

Cheese Industry Works Together to Address the Sodium Challenge

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Summary: 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**.

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 recommend 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). 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, 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 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.

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