Cheese industry works together to address sodium challenge

SOURCE: U.S. DAIRY

February 22, 2011

Against the backdrop of growing public health concern about Americans' sodium consumption, the Innovation Center for U.S. Dairy™ Health and Wellness Committee identified the need for a large, independent, blinded retail analysis of the sodium content in cheese. This research was spearheaded by the Dairy Research Institute™ < and published online < prior to print publication in the March issue of Journal of Dairy Science. The findings will be used to establish a benchmark for sodium levels in the most commonly consumed cheeses—Cheddar, mozzarella and process cheese. The industry will take a leadership role to identify opportunities to implement process improvements that can minimize variability and ultimately reduce the sodium content in cheese.

Improved process control offers opportunities to achieve greater consistency of sodium levels. The study found sodium variability among cheese types and even within varying brands of the same cheese type. There also were variations based on cheese form (e.g., shredded, string) and differences from sample to sample. The study also found that manufacturers tended to be conservative with reporting higher sodium levels on the label, as analytical levels were most commonly below the label declaration, but within allowable reporting standards.

The study comes at a critical time, as sodium levels in a variety of foods have gotten the attention of the public health community. The recently released 2010 Dietary Guidelines for Americans people consume less than 2,300 mg of sodium per day (significantly less than the current national average consumption of approximately 3,400 mg per day).\[2\] On behalf of the Innovation Center for US Dairy, the Dairy Research Institute proactively administers cheese research efforts—such as addressing cheese and sodium—to help industry meet consumers' health and wellness needs. The two organizations are working in partnership with industry to establish best practices in cheese making process controls that minimize variability and improve manufacturers' ability to reduce the sodium content of cheese.

"While cheese contributes less than 8% of the sodium in the U.S. diet, \[3\] the Dairy Research Institute and our industry partners continue to investigate process improvements and solutions that industry can employ to help Americans manage their sodium consumption," said Gregory Miller, Ph.D., president, Dairy Research Institute and executive vice president, National Dairy Council®. "To move forward with goals to reduce sodium in cheese or attempt to meet arbitrarily pre-determined target levels, the industry must determine where sodium levels currently stand through benchmark studies."

Precision and control of the factors that affect salt content in cheese are a critical part of the manufacturing process to ensure cheese quality. The analysis shows that difficulties in achieving uniform salt distribution in commercial settings stems from a variety of factors, according to Bill Graves, senior vice president of product research, Dairy Research Institute. "To date research does show a number of approaches available to improve consistency, including greater formalization of cheese making steps and operations, improved design of equipment for uniform curd distribution and block forming, and improved quick and easy testing methods to check sodium levels during production," Graves said. "Continued evaluation of best methods to reduce sodium and establish process controls are underway with cooperation among universities and dairy industry partners."

Sodium by the Numbers The cheese-sodium study involved analyzing Cheddar, mozzarella and process cheeses (which collectively account for a majority of total U.S. retail cheese sales \[4\] <#_edn4>) in 16 U.S. cities across four regions. Researchers determined the differences between analytical sodium and label sodium, and identified areas for the industry to adopt best practices.

"These research findings already are being used to develop industry-adopted best practices to minimize variability in sodium content, which then needs to be reflected in labeling," said Nigel Kirtley, vice president cheese research

development and quality for Kraft Foods and member of the Health and Wellness Committee for the Innovation Center for U.S. Dairy. “The industry will continue to use the findings to develop guidance and support to help manufacturers put this information into action for better process controls that will allow for consistently lower sodium and improved quality.”

Industry Addresses Sodium Challenge

In December 2010, hosted by the Innovation Center for U.S. Dairy, more than 17 leading cheese companies and manufacturers united at a Best Practices Task Force meeting to work on proactively addressing the opportunities and challenges associated with reducing sodium content in cheese. The group has been working pre-competitively to address consumers’ health and wellness needs while maintaining strict expectations for food safety and taste.

The group acknowledged three important aspects related to the challenge of sodium levels in cheese products: maintaining taste and functionality in lower sodium products, updating process controls in manufacturing, and educating key audiences about the necessary role of sodium in cheese—in terms of the cheese making process and food safety/shelf stability. The Task Force will continue to provide leadership to meet the challenges of cheese and sodium, with the ongoing goal of providing timely educational resources and guidance to industry partners. Industry members are invited to participate and apply research and insights to their business practices.

Regular updates will be made available at USDairy.com

http://www.usdairy.com/DairyResearchInstitute/Pages/Home.aspx

\[1\] Agarwal S, McCoy D, Graves W, Gerard PD, Clark S. “Sodium Content in Retail Cheddar, Mozzarella and Process Cheeses Varies Considerably in the United States,” Journal of Dairy Science, March 2011.

\[2\] U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2010. 7th Edition, Washington, DC: U.S Government Printing Office, January 2011.

\[3\] Hentges E. Sources of sodium in the food supply. Paper presented at: Institute of Medicine Committee on Strategies to Reduce Sodium Intake, Information-Gathering Workshop; 2009; Washington D.C.

\[4\] Symphony IRI Group, 2010, data sourced through September 27, 2009.

Dairy Research Institute™ is a 501(c)(3)* non-profit organization affiliated with the Innovation Center for U.S. Dairy™ and was created to strengthen the dairy industry’s access to and investment in the technical research required to drive innovation and demand for dairy products and ingredients, globally. The Institute works with and through industry, academic, government and commercial partners to drive pre-competitive research in nutrition, products and sustainability on behalf of the Innovation Center and the National Dairy Council.®

*Application pending.

Innovation Center for U.S. Dairy™is a forum for the dairy industry to work together pre-competitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry. The Board of Directors for the Innovation Center includes 31 leaders representing 30 key U.S. producer organizations, dairy cooperatives, processors, manufacturers and brands.

The Innovation Center is staffed by Dairy Management Inc.™ Visit USDairy.com<**http://www.usdairy.com/DairyResearchInstitute/Pages/Home.aspx**> for more information about the Innovation Center for U.S. Dairy™.