

U.S. Dairy Export Council.

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USDECTews September 2009

Editorial______SIMPLE

现今,消费者在购买和消费产品时,更加关注其质量和营养价值。这促使食品加工制造者应用高质量的食品配料来生产更具营养的产品以满足消费者的需求。在众多的选择中,乳制品特别是乳清蛋白,无疑是广受欢迎的配料之一。

乳清产品在食品工业中不断增长的应用体现在中国的进口数据之中。今年上半年,中国共进口了14.16万吨乳清产品,比去年同期增长了48%,而来自美国的乳清产品几乎是去年同期水平的两倍;蛋白质含量大于等于80%的高蛋白乳清产品的进口量是去年上半年的3倍,美国在这一领域的市场份额也增加了11%。

为了帮助大家更好的了解美国乳清蛋白及其在食品工业的应用,美国乳品出口协会中国代表处将于2009年11月11日在北京举办为期一天的专题研讨会,有关这次研讨会的信息将会公布于我们的网站www.usdec.org/China,也欢迎您直接与我们联系。

本期信息季刊中将向您提供今年上半年美国乳品出口情况的总结,并分析目前市场现状背后的原因和驱动因素。季刊中还将向您介绍"乳制品为什么能增加差异优势"以及将乳制品纳入每日膳食为何能帮助实现理想中的健康目标。

此外,我们还要向您介绍三家美国乳品出口协会的会员公司: 两家乳品制造商 Lactalis Ingredients与O-AT-KA Milk Products Cooperative, Inc., 和一家贸易公司NorthWoods Group Ltd.

希望您喜欢这期季刊提供的内容,并与他人分享这一季刊。我们期待您的反馈, 得到您对这份季刊的宝贵建议和意见,谢谢!

(continued on page 2)

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U.S. Dairy Industry News

(continued from cover editorial)

Editorial ENGLISH

Chinese consumers are paying more attention to what they purchase and consume, with an added focus on quality and nutritional value. This encourages food manufacturers to develop more nutritious products with high quality food ingredients that address the needs of consumers. Among the options available, dairy ingredients, especially whey proteins, are definitely one of the most popular choices.

The increasing number of food applications in China utilizing whey products is reflected in the import data. In the first half of this year, total whey imports into China were 141,600 metric tons (MT), up by 48% compared to the same period of 2008, while U.S. whey imports to China during the first half of 2009 were nearly double the 2008 figure. The import volume of whey protein concentrate (WPC) at an 80% or higher protein concentration tripled compared to the first half of last year, with the U.S. market share in this sector increasing by 11%.

To help you better understand whey protein and its applications in the food industry, the USDEC China office will hold a one-day seminar on November 11th in Beijing. Information about the seminar is available on the USDEC China website, www.usdec.org/China.

This edition of USDEC**News** contains an update on the U.S. dairy export market from January to June, 2009. The article provides clarity on the dynamics responsible for the current market situation. The newsletter also reviews why "dairy adds the difference" and how dairy products, when included in the daily diet, can help individuals achieve their optimal health goals.

We are glad to introduce three USDEC members in this edition of the newsletter. Two of the members are processors, Lactalis Ingredients and O-AT-KA Milk Products Cooperative, Inc., and the other, NorthWoods Group Ltd., is a trading company.

We hope you enjoy reading the newsletter and invite you to share it with others. Your comments and questions are welcome, as always!

More from USDEC

USDEC Has a New Publication

U.S. Whey Ingredients in Yogurt and Yogurt Beverages

USDEC has released a new monograph which reviews the functional benefits associated with adding whey ingredients to yogurt products. It identifies the whey ingredients best suited for the various types of yogurt

products in the marketplace today, as well as presents opportunities for innovative product development. The monograph is available in English at http://usdec.files.cms-plus.com/PDFs/2008 Monographs/YogurtMonograph2009.pdf



USDEC News is published by the U.S. Dairy Export Council (USDEC) and is designed to provide up to date information about the U.S. dairy industry for the benefits of our international partners.

USDEC was formed by Dairy Management Inc. in 1995 to enhance the U.S. dairy industry's ability to serve international markets. USDEC is an independent non-profit membership organization representing dairy processors, exporters, milk producers and industry suppliers.

USDEC supports international buyers of dairy products by providing information about U.S. suppliers, their products and capabilities. We bring buyers and sellers together through conferences, trade missions and trade shows. USDEC furnishes application and usage ideas for U.S. dairy ingredients through seminars, one-on-one consultations and technical publications. We assist with foodservice promotions, menu development and education. We also work with local authorities to resolve market access issues that ensure reliable delivery for customers and importers. When you work with USDEC and its members, you are partnering with companies that manufacture and export more than 85% of all U.S. dairy products.

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Mid-Year State of the U.S. Market and Export Situation

U.S. dairy markets were unsettled at the beginning of the third quarter of 2009, the outlook muddied by various government and industry intervention programs designed to speed the recovery from historically low prices.

The farm sector has turned up the volume on calls for regulatory reform and assistance, although sufficient consensus has yet to develop around a single plan. A supply management regime has received some consideration, but a significant contingent has rejected it. There have been pleas for changes in pricing regulations; however, history has shown that major changes to pricing regulations are usually reserved for the Farm Bill, which isn't due for renewal until 2012.

But a few adjustments to the natural order have been made. In June, the voluntary, industry-funded Cooperatives Working Together (CWT) program wrapped up its largest cow buy-out yet, removing 1.1% of the U.S. milk supply by funding the herd retirement of more than 101,000 cows. Two weeks later, CWT called for another round of bids, and by the end of July it committed to culling an additional 87,000 head, which would further reduce the milk supply by 0.9% by the end of September.

In the first half of 2009, U.S. milk production was up 0.3% (adjusted for leap day). With the heavy culling – both via CWT and independently by cash-pinched producers – output is expected to contract significantly in the second half.

