Dairy ingredient claimed to cut added salt and costs

By Mike Stones, 20-Apr-2011

Protein producer Proliant claims its ingredient VersiLac helps manufacturers to remove added salt in some food applications and to cut them by up to 25 percent in others, according to research at the Wisconsin Center for Dairy Research.

VersiLac helps to cut added salt, claims Proliant.

The company's applications research specialist, Kim Peterson told FoodNavigatorUSA: "*Anytime VersiLac is used instead of non fat dry milk or whey powder, there's the possibility of reducing added salt. When using VersiLac in bakery applications as the dairy source, salt can often be completely removed due to the low usage level of salt in bakery products and the natural salty flavor added by VersiLac*."

Used in savory or prepared foods, typical cuts in added salt range from 15-25 percent, she added.

Whey permeate

VersiLac is made from milk and whey permeate; a by-product of whey and/or milk concentration. Dairy solids are obtained by removing some of the protein, minerals and lactose from milk and/or whey. Separation is achieved by ultra filtration.

Proliant's ingredient is claimed to differ from other permeates because it uses a drying process making it non-hygroscopic, non-caking, and non-bridging. "*VersiLac is naturally agglomerated making it dispersible, wettable and highly soluble*," said Peterson.

The ingredient also offers labeling flexibility including the options of dairy product solids, modified whey, or reduced protein whey.

The company also claims the ingredient offers a lower cost alternative to more expensive ingredients such as non-fat dry milk and whey powder in a variety of different food applications.

"*Another attribute is its ability to enhance and potentiate more expensive flavors or ingredients in finished applications*," said Peterson. "*By using VersiLac, reductions in cocoa/chocolate, sugar, cheese flavors, and tomato powders have been possible. Typical reductions are 25% of*

the more expensive ingredient."
Bakery applications include brownies, cookies, cakes, pie crusts, and pizza crusts.

Savory applications span sauces, soups, seasonings, and prepared foods.

Dairy applications include ice cream, dips, and cheese sauces.

Confectionary uses include chocolate coatings and caramels.

For beverages it can be used for hot cocoa mixes, ready-to-drink products, and nutritional drinks.

Sodium replacer

Kimberlee Burrington, director of dairy ingredient applications, Wisconsin Center for Dairy Research (WCDR) said: "*While there is not an extensive amount of research on why whey permeate performs as a sodium replacer, it is believed that these non-protein nitrogen compounds—urea, creatine, creatinine, uric acid, orotic acid, and ammonia—may serve as flavor potentiators.*

"*The mineral salts, calcium phosphate, magnesium, sodium and potassium, may function as salt enhancers*."

Meanwhile, Sharon Gerdes, food industry consultant with the US Dairy Export Council, wrote recently in an industry publication: "*Food manufacturers are always looking for a superstar ingredient—one with superb functionality that can help improve the bottom line.*

"*Whey permeate fits that bill nicely. It is a functional workhorse that can promote browning, enhance flavor, improve moisture retention and allow manufacturers to reduce sodium levels, all at a very reasonable cost*."