



## Tone, not bulk



Active women may not realize how important protein intake is as a part of an overall exercise training program.

Glance at the label on any container of whey protein and you'll find imagery of bulging biceps and language clearly geared toward young men trying to bulk up. Most women, on the other hand, aren't looking for rippling muscles.

"Women are less familiar with whey protein and less likely to be thinking about protein in their diets. Plus active women may not realize how important protein intake is as a part of an overall exercise training program," says Laura Gottschalk, director of U.S. manufacturing and ingredient marketing for Dairy Management Inc. (DMI).

"That means the opportunity exists for marketing whey to women."

This spring, DMI conducted consumer research to identify messages that young,

active women find meaningful. The project was designed to understand and refine whey protein messages that encourage women to use whey protein in support of their health and body-image goals.

In all, DMI tested 21 statements in five categories. It conducted three on-line focus groups with 45 women aged 18-29 who exercise at least twice a week in a gym, including strength training as well as aerobics.

"Women responded best to messages about body toning and long-term health," Gottschalk says.

"Body toning is a benefit to which most women can relate," she continues. "The quality of a woman's shape is often more important to her than her actual weight. These women want to look their best and be toned, in shape, firm and healthy."

Regarding body toning, the following statements were especially meaningful:

- achieve muscle definition, not bulk
- tone up or firm up problem areas

- look healthy and in shape
- have your shape defined by muscle, not fat.

Long-term health, though not necessarily top-of-mind, also was an area of interest to these young women, Gottschalk says. When further questioned, they see long-term health as being able to stay active, healthy, independent and happy.

Unlike men, women responded less enthusiastically to messages pertaining to athletics and fitness, increased metabolism or increased strength.

"Messages about adding bulk, building mass or improving muscle repair after exercise had much less appeal to women," she explains.

Fortunately, whey protein works well in a variety of applications that women enjoy and find convenient, such as smoothies, isotonic and snack bars, Gottschalk says. Its neutral flavor and clarity also make it well-suited for beverages, and whey protein has advantages in taste and functionality compared with other protein sources.

"Most women believe there are clear, direct benefits to consuming high-quality protein," she says. "However, on average, women get only about 14 percent of their calories from protein, at the low end of dietary recommendations.

"There is certainly growth potential for whey if women can be given a compelling reason to increase their consumption of high-quality protein."

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## Ingredients in Anaheim



Yogurt-based chipotle ranch dressing was one of several prototypes DMI sampled at IFT '09.

More than 14,500 attendees from over 80 countries made the trek to Orange County for the 2009 Institute of Food Technologists (IFT) Annual Meeting & Food Expo, which was held June 6–9 in Anaheim, Calif.

At the show, Dairy Management Inc. (DMI) demonstrated how dairy ingredients and dairy foods can deliver on nutrition, functionality and flavor to meet today's consumer demands for convenience and healthy food choices. Five prototypes were sampled at the booth:

- A **yogurt-dipped peach snack bar** with 5g of whey protein that can help curb hunger
- A **fruit-flavored whey protein-enhanced frozen smoothie** with 10g of whey protein per 8-oz. serving aimed at active women
- A **chipotle ranch dressing with a natural yogurt base** that contains 90 percent less fat than regular light ranch dressing
- An **English toffee reduced-fat ice cream with probiotics** for digestive health
- A **macaroni dish enlivened with reduced-fat pepper jack cheese** targeted at time-pressed consumers seeking in-home meal solutions.

Interest from food and beverage manufacturers was high this year, says Kara McDonald, DMI's director of ingredient marketing and communications.

"Even though we're in down economic times, manufacturers seemed driven to get as much information as they could for product development, particularly in areas such as satiety" she says. "Companies want to keep the pipeline for new products filled."

In addition to sampling prototypes featuring value-added dairy ingredients that can improve a product's nutritional profile, DMI experts presented symposia and short courses to share the latest in cutting-edge dairy nutrition research. Topics addressed the unique aspects of dairy fat and the role of vitamin D in health. A short-course addressed the role of proteins in weight management and the health applications of functional dairy proteins. DMI also sponsored a symposium on sustainability initiatives in the dairy industry.

