



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

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

Agri-Mark, Inc.

Arkansas Dairy Cooperative Association

Associated Milk Producers, Inc.

Continental Dairy

Products, Inc.

Cooperative Milk Producers Assn.

Dairy Farmers of America, Inc.

Dairvmen's Marketing

Cooperative, Inc.

Dairylea Cooperative Inc.

Ellsworth Cooperative

orounior,

Farmers Cooperative Creamery

First District Association

Foremost Farms USA

Humboldt Creamery

Just Jersey Cooperative, Inc.

Land O'Lakes, Inc.

Lone Star Milk Producers, Inc.

Manitowoc Milk Producers Coop.

MD & VA Milk Producers Cooperative Association, Inc.

Michigan Milk Producers Assn.

Mid-West Dairymen's

Northwest Dairy

Association
Prairie Farms
Dairy, Inc.

St. Albans Cooperative

Scioto County Co-op Milk Producers' Assn.

Select Milk Producers, Inc.

Southeast Milk, Inc.

Swiss Valley Farms, Co.

Tillamook County Creamery Assn.

United Dairymen of Arizona

Upstate Niagara Cooperative, Inc.

Zia Milk Producers

August 17, 2009

Jane E. Henney, MD Chair, Committee on Strategies to Reduce Sodium Intake Institute of Medicine, Food and Nutrition Board 500 Fifth Street, NW Washington, DC 20001

Dear Doctor Henney:

The National Milk Producers Federation appreciates the opportunity to share its perspective to the Committee on Strategies to Reduce Sodium Intake as you consider various means that could be employed to reduce dietary sodium to levels recommended in the 2005 Dietary Guidelines for Americans. 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.

Sodium reduction in context -- We generally will limit our comments to address those aspects identified in the Project Scope for the committee. We would like to reiterate at the onset, however, that sodium is only one of multiple dietary and lifestyles factor that has an impact on prevention and management of hypertension. We urge the committee to ensure that recommendations about sodium reduction are not made at the expense of either nutritional adequacy or other known factors that may have a positive effect on blood pressure. For example, the multi-factorial program embodied in Dietary Approaches to Stop Hypertension (DASH) eating plan has consistently proven effective in reducing blood pressure. The DASH diet is low in fat, saturated fat and sodium. It also, however, is enriched in foods that are good sources of calcium, potassium and magnesium - nutrients associated with lower blood pressure. Dairy products are important sources of these three nutrients, with three servings of low fat milk providing 28% of the Adequate Intake (AI) for potassium, 87% of the AI for calcium, and 25% of the Recommended Dietary Allowance (RDA) for magnesium.² The DASH diet also has been shown successful when incorporated into a weight loss program.³

J. Henney August 17, 2009 Page two

The Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure¹ reported that adoption of a DASH eating plan would be expected to lead to a reduction in systolic blood pressure of 8-14 mmHg. In contrast, shifts to a dietary sodium intake of no more than 2400 mg Na is estimated to lead to a more modest reduction of 2-8 mmHg.

Similarly, the U.K. Food Standards Agency Medical Research Council⁵ estimates that a "healthy weight reducing diet" would have a greater impact on individuals with hypertension than would salt/sodium modifications to a maximum level of 2400 mg sodium. It anticipates that the "healthy diet" would lead to a blood pressure benefit approximately twice that achieved by sodium reduction (5-6 mmHg versus 2-3 mmHg). It also estimates that a greater percentage of the population would realize a blood pressure decrease of 10 mmHg or more(40% versus 25%) with a weight reduction diet.

We believe this reinforces the need for a balanced and multifaceted perspective when delivering public messages to intended to address the problem of hypertension.

Sodium from dairy products -- The most recent estimates of which we are aware on the sodium contribution of dairy products is approximately 11.1% of total U.S. intake, of which cheese accounts for approximately 7.8%⁶. From a technological perspective, reducing sodium is particularly challenging in cheese manufacturing, as it plays significant roles in terms of safety, functionality and quality^{7,8,9}. Salt helps control fermentation of cheese, and it helps maintain various characteristics associated with cheese (flavor, texture, shelf life) through its control of activities of microorganisms and enzymes critical to the cheese-making process. In natural cheeses, it also is a significant factor in minimizing spoilage and preventing the growth of pathogenic organisms such as *Listeria monocytogenes*. In processed cheeses, both salt and sodium-containing emulsifying salts play critical roles in preventing the growth and toxin production of pathogens such as *Clostridium botulinum*.