At the same time, the U.S. Department of Agriculture (USDA) announced a three-month increase in its purchase prices for cheese and nonfat dry milk (NDM). For August through October, the support price was increased 18¢/lb (40¢/kg) for cheese (to

\$1.31/lb (\$2.89/kg) for blocks and \$1.28/lb (\$2.82/kg) for barrels) and 12¢/lb (26¢/kg) for NDM (to 92¢/lb (\$2.02/kg)).

Spot prices immediately rallied to match the new support levels. However, demand remains lackluster and inventories are heavy, so it is unclear if prices will hold beyond the temporary support boost. Cheese users built stocks this spring when prices were wallowing at lower levels, which may temper purchases this fall. Manufacturers were holding more than 88,000 metric tons (MT) of NDM in storage at mid-year (up 41% from the year before) and government NDM purchases topped 73,000 MT in the first seven months of the year.

Calls for additional interventions complicate matters further. For instance, an amendment is moving through Congress that would raise support prices even more. And even if that doesn't pass, USDA is sure to feel pressure to extend the higher levels beyond October.

The USDA re-authorized the Dairy Export Incentive Program (DEIP) in June and in the first two months it was open it accepted bids to provide bonuses on 28,944 MT of NDM, 4,242 MT of butterfat and 191 MT of cheese. Most of this product will be shipped by the end of the third quarter. Allocations are still available for bonuses on 39,257 MT of NDM, 7,605 MT of butterfat and 2,839 MT of cheese.

Even before DEIP bonuses became available, U.S. dairy exports started to show small signs of improvement. In June, U.S. exports of whey proteins, lactose, fluid milk and ice cream were above year-ago levels, shipments of cheese were the largest since last October, and exports of NDM and skimmed milk powder (SMP) rose for the fourth straight month. U.S. dairy

exports in June were valued at \$186.1 million, the highest figure posted this year, according to the latest trade data from USDA's Foreign Agricultural Service (FAS).

Exports of whey proteins posted across-the-board gains in June versus June 2008. Dry whey exports were 17,482 MT (+15%), whey protein concentrate (WPC) exports were 10,276 MT (+3%) and exports of whey protein isolate (WPI) were 1,495 MT (+89%). June marked the first increase in WPC exports in more than a year. U.S. suppliers exported 20,760 MT of lactose in June, up 35% from last year. Fluid milk exports in June were up 27% versus a year ago, while ice cream shipments were up 11%.

Despite these encouraging signs, exports continue to trail last year's record pace in several key product categories. In June, U.S. suppliers exported 20,390 MT of NDM/SMP, up 51% from the low posted in February (on a daily-average basis), but still 55% below a year ago, says USDA/FAS. Cheese exports in June were 9,271 MT, 21% more than March (daily-average basis), but still 23% less than a year ago. Butterfat exports continue to lag; in June, shipments were just 1,642 MT, down 81% from a year ago.

Reduced export volumes, together with slashed world prices, have put a dent in overall export sales figures. In the first half of the year, exports were valued at \$1.04 billion, down 51% from 2008. Sales to virtually all markets were down: the value of shipments to Southeast Asia plunged 71% in the January — June period, sales to the Middle East/North Africa dropped 79% and exports to Mexico and Japan declined by 38% and 39%, respectively.



In the News...

New USDEC Members

• USDEC welcomes five new companies to the membership: Commercial Creamery Company, a dairy cooperative and manufacturer based in New Ulm. Minnesota: Interfood Inc. a supplier of dairy products located in Waltham, Massachusetts; Kan-Pak LLC, a processor of frozen beverages and desserts headquartered in Arkansas City, Kansas; Saputo Cheese USA Inc., a cheese and whey ingredients manufacturer based in Lincolnshire, Illinois; and Vitusa Corp., a manufacturer and distributor of feedstuffs and dairy products located in Englewood Cliffs, New Jersey.

New Plants and Upgrades

- Byrne Dairy is investing \$350,000 in a new pilot processing plant in DeWitt, New York. The facility will create custom flavors and formulas for milk, coffee creamers and ice cream.
- Dairy Farmers of America (DFA) is investing \$39.4 million to double capacity and renovate its Schulenburg, Texas, plant, which produces shelf-stable cheese sauces and dips.
- Masters Gallery Foods completed a \$9 million expansion of its Plymouth, Wisconsin, manufacturing and distribution facility. The project more than doubled the plant size, adding producing, warehousing and office space.
- Sorrento Lactalis broke ground on an expansion of its whey drying operation at its Nampa, Idaho, cheese plant. The \$50-million project is expected to be complete by the summer of 2010.

Moves and Consolidations

- Dean Foods will close its Pet Dairy
 plants in Portsmouth, Virginia, and
 Kingsport, Tennessee, as part of
 ongoing efforts to cut costs and
 streamline efficiencies.
- Frog City Cheese of Plymouth Notch, Vermont, closed. The plant,

- originally called Plymouth Cheese Factory, was founded by the father of president Calvin Coolidge and sits on a historical site named for the 30th president.
- Leprino Foods is re-evaluating construction of a proposed \$140-million mozzarella plant in Greeley, Colorado. The prospect of declining milk production in the state, plus the failure of one of the largest agricultural lenders in the region, have put ground-breaking on hold.
- Saputo Cheese USA Inc. plans to close one of its plants in Fond du Lac, Wisconsin by the end of the year to improve overall operational efficiency. Their other plant in Fond du Lac, which produces blue cheese and other dairy products, is not affected.
- Swiss Valley Farms exited the milk bottling business with the sale of its Dubuque, Iowa, plant to Prairie Farms. Swiss Valley will continue to supply raw milk to the Dubuque facility, but will now focus on its cheese business. Prairies Farms owns 24 processing plants and has joint ventures in 13 others in the Midwest and mid-south.
- Vermont Milk Company, a farmer-owned processor based in Hardwick, Vermont, closed after three years in business.

