

Fortification of dairy drinks

Make your dairy drinks stand out from the herd



-  Fortification
-  High solubility
-  Neutral taste
-  High bioavailability

Fortification is a well-established trend in dairy and plant-based beverages. Flavored milk and drinking yogurt are ideal for meeting the specific nutritional needs of key consumer groups, such as children and seniors, ensuring that they receive the extra nutrition that they require. Corbion's proven range of calcium salts, magnesium and zinc solutions provide effective dairy fortification while helping to meet a wide range of processing challenges.

Fortification

For many consumers all over the world, dairy and health are synonymous terms. Today, dairy drinks are a staple of everyday diets, providing first-rate nutrition in a convenient format. Fortified dairy beverages are an ideal way to enrich diets that lack certain specific nutrients, such as vitamins and minerals, or to boost the natural health aspects of milk by augmenting the content of some of its natural components; protein or calcium, for instance.

Calcium is critical for bone health at all life stages, but is particularly important in the diets of children and teenagers as they grow rapidly, and those of the elderly, who are prone to bone degeneration as they age. But other minerals, including zinc, also play an important role in the maintenance of normal bones. Some trendspotters believe that zinc is the 'new calcium' in fortified dairy beverages. As well as its bone health benefits, zinc also contributes to normal brain function, fertility and DNA synthesis. Review the options for dairy, plant-based and non-dairy drink fortification with Corbion.

PURACAL QStable: Calcium specialty for beverages containing protein

Often, fortifying protein beverages (neutral pH) with soluble calcium presents a significant challenge, as calcium can interact with protein and coagulate. Insoluble calcium sources often result in thick layers of sedimentation at the bottom of the package. PURACAL QStable solves these problems, allowing manufacturers to enrich with calcium with no protein coagulation or other stability issues.



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Solubility comparison of calcium salts

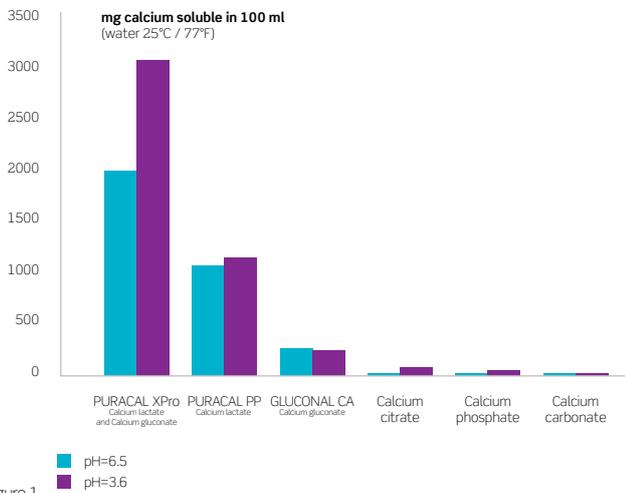


Figure 1

Superior solubility

Growing demand for smaller portion sizes in fortified yogurts and acidified dairy drinks means minerals must be highly soluble to provide adequate nutrition. This requirement for solubility is compounded by the fact that fortification ingredients are often added to fruit and flavor preparations with high brix levels. A comparison in solubility of calcium salts is shown in Figure 1.

Taste impact of added calcium sources

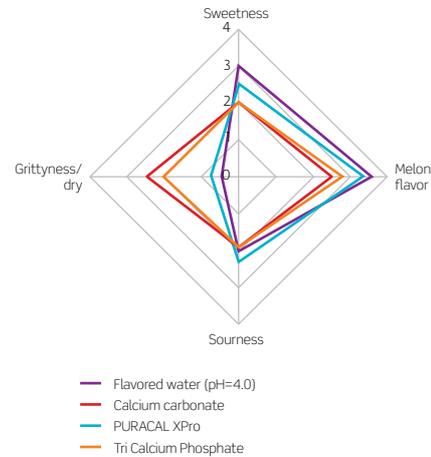


Figure 2

Neutral flavor

Dairy products have inherently delicate tastes, aromas and textures that are easily spoiled, even when adding significant levels of minerals. Corbion's advanced manufacturing process means dairy formulators can add high concentrations of bioavailable materials to a wide range of end-products, with minimal impact on organoleptic properties or drinking enjoyment.

	Calcium enrichment			Zinc enrichment	Magnesium enrichment
	PURACAL® PP	PURACAL® QStable	PURACAL® XPro	Puramex® Zn	Puramex® Mg
Acidified dairy drinks	✓		✓	✓	✓
Neutral dairy drinks		✓		✓	
Yoghurt drinks	✓		✓	✓	✓
Dairy drink alternatives (plant-based, neutral pH)		✓		✓	

Nutritional premixes for dairy

Dairy is an ideal carrier for functional ingredients, such as vitamins and minerals. Alongside our range of mineral salts (calcium, magnesium, zinc and others), Corbion offers North American dairy producers vitamin and mineral blends under the NutriVan® brand name. Tailored to meet unique needs, NutriVan® helps fortify dairy products, while benefitting from reduced time, cost and inconvenience in production.

Corbion in dairy

Our products are the result of natural fermentation, a process well-known to the dairy industry, including natural, high quality L (+) lactic acid. Our extensive portfolio provides exciting, naturally-derived options for the dairy industry. Combining our expertise in these areas with insights into the global dairy market and over 80 years of fermentation expertise, Corbion is a true partner for inventive product development. With technical and applications experts located all over the world, Corbion can provide comprehensive technical expertise from start to finish, no matter where customers are based.

Interested in our solutions? Go to corbion.com/dairy

@CorbionFood

Corbion creates innovative ingredient solutions for leading food manufacturers around the world. Our expertise inspires customers to craft foods that start flavorful, stay fresh and remain safe, from date of production to date of consumption. Using sustainable solutions that deliver real, consumer-focused value, we work side-by-side with customers, helping them grow and create delicious food that capture peoples' palates and earn their trust. At Corbion our priorities as consumers shape the solutions we create, and as a result, feel confidence and pride in serving our own families and friends the products we help make possible.

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