Because of its contribution to cheese texture and flavor, it also plays an important role in consumer acceptance. This is particularly true for lower fat cheeses.

J. Henney August 17, 2009 Page three

Challenges of sodium reduction in dairy products -- Dairy food scientists are exploring various ways to produce good tasting, lower sodium cheeses. In natural cheese, the substitution of potassium chloride (KCI) has had limited success because of the off flavor associated with this compound, although work on various combinations of KCI and NaCI continue to be studied. Other salt compounds considered to date have been unacceptable because of bitter and metallic tastes and negative effects on cheese texture. In processed cheeses, which typically have sodium levels higher than natural cheese, substitutions for both salt and sodium emulsifiers are being sought, although results to date have not been promising.

Consumer acceptance of the low sodium cheeses available in the market has not been good, and this category has failed to grow, despite broader acceptance of the health benefits of lowering dietary sodium.

Needed policy change -- One policy change that would provide greater incentive to cheese manufactures to incrementally reduce sodium content with subsequent benefit to consumers – relates to a qualifier within FDA labeling regulations. In the absence of this qualifier, cheddar cheese could use a "low sodium" descriptor with a fairly modest reduction from 176 mg Na to 140 mg, approximately a 20% reduction. But FDA regulations require that products with a reference serving size of 30 g or less must meet a different standard that would be applicable to a 50 g serving. In other words, the level of sodium would have to be reduced to 140 mg/50 g cheese, which would equate to 84 mg Na/serving of cheese (more than a 50% reduction). While a 20% reduction in natural cheese may be possible with minimal effect on quality, taste and safety (and would meet the sodium/serving bar applied to other dietary mainstays), a 50% reduction is much more difficult and less likely. We strongly urge this committee recommend that FDA modify its sodium labeling regulations so that the bar is similar for all center-of-plate dietary staples, including cheese. Such a change would provide the incentive needed for manufacturers who are successful in achieving low sodium status of 140 mg/serving; they then would be allowed to communicate that modification to consumers via the food label.

Closing -- The dairy industry has made great strides in providing an array of good tasting, healthy products from which consumers may choose. We have been and will continue to research ways of modifying sodium content of dairy foods that result in products that are safe, acceptable and affordable to our

J. Henney August 17, 2009 Page four

target audiences. We also, however, are cautious about blanket recommendations that could have a negative impact on the nutritional composition of the diet, and we believe that approaches such as DASH, which address the nutrient content, caloric content *and* sodium content of the diet in a moderate and achievable manner will be the most effective in ensuring the public health. Finally, we urge a reevaluation of discriminatory labeling policies imposed on foods like cheese. Even though cheese is a dietary staple for many segments of our population, it faces a higher bar both in terms of reformulation targets and product labeling.

Thank you for this opportunity to share our perspective with your committee.

Sincerely,

Jamie S. Jonker, Ph.D.

Vice President, Scientific & Regulatory Affairs

References

- U.S. Department of Health and Human Services, National High Blood Pressure Education Program. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure. NIH Publication No. 04-5230. August 2004. http://www.nhlbi.nih.gov/guidelines/hypertension/jnc7full.pdf
- 2. The Report of the Dietary Guidelines Advisory Committee on *Dietary Guidelines for American*. 2005. http://www.health.gov/dietaryguidelines/dga2005/report/default.htm
- Svetkey LP, Stevens VJ, Brantley PJ, et al. Comparison of strategies for sustaining weight loss: The weight loss maintenance randomized controlled trial. JAMA 299(10);1139. 2008.
- Medical Research Council, Human Nutrition Research, Food Standards Agency. Why 6g? A summary of the scientific evidence for the salt intake target. 2006. http://www.mrc.ac.uk/Newspublications/News/MRC001769
- Hentges E. Sources of sodium in the food supply. Presented at institute of Medicine Committee on Strategies to Reduce Sodium Intake, Information Gathering Workshop. March 30, 2009. http://www.iom.edu/?id=65261
- 6. Bolton LF and Frank JF. Defining the growth/non-growth interface for *Listeria monocytogenes* in Mexican-style cheese based on salt, pH and moisture content. J Food Prot 62(6):601. 1999.
- 7. Tanaka N, Traisman E, Plantinga P, et al. Evaluation of factors involved in antibotulinal properties of pasteurized process cheese spreads. J Food Prot 49:526. 1986.
- Glass K and Doyle ME. Safety of processed cheese: A review of the scientific literature. FRI Briefings, Food Research Institute, University of Wisconsin. 2005.