Acquisitions and Mergers

- Arthur Schuman Inc., said to be the largest importer of hard cheeses in the United States, acquired Wisconsin Farmers Union Specialty Cheese Company, LLC, Montfort, Wisconsin, from the Wisconsin Farmers Union. The plant makes blue, gorgonzola and other specialty varieties.
- Dairy Farmers of America (DFA) acquired Berkshire Dairy & Food Products, an ingredients supplier based in Wyomissing, Pennsylvania. No operational changes are planned. DFA says the deal is a

- strategic fit for its new ingredients division, formed last August.
- Dairy Farmers of America (DFA) sold its National Dairy Holdings unit to Grupo Lala, Mexico's largest dairy processor. National Dairy has 18 processing facilities and 79 distribution centers in 13 states. It now operates as a whollyowned subsidiary of Lala. The existing management team continues to lead the day-to-day business.
- Foster Farms, Modesto, California, was the only bidder for Humboldt Creamery, acquiring the bankrupt co-op's Fernbridge and Stockton, California, plants for \$19.25 million. Humboldt's Los Angeles and Loleta, California, plants will be auctioned off separately. Humboldt declared bankruptcy in April. Foster Farms has three processing plants and eight distribution facilities across California, and posted approximately \$300 million in sales last year.
- Nasonville Dairy, Marshfield, Wisconsin, acquired Suttner's Cheese, based in nearby Curtiss, Wisconsin. Former owner Dennis Suttner will retire and Nasonville will absorb the business into its existing operation.
- National Dairy Holdings (NDH),
 Dallas, Texas, acquired Promised
 Land Dairy Distribution, a
 Floresville, Texas-based processor of all-natural fluid milk from Jersey cows. NDH, now owned by Grupo Lala (see above), plans to expand Promised Land into a national brand.
- Saputo Inc. acquired F&A Dairy of California, a manufacturer of mozzarella, provolone and whey products based in Newman, California, for \$44.5 million. Last year F&A produced about 27,000 metric tons (MT) of cheese and posted sales of about \$140 million. F&A Dairy of California is separate from F&A Dairy, based in Las Cruces, New Mexico. Saputo is one of the top three cheese processors in the United States.



U.S. Butter: An Important Ingredient for Every Kitchen

First churned some 4,000 years ago, butter quickly became a basic and important food. It all began, so the story goes, one hot day when a nomad tied a pouch of milk to his horse's neck and later found the heat and jostling had churned the milk into a tasty, yellow product.

For years, butters were produced at home on the farm. Fresh cream was churned or agitated until the milk fat separated from the moisture and the proteins in the cream and coagulated into a mass of butterfat known simply as "butter". A small amount of salt was often added to the butter to extend its shelf life. Today's equipment and techniques are slightly different, but after thousands of years, butter is still produced in this simple fashion.

Butter is an ingredient with many functional advantages. The rich flavor imparted by butter has led to its becoming an integral ingredient in entrees. sauces, baked goods, confections and countless other dishes. Not only does butter provide its own unique flavor, but it also works well as carrier for other flavor compounds. Butter also has a luscious mouth feel that yields a rich, creamy taste in everything it touches. When used for pan frying or sautéing, butter sears and browns both meat and seafood perfectly. In bakery products, butter not only helps to impart the characteristic flavor to fresh-baked goods, but it helps in maintaining crumb softness, aids in the development of flaky crusts and pastries, and provides significant added value.

Types of U.S. Butter

There are a variety of U.S. butter products available to meet the diverse cooking and baking needs of individuals, bakers/chefs and food manufacturers. From salted stick butter to flavored butter to whipped butter, there is a product suitable for every need.



Salted vs. Unsalted

Salted butter is the most popular as a general all-purpose butter. A small amount of salt enhances flavors and extends the shelf life. Unsalted butter is often used in pastries and sweets. It's also a good choice for seafood and shellfish, allowing their natural, sweet flavors to come through.

Cultured Butter

Cultured butter originated in Europe, but it is now produced by a number of specialty butter-makers in the United States. For many reasons it has quickly become a favorite of consumers and chefs all over the world. Cultured butter is produced in a similar fashion to other butters, but starts with the addition of natural and beneficial cultures, similar to those used in the production of sour cream. These lactic acid-type cultures help produce a tangy, more pronounced flavor in the final butter. The cultures also help yield a longer shelf life. Cultured butters are cherished for their unique assertive flavors and the way they perform in the kitchen. They typically have a lower moisture content which helps produce lighter and flakier textures in various doughs, breads and pastries. This is why bakers and pastry

chefs often use cultured butters in their favorite recipes.

European or Hotel-style Butter

Chefs often refer to butters that are higher in butterfat and lower in moisture as "European" or "hotel"-style butters. The cream is churned longer and slower yielding higher butterfat content and lower moisture content. Whereas butter contains at least 80% butterfat, these butters typically contain 82-84% butterfat. This type of butter is preferred by many chefs for cooking, especially in baked goods, pastries and sauces. Hotel-style butters also work well under high heat for frying and sautéing.

Clarified Butter

Clarified butter refers to a process in which all moisture and milk solids are removed, yielding a clear or clarified butter. In this process, butter is slowly cooked over medium heat forcing the butterfat, water and milk solids to separate into three different layers. After cooking, the milk solids or proteins rise to the top and are skimmed off while any water or remaining moisture stays on the bottom of the pot. In the final part of the process the butter is poured or "drawn" off the top, yielding "clari-



Cheese & Manufactured Products

fied" butter. The resulting butter can be cooked at high heat without browning or burning. Clarified butter is therefore a perfect choice when frying, sautéing or making pan sauces. The process of clarifying butter was originally done at home or by chefs in their kitchens, but commercially prepared clarified butter is now available. Some similar products are instead referred to as "anhydrous" butter, where all the moisture has been removed in the manufacturing process.

Whipped Butter

When fresh out of the refrigerator, butter is firm and difficult to spread on fresh-baked breads or toast. Many manufacturers offer a product where the butter is whipped before packaging yielding a soft, fluffy texture that makes spreading the butter easy, even when cold.

Spreadable Butter

Another popular product known as spreadable butter is made by blending a small amount of canola oil or other vegetable oil into butter. The addition of the oil helps make the butter spreadable when cold. If oils are used in this fashion, the product must be clearly labeled as such.

Why U.S. Butter?

