



National Milk Producers Federation

2101 Wilson Blvd., Suite 400, Arlington, VA 22201
703.243.6111 • www.nmpf.org

"Connecting Cows, Cooperatives, Capitol Hill, and Consumers"

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Upstate Niagara Cooperative, Inc.
Zia Milk Producers, Inc.

April 13, 2011

Ms. Julie Brewer
Chief, Policy and Program Development Branch
Child Nutrition Division
Food and Nutrition Service
Department of Agriculture
3101 Park Center Drive, Room 640
Alexandria, VA 22302-1594

Re: FNS-2007-0038; RIN 0584-AD59

Dear Ms. Brewer:

The National Milk Producers Federation (NMPF) is pleased to submit comments on the proposed rule to revise the meal patterns and nutrition requirements for the National School Lunch Program and the School Breakfast Program. The National Milk Producers Federation, based in Arlington, VA, develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. The members of NMPF's 31 cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of more than 40,000 dairy producers on Capitol Hill and with government agencies.

Addressing Overweight or Obesity among Children.

Nearly one-third of American children (ages 6 to 19) are overweight or obese, and 17 percent are obese. Obese children and adolescents are more likely to develop chronic disease risk factors (e.g., glucose intolerance or type 2 diabetes, hypertension, and risk factors for cardiovascular disease). Therefore, strategies to address caloric imbalance are the central focus of the proposed nutrition and meal requirements. NMPF recognizes the significant challenges faced by the U.S. Department of Agriculture (USDA) in formulating policy that addresses a student population that is overweight or obese from excessive energy intake, while providing

food selections that meet students' personal taste expectations, food availability and school budget constraints.

The cornerstone of the proposed nutrition and meal requirements – and of the 2010 *Dietary Guidelines for Americans* – is that total calorie intake should be controlled and nutrient needs should be met primarily by consuming a variety of nutrient-dense foods and beverages. Children and adolescents are, on average, consuming too few vegetables, fruits, whole grains, low-fat milk and milk products, and seafood, while they over-consume added sugars, solid fats, refined grains, and sodium.

Milk and Dairy Products are Nutrient-Dense Foods.

Milk and dairy products are significant sources of essential nutrients for American children and adolescents. A serving of low-fat milk is an excellent source of calcium, phosphorus, riboflavin, and vitamin D, and a good source of protein, potassium, vitamin A, vitamin B12, and niacin (niacin equivalents). Milk and dairy products (fluid milk, yogurt and cheese) are the primary source of three of the four nutrients – vitamin D, calcium, and potassium – that are under-consumed by Americans age two and older and that present a substantial public health concern.¹ The significant nutrient contribution of low-fat and fat-free milk and dairy products, relative to their caloric contribution, was emphasized throughout the 2010 *Dietary Guidelines*. The *Guidelines* included dairy products among the nutrient-dense foods for which consumption should be increased to close nutrients gaps and move Americans toward more healthful eating patterns.

Intake of milk and milk products has been linked to improved bone health, which is especially important for children and adolescents. Additionally, intake of milk and milk products has been linked to a reduced risk of cardiovascular disease, type 2 diabetes and lower blood pressure in adults. Therefore, **it is very important to promote strong milk drinking habits in young children**, as those who consume milk at an early age are more likely to do so, and reap dairy's positive health benefits, during adulthood.

Reduced-fat cheeses can boost the nutrient profile of school meals by providing students with popular foods they enjoy and by encouraging consumption of other nutrient-dense foods. Cheese is an excellent source of calcium, delivering more than one-fifth of the calcium in the diet as well as providing other nutrients that support

¹ Dietary Guidelines for Americans, 2010, www.healthierus.gov/dietaryguidelines.

bone health. Many cheeses are also good sources of phosphorus and high-quality protein.

The value of including cheese, as well as yogurt, in school meals was supported by USDA and the 2009 Institute of Medicine report *School Meals: Building Blocks for Healthy Children*. In recognition of their nutrient density, cheese and yogurt are included as meat alternates in school meal patterns. Beyond their significant inherent nutrient value, cheese and yogurt are often combined with, and can increase consumption of, other nutrient-dense foods such as fruits, vegetables and whole grains, for which current intakes are 60%, 40% and 85% below target intake levels, respectively.^{2,3} For example, yogurt may be used as a topping on a whole-grain waffle or in a fruit parfait, while cheese may be served with whole-grain pasta dishes or with vegetables. Increasing consumption of these other food groups is a goal of the proposed meal regulations, and will lead to greater intake of essential shortfall nutrients (like vitamin A, potassium, and fiber).

While the 2010 *Dietary Guidelines* emphasizes a switch to fat-free or low-fat dairy products, the practical strategies for implementing those recommendations acknowledge that, when selecting cheese, reduced-fat cheeses are included. While the dairy industry has made strides in developing good-tasting low-fat and fat-free cheeses, there are numerous technological challenges that still must be overcome before these products will be more widely acceptable and commercially available.^{4,5,6} In 2009, only 1.2% of natural cheese and 2.4% of processed cheese sold in supermarkets was low-fat or fat-free, while 22% of cheese was reduced-fat, according to information from Information Resources, Inc. (IRI).

