



Agri-Mark, Inc.

Associated Milk  
Producers Inc.

Bongards' Creameries

California Dairies, Inc.

Cayuga Marketing

Cooperative Milk  
Producers Association

Dairy Farmers  
of America, Inc.

Ellsworth  
Cooperative Creamery

FarmFirst Dairy  
Cooperative

First District Association

Foremost Farms USA

Land O'Lakes, Inc.

Lone Star Milk Producers

Maryland & Virginia Milk  
Producers Cooperative  
Association

Michigan Milk  
Producers Association

Mount Joy Farmers  
Cooperative Association

Northwest Dairy  
Association

Oneida-Madison Milk  
Producers Cooperative  
Association

Prairie Farms Dairy, Inc.

Scioto Cooperative Milk  
Producers' Association

Southeast Milk, Inc.

Tillamook County  
Creamery Association

United Dairymen  
of Arizona

Upstate Niagara  
Cooperative, Inc.

July 26, 2024

Janet M. de Jesus, MS, RD  
HHS/OASH Office of Disease Prevention and Health Promotion (ODPHP)  
1101 Wootton Parkway, Suite 420  
Rockville, MD 20852

*Submitted via regulations.gov*

**RE: Docket HHS-OASH-2022-0021**

Dear Ms. de Jesus:

These comments to the Dietary Guidelines Advisory Committee (DGAC) are submitted on behalf of the National Milk Producers Federation (NMPF). NMPF develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. The members of NMPF's cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of nearly 26,000 dairy producers on Capitol Hill and with government agencies.

Dairy farmers take pride in producing natural, healthy, and delicious products such as milk, cheese and yogurt. Authoritative federal nutrition guidance has recognized the central role of dairy products in healthy diets for more than a century. Dairy foods are critical components of food assistance programs, including the National School Lunch Program, the School Breakfast Program, the Child and Adult Care Food Program, the Special Supplemental Nutrition Assistance Program for Women, Infants, and Children, and others.

NMPF's core messages to the DGAC, on which we elaborate in what follows, are that –

- In the 2025 Dietary Guidelines for Americans (DGA), dairy (including fortified soy) should remain a distinct food group, with at least three servings recommended for older children and adults, and corresponding amounts for younger children;
- As the DGAs are required by law to be based in science, the inclusion of plant-based alternatives as substitutes for dairy beyond fortified soy would be a disservice to the American people as there is little to

no science that supports their nutritional value. The result could be further consumer confusion and nutritional shortfalls;

- A recent supplement to the *Journal of the National Medical Association* provides excellent evidence and guidance on the consumption of dairy products as an equitable option that can help Black Americans combat health disparities that are impacting them in a disproportionate way;
- The DGAC should recognize the growing body of science that shows dairy foods have beneficial or neutral effects on chronic disease risk at all fat levels; and
- Caution is warranted in modeling or recommending dietary patterns that remove all animal-sourced foods, and even more so in considering plant-based alternatives as equivalent to dairy foods, not only because these alternatives are not in fact nutritionally equivalent to real milk, but also because their health impacts, in contrast to those of dairy products, have not been extensively studied.

## **The 2025 DGA should maintain the dairy group and current recommended servings**

Dairy foods have multiple unique properties and nutritional benefits. Milk supplies 13 essential nutrients (1). Partly for this reason, approximately 70 percent of food-based dietary guidelines around the world recommend dairy consumption (2). At the same time, Americans under-consume recommended dairy amounts at about the same rate at which they under-consume vegetables (3).

In the face of this under-consumption, it would make no sense to eliminate the dairy foods group or reduce the recommended number of servings as was suggested during discussion of the food pattern modeling during the fifth public meeting of the DGAC. Dairy is a good or excellent source of nutrients that continue to be identified as nutrients of public health concern- calcium, vitamin D and potassium. Highlighting the benefits of dairy foods as daily staples of the diet is an important means of overcoming low consumption rates and nutrient deficiencies.

NMPF submits that even if it is possible, as part of an academic modeling exercise, to reduce dairy servings without serious nutrient shortfalls, this is likely to be impractical in the real world. Other sources of key nutrients supplied by dairy – such as vegetables – are simply not consumed in adequate amounts. To be sure, nutrition leaders should seek to remedy this situation, but there is little evidence that past efforts have moved the needle. The DGAC should not assume that it will be easy to replace dairy’s unique nutrient package.