The United States is a leading producer of butter, producing over 750,000 MT in 2008. The nation possesses fertile farmlands that support the growth of crops necessary to support dairy herds and milk production. The same top quality milk that makes U.S. cheeses international award winners is also the source of the cream used to produce top quality U.S. butters.

The U.S. Department of Agriculture (USDA) and the U.S. Food and Drug Administration (FDA) ensure that U.S. dairy products meet the most rigorous sanitation and quality standards in the world. Federal standards of identity dictate that U.S. butter must be made from fresh pasteurized milk or cream. USDA graded butter complies with strict flavor, texture and visual standards. This grading system ensures



that customers receive the highest quality butter available.

For thousands of years mankind has thrived on butter, and even today butter is treasured for its unique and delicious flavors, the ways it performs in cooking applications, and the way it enhances other foods. It is also a natural dairy food whose basic ingredient is cream, requires minimal processing, and utilizes simple production methods. For all these reasons, butter has stood the test of time and continues to be an important ingredient in every kitchen.

To find a supplier of U.S. butter, please refer to the U.S. Dairy Export Council's supplier directory at www.usdec.org/suppliers and select "Butter" from the product list.

USDEC would like to thank Mr. Regi Hise, President of Foodtrends, LLC, and the Wisconsin Milk Marketing Board for their contributions to this article.

Photos courtesy of the Wisconsin Milk Marketing Board, Inc. © 2009.

Forms of U.S. Butter

U.S. butter is readily distributed in both the retail and foodservice sectors.

Consumer & Retail Butter Forms

450 g Quarters: Four sticks are wrapped in waxed paper and combined in a 450 g carton. The sticks are typically marked for easy portioning and measuring for recipes.

Tubs: Whipped and flavored butters are most often packaged in 226 g or 450 g plastic tubs.

Foodservice Butter Forms

Bulk: Size and package weights vary. Butter is packed in poly-lined cardboard cartons. The two most popular sizes are 3.6 kg and 31 kg.

Blocks: A 450 g block is wrapped in waxed paper and boxed.

Chips - Individual Service Portions: Individual die-cut pats of butter are adhered to oil-proof paper sheets. Portion sizes can be customized to the customer's specification. The most popular sizes are 1.7 g and 3.4 g butter pats.

- 90/1.7 g or 45/3.4 g butter pats per sheet
- 3 Sheets per 450 g

The typical package size is a 2 kg box with 4 boxes per case.

Reddies - Individual Service Portions: Individual pats are placed on oil-proof paperboard cards and covered with oil-proof paper. Portion sizes can be customized to the customer's specification. The most popular size is a 5 g butter pat.

- 45/5 g butter pats per sheet
- 2 sheets per 450 g

The typical package size is a 2 kg box with 4 boxes per case.

Continentals - Individual Service Portions: Individually foil-wrapped chips or pats.

Portion Service Cups - Individual Service Portions: Chip or pat size portions are placed in plastic containers and over-sealed with tin foil.



"Dairy Adds the Difference" at IFT 2009

By K.J. Burrington, Wisconsin Center for Dairy Research

Dairy Management Inc. $^{\text{\tiny{TM}}}$ (DMI) worked aggressively to give dairy a strong presence at the Institute of Food Technologists (IFT) 2009 Annual Meeting and Food Expo, held in Anaheim, California, June 6-9. As in past years, the goal was to showcase value-added food products with dairy ingredients incorporated into the formulation. Five different food prototypes were designed specifically for IFT 2009 and introduced at the Food Expo. Each prototype delivered key, dairy-related nutritional messages to the event attendees. Given the positive feedback and reception, dairy products were well positioned at IFT this year.

Satiety

It has been shown that diets high in protein increase feelings of fullness after a meal. Foods containing whey protein can help consumers achieve higher protein intakes and the resulting satiety benefits. Developing foods that provide at least 5 g protein per serving (10% of the daily value) from high quality proteins, like whey proteins, helps add protein to the diet throughout the day. Almost 90% of adults say they have a snack every day and most eat snacks to control hunger.²

DMI created a Yogurt-Dipped Peach Snack Bar to help consumers add the needed high-quality protein and increase satiety. In addition to protein; the bar has the added benefits of dairy ingredients. The yogurt powder in the



yogurt coating adds a delicious flavor plus all of the nutrients found in milk. Whey crisps contribute whey protein and a crispy texture. Whey protein isolate (WPI) delivers additional protein that is easily digested and absorbed by the body.



Muscle Recovery

This year there was a special focus on women and how whey protein can help them achieve their body-toning goals as part of a resistance training program. Recent studies have shown that 10 g of whey protein was enough to stimulate muscle protein synthesis after resistance exercise. Whey protein contains all nine essential amino acids that the body requires. The essential amino acids cannot be produced by the body so they must come from the daily diet. Beverages can be a refreshing and good-tasting way to consume whey protein.

DMI developed a Razz-A-Tan Frozen Fitness Smoothie to deliver all the muscle benefits of 10 g of whey protein per 237 ml serving. This smoothie is a ready-to-drink product designed for a slushie machine which is often found in quick serve or fast food restaurants. Made with fruit puree, whey protein, water, soluble fiber, a low-calorie sweetener, and natural flavors, it eliminates the need for a blender but still provides a refreshing, frozen and nutritious drink.

Smoothies are popular with women and most women are familiar with the protein boosts available in smoothies, such as Starbuck's *Vivanno*. ⁴ Whey proteins have a clean, neutral taste plus good solubility and heat stability at the acid pH typical of smoothies.

