



Better Aging Through Dairy

There is a global opportunity in dairy ingredients for U.S. processors. Wherever they live, the older population needs good nutrition to live well. Whey powders and milk proteins can help food and beverage manufacturers develop nutritious foods.

By [Kara McDonald](#)

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Dairy proteins, like milk protein concentrate, add substance to a snack or meal, as shown in this hummus prototype, one of many applications U.S. Dairy Export Council featured at this year's IFT 2012 in Las Vegas.

An aging world population of almost half a billion seniors age 65 and older has placed demands on food and beverage manufacturers to take a closer look at the nutritional needs of seniors, who battle chronic conditions affiliated with aging. Dairy ingredients are well positioned to help address these needs.

Extensive dairy ingredient nutrition research — supported by the Dairy Research Institute (which is supported by the dairy checkoff) — continues to showcase numerous benefits while meeting the growing nutritional needs of an aging population who desire new ways to maintain an active, independent lifestyle. The opportunity exists for U.S. dairy ingredient suppliers to help food and beverage formulators create products which target these needs.

“The nutritional benefits and improved functionality of dairy ingredients have created fertile ground for our industry to grow U.S. dairy sales here and abroad,” said Vikki Nicholson, senior vice president, global marketing at the U.S. Dairy Export Council, Arlington, Va. “The time is now to leverage the value that U.S. dairy brings to the global marketplace.”

According to a United Nations’ report, an unprecedented shift in demographics is now taking place around the globe “without parallel in the history of humanity.” The report indicates that by 2050, for the first time ever, the number of people more than 60 years old will exceed the total number of those under the age of 15 years. In that timeframe, the number of people 60+ will increase by a staggering 600 million.

Domestically, U.S. baby boomers are hitting retirement age and creating a wave that in 40 years will more than double the number of Americans age 65+, according to the Alliance for Aging Research, Washington, D.C. By 2050, the 65-and-older age group is projected to increase to 88.5 million, more than doubling the 2008 number of 38.7 million. Similarly, according to the U.S. Census Bureau, the 85-and-older population is expected to more than triple between 2008 and 2050, growing from 5.4 million to 19 million people.

The prevalence of chronic disease within this senior population has already resulted in increased U.S. national health care spending and high rates of disability. The problem only stands to worsen as the percentage of elderly population grows.

Buying power

With such size and projected buying power, this aging population is exhibiting a greater demand for aging-related services and products — more so than previous generations. Research indicates that baby boomers are displaying interest in purchasing a variety of products and services including preventative medicines, brand-name drugs and healthier foods to contribute to their future well-being.

Never before has there been greater potential to market healthy foods and beverages to an aging population as the mature consumer strives to stay fit, active and independent. According to recent consumer insights, 70% of the adult population believes proper nutrition delays the onset of chronic disease. In addition, a vast body of scientific research continues to mount indicating that dairy ingredients play a valuable role in foods and beverages for the maturing consumer group.

Maintaining independence

According to a consumer study commissioned by the U.S. Dairy Export Council, adults age 40 to 75 believe healthy aging is an attainable goal. Following a balanced diet and maintaining good nutrition is a core belief of achieving healthy aging, according to consumers. They also believe that the foods they eat will have an impact on their long-term health.

“Nutrition research continues to build support for the valuable role of dairy and its unique nutrient package as part of a healthy diet to help reduce the risk of a number of health conditions,” said Keigan Park, director of nutrition research at the Dairy Research Institute, Rosemont, Ill. “We know that many of dairy’s nine essential nutrients, including protein, calcium and potassium, are of particular interest to seniors hoping to maintain their activities and independent lifestyle.”

Sarcopenia, or muscle wasting, is a common concern among the aging. This condition is estimated to affect as many as 30% of people over age 60. While muscle loss occurs naturally in people over age 45, consuming protein at a higher amount than the recommended dietary amount can provide a means of reducing the progressive loss of muscle mass with age. Research has found that among one group of adults, those with higher protein intakes over a three-year period lost 40% less lean mass than those with lower protein intake.

Additionally, studies suggest that consuming adequate amounts of protein at every meal, not just dinner, helps optimize muscle-building benefits. Published research recommends that approximately 30 grams of protein are needed at every meal to help stimulate muscle growth. Dairy proteins in the form of whey protein and milk protein offer substantial opportunities to today’s food and beverage manufacturers to help address the nutritional needs of aging consumers.

Whey protein is a high-quality protein naturally found in milk that contains all the amino acids the body requires for muscle protein synthesis. It is highly digestible (~95%) and rapidly absorbed by the body. Milk protein concentrates — 80% to 85% (MPC) — and milk protein isolates offer food and beverage manufacturers options to increase protein content in formulations without significantly increasing the lactose content in the finished product, while still maintaining a clean dairy flavor. Like whey protein, MPC is also a multifunctional ingredient that provides benefits such as water binding, gelling, foaming, emulsification and heat stability.

Additionally, dairy proteins provide formulation versatility and neutral flavor profile, making them an ideal choice to fortify breakfast or snacks with added protein. Calorie for calorie, protein can increase the feeling of fullness more than carbohydrates or fat.

USDEC has developed a number of application ideas showing the latest ways to tap into the nutritious profile of dairy ingredients — from dairy proteins to yogurt, and from cheese to permeate. Many of these application ideas were on display at the IFT 2012 Food & Expo in Las Vegas. USDEC experts and affiliated researchers explained to potential partners how U.S. dairy ingredients can make the difference in providing value in product innovations.

Dairy ingredient solutions

Today’s baby boomers are redefining senior living. Food and beverage manufacturers have a unique opportunity to provide products that fit their needs both for convenience and functional nutrition with the support of dairy ingredients. Beyond muscle wasting, whey protein and other dairy ingredients present solutions to help consumers achieve healthy eating by addressing their top-of-mind health and wellness concerns, including cutting back on salt.

Permeate is a promising sodium substitute for dairy foods, soups, baked goods, dry mixes, confectionary and other foods. For example, only 3 to 4 grams of delactosed permeate or 10 to 11 grams of whey permeate are required to replace 1 gram of salt without compromising the

flavor. USDEC has created a butternut squash soup prototype leveraging permeate as a salt substitute, containing 43% less sodium than a similar version on the market.

USDEC and its partners, the Dairy Research Institute, Innovation Center for U.S. Dairy and National Dairy Council, funded primarily by America's dairy farmers, provide a number of resources to help the dairy and food and beverage industries tap into the latest science and expertise to improve or develop new products. A number of resources can be found on usdec.org and InnovateWithDairy.com or by emailing TechSupport@InnovateWithDairy.com.

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