A 2020 paper showed that while it was possible to replace calcium and other nutrients when dairy was eliminated from the diet, the substitutions increased food costs and total energy intake, and required the consumption of substantially more food. The authors concluded that “Identifying affordable, consumer-acceptable foods that can replace dairy’s shortfall nutrients at both current and recommended dairy intakes remains a challenge.” (4)

Another paper, from 2019, found that milk and dairy were inexpensive sources of three of the four nutrients of concern for under-consumption (calcium, vitamin D and potassium) and the least-expensive source of the first two (5).

Thus, reducing or eliminating dairy from dietary guidance raises important health equity issues. The widespread incidence of food insecurity in the United States, as well as pressures on consumers from food price inflation in recent years, mean that steering diets toward more-expensive alternatives should be approached with extreme caution. Moreover, if such alternatives would be likely to increase caloric intakes – as the 2020 paper showed – then the greater incidence in marginalized communities of diet-related diseases must also be taken into account. The 2025 DGAC, which has a commendable and necessary focus on healthy equity, should not consciously advocate higher food costs and excessive caloric intake for low-income consumers.

NMPF strongly urges the DGAC to maintain the dairy group and the currently recommended number of servings for different diets and age groups.

## **Dairy is an equitable option**

A recent supplement to the *Journal of the National Medical Association* provides excellent evidence and guidance on consumption of dairy products as an equitable option that can help Black Americans combat health disparities that are impacting them in a disproportionate way. The National Medical Association (NMA) is the nation’s largest association of African American physicians. The summary article in the supplement stated: “A key intervention strategy to improve diet quality among Black Americans is to focus on increasing the intake of nutrient-rich dairy foods, which are significantly under consumed by most Black Americans.”

The authors called dairy foods “some of the most accessible and affordable sources of essential nutrients ...” and said that “Black Americans would receive significantly greater health benefits by increasing their daily dairy intake levels to meet the national recommendations ...” In addition, the authors said replacing dairy products with plant-based alternatives “should be approached with caution to avoid nutrient imbalances commonly associated with removing nutrient-dense animal-sourced foods from the diet.” (6)

Dairy foods have been well-studied over decades, and the evidence for the benefits of the dairy food matrix, including nutrient bioavailability and impacts on health outcomes, is well-established. By contrast, we are aware of few if any studies that have similarly tracked and identified health outcomes for highly-processed plant-based dairy alternatives. These products vary tremendously in their nutrient content, and in contrast to dairy foods, the Food and Drug Administration (FDA) has not established Standards of Identity (SOIs) for any of the alternatives, so there is no requirement that they meet any particular nutrient content. As discussed further below, in many cases they are notably inferior to real dairy in terms of specific nutrients.

But even if the alternatives were to be fortified to near-equivalence with real dairy, that would not in itself establish that their health impacts are the same. A growing body of science shows that it is the dairy food matrix, not only the specific nutrients, that is involved in dairy's multiple health benefits. Alternatives are not able to reproduce this matrix. Additionally, in a further example of how little science exists to support the consumption of the plant-based alternatives in substitution for dairy, there is little to no data on the bioavailability of fortified nutrients in these products, as was pointed out by a member of the DGAC during its fifth meeting.

Until there is a body of evidence on plant-based alternatives that is equal to what exists for real dairy – including multiple studies over an extended period of years – it would be inappropriate to tell Americans in any way that these foods provide the same benefits as dairy or should be substituted for dairy (beyond fortified soy) and could exacerbate already-serious shortfalls in intake of key nutrients.

At the same time, the DGA should promote and offer options for people who are lactose-intolerant. During the fifth public meeting of the DGAC, while the issue of lactose intolerance was raised, not once was the solution of lactose-free and low-lactose dairy products brought up. The DGA should be more proactive in promoting lactose-free and lactose-reduced dairy foods, as well as pointing out those forms of dairy, such as fermented products, that naturally have low levels of lactose and may be better tolerated and still offer the same nutrients as regular dairy.

## **Plant-based alternatives are not equivalent to real dairy, especially for kids**

NMPF urges extreme caution in recommending plant-based dairy alternatives beyond fortified soy as substitutes for dairy products in the dairy group. Even when modeling if this could be done, the plant-based products selected lacked the complete nutrient package that milk offers. In further support of this, the University of Minnesota just published a paper with no funding from industry finding that (7)-

- Most plant-based milk alternative products are not nutritionally equivalent to dairy milk;
- Plant-based products other than soy are generally “lower in protein” and many contain added sugars;
- There is a gap in knowledge about “limiting the bioavailability” of some nutrients in plant-based alternatives, since the nutrients are added through fortification and do not occur in the natural forms of the plant-based products; and
- Perhaps most critically for purposes of the DGA, if consumers are encouraged to substitute ultra-processed plant-based alternatives for real dairy, “many of these products do not contribute all nutrients in amounts similar to that of dairy milk,” but consumers may not know that.