Healthy Eating

In a recent survey, 60% of consumers responded that they were eating healthier than they had in the previous year.⁵ Fat calories have always been a focus in terms of healthy eating. Most consumers, especially females, say low-fat is a more meaningful claim than low-calorie or low-sugar.⁶



Salads are considered a healthy food choice but salad dressings can add unnecessary fat and calories to a generally lower calorie food option. A typical salad dressing may contribute 17 g of fat per serving and all of the fat is vegetable fat. In order to offer a healthier, dairy-based alternative, DMI developed a Yogurt-based Chipotle Ranch Dressing. The dressing contains over 50% plain yogurt and has only 0.5 g fat and 20 calories per serving. Using yogurt as an ingredient provides a natural, healthy base that is appealing to consumers

Another healthy addition to the prototypes offered at the booth was the Pepper Jack Mac & Cheese. Macaroni and cheese is a popular comfort food in the United States with both children

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and adults. The traditional homemade macaroni and cheese is made with full-fat natural cheeses, milk, and sometimes sour cream, all which deliver great flavor and creaminess but also a considerable amount of fat. The Pepper Jack Mac & Cheese provides a dairy-packed meal using reduced-fat evaporated milk, 2% milk, full-fat and 50% reduced-fat pepper jack cheese, and some processed cheese. One cup contains 12 g fat and 380 calories and

lots of cheese flavor with a little bit of heat from jalapeños.

Digestive Health

A healthy digestive tract is a newer concept for many people. Some companies, such as Danone, have invested a significant amount of time and money in educating consumers about the benefits of probiotics. Dairy products such as yogurt and yogurt drinks have been the primary vehicle for delivering the benefits of probiotics to consumers, but opportunities have expanded into additional products such as cheese, ice cream, nutrition bars, cereals, juices,



and others. DMI developed a popular dairy dessert, English Toffee Reduced-Fat Ice Cream, to deliver probiotics to consumers. Containing 27% less fat than regular ice cream, it provides a healthier alternative to other ice creams or frozen desserts.

The prototypes described in this article provide good examples of how you can leverage the flavor, functional and nutritional benefits of dairy ingredients.

For more information on food applications for U.S. dairy ingredients, including the ones listed in this article, please visit www.usdec.org or www.innovatewithdairy.com.

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Yogurt-Dipped Peach Snack Bar

Ingredients: Usage Levels (%) Low-Fat Granola Cereal w/o Raisins 24.22 Yogurt Coating14.96 Whey Crisp 50%12.57 Whey Protein Isolate3.50 Honey0.74 Total100.00%

Preparation:

- Combine granola cereal, peaches, almonds, whey crisp, cinnamon and whey protein isolate and set aside.
- 2. Combine remaining ingredients except vanilla, natural peach flavor and yogurt coating and heat syrup to 88°C.
- 3. Add vanilla and peach flavor.
- 4. Combine cooked syrups and dried ingredients and mix until dried ingredients are coated uniformly.
- 5. Compress into a sheet and cool. Cut to desired size: 3.2 cm x 3.2 cm x 1.9 cm.
- 6. Half coat the squares in yogurt coating and allow to cool.

Additional information, including nutrition facts, is available at http://www.innovatewithdairy.com/NR/rdonlyres/C105C2A2-AA8C-49B0-AD2F-25C495526314/9292/YogurtDippedPeach_SS_HR.pdf



Dairy Products and Metabolic Syndrome



Diabetes and cardiovascular disease (CVD) are two of the top global health concerns and both have a devastating impact on health, quality of life and financial security. The risk factors for diabetes and CVD are closely associated and have been clustered together and given the name "metabolic syndrome". Other names commonly used are insulin resistance syndrome (IRS) or syndrome X.

According to the International Diabetes Federation, the metabolic syndrome is estimated to affect close to a quarter of the world's population. Individuals with the syndrome have three or more of the following risk factors: obesity, insulin resistance, elevated blood pressure, low HDL cholesterol, high LDL cholesterol and high blood triglycerides. In the early stages, the symptoms of metabolic syndrome are often minor and left undiagnosed until they become serious.

Physical activity and nutrition, including high quality, protein-rich food products, play a key role in helping to prevent or delay the metabolic syndrome. Dairy products, including whey proteins, milk powders and yogurt, have been shown to play a beneficial role in this effort for a variety of reasons as further described.

Maintain a Healthy Weight & Body Composition

Obesity is a primary catalyst for the metabolic syndrome. Weight management is one of the most important strategies in managing the syndrome however, weight loss is often difficult and maintaining it even more so.

Diets rich in dairy proteins are proven to be extremely effective in the battle to both lose weight and maintain the weight loss. Given the magnitude of the obesity epidemic, scientists continue to explore the overall impact of low-fat, high-carbohydrate diets versus low-fat, high-protein diets. A recent study in the Netherlands again confirmed that low-fat, high dairy protein (whey or casein) diets were extremely effective for weight management.¹

In another study, the addition of 10% whey protein to a breakfast meal was found to be more effective in reducing hunger than the addition of equal amounts of vegetable protein. The differences were less when the protein levels were increased but the findings indicate that a high protein diet with whey proteins may help prevent people from overeating.²

Body composition is also an important factor in the metabolic syndrome as individuals with a higher proportion of abdominal, or "belly" fat, are more at risk. Visceral fat, which is the deep layer of belly fat in the abdomen, has been linked to insulin resistance and subsequently diabetes, CVD and even dementia.³

Dr. Donald Layman and colleagues concluded a 12-month trial to evaluate the effect of diet on long-term changes in body composition and blood lipids. Two types of calorie restricted diets were compared: one diet contained 15% protein and the other 30% protein. Although individuals in each group lost similar amounts of weight, the 30% protein group lost more body fat and had greater improvements to their body composition. These results support earlier findings that higher-protein, lower-carbohydrate diets are more effective in reducing body fat.⁴

Three daily servings of low-fat, calcium-rich dairy products (i.e. 240 ml of reduced or nonfat milk, 170 g of yogurt, and 175 g of low-fat cheese) have been repeatedly shown to deliver better results in terms of increased weight and fat loss, including abdominal fat, when incorporated into a reduced-calorie diet.5 Whey proteins, with their high quality profile and rich amino acid content, are often preferred protein sources for meal replacement products, snack foods, breakfast products and other types of foods used to help reduce hunger and help individuals lose or maintain a healthy weight.

Manage Blood Glucose Levels

Weight gain often results in elevated blood glucose levels and, if not controlled, type 2 diabetes. Diabetes is a known risk factor for CVD and individuals with diabetes are two to four times as likely to develop CVD compared to non-diabetics. Type 2 diabetes used to be a problem starting in middle-age but a growing number of children are now being diagnosed. Here again, according to observational studies,



there is a value-added effect when low-fat dairy products, such as whey protein, are a regular part of a weight management regime. Whey protein and casein, as part of a meal or snack, have the added benefit of helping individuals maintain healthier blood glucose levels and higher amounts of energy.

