

THE INGREDIENTS MARKET

# Dairy Bioactives Benefit From Health & Performance Markets

Key highlights on the market for dairy bioactives, including the latest estimates on market size, drivers and barriers, NPD activity, and future perspectives.

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All dairy bioactives on the market, from whey protein hydrolyzate to alpha-lactalbumin, are high value added ingredients characterized by having beneficial physiological effects beyond the supply of nutrients. Dairy bioactives are often quite expensive due to their beneficial properties, which makes the market for dairy bioactives a low volume playing field.

As evident from the figure below, the combined dairy bioactives market is only a fraction of the market size of other high-end dairy ingredients with an estimated volume of more than 55,000 MT in 2015. The market value for dairy bioactives, however, reflects their high value added nature and is estimated at approximately US\$1.25bn in 2015. Of the individual dairy bioactives markets, protein hydrolyzates is by far the largest both in volume and value terms, comprising 80%

and 60% of total size, respectively. However, galacto-oligosaccharides (GOS) is much larger than protein hydrolyzates in volume terms with an estimated market volume of around 60,000 MT, and if it is included in the market estimates, total market volume in 2015 is substantially larger at more than 115,000 MT with a market value of around US\$1.7bn.

### An Attractive Market

The market for dairy bioactives is attractive due to the very high value that a manufacturer can claim for the ingredients. However, the high value dairy bioactives can only be extracted through a rather extensive refinement process and this results in certain barriers for dairy bioactives. Because dairy bioactives are such refined ingredients, it requires the processing of a very large raw material volume to generate just small outputs of

dairy bioactives. This often means that dairy bioactives are high-cost ingredients and makes it difficult to create economies of scale in the production of them. In addition, the processing of bioactives together with commodities in large industrial plants are often complicated, given factory logistics and the processing skills required.

### Strong NPD Activity

Despite certain barriers to the production of dairy bioactives there is still an increasing interest from manufacturers of consumer products. The many health benefits of dairy bioactives are a key driver for the interest in them, as such health benefits are in high demand by many of today's consumers. Dairy bioactives provide benefits for weight management, muscle health/anti-aging, energy boosting, and bone-, heart-, immune-, and gut health. These benefits make dairy bioactives especially suitable for four sectors: infant formula, clinical nutrition, sports nutrition, and functional foods & dietary supplements.

Within infant formula, dairy bioactives are important ingredients in the efforts of infant formula companies to constantly increase the humanization level of infant formula products, and within clinical nutrition protein digestion issues, disease prevention, -treatment, and -recovery drives the interest in dairy bioactives. Because of the ability of dairy bioactives to aid in ensuring stronger performance and stamina as well as a faster recovery, they are also in high demand in the sports nutrition sector. Finally, dairy bioactives are natural ingredients with a wide range of health benefits, which is very valuable for products in the functional foods & dietary supplements sector.

### Product Development

The competitive dynamics of the above sectors drive manufacturers of end-user products to continuously develop and market new products with added health benefits targeted towards specific consumer groups. This causes a strong demand for dairy bioactives, which is clearly reflected in recent figures of NPD activity for products containing dairy bioactives. For all five dairy bioactives it is evident that NPD activity has been on an upward trend since 2012, according to Innova Market Insights. Especially lactoferrin, whey protein hydrolyzate, and GOS have experienced very strong increases in the level of NPD activity. For lactoferrin the increase is mainly due to its inclusion in infant formula products, for whey pro-

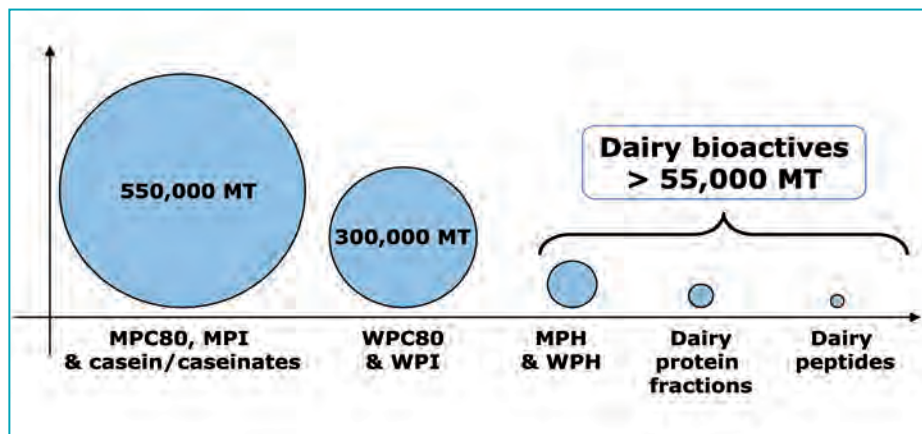


Figure 1: Market volume comparison between dairy bioactives and other high-end ingredients markets

tein hydrolyzates it is mainly due to its inclusion in sports nutrition, and GOS has experienced very strong increases also, due to its application in infant formula products.

### Limited in Regions

The launch of new products containing dairy bioactives is still fairly limited to only three regions, Asia, North America, and Europe, which comprise the vast majority of new products launched (85-90%). Of these three regions, Asia is responsible for the largest share of NPD activity for dairy bioactives products and especially for products containing lactoferrin, alpha-lactalbumin, or GOS.

This corresponds very well with the intensive growth of the infant formula market in Asia in recent years, and in particular in China.

For both North America and Europe, a very large part of NPD activity is within products containing WPH and MPH, which are often targeted towards the sports nutrition sector.

### The 2019 Market

Protein hydrolyzates is the only dairy bioactive that is approaching maturity. The placement of protein hydrolyzates on the PLC-curve reflects that it is currently the largest market for dairy bioactives and is well-established on the consumer products market.

A group of four types of

dairy bioactives, GOS, alpha-lactalbumin, lactoferrin, and dairy peptides are all growing and increased usage of these dairy bioactives is expected for the coming years.

Finally, there is a group of dairy bioactives that is still just about to enter the growth stage and for which the market is yet rather small. Therefore, the usage of these dairy bioactives will remain fairly limited until the benefits of these are more well-known to end-user manufacturers and consumers.

The development in the future usage of dairy bioactives is very dependent on the market developments within the four key end-user sectors outlined previously. Based on current estimates, the sports nutrition, clinical nutrition, and infant formula sectors are all expected to grow by 5-7% annually towards 2019.

The positive outlooks of these sectors and the continuous research into the health benefits of dairy bioactives suggest that there will be a continued and increasing interest in dairy bioactives, and the market is expected to grow at around 5-10% annually for the coming years. ▼

Tage Affertsholt and Nikolaj Kristensen work for 3A Business Consulting. This article is based on the company's recent report "The World Market for Dairy Bioactives 2015-2019."

SOURCE: INNOVA MARKET INSIGHTS



► Nutricia Aptamil Profutura Stage 2 Follow on Milk for Babies From 6 To 12 Months with GOS (Ireland).