Additionally, the Food and Drug Administration also noted the nutritional differences between milk and plant-based milk alternatives in their draft guidance for industry on the labeling of these products and their concern over consumer confusion (8). The draft guidance states-

- “While the nutritional value of milk and its role in healthy eating patterns is well documented, the nutritional content of plant-based milk alternatives varies considerably across types (e.g., “almond milk” vs. “oat milk”) and within the same type depending on the raw materials used, processing, fortification with vitamins and minerals, and addition of other ingredients, such as sugar and oil.”
- “Considering that consumers may not understand the nutritional differences between plant-based milk alternatives and milk and the potential public health concerns associated with replacing milk with plant-based milk alternatives that do not have a similar nutritional composition to milk, FDA is providing recommendations for voluntary nutrient statements for plant-based milk alternatives that include “milk” in their names (e.g., “soy milk,” “almond milk,” “oat milk,” etc.) and have a nutrient composition that is different than milk to help consumers understand the nutritional differences between such products and milk.”

Recommending substituting plant-based alternatives for dairy is likely to increase nutrient deficiencies because as noted by FDA, consumers are already confused about the nutritional differences and any recommendation equating the two could exacerbate this. This has already been proven- the RWJF-HER report cited a review of 30 cases of severe nutritional deficiencies, including kwashiorkor, rickets, metabolic alkalosis, and scurvy, among children aged 4 months to 22 months who consumed plant-based beverages either alone or with complementary foods (predominantly fruits and vegetables) (9).

### **Iodine**

In the food pattern modeling analysis that was shown during the DGAC’s fifth meeting, in the breakdown of nutrients included when comparing the plant-based alternatives to skim milk, iodine was left out. Iodine is a key nutrient needed during pregnancy and the first years of a child’s life for neurodevelopment. A glass of milk provides 60% of the daily requirement for iodine and has become a key source of it in the diet (10). Few, if any plant-based milk alternatives fortify with iodine, once again, emphasizing that recommending plant-based products as substitutes for dairy could have grave consequences.

### **Severe Consequences for Children**

Many children are already deficient in several nutrients supplied by dairy. Plant-based beverages are not generally considered equivalent to real dairy which has been emphasized by a consensus statement endorsed by the Academy of Nutrition and Dietetics (AND), the American Academy of Pediatrics (AAP), the American Academy of Pediatric Dentistry (AAPD) and the American Heart Association (AHA). The statement notes that what the report calls “plant milks/non-dairy beverages” for infants “are not recommended,” and for children ages 1-5 “are not recommended for exclusive consumption in place of dairy milk

(with the exception of soy milk) ...” The groups’ statement noted that alternate beverages “are growing in popularity, but it is important to note that they are not nutritionally equivalent to cow’s milk.” Despite fortification with some nutrients, “it is not known whether the bioavailability of these added nutrients is comparable to that of their naturally-occurring counterparts in cow’s milk.” In conclusion, “non-dairy milk beverages should not be considered adequate nutritional substitutes for cow’s milk until nutrient quality and bioavailability are established.” (9)

Importantly, this consensus statement based many of its considerations on the then-current edition of the DGA, which did not (and still does not) consider plant-based alternatives other than fortified soy to be part of the dairy group. Recognizing the purpose of the current DGAC is to re-examine the science behind older editions of the DGA, NMPF is not aware of recent evidence that would refute the conclusions of AND, AAP, AAPD and AHA. If there is such evidence, the DGAC has a responsibility to explain how it justifies changing what has been the consistent exclusion of these products from the dairy group over multiple editions of the DGA.

Among the other points the consensus statement makes about plant-based beverages is that “many often contain added sugars.” For example, one popular chocolate oat alternative contains 16 grams of added sugars, or 32 percent of the Daily Value (DV) in a single serving (11). By contrast, a major retail chocolate milk brand contains only 7 grams of added sugars (12). Indeed, President Biden’s White House has formally recognized the U.S. dairy industry for its efforts to reduce added sugar in school milk, and the level of added sugars in flavored milk in schools has declined 55% between 2006 and 2023 (13).

The same oat-based product supplies only 3 grams of protein, in contrast to the 8 grams in a serving of real milk. It is not only added sugars where the contrast between the products is sharp.

The real need to address lactose intolerance leads some people to advance plant-based alternatives as a solution. But given these products’ drawbacks, the response to lactose intolerance should be dairy first: lactose-free milk, fermented dairy foods naturally low in lactose, and similar solutions that continue to provide dairy’s unique nutritional package. As the NMA supplement warned, “nutrient imbalances” may be the result of replacing dairy with non-dairy imitations (6).