Reduce Blood Pressure Levels

High blood pressure, or hypertension, is estimated to cause one out of every eight deaths, making it the third largest killer in the world. There is considerable data to support the intake of low-fat dairy products as part of the daily diet to help manage hypertension. Dairy products are natural sources of calcium, magnesium and potassium, all of which have been shown to have a blood pressure lowering effect, with calcium having the greatest impact. In fact, when dairy calcium intake is increased to greater than 1000 mg/day there is a proven and significant reduction in hypertension. As a result, low-fat dairy products are a key part of the DASH (Dietary Approach to Stop Hypertension) diet which is frequently recommended by health and nutrition professionals to manage or help prevent hypertension.6

Dairy peptides, primarily those in whey protein, have also been shown to play a beneficial role in managing blood pressure due to their angiotensin-converting enzyme (ACE) inhibitory properties. ACE is an enzyme with an important role in the regulation of blood pressure. When dairy peptides inhibit ACE the result is reduced blood pressure. Whey derived peptides have also been reported to improve vascular function in healthy adults. Dairy peptides are found in various amounts in hydrolyzed whey and casein powders, and even in some types of cheeses.



Control Blood Lipid Levels

HDL (good) cholesterol, LDL (bad) cholesterol and triglyceride levels are key indicators of heart health. Some individuals may require drug therapy to maintain healthy levels however, according to a number of studies, a low-fat, dairy-rich diet may help delay, or possibly prevent the need for this type of treatment.

HDL cholesterol levels above 40 mg/dL help protect against heart attack and stroke. On the other hand, too much LDL cholesterol in the blood can be a time bomb as it slowly builds up in the walls of the arteries and causes a stroke or heart attack. Claims have been made that the dairy fats contribute to CVD but in some studies milk fat has actually been shown to increase HDL cholesterol. Milk fat has also been associated with a reduced risk of stroke, especially in women however, additional studies are needed. 10

Triglyceride is a type of fat made in the body and high levels are associated with a high carbohydrate diet, limited exercise, smoking and excess alcohol consumption. Diet modification by reducing carbohydrate intake and increasing dairy protein intake helps control weight and it has also been shown to help maintain lower triglyceride levels and increase HDL cholesterol.⁴

Danish researchers compared the effects of whey and several other protein sources (casein, cod and gluten) on blood lipid responses in individuals with type 2 diabetes after they consumed a high-fat meal. Whey protein was the only one tested that reduced the post-meal triglyceride response, or expected increase.¹¹

Study after study confirms the importance of good nutrition and protein, even more so than in the past, is considered a critical part of the diet. Whey proteins and milk powders, with their high protein content, together with other low-fat dairy products, are optimal choices for healthy food products to help prevent or delay the risk factors of metabolic syndrome.¹²

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Lactalis Ingredients

Lactalis Ingredients U.S., located in Buffalo, New York, is one of the leading suppliers of dairy-based ingredients in the nation, and a major exporter of dairy proteins. While Lactalis manufactures a broad portfolio of standard dairy protein products and cheeses, specialized products are driving the growth of the company, and leading to new investments in its facilities. These include a native whey protein extracted from milk and a whey protein concentrate (WPC) with excellent gel strength and emulsion properties.

The specialized ingredients, which are a major part of the company's export business, have driven plans for an expansion. "A big move for us will be in 2010, when we will invest \$50 million for a new drying tower in our Nampa, Idaho, facility," says Yann Connan, vice president of Lactalis Ingredients U.S. "This will be one of the largest dryers in the world, and will allow the manufacture of a new generation of ingredients that we consider to be the 'Rolls Royce' of proteins."

Lactalis USA was established in 1992 when the storied French maker of camembert purchased the Sorrento Cheese Company, in Buffalo. Currently, it operates five plants including the former Sorrento plant in Buffalo, the Nampa facility, two plants in Wisconsin and one in Tipton, California.

Lactalis Ingredients U.S. produced more than \$100 million in sales in 2008. The major product areas for exports are whey ingredients, dairy blends and nutritional and health products.

"We started with sweet whey powder for bakery and chocolate blends, cookies, ice cream and other major applications," Connan says. "Then we included more value-added products, such as WPC 80, which is used primarily in sports and nutrition products with additional applications for pharmaceuticals and infant formulas."

Installation of the new dryer began in August, and Lactalis is optimistic that it will be producing for shipment by July 2010. One of those products will be Prolacta, the patented Lactalis native whey protein concentrate extracted directly from milk rather than from whey.

The production process for Prolacta is carried out at a low temperature, and as such preserves the native nature of the protein; the absence of protein denaturation allows the proteins to fully express their functional power (water retention, texturizing, overrunning, etc.). But principally, Connan says, this results in an ingredient that can produce infant formulas nearer in composition to breast milk, with a higher level of tryptophan than other formulas and an amino-acid profile that differentiates it from competitors.

Another product that will come from the expanded Idaho plant is WPC 80 High Gel, which has certain constituents that allow it to function as a protein replacement in seafood products, like fish sticks and crab meat analogs. WPC 80 High Gel also has applications in yogurt blends, cheese, and nutritional bars, where it helps avoid hardness in the bars.

Cheese Too

Cheese, when produced as an ingredient for other food products, is sold through Lactalis Ingredients, Connan explains, while branded cheese products like President Brie and Rondelé spreads are sold through the Consumer Foods Division.

The Ingredients Division directly exports frozen mozzarella and pecorino romano. Some is sold wholesale to



foodservice and food manufacturers under the Sorrento brand. As vet there has been no co-branding at the consumer level. Lactalis cheese made in the United States is also consumed overseas as an ingredient in prepared foods. "With finished products, like lasagna or ravioli, our ricotta can be found around the world," Connan says.

Export markets for Lactalis Ingredients include Mexico, Canada, Israel, Korea, Japan, China, the Philippines, the Caribbean islands, Venezuela and Central America.

