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## Phil Tong on Nutritious Frozen Dairy

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Fast forward to 2009, and there is growing attention on low-/no-/reduced-fat or calorie ice cream, and low or non-fat frozen yogurts with live active cultures. Yes, the trend for some is to move away from decadence towards health when it comes to many food choices. And if the food is going to be indulgent, then try to make it a healthy indulgence.

Over recent years, ice cream processors have used innovations in ingredient technology to successfully reduce fat content and spark a generation of light ice creams. Then as the obesity issue came to the forefront, empty calories from sugar were in the limelight and ice cream processors and ingredient suppliers responded and found ways to make no sugar added or reduced/low sugar (carbohydrate) products. Then the advent of low temperature extrusion technology provided an additional tool to insure a smooth, creamy textured product at lower fat levels.

These and other innovations made it possible to reduce fat and reduce sugar and still deliver on consumer expectations for a pleasing eating experience. With these formulation changes, what was left was really a higher-protein frozen food. In fact, if you Google “high protein ice cream” you will get more than 500,000 references describing methods to make such a product and the associated health benefits.

Coincidentally, there is mounting evidence that consumption of dairy proteins can have many beneficial health benefits such as helping to maintain lean body mass, improving immune function and helping to control appetite. Consumers are looking for ways to increase dairy protein consumption – but it must taste good, too.

At the same time, consumers are warming to the functional food or food nutraceutical innovations. Dairy foods fortified with omega-3 fatty acids (brain function), phytosterols (anti-cancer), probiotics (intestinal health), vitamin D (heart health) and added calcium (osteoporosis, hypertension) are fueling many new product launches as consumers look to dairy foods as a vehicle to deliver improved health and wellness.

At the Dairy Management Inc. booth at the annual meeting of the Institute of Food Technologists this year, our lab demonstrated a reduced-fat toffee ice cream containing probiotics that attracted much interest among the food industry for its taste and potential health benefit messages. While such products can still serve as a nice ending to a meal as a dessert, these lower-fat, lower-sugar, higher-protein frozen foods now form the basis to be fortified and take on the nutrient profile and market positioning of a healthy snack or meal replacement that in many cases also can be a good to excellent source of protein and calcium.

This takes ice cream beyond birthday parties and after dinner treats and into new and growing food categories where moms and dads can provide a tasty frozen dairy food snack for their kids that is healthy. For the elderly who have difficulty swallowing and eating enough food because they “just don’t enjoy the taste anymore,” a nutritious, good-for-you, healthy frozen dish of high-protein ice cream might just be the ticket. And for us working stiffs that are always on the go, we can enjoy a refreshing, healthy frozen snack to refuel after a workout or maybe stem mid-day munchies and the temptation of waist-busting foods high in empty calories.

**Why might such ideas work? What is the connection?**

Frozen dairy foods like low-fat ice cream are formulated foods. These products have always been made by blending a host of ingredients and processing them to achieve the desired properties that can deliver on taste and basic nutrition. Hence, by including new criteria reflecting today’s consumer interests to formulate for specific health and wellness benefits, we can access a new array of ingredients and deliver the consumer benefits in a product that has always enjoyed high acceptability (really, does anyone not like ice cream?).

In some cases, the amount (dosage) of the nutraceutical is critical. Hence, portion control may become key to insuring success of such products. Just think, a probiotic-laden, omega-3-fortified, low-fat frozen novelty might be the prescription the doctor ordered!

I know anecdotal evidence can be suspect, but I’ll tell you that my own experience is that my kids have no problem eating foods that taste good that have other ingredients that are “good for you.” But when I tell them to eat something because it is “good for you” but they did not like the taste, it did not go far.

This makes some sense. We eat what we like. Give me a chocolate-covered, low-fat probiotic ice cream bar fortified with a healthy dose of vitamin D and other health benefits over a meal replacement bar that can pull out my gold fillings and taste like horse feed any day! I bet I am not alone, and dairy processors need to take stock in capturing these emerging opportunities that are a natural fit for this good-tasting frozen food.

For additional information, visit these sites:

- [www.nationaldairyCouncil.org/NationalDairyCouncil/Nutrition/Nutrients/Dairys+Nutrient+Package.htm](http://www.nationaldairyCouncil.org/NationalDairyCouncil/Nutrition/Nutrients/Dairys+Nutrient+Package.htm)
- [www.innovatewithdairy.com/InnovateWithDairy/Articles/Formulations-New](http://www.innovatewithdairy.com/InnovateWithDairy/Articles/Formulations-New)



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