The proposed school nutrition requirements specify maximum calorie levels that are averaged over the course of a week, which will provide schools the flexibility to continue to meet students' personal preferences and offer nutrient-dense foods, like reduced-fat cheeses. However, **guidance, outreach and education may be needed**

² Donnelly, J. E., D. K. Sullivan, B. K. Smith, C. A. Gibson, M. Mayo, R. Lee, A. Lynch, T. Sallee, G. Cook-Weins, and R. A. Washburn. 2010. The effects of visible cheese on the selection and consumption of food groups to encourage in middle school students. *Journal of Child Nutrition and Management*. vol. 34(1).

³ Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010. Part B. Section 2: The Total Diet, p B2-7.

⁴ Sivak, C. The future of cheese. *Dairy Foods* June 2007.

⁵ Jarvis, J. and G. Miller. Cheese in diet and health. *Dairy Foods* March 2010.

⁶ Berry, D. Sodium reduction. *Dairy Foods* May 2010.

to demonstrate to school nutrition directors that reduced-fat or part-skim cheeses can fit into school meal patterns.

The school meal regulations also propose major reductions in the sodium content of meals. The impact of these reductions will vary, depending on the current base level of sodium in each school. However, in striving to meet these new limits quickly, school nutrition directors may choose to eliminate or significantly limit cheese from school menus. An unintended consequence of this could be elimination of an important, nutrient-rich food. Cheese accounts for less than 8% of total sodium intake,⁷ but over 25% of the calcium, 11% of the phosphorus, 9% of the protein, 9% of the vitamin A, and 7% of the zinc in the food supply.

The proposed regulation indicates that sodium reduction is to occur through a combination of menu modification, current technology, and innovation. With respect to innovation, the dairy industry is engaged in research and reformulation efforts to help Americans lower their sodium intake. However, sodium plays multiple, important roles in the texture, flavor development, functional properties (shreddability, meltability, etc.) and food safety properties (shelf-life and control of microbial populations and enzymatic activity) of cheese.⁸ While some efforts have been successful in reducing sodium levels in cheese, there is no optimal ingredient or process substitute for adding sodium to cheese.⁹

NMPF appreciates the approach to phase in targeted sodium reduction levels; however, it may not be possible to rely on future innovation to create low-sodium cheeses within the established timeframe. The industry will continue its research efforts to achieve sodium reductions that maintain flavor, meet consumer acceptance, and assure food safety. However, where industry is actively addressing sodium levels, and the function of sodium cannot be met with an easy substitute, it may make sense to extend compliance targets or allow additional consideration for foods that make significant nutrient contributions to the diet and contain sodium naturally.

⁷ Hentges, E. 2009. Sources of Sodium in the US Food Supply, Presented at IOM Strategies to Reduce Sodium Intake, March 2009.

⁸ Walstra, P., J. T. M. Wouters, and T. J. Geurts. 2006. Chapter 24 “Cheese Manufacture” pages 583-639, *in* Dairy Science and Technology, 2nd edition. Taylor & Francis, New York.

⁹ Cruz, A. G., J. A. F. Faria, M. A. R. Pollonio, H. M. A. Bolini, R. M. S. Celeghini, D. Granato, and N. P. Shah. 2011. Cheeses with reduced sodium content: Effects on functionality, public health benefits and sensory properties. *Trends in Food Science & Technology*. *Article in press*.

Flavored Milks as Part of School Meal Programs.

NMPF commends USDA for its stated goal of increasing availability of low-fat or fat-free milk in school meals and continuing to require milk in all school meals. Limiting milk to low-fat and fat-free is in accordance with the 2010 *Dietary Guidelines*, which calls for increased consumption of low-fat and fat-free dairy products. Continuing to offer both white and flavored milk options is an important strategy to meet this objective among children and adolescents. More than 50% of boys (ages 9 to 18) consume less than the recommended amount of fluid milk and milk products, while more than 90% of adolescent girls (ages 14 to 18) consume less than the recommended amount. Therefore, **the goal of the proposed rule should not be to simply increase accessibility of low-fat and fat-free milk, but to increase overall consumption and to develop the habit of drinking milk in young children**, so they may continue that pattern through adulthood.

We are concerned that the proposed changes limiting flavored milk to fat-free will have a negative impact on the goal of increasing overall milk consumption. Flavored milk is a popular choice among students, comprising over two-thirds of the milk sold in schools. Numerous studies have demonstrated when flavored milk options are removed from or limited in school meal patterns, milk consumption, as well as consumption of the nutrients milk provides, dramatically decreases (approximately by 35%). In the proposed rule, only fat-free flavored milk would be allowed in school meals. The rationale for not allowing flavored low-fat milk was the increase in both saturated fat and calories. Low-fat milk (1% fat) provides two grams of saturated fat and 18 additional calories compared with fat-free milk.