Connan says that global market conditions, along with the North American Free Trade Agreement (NAFTA), sparked some of the company's recent export activity, and that membership in USDEC has helped Lactalis make the most of the export opportunities.

Export Products

- Cheese: ricotta, mozzarella, pecorino, provolone, feta, brie and spreadable
- Cream
- Custom Formulated Dairy Blends
- Nutritional and Health Products: Prolacta – native protein
- Whey Ingredients: sweet whey powder, dried whey (7-9% protein), whey permeate, WPC 80 and WPC 80 High Gel

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NorthWoods Group Ltd.

NorthWoods Group Ltd. is a merchandiser of agricultural ingredients to leading food, industrial and animal feed companies around the world. Founded in 2000 and headquartered in Minneapolis, Minnesota, NorthWoods Group serves clients by managing the major aspects of commodity exporting.

The company specializes in commodity and customized dairy ingredients, including cheese, butter and dairy powders. In the United States, about half of its business is in bulk cheeses sold to processors including food manufacturers, cheese processors and cut-and-wrap facilities.

NorthWoods helps clients manage storage, transportation, purchasing, sales and risk management. NorthWoods does not manufacture products however, a portion of its business involves working with third party co-packers to meet the needs of their clients.

NorthWoods was founded by Scott Moarn, a 30-year veteran of food and feed ingredient merchandising. While the business was initially focused on domestic sales, in the last few years exports have played an increasingly important role, and last year accounted for about 25% of the firm's sales, according to Justin Kapsen, vice president and director of sales.

"2008 was a good year for our export business," Kapsen says. "We exported cheese to the Far East, along with dairy powders to various markets around the world. Our exports are down slightly this year because of overall market conditions, but we expect exports to continue to be an important part of our business and future growth strategy."

NorthWoods Group's services include sales, logistics and risk management. The company's sales staff works at sourcing ingredients across different food and feed industries, both in the United States and internationally. Through its international shipping contacts NorthWoods offers door-to-door logistics services, providing assurance to customers that their dairy products order will arrive on time and in specification.

NorthWoods Group offers customized risk management solutions including forward pricing and over-the-counter commodity swap programs on many products. This allows their customers to fix costs and limit ingredient price exposure, the company says.

NorthWoods Group says its chief goal is to build long term business partnerships. The company works closely with clients to meet supply chain and quality standards.

"We want our clients to be successful," NorthWoods states on its website. "This means going beyond our customers' expectations and truly understanding each of our client's needs. Through insightful market analysis we're able to create new opportunities for customers, opportunities which build the foundation for trusted, long term relationships."

Working with USDEC

While the company's principals have a wealth of experience in the dairy commodities business, USDEC has provided them with added resources to help navigate the dairy export business.

"It's really been instrumental for us as we are a small group," Kapsen says. "USDEC provides a variety of key documentation and tools on its website and our affiliation with USDEC adds to the credibility of the company."

Countries in the Far East, including China and Korea, have become important markets for NorthWoods



Group, but exported cheese and powders are making their way to food and feed manufacturers in many markets, both near and far, Kapsen says. "Right now our primary export markets are Oceania, Asia and Mexico. We have also worked with the Philippines and Caribbean markets. We are currently working to increase our presence in Europe and South America."

NorthWoods Group says most of its products are available as Kosher, Halal and/or EU certified.

Export Products

- Buttermilk Powder: sweet cream and blends
- Butter and Cheese Powder
- Cheese: cheddar, gouda and mozzarella
- Lactose
- Milk Protein Concentrates
- Nonfat Dry Milk/Skimmed Milk Powder
- Sweet Whey Powder
- Whey Protein Concentrates: WPC 34 & WPC 80
- Whole Milk Powder

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O-AT-KA Milk Products Cooperative, Inc.

O-AT-KA Milk Products Cooperative, Inc. is a Batavia, New York-based dairy manufacturer. The company has been receiving raw milk from farmers throughout western and central New York since 1959, and currently processes over 264 million liters of milk annually into a wide variety of value-added dairy products for its global customer base.

Farmers looking for a way to process surplus milk fueled the growth of O-AT-KA in their early years. Together, the cooperative's board of directors and dairy farmer members have grown the business extensively over the past five decades. O-AT-KA currently services a diverse customer base, including many Fortune 500 companies.

Exports are a key component of the company's growth strategy. "O-AT-KA is committed to significantly growing our export business by showcasing our advanced product and manufacturing technology," says David Crisp, vice president of business development. Current export markets include Canada, the Caribbean, Central America, the Middle East and West Africa.

O-AT-KA is widely recognized for its commitment to excellence and for delivering products of exceptional quality year after year. For example, their butter has earned top honors in world championships since 2002 when they first entered the World Butter and Cheese Championship Contest. Other recent recognitions include many first place awards in the World Dairy Expo – Dairy Products Contest and a number of gold awards in its home state of New York.

According to Crisp, "Customer satisfaction and superior product quality are our highest priorities. We pride ourselves on the strong business rela-

tionships we've developed with our customers, including manufacturers, retailers and wholesalers."

The product line at O-AT-KA was originally comprised of the more traditional dairy products, including evaporated milk, butter and bulk fluids. Today, O-AT-KA is one of only three companies in the United States manufacturing evaporated milk. Significant investments have been made in the areas of manufacturing and technology to diversify the business. As a result, the cooperative is now the largest manufacturer of protein drinks and a wide range of value-added products in North America. The product portfolio also includes infant formulas, nutritional beverages and energy drinks, all of which are available for export.

The dynamic and explosive ready-to-drink (RTD) beverage market is providing new and exciting opportunities for O-AT-KA. Its RTD beverage line appeals to a broad consumer group, including individuals trying to maintain a healthy weight and active adults needing more protein in their diet. O-AT-KA also caters to special needs groups and seniors.

Facilities

All production takes place at the company's 23,225-square-meter, state-of-the-art facility in Batavia, New York. The company has experienced tremendous growth, primarily in the last 10 years, and has continuously invested to increase capacity with new and advanced high-speed manufacturing technology.

