



## Breaking News on Food & Beverage Development - North America

### SODIUM REDUCTION - THE ROAD AHEAD

# Is sodium reduction really necessary?

By Hank Schultz, 25-Apr-2013

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**The stealthy approach to sodium reduction in foods—cutting levels bit by bit so that consumers don't notice—has evolved to the point that some observers question whether it is necessary at all. Understandably, those in the business of selling sodium reduction solutions disagree, leading to an interesting debate on both sides of the issue.**

On one side stands Kara Nielsen, a 'trendologist' for CCD Innovation, a San Francisco-based food and beverage product development company. From Nielsen's point of view, the pressure to lower sodium has waxed and waned, mirroring the vacillation on the science side of the question.

*"What I have seen for a long time with sodium reduction is there has been a back and forth going on because science isn't showing as conclusively as some people think that sodium reduction is an issue for health in the way that it was portrayed as the big bad evil some years ago," Nielsen told FoodNavigator-USA.*

*"Just as dietary fat has been revisited and has been clearly pointed out not to be the bad guy it was portrayed as, I continue to see discussions around the question of whether sodium as much a problem as we thought it was for the majority of consumers. There certainly is a segment of consumers who do need to deal with hypertension."*

#### Too much is too much

But, Nielsen said, some sodium reduction is called for, given the high levels of salt found in many processed foods on shelves in the US. So whether high sodium intake is really a critical public health issue, the push to cut salt has gained momentum.

*"For many years processed food has contained more salt than it really needs. I have seen see manufacturers and ingredient suppliers continue to work on salt substitutes and flavor enhancement systems that continue to reduce the salt in finished products," she said.*

*"It's a very confusing world. You have conflicting science information. You have consumers scratching their heads because they don't really like anything that doesn't have salt in it, and then manufacturers who are trying to figure out what consumers really want while still trying to be part of a solution," Nielsen said.*

#### Salt reduction momentum is irresistible

Don Mower, president and COO of Minnetonka, MN-based Nu-Tek Salt, finds himself on the other side of the issue. Nu-Tek develops salt reduction technologies, in particular its signature potassium chloride ingredient. As far as Mower is concerned, the salt reduction question was answered long ago, and the momentum is building.

*"There has been an additional shift in just the last 24 months. At this point, I don't you have to convince too many people that doing significant sodium reduction in food is something that needs to be done," Mower said.*

*"Almost every day (in the media) there is something on sodium reduction at this point. There was a story coming out of Canada just the other day that consumers there are warming up to less sodium, seeing it as more of a positive than a negative.*

*"So I think we are kind of past the point from my perspective from having to convince anybody. Even from the first of the year there seems to be an increased level of activity," he said.*

#### Stealth solutions

For those manufacturers seeking to reduce sodium yet still meet consumers' taste expectations, several options offer themselves. Boosting the umami flavor profiles of foods is not a new answer, Nielsen said, but it's one that continues to offer promise.

*"The one thing I have seen from a manufacturer's point of view is to continue to work on improving the umami levels in foods so that that the foods have a savory deliciousness that isn't dependent on the sodium," Nielsen said.*

Another approach to gradually replacing sodium while maintaining flavor is to substitute some of the salt with a combination of substitutes that stimulate the taste buds in a similar way. Savoury Systems International, based in Branchburg, NJ, helps manufacturers with this approach, by offering a combination of yeast extract and amino acids to maintain that salt signal without as much sodium being present, said technical sales manager Kevin McDermott. It's an approach that can be tailored to each food matrix, he said.

"We really try to be application specific," he said.

The approach can work, but it's not necessarily cheap. Sodium chloride's place in food processing history isn't just based on its taste. It is a remarkably cost effective ingredient, as well as helping to corral water activity in the finished product.

*"Salt is just one of those perfect ingredients," McDermott said. "If you remove salt out of your formulation it's automatically going to be more expensive."*

McDermott said the flavor intensity of the solutions his company offers allows manufacturers to use as much as 80% less by bulk when replacing sodium, containing that cost increase to a great extent.

Nu-Tek's salt replacer, on the other hand, is designed to substitute for salt on a 1:1 ratio, and offers the same microbial control benefits, Mower said. The knock on potassium chloride in the past has been its bitter taste, a shortcoming that torpedoed the early tabletop products. Mower said Nu-Tek has developed a technology that forms a stable crystal that masks most of the bitterness, and the ingredient is relatively inexpensive to boot.

### **Cutting the need for salt**

But perhaps the stealthiest approach of all is to formulate foods that don't need as much salt to taste good in the first place, Nielsen said. Many of the first generation of processed foods mirrored their homemade meat and potatoes progenitors. A meal consisting of a slab of Salisbury steak with mashed potatoes and overcooked green beans doesn't have a lot of inherent flavor to fall back on, she said. But the new emphasis on ethnic cooking arising out of more highly spiced food traditions means there is more flavor to work with.

*"The American diet was a pretty plain diet for many decades and now there is this influx of new ethnic foods that for many millennials has become an expectation," Nielsen said.*

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