurt powder has very little fat, too. It isn’t quite fat-free because it contains some residual fat, but it offers a much lower fat content than fresh yogurt.”

There are other powders in the market that contain up to 2% fat.

Further, unlike fresh yogurt that requires refrigeration and has a limited shelf life, yogurt powders are stable at ambient temperature for a year or more if properly stored, Mr. Havran said.

Although the U.S. Food and Drug Administration has a standard of identity for yogurt, it does not have one for yogurt powder. But to be called yogurt powder, the ingredient should be made from standard of identity yogurt (21 CFR 131.200, 203 or 206). Common ingredient



declarations include “dehydrated yogurt,” “dried yogurt” and “nonfat yogurt powder.”

“If you were to use this ingredient in a food such as a

smoothie, current standards of identity allow the product to be labeled as ‘made with yogurt’ or ‘contains yogurt,’ regardless if the yogurt is dried or viscous,” said Cary Frye, vice-president of regulatory and scientific affairs for the International Dairy Foods Association, Washington. “However, I would suggest that users of yogurt powder receive verification from their supplier that the dehydrated yogurt was manufactured to meet the standard of identity for yogurt before drying.

“Also, I would caution food marketers when naming a food that contains yogurt as ‘yogurt (food)’ unless the amount of yogurt in the food is significant to characterize the product or F.D.A. could consider the name of the food to be misleading. There is no set amount of yogurt that

must be present in a product to state ‘made with yogurt.’”

Further, in order to communicate that the yogurt ingredient does not contain live and active cultures, a phrase such as “pasteurized after culturing” or “heat treated” should appear on product labels.

“We recently started offering a dehydrated Greek yogurt ingredient that is similar to regular yogurt powder to food product developers,” said Corrie Reilly, marketing and communications, Main Street Ingredients, La Crosse, Wis. “Our customers wanted to have a declaration that the powder is in fact dried Greek yogurt. To effectively deliver on our customers’ request, we worked with others to modify the yogurt process prior to drying.

“The higher solids content of this ingredient requires that it be cultured for an extended period of time. The straining process removes moisture and thickens the milk base. Since

the resulting nutrient ratios are the same as traditional Greek yogurt, the product we end up with is the thick creamy yogurt you expect with Greek yogurt. Then the yogurt is dried, with the resulting ingredient allowing our customers to make a statement such as “contains or made with Greek yogurt.”

In addition to yogurt powders, there are also a number of blended cultured dairy ingredients that provide similar flavor and functionality. The blended ingredients usually are declared as “cultured dairy solids” and may contain some combination of ingredients such as cultured non-fat milk, cultured whey, cultured whey protein concentrate, cultured dairy solids, non-fat dry milk, whey powder, lactic acid, and natural and artificial flavors. Silicon dioxide may be added as an anti-caking agent. Depending on the ingredient combination, the protein content may fall between 22% and

33%, which can be significantly less compared to yogurt powders that have typical protein contents of 33% to 36%.

There are minor variations in flavor and functionality between traditional yogurt powders, depending on the cultures used and pH achieved before drying. Blended cultured dairy solids often exhibit even greater variability because of the optional ingredients that may be added.

A few years ago, Dairy Management Inc., Rosemont, Ill., conducted a research project at the Southeast Dairy Foods Research Center, Raleigh, N.C., to explore the functional properties of yogurt powders. Researchers evaluated six domestic yogurt powders for color, pH, titratable acidity and foaming capability.

Organoleptically, yogurt powders add a unique tangy, dairy flavor that varies based on the ingredient's acidity. The researchers found that



samples ranged from pH 4.7 to 5.1, with lower pH ingredients being tarter. Titratable acidity measures the lactic acid present in the ingredient. The samples ranged from 5.8% to 7.4%. The variance also may impact taste and sometimes performance.

The researchers found that yogurt powders may produce significant overrun when

whipped, but do not produce stable foams. The amount of overrun varies in the range of 0% to 300%, depending on the product. Foaming may be a desirable attribute in a powdered beverage mix that consumers blend themselves, but an undesirable attribute in a ready-to-drink beverage, as foaming at the filler may cause manufacturing problems.

Yogurt powder ranges in color from off-white to pale yellow. In general, they exhibit good solubility. Once rehydrated, they will range in color from a milky white to pale opaque yellow.

Compared to working with fresh yogurt, yogurt powders have a different impact on finished product viscosity, as solids content is quite different. However, this may be adjusted through the use of stabilizers and other ingredients.

In conclusion, yogurt powders enable formulators to leverage the healthy halo of yogurt in all types of applications, allowing the food industry to deliver health and nutritional benefits that are new and exciting to consumers. FBM

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