## ADSA symposium focuses on milk protein fractionation

This summer, Dairy Management Inc. (DMI) sponsored a symposium on developments in milk protein fractionation at the American Dairy Science Association (ADSA) annual meeting in Montreal.

Seven presenters covered a range of approaches, with the majority of the talks focusing on developments in capturing whey proteins from milk prior to cheesemaking.

Dr. Phillip Tong, director of the Dairy Products Technology Center at Cal Poly, provided an overview of the global opportunities for dairy proteins. In developing markets, dairy proteins can enhance basic nutritional status of the population. In more developed countries, providing added value through functionality and consistency is essential, he said.

Dr. David Barbano from Cornell University discussed milk refining, and compared various membrane designs and materials. Microfiltration of skim can directly isolate different groups of proteins based on differences in size, he told attendees.

Dr. Allen Foegeding and Dr. MaryAnne Drake from North Carolina State University presented research on the functional and sensory differences between whey extracted directly from milk vs. whey from cheesemaking.

The final three presenters shared new research developments.

Dr. John Lucey from University of Wisconsin-Madison explained a process for isolating beta-casein from whole milk, rather than skim milk. Dr. Mark Etzel, from the University of Wisconsin-Madison showed how positively charged membranes can increase the selectivity of ultrafiltration and allow the fractionation of proteins from cheese whey. Peggy Tomasula from USDA-ERRC's Dairy Processing and Products Research Unit showed how supercritical carbon dioxide, when injected into solutions containing whey protein concentrate or isolate, is effective for production of enriched fractions of alpha-lactalbumin and beta-lactoglobulin.

Nearly 200 people attended the symposium, including food and beverage manufacturers, dairy ingredient suppliers and academic researchers.

"We were able to get researchers from the Dairy Research Centers and USDA to present their key findings," says Raj Narasimmon, Ph.D., vice president of product research for DMI. "It was an excellent way to get this knowledge out to the field."

For copies of the Milk Protein Fractionation Symposium presentations, contact Amy Skovsende at amy.skovsende@rosedmi.com.

## Are you prepared?



**“Do you have a plan in case the unthinkable happens?”**

The food and beverage business is unforgiving when it comes to quality and safety. On any given day you can do 999 things right but do just one thing wrong and you can be front-page news.

In recent years, peanuts, pet food, lettuce, tomatoes and hamburgers have learned this lesson the hard way.

Fortunately, the U.S. dairy industry has a stellar track record for safety and quality. But the industry got a scare this summer when Plainview Milk Products Cooperative voluntarily recalled several ingredients due to potential salmonella contamination.

Although the product recalls generated media coverage over a month-long period, consumer awareness remained low and dairy demand was not impacted. Significantly, once the story broke, Dairy Management Inc. (DMI) put its crisis plan into action, developing alerts, sharing key messages, identifying spokespeople, monitoring media, and gearing up [www.dairyresponse.com](http://www.dairyresponse.com) and other crisis response tools in case the situation escalated.

This incident should serve as a teachable moment. Do you have a plan in case the unthinkable happens?

Last year, DMI and the U.S. Dairy Export Council (USDEC) carried out a “Dairy Ingredients Food Safety and Communications Audit,” a comprehensive review of the industry’s safety and crisis communications vulnerabilities. It revealed that many companies do an inadequate job of managing risks to their reputations. It also described how the development of a risk assessment map can help suppliers more objectively identify and prioritize risks and vulnerabilities that could impact their ability to conduct business.

Crisis communications planning needs to be a priority at every dairy company, and DMI has several tools to help. As a follow-up to the Safety and Communications Audit, DMI developed a “Quality and Safety Toolkit,” containing business-to-business communications materials for use by U.S. dairy ingredients suppliers.

In addition, DMI is conducting a series of crisis drills with dairy ingredient suppliers. These are ingredient-focused exercises, putting participants through simulated crisis situations to learn and practice proper responses.