According to the National Dairy Council, the overwhelming majority of all milk served in schools is low-fat or fat-free. Of the flavored milk currently sold in schools, about 60% is low-fat, while only 33% is fat-free. A survey by state and local dairy councils of 448 large school districts in 2010 (representing about one-quarter of all schools in the U.S.) identified a similar proportion – only 60 fat-free products among more than 300 flavored milks available (~20%). The evidence suggests that schools have made the switch to low-fat varieties of milk but, for flavored milk the clear preference among students, based on what schools are ordering, is low-fat – not non-fat – milk. The proposed rule will not be a success if milk consumption drops as a result of flavored milk choices that are not appealing (or at least not as appealing as competitive beverages students may bring to school from elsewhere). Flavored milk was included as an option in the proposed rule in recognition that the small amount

of added sugar (flavored milk contributes only 2-3% of added sugars to the diets of children and adolescents) is an acceptable trade-off for the extensive nutrient contribution flavored milk provides.

Therefore, **NMPF urges the Department to modify the proposed rule to include both low-fat and fat-free flavored milk as options available to schools. To limit the potential for additional calories in a low-fat flavored milk (as compared to a fat-free formulation) we urge the establishment of a calorie limit on flavored milk of 150-calories per eight-ounce serving.** This will provide schools the flexibility to procure milk products that maintain high levels of acceptability and nutrient intake, while also assuring that flavored milk fits within overall calorie limits for meals. Many milk processors have proactively committed to and met a goal of 150 calories per serving as a way to limit the amount of sugar in flavored milk, and have worked within this constraint to formulate products that have demonstrated acceptability among students in schools across the country.

Nutritional Equivalency of Fluid Milk Substitutes.

Existing school meal regulations (7 CFR 210.10) require that nondairy fluid milk substitutes offered through the National School Lunch Program and the School Breakfast Program must be fortified with nine nutrients to the levels found in whole milk (3.25% milkfat). Whole milk was selected as the benchmark “because it provides the lowest levels of the (seven) proposed nutrients in comparison with other types of milk.”¹⁰ Levels of Vitamins A and D were reflective of the milk fortification levels specified by FDA.

The table below compares the nutrient content of 1% and whole milk for the nutrients on which nutritional equivalence of milk substitutes is determined.

¹⁰ Federal Register vol 73 (no. 178), September 12, 2008.

Nutrient ¹	Amount per 1 cup serving		
	Nutritional Standard ²	Whole Milk ³	Low-Fat (1% Milk) ³
Calcium (mg)	276	276	305
Protein (g)	8	8	8
Magnesium (mg)	24	24	27
Phosphorus (mg)	222	205	232
Potassium (mg)	349	322	366
Riboflavin (mg)	0.44	0.41	0.45
Vitamin B-12 (mcg)	1.1	1.1	1.15

¹ Levels of Vitamin A (500 IU) and D (100 IU) are established by the fortification levels of FDA.

² CFR 210.10.

³ Values from USDA National Nutrient Database for Standard Reference.

As the fat content of milk decreases, the milk solids content (protein, lactose, salts, minerals, water-soluble vitamins) increases. Therefore, low-fat milk contains greater amounts of vitamins and minerals per serving, and is more nutrient-dense, than whole milk. Since this rule proposes that only low-fat and fat-free milk be served in schools, then any beverage which substitutes for milk should contain levels of the required nutrients found in the product it is substituting for – low-fat or fat-free milk. As discussed earlier in these comments, low-fat milk is the number one type of milk served in schools. Thus, **a beverage offered as a substitute for fluid milk should be nutritionally equivalent to this new benchmark – 1% milk – not to whole milk.** This is consistent with the rationale provided in 2008 that the milk with the lowest level of nutrients serves as the milk substitute benchmark. This change would provide students receiving beverages that substitute for milk with higher levels of calcium, magnesium, phosphorous, and potassium than are currently required.

Conclusion.

NMPF supports USDA’s efforts to revise the meal patterns and nutrition requirements for the National School Lunch Program and the School Breakfast Program, which play a role in food security and nutrition for over 31 million children each day. Milk and dairy products can play a significant role in meeting the central objective of the proposed regulations – increasing consumption of nutrient-dense foods to improve dietary patterns and meet nutritional needs. Toward that end, NMPF recommends that milk and dairy products continue to be a core component of school meal patterns; that fluid milk continue to be offered with all meals; that

flavored milk be allowed as either low-fat or fat free, provided that it meets a 150-calorie cap to limit added sugars and meet weekly calorie restrictions; that either an extended timeline for compliance with sodium restrictions or exemptions for sodium in nutrient-dense foods, like cheese, be established; and that levels of nutrient fortification for fluid milk substitutes be increased.

Dairy products provide a unique nutrient package, and the dairy industry will continue to strive to provide products that are acceptable, affordable, and meet the nutrition needs of students.

Please contact NMPF for additional information.

Sincerely,

A handwritten signature in cursive script that reads "Beth Panko Briczinski".

Beth Briczinski, Ph.D.
Director, Dairy Foods & Nutrition