Finally, in response to a comment made during the fifth meeting of the DGAC, we would like to provide some additional data. It was stated (in not exact terms) that plant-based products are becoming more popular. This is incorrect. Looking at plant-based alternative beverage sales through barcode tracking, overall, year over year by volume, there was a 6.6% decrease from 2022 to 2023 (14).

### **Removing Animal-Based Foods Modeling**

In the DGAC’s food modeling work, one exercise is to model removing animal-based foods. NMPF urges caution in interpreting the results of this modeling. First, very few Americans – about 3% -- eat vegan diets. This is far fewer than the 5% who consume vegetarian diets,

though the latter number is still a small slice of the population (15). The relevance of a model vegan diet to the 97% of the population who are not vegans is at least questionable.

Even setting aside whether the exercise is worthwhile, there are issues here that do not arise in modeling a vegetarian diet, since the latter is really a lacto-ovo-vegetarian diet (because the majority of vegetarians follow this practice, according to the DGA [3]).

But as noted above, there is little research on the impact of substituting plant foods for dairy products. There is ample evidence that fruits and vegetables are healthy, but this is in the context of diets in which animal-based foods such as dairy also supply important nutrients.

### **The dairy group should allow for full-fat options**

Earlier editions of the DGA advised Americans to limit total fat consumption. The reductionist “fat is bad” message arguably had unintended consequences, implying that all fat is the same and perhaps encouraging excessive consumption of refined carbohydrates. Eventually, a more sophisticated approach differentiated among saturated, monounsaturated and polyunsaturated fats, and advised limits on saturated fat (SF) as a percentage of calories. Similarly, previous DGA editions advised strict limits on dietary cholesterol, but cholesterol is no longer listed as a nutrient of concern for over-consumption and recent DGAs have not included numerical cholesterol intake goals.

Thus, guidance has changed over time for both total fat and cholesterol: The 2020-2025 DGA contains no quantitative recommendations for either. This fact should inspire some humility and a recognition that fats are not simple. Indeed, there are several hundred different fatty acids in milk (16).

For a comprehensive summary of the current science, we refer the DGAC to comments submitted by the National Dairy Council in regard to the protocols for systematic reviews and related work (17). In these comments, NDC includes more than 120 separate citations that represent newer science on the effects of dairy foods at all fat levels on health outcomes and biomarkers. (Because NDC is a statutorily-created research and promotion organization, its comments were reviewed in detail and approved by the U.S. Department of Agriculture.)

Noting the evolution of nutrition guidance from a single-nutrient approach to one more focused on whole foods and even more on dietary patterns, NDC cites research that indicates that –

- “[T]otal dairy consumption, regardless of fat level, is linked to neutral or lower [cardiovascular disease] (CVD) risk in children and adults”
- Similarly, “high-quality clinical trials support a beneficial or neutral relationship between whole milk dairy foods and cardiometabolic health.”
- As noted above, dairy’s “food matrix, defined as the nutrient and non-nutrient components of foods and their molecular relationships (chemical bonds) to each other ... may help explain why SF from whole- and reduced-fat dairy foods does not have the same physiological effects as non-dairy sources of SF” (17)

Dairy's contributions to avoiding chronic disease are increasingly recognized, including by the federal government. Recently, the FDA permitted qualified health claims "regarding the consumption of yogurt and reduced risk of type 2 diabetes." In authorizing the claims, the FDA stated that the association between yogurt consumption and lower T2D risk "was based on yogurt as a food, rather than any single nutrient or compound in yogurt, *regardless of fat or sugar content*" (18). In short, the evidence is clear that dairy foods are healthy at all fat levels, and the advice to limit consumption to low-fat and fat-free varieties is unnecessary.

Even within the current recommendations, researchers have shown that it is possible to include one serving of full-fat dairy within a healthy dietary pattern without exceeding SF recommendations (19). The scientific evidence supports removing low-fat and fat-free limitations on dairy recommendations, although consumers should certainly be able to choose these varieties if they enjoy them or need to limit caloric intake.

### **Conclusion: Dairy remains vital to nutrition and the DGA**

NMPF appreciates the DGAC's attention to our comments. We argue that dairy should remain a separate food group, with at least the current number of servings being recommended; that plant-based alternatives are not nutritionally equivalent and should not be considered substitutes for dairy; and that current science fully supports encouraging dairy foods at all fat levels. We wish the DGAC well in its continuing work and look forward to continuing our participation in the DGA development process.

Sincerely,

A handwritten signature in blue ink that reads "Miquela L. Hanselman". The signature is fluid and cursive, with the first name being the most prominent.

Miquela L. Hanselman, MPH  
Director, Regulatory Affairs



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