## IDFA \& Leprino Foods Prefer Voluntary FDA Approach To Sodium Reduction Efforts

Washington-Both the International Dairy Foods Association (IDFA) and Leprino Foods Company, the world's largest producer of Mozzarella cheese, favor a voluntary rather than mandatory government approach to sodium reduction in cheese.

IDFA and Leprino Foods made their recommendations in comments recently submitted to the Food and Drug Administration (FDA).

Last year, FDA and USDA's Foos Safety and Inspection Service (FSIS) requested comments, research, data and other information about, among other things, current and emerging practices by the private sector regarding sodium reduction and issues associated with the development of targets for sodium reduction in foods to promote reduction in excess sodium intake.

Today was the deadline for submitting comments.

Cheese is often thought of as being high in salt and sodium, but different varieties of cheese can have "very different levels" of sodium, IDFA pointed out.

Depending on the type of cheese, and the functional purpose of salt and other sodium-containing ingredients, the sodium content can range from about 60 milligrams in a serving of Swiss cheese to around 350 milligrams of sodium in a oneounce serving of Feta cheese.

Processed varieties of cheese are generally higher in sodium content than natural cheese, but can still vary significantly, IDFA noted.

Salt is an "integral ingredient" in cheesemaking, of both natural and processed cheeses, IDFA continued. It serves a variety of functions beyond flavor, both during the manufacture of cheese and for the function of the finished cheese. For many Italian-type cheeses,

- See Sodium Reduction, p. 5


## Sodium Reduction

(Continued from p. 1)
including Mozzarella, the cheese curd is cooled in a salt brine solution, following cooking and stretching of the curd. Salt also gives a firmness and body to a finished cheese, and allows a cheese to melt appropriately.

Salt content can also affect the shelf life and safety of cheeses, IDFA said. Lowering the salt and sodium content of these products can reduce the shelf life and increase the food safety hurdles for cheese.

Other substances, such as preservatives, may need to be added to the cheese in order to maintain suitable shelf life and acceptable levels of safety. These additional substances may not be allowed by cheese standards of identity and may also be unattractive to consumers who look for "clean labels" with few ingredients and naturally-derived ingredients, IDFA noted.

There is no one salt substitute that can address all of the functional and flavor uses of salt in cheese, IDFA added. Potassium chloride may be useful in some cases, but the use of this often requires masking agents to offset the strong off-flavor.
According to IDFA's cheesemaking member companies, the overall sodium content of cheese has remained relatively stable for many years. The level of salt present in cheeses is the ideal amount to provide the various functions necessary for the manufacture of cheese. Cheese makers use the needed amount of salt; they do not add more than is necessary.
While cheese makers have been working for a number of years to lower the level of sodium present in their products, product development of new better-for-you product options takes years of extensive work, market testing and understanding consumer acceptance to taste, texture and function in various uses such as cooking, IDFA said.
The cheese industry for the last two decades has focused its product
development on fat reduction. It is only in more recent years that individual companies and the wider dairy industry has shifted research and development work to examine sodium in dairy products.

While the majority of the industry has committed to de velopment of lower sodium cheese options, some companies have successfully brought reduced sodium cheeses to the retail or foodservice market. However, these cheeses are still a "very small segment" of cheese sales and are not available in all forms or varieties of cheese, IDFA explained.

Based on the function of salt in the cheesemaking process, and on the functionality of the finished cheese, a reduction of at least 25 percent sodium "is not feasible in all types of cheese at this time," IDFA said. Cheeses with a significant enough sodium reduction to make a "reduced sodium" or other claim may continue to be a fairly small part of the cheese market for a long period of time.

## Industry Working To Cut Sodium

In addition to efforts by individual companies, the cheese industry is also working together to address challenges related to sodium reduction that will benefit all companies making cheese, IDFA said. The Innovation Center for US Dairy has convened a Best Practices Task Force to identify challenges to reducing sodium levels in cheese and solutions to these challenges.

The task force is currently working on three topics: identifying successful methods of rapid sodium testing; updating food safety information for processed cheese with lower sodium content; and educating consumers and health professionals on the content and role of sodium in cheese.

## Possible Unintended Consequences

As with all initiatives undertaken to affect the general public, there is the possibility of unintended consequences in sodium reduction efforts, IDFA noted.

- See Sodium Reduction, p. 7


## Sodium Reduction

(Continued from p. 5)
Before a sodium reduction initiative is launched, the science behind the role of sodium in the diet and health should be fully understood. Sodium intake has long been identified as a key variable in blood pressure and hypertension. However, blood pressure can be affected by a number of things, including potassium intake, calcium intake and physical activity.

Also, some recent research has pointed to the effects of sodium consumption on morbidity and mortality, as well as the possible negative consequences of a low-sodium diet for certain subpopulations. This research should be understood as part of the total body of scientific evidence regarding sodium and health, IDFA said.

