

# TRENDS



FOOD AND NUTRITION ISSUES LIKELY TO IMPACT THE DAIRY INDUSTRY IN THE NEXT 1 TO 3 YEARS

## 1. Plant-based diets are on the rise.

In the past five years, the number of Americans claiming to be vegetarian has surged by 60 percent. Plant-based diets are growing in popularity as research accumulates that these may help lower the risk of chronic disease. For example, adherence to the Mediterranean diet—which emphasizes fruits, vegetables, nuts, grains, olive oil, chicken and seafood—has recently been linked to lower rates of heart disease, certain cancers and type 2 diabetes. Globally, many experts are advocating plant-based diets to reduce morbidity and mortality and to lower health care costs. Two of the three dietary patterns that the Dietary Guidelines for Americans (DGA) recommends are, in fact, plant-based: Healthy Mediterranean and Healthy Vegetarian (lacto-ovo vegetarian).

Another **primary** reason for advocating plant-based diets has been to lower greenhouse gas emissions from food production. Some countries are encouraging dietary recommendations that include carbon footprint criteria; in the United States these discussions have started but were not incorporated into the latest version of the DGA. From an environmental standpoint, new research shows that while diets high in animal foods have the highest carbon footprint, completely plant-based (vegan) diets also have a comparatively high footprint. In fact, lacto-ovo vegetarian diets (containing dairy foods and eggs) may be optimal for feeding humankind in the future. This means that people who include dairy foods in their plant-based diets can now also feel confident they are eating in an environmentally responsible fashion as well.

Even if most people don't become strict vegetarians, trends indicate many will continue to shift toward plant-based diets as health and environmental concerns gain traction. It is clear that there are various types of plant-based patterns, including less-healthy versions that are high in sweetened foods and beverages. Studies that model healthy, environmentally friendly diets generally conclude that animal products—such as dairy at current recommended levels—can and should be included.

Dairy Council of California continues its efforts to educate about well-balanced, nutritious diets that include

some animal products such as natural dairy foods for their inherent essential nutrients like calcium, vitamin D and protein. Positive messages around the impact on the environment of dairy-inclusive diets can also be disseminated.

## 2. Many factors recognized as critical in bone health.

Dietary factors impacting bone health are being reexamined in light of new research. For example, on a plant-based, low-protein diet, less calcium may be needed to maintain bone health, as was recently illustrated in a well-publicized study conducted in China. The study found that high calcium intakes led to greater fracture risk and that the ideal calcium intake for bone health occurs at much lower levels than the current U.S. recommendation of 1,000–1,200 milligrams per day. Caution should be used, however, in extrapolating these results to the typical higher-protein U.S. diet, which evidence shows requires more calcium for optimal bone health.

Recognizing the various factors that play a role in bone health, the National Osteoporosis Foundation recently released a statement that calcium intake and physical activity are the most important factors in bone health, with good evidence that dairy intake and vitamin D also have an impact. Other research shows that vitamin K interacts with other known bone-building nutrients in promoting bone health. Research will continue to identify dietary and lifestyle factors related to short-term biomarkers such as bone density and long-term endpoints such as rate of fractures and osteoporosis.

Beyond bone health, the multiple benefits of consuming dairy foods—such as reduced risk of hypertension, colon cancer and type 2 diabetes; weight management benefits; and newly-recognized hydration benefits—as well as the numerous nutrients inherent in dairy provide many strong reasons for including milk and dairy foods in healthful diets. In the past, Dairy Council of California implemented a Beyond Calcium strategy to educate about these many nutrients and benefits beyond the traditional calcium-bone health messages, and it continues to educate various audiences about the multiple benefits that dairy foods confer throughout life.

### 3. In spite of various public health initiatives to combat obesity, rates continue to rise.

The most current statistics from Centers for Disease Control and Prevention report that an unprecedented one-third of children and adolescents are overweight or obese, and that the average adult weighs at least 15 pounds more now than 25 years ago. Much of this increase is attributed to an obesity-promoting environment, lack of physical activity and overabundance of foods high in calories and low in nutrients. Another factor often cited is intake of sugar, which has increased dramatically over the past 30 years. The saying “We are an overfed yet undernourished nation” has never been truer.

Obesity is linked to higher rates of diabetes, hypertension, stroke and other health conditions, as well as premature death. These chronic diseases come with significant health care costs across the lifespan, suggesting that prevention of obesity at an early age could save significant amounts in health care costs—and improve quality of life and productivity—throughout the lifespan.

Many health groups focus on childhood prevention of obesity through strategies such as implementing family meals and fostering a healthy relationship with food, and not solely on the scale numbers. Other public health approaches include restricting access to high-calorie foods in schools and other public venues, recommending limits on sugar consumption for children and taxing sugar-sweetened beverages. The long-term effectiveness of such strategies is unclear at this point. Dairy Council of California continues its commitment to educate about long-term nutritious diets and lifestyles that promote consumption of all food groups rather than demonizing any single food or ingredient. A balanced approach to healthy eating and lifestyle will help lead to optimal health and body size at all ages.

### 4. Sustainability is a multi-faceted and misunderstood topic.

Congress recently passed a bill that would make it mandatory to inform consumers of the use of genetically modified organisms (GMO) in food products. Although the majority of Americans strongly support such labeling laws, very few understand the science behind GMOs. In fact, only one in five people knows that scientists have not found any adverse effects of genetically engineered crops. Critics of the new law are concerned that it will do more damage than good, encouraging consumer beliefs that *all* GMO foods are less safe, less healthy, less nutritious and worse for the environment. This could lead to a majority of the population actively avoiding GMO-labeled foods, which make up a large proportion of the food supply.

There is also considerable attention on food waste, as approximately 40 percent of the food supply is thrown away at some point in the production-consumption process. According to one tally, 130 billion pounds of food are wasted per year in the United States, which translates to \$160 billion. Given the worldwide food shortage and increasing number of malnourished and undernourished populations, these numbers are staggering. Encouraging donations of food before it expires; standardizing the confusing array of “sell by,” “best by” and “use by” dates; repurposing food; and using imperfect produce are strategies to reduce these numbers and help feed the hungry. Barriers still exist though, and it will take worldwide efforts across the supply chain to make a difference in minimizing food waste.

The multiple facets of sustainability present various opportunities to educate and clarify any misunderstandings. For example, Dairy Council of California is exploring ways to broaden the sustainability discussion beyond environmental measures alone, to include nutritional and socio-economic aspects of sustainability. There is also opportunity to educate consumers on how to minimize food waste by understanding expiration dates, buying only what will be consumed, freezing or sharing leftovers and even reducing excessive calorie intake. These lifestyle changes have multiple consumer benefits: saving money, managing weight and reducing the environmental impact of food production.

#### EDITOR'S NOTE

Produced twice annually by Dairy Council of California, the TRENDS newsletter updates industry leaders on emerging nutrition issues likely to have a positive or negative effect upon the dairy industry. The trends tracking system, monitored by a team of staffers, is designed to identify issues early and track their development through multiple communication channels. For more information or to receive a hard copy of the TRENDS newsletter, please contact Kendall House at [KHouse@DairyCouncilofCA.org](mailto:KHouse@DairyCouncilofCA.org).



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