DMI also presented a crisis preparedness webinar for the industry in June to introduce its new “Crisis Preparedness Toolkit,” which gives ingredient suppliers everything they need to develop customized emergency plans. The Toolkit includes key messages and detailed fact sheets that companies can use to enhance their reputation among customers and media as a safe and reliable supplier.

To order copies of any of these materials, or to participate in an upcoming crisis drill, contact me at 847-627-3292, or send an e-mail to [alan.reed@rosedmi.com](mailto:alan.reed@rosedmi.com).

A handwritten signature in black ink that reads "Alan Reed". The signature is fluid and cursive.

Alan Reed,

Senior Vice President, U.S. Manufacturing and Ingredient Marketing



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Dairy Management Inc.™ (DMI) is the nonprofit domestic and international planning and management organization responsible for increasing sales of and demand for U.S.-produced dairy products and ingredients on behalf of America's dairy producers. DMI manages the American Dairy Association®, Innovation Center for U.S. Dairy®, National Dairy Council® and U.S. Dairy Export Council®. DMI's Web site is [dairyinfo.com](http://dairyinfo.com).

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## News and notes

### Crisis drill held Sept. 23

DMI held a crisis preparedness drill for ingredient suppliers on Sept. 23 in Minneapolis. Over 80 participants from the dairy and food industries, government and academia prepared for an actual food-safety crisis by taking part in a hands on simulation.

### New blog covers nutrition issues

National Dairy Council (NDC) launched *The Dairy Report*, a new blog covering news, analysis and opinion on nutrition and health research. The blog acts as a forum for health and nutrition professionals to read about and share expertise, opinions and dialogue related to current trends and events in dairy foods, nutrition and science.

The Dairy Report is written by health professionals – registered dietitians, PhD nutritionists and communication experts at NDC. Visit the blog at [www.thedairyreport.com](http://www.thedairyreport.com).

### Tong named president of ADSA

Dr. Phillip Tong, director of the Cal Poly Dairy Products Technology Center (DPTC) in San Luis Obispo, Calif., was named president of the American Dairy Science Association (ADSA) for 2009/10. In his 20+ years at Cal Poly, Dr. Tong helped establish the DPTC, instructed undergraduate and graduate courses in dairy processing and organized numerous symposia and short courses. He has co-authored numerous scientific papers and abstracts of his group's work and has given presentations in more than 10 countries. ADSA is the leading dairy science organization, with more than 4,000 members. It also publishes *The Journal of Dairy Science*, the top-ranked dairy research journal in the world.

### DFA acquires Berkshire

Dairy Farmers of America (DFA) acquired Berkshire Dairy & Food Products, an ingredients supplier based in Wyomissing, Pa. No operational changes are planned. DFA says the deal is a strategic fit for its new ingredients division, formed in August 2008. Berkshire, founded in 1993, supplies a variety of fresh, manufactured and dry dairy ingredients to food manufacturers.

### Glanbia opens "collaboration center"

Glanbia Nutritionals opened a 7,000-sq.-ft. research and development facility in Twin Falls, Idaho. The new "Glanbia Collaboration Center" is designed to maximize interaction with customers and to reduce product development time by combining an R&D facility with a pilot plant. The operation will focus on developing and testing prototypes of bars, beverages, baked goods and other applications for Glanbia's dairy protein and flax ingredients.

### Functional foods continue to grow

Functional foods are a \$20 to \$30 billion per year business, representing about 5 percent of the total U.S. food market, according to a new study from PricewaterhouseCoopers. Soft drinks (including enhanced waters) are the top category, with \$9.6 billion in sales in 2007 and compound annual growth of 12 percent from 2002 to 2007. Dairy is second with sales of \$6.8 billion and 8 percent growth. Other top categories include bakery and cereals (\$4.6 billion, 8 percent CAGR) and confectionery (\$2.3 billion, 7 percent CAGR).

Ranked by product benefit, energy products dominate, with \$7.9 billion in sales, followed by heart-health products (\$5.0 billion), bone health products (\$3.7 billion) and gut health products (\$0.7 billion). Emerging product areas including those that enhance cognitive health, such as omega-3 fatty acids, as well as weight management, mood enhancement and skin enhancement products, PricewaterhouseCoopers says.