One potential unintended consequence is reduced consumption of products that have lowered levels of sodium. If companies reduce sodium to provide a healthier product, but consumers choose not to buy it or eat it, then there is no nutritional benefit in the reduced sodium food.

Salt allows companies to make safe products, with a reasonable shelf life, without the use of chemical preservatives. If salt use is reduced, shorter shelf life of products may require use of additional chemical preservatives, or the restructuring of food distribution systems.

Individual companies and the entire cheese industry have undertaken "significant amounts of work" toward the goal of lowering sodium in cheese, IDFA said. While the results have been "uneven," work continues in a variety of areas that will help move cheeses in general toward lower sodium content.

Mandating sodium reductions "could result in significant unin-
tended consequences," including consumer dissatisfaction and changes to food safety or shelf life that could undermine lower-sodium versions of cheese.

Cheese makers are working to identify and develop approaches that will lower sodium while minimizing these unintended impacts on the finished cheese as much as possible, IDFA pointed out.
The issues that FDA is now seeking to address relate to potential effects of excessive consumption of salt, not salt consumption under intended conditions of use, IDFA pointed out.

These issues are properly addressed through nutrition labeling, consumer education, and voluntary actions by manufacturers and food service providers, IDFA said. Indeed, whatever action FDA might consider with respect to processed foods can be completely undone by the consumer adding salt, in whatever quantity desired, at the point of consumption.

## Leprino: Slow Approach Needed

"We recommend that FDA create a voluntary sodium reduction initiative with attainable targets that will facilitate a step-down sodium reduction strategy," Denver, CO-based Leprino Foods said in its comments to FDA. "This will allow the industry to develop sustainable
lower sodium products that have broad consumer acceptance."

Leprino Foods has been proactive in researching and developing reduced sodium products that are both flavorful and meet consumer preferences and the performance needs of the applications in which they are used.
"We believe that sodium reduction can be sustainable with appropriate consumer research and

- See Sodium Reduction, p. 12


## Sodium Reduction

(Continued from p . 7 )
product development," Leprino Foods said.

According to industry and internal research, sodium reduction beyond certain limits leads to declin. ing consumer acceptance of cheeses, so while sodium reduction can be achieved in cheese, "it must be done at levels that do not cause deterioration in consumer acceptance and purchase behaviors," the company said.
"Given the outcome of this research, we believe that sodium reduction must be completed in gradual steps to allow the American palate to adjust," Leprino Foods continued. "It also must be achieved without compromising food safety or the consumption of nutrient dense foods that are key to providing nutrients that are deficient in the American diet."

While Leprino Foods and many other food manufacturers have made progress in the development of reduced sodium products, "further research and development will continue to evolve. Therefore, voluntary sodium reduction programs will allow manufacturers to complete meaningful research and develop. ment to create quality products with sustainable reduced sodium levels," the company said.

Leprino supported the recent reduction in salt targets within the USDA nutrition program standards for Mozzarella cheese by reducing the product's sodium content from approximately 232 milligrams per serving to 190 milligrams per serving, impacting approximately 100 million pounds of cheese purchased annually by US schools and government feeding programs.

> "Given the outcome of this research, we believe that sodium reduction must be completed in gradual steps to allow the American palate to adjust."
> - Leprino Foods
"This reduction is consistent with achievable salt levels and also contributes to the adjustment in palates by targeting children who have not fully developed palates based upon higher salt levels," Leprino noted

Many of Leprino's customers are also looking for ways to reduce sodium content without sacrificing performance or consumption. The company's research and development team has been actively working with quick serve restaurants and retailers to reduce the sodium content of Mozzarella by 10 to 30 percent.

Leprino believes that care must be taken in the sodium reduction initiative in order for the outcomes to be sustainable.
"We believe that sodium reduction must be phased in over an extended period that allows consumer palates to adjust," the company said. "A severe reduction in sodium levels is likely to result in consumers adjusting their eating habits away from those foods that have been severely reformulated.
"Having consumers significantly reduce their intake of nutrient dense foods such as cheese, would be counter to the goals of increasing consumption of several nutrients that are in short supply in the American diet," Leprino said.

Leprino Foods supports the work done by the National Sodium Reduction Initiative (NSRI) and has been actively working with the group to create voluntary standards for cheese.

In regards to creating a successful voluntary federal sodium reduction initiative, FDA must first create targets that are attainable, as many products, such as milk, have naturally occurring sodium and therefore are limited on the extent to which they can be reformulated.

Also, Leprino suggested thatFDA take a step-wise approach to voluntary sodium reduction to allow consumer palates to adjust to lower-sodium products.

Finally, Leprino said FDA must be mindful to capture appropriate individual food ingredients within foods or food categories and not use combinations of foods to create targets (such as pizza). As consumers increase their knowledge of sodium and its effect on health, government and industry need to take a step back and focus sodium recommendations and communications on sodium content of specific products or ingredients rather than entire food categories. $\mathbf{C}_{\mathbf{R}}$