"Our business philosophy at O-AT-KA is to focus our resources on the customer's marketing opportunities, with full support at all levels including R&D, product development, new product marketing



support and superior customer service," states Crisp.

All products manufactured by O-AT-KA are kosher certified by the Orthodox Union. The company also utilizes a third-party auditing service to monitor, track and score their operation for certification in the Safe Quality Food (SQF) Program.

Export Products

- Butter: Domestic and European style
- Evaporated Milk: Regular, filled and skimmed milk
- Infant Formula: Concentrated and ready-to-use
- Meal Replacement Beverages: Weight gain and weight loss formulas
- Milk Powders: Low, medium and high-heat nonfat dry milk powders
- Ready-to-Drink Beverages:
 Chocolate drinks, iced coffee, iced tea latte, coffee energy drinks, diabetic beverages and bariatric/geriatric high-protein beverages

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美国乳品出口协会



USDA Allocates DEIP for the 2009/2010 Marketing Year

The U.S. Department of Agriculture (USDA) allocated volumes for the Dairy Export Incentive Program (DEIP) for the 2009/2010 marketing year that started July 1, 2009. Initial allocations are for 48,176 metric tons (MT) of nonfat dry milk (NDM), 19,235 MT of butterfat and 2,878 MT of cheese.

On July 13, the USDA issued an invitation for exporters to bid for bonuses on exports of NDM. The invitations to bid for bonuses on exports of butterfat and cheese were issued on July 27.

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September 2009

USDEC**News**



Editorial

现<u>今,消费者在购买和消费产品时,更加关注其质量和营养价值。这低</u> 使食品加工制造者应用高质量的食品配料来生产更具营养的产品以满足 消费者的需求。在众多的选择中,乳制品特别是乳清蛋白,无疑是广受 欢迎的配料之一。

乳清产品在食品工业中不断增长的应用体现在中国的进口数据之中。今年上半年,中国共进口了14.16万吨乳清产品,比去年同期增长了 48%,而来自美国的乳清产品几乎是去年同期水平的两倍;蛋白质含量 大于等于80%的高蛋白乳清产品的进口量是去年上半年的3倍,美国在 这一领域的市场份额也增加了11%。

乳品助你健康减脂

乳品能让你变苗条吗?很多人认为乳品容易使人发胖,往往会减少乳品在膳食中的比例。不过,新近的研究表明,牛奶、酸奶和其他乳制品在预防和抵抗肥胖中起到非常关键的作用。美国田纳西大学营养学院主任、医学教授麦克•泽梅尔博士的研究证实:乳品中的钙和其他组分有助于燃烧多余的脂肪。

根据泽梅尔博士的研究,当缺乏钙时,机体就会释放特定的荷尔蒙帮助防止 钙的流失,其中一种叫做钙三醇的荷尔蒙,起到"代谢开关"的作用,它会"告 诉"脂肪细胞增加脂肪的储备并减缓燃烧脂肪的进程。而乳品中的钙能够抑 制这种荷尔蒙的释放,在帮助人体降低脂肪储备的同时加快脂肪的燃烧速 度。

Read More

Calendar of Events

There are no upcoming events.

See All Upcoming Events

U.S. Dairy Industry News

Mid-Year State of the U.S. Market and Export Situation

U.S. dairy markets were unsettled at the beginning of the third quarter of 2009, the outlook muddled by government and industry intervention programs designed to speed the recovery from historically low prices.

In the News..

- USDEC welcomes five new members: Commercial Creamery Company, Interfood Inc., Kan-Pak LLC, Saputo Cheese USA Inc. and Vitusa Corp.
- Byrne Dairy is investing \$350,000 in a new pilot processing plant in New York.
- Dean Foods plans to close its Pet Dairy plants in Virginia and Tennessee.
- Saputo Inc. acquired F&A Dairy of California for \$44.5 million.

Cheese & Manufactured Products

U.S. Butter: An Important Ingredient for Every Kitcher

First churned some 4,000 years ago, butter quickly became a basic and important food. For years, butters were produced at home on the farm. Fresh cream was churned or agitated until the milk fat separated from the moisture and the proteins in the cream and coagulated into a mass of butterfat known simply as "butter". Today's equipment and techniques are slightly different, but after thousands of years, butter is still produced in this simple fashion.

Butter is an ingredient with many functional advantages. The rich flavor imparted by butter has led to its becoming an integral ingredient in entrees, sauces, baked goods, confections and countless other dishes.

Ingredients

"Dairy Adds the Difference" at IFT 2009

Dairy had a strong presence at IFT 2009, held in Anaheim,
California in June. Five food prototypes were developed by Dairy
Management Inc.™ and introduced at the Food Expo to highlight
the key nutritional and functional benefits of dairy ingredients.
Given the positive feedback and reception, dairy products were
well positioned at IFT this year.

Nutrition

Dairy Products and Metabolic Syndrome

Physical activity and good nutrition, including high quality, protein-rich dairy products, play a key role in helping to prevent or delay the risk factors for cardiovascular disease and diabetes that are collectively termed "metabolic syndrome".

Meet USDEC's Members

Lactalis Ingredients

Lactalis Ingredients U.S. is a leading manufacturer of dairybased ingredients and a major exporter of dairy proteins. New, specialized dairy products are driving the growth of the company and leading to facility expansions.

NorthWoods Group Ltd.

NorthWoods Group is a merchandiser of agricultural ingredients to leading food companies around the world. It specializes in commodity and customized dairy ingredients and helps clients manage the major aspects of commodity exporting.

O-AT-KA Milk Products Cooperative, Inc.

O-AT-KA Milk Products Cooperative, Inc. processes over 264 million liters of milk annually into a variety of value-added dairy products including ready-to-drink nutritional beverages. Its diverse global customer base includes many Fortune 500 companies.

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U.S. Whey Ingredients in Yogurt and Yogurt Beverages

USDEC has published a new monograph which reviews the functional benefits of adding whey ingredients to yogurt products. It identifies the U.S. whey ingredients best suited for various types of yogurt products.



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