



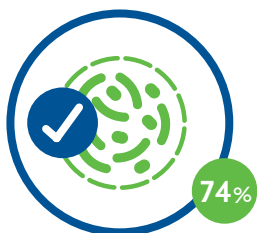
Revamp dairy products

Reduce sugar & fat and boost gut health

For a long time, the gut was considered to be solely about digestion. Today, we know that this idea is too restrictive. The gut acts as an essential part of the immune system, fighting off pathogens and even influencing our emotions through the "gut-brain axis". And it seems that research in this field is only just getting started.

Today, there is growing understanding of the role that the gut plays in shaping our health. As a result, consumers are increasingly aware of diets and foods that can support this important organ. This trend is also evident in the food industry, with "nutrition for the gut" listed as one of the ten most important topics in the sector's 2023 trend report.¹

One effective way to strengthen gut health is to regularly add fibre to the diet. As non-digestible food components, dietary fibres reach the colon almost intact. According to the World Health Organisation, people (> 10 years) should consume at least 25 grams of fibre per day.² However, in practice, the majority of the population falls significantly below this recommendation. Fibre-enriched products can help bridge this gap, especially if they become part of the daily dietary routine and can be consumed quickly and easily. Did you know that almost 1 in 2 Indian consumers is concerned about the lack of fibres in their diet; and 3 in 4 consumers are interested in prebiotics?³



of Indian consumers is interested in prebiotics



of Indian consumers is concerned about lacking fibres from their diet

Fibre with prebiotic properties

For example, yogurts or milk drinks bring practicality to everyday life, serving as a quick snack on the go or at the desk. Dairy products, in particular, have a suitable image for fibre enrichment, as they are considered natural and healthy by conscious consumers. By emphasizing their benefits for gut health, manufacturers can add even more value to these products.

Producers choosing to enrich their products with fibre have a wide range of options. While all dietary fibres stimulate the gut, their mode of action varies significantly. Fibres with prebiotic properties offer scientifically proven health benefits. They serve as food for the "good" Bifidobacteria in the gut, thereby strengthening their growth and weakening the influence of harmful bacterial strains. Additionally, the fermentation process of chicory root fibres in the gut leads to the creation of short-chain fatty acids as primary end products. These serve as energy suppliers for the intestinal cells and promote the protective function of the intestinal barrier.

Less fat and sugar – same taste

BENEQ, one of the leading manufacturers of functional ingredients, extracts two such prebiotic fibres from the root of the chicory plant: inulin and its shorter chain component oligofructose. In addition to their effect on the gut, they have other properties that are beneficial in the development of a healthy, calorie-reduced product.

Did you know that 7 in 10 people in India that consumes dairy drinks, checks the nutritional label, and that 6 in 10 people look at the sugar content?³



From the Indians that consume dairy drinks regularly, 70% checks the nutritional label

They in particular look at: ¹

27% fat content 62% sugar content



Orafti® Inulin can be used to reduce the fat content in dairy products, such as flavoured milk drinks, lassi, desserts, ice cream or mishti doi. Inulin provides around 2 kcal/g – less than a quarter of the calories of fat. Long-chain inulin is particularly suitable as a fat substitute. Its molecular structure and low solubility allow for the creation of a fat-like texture in water-based systems under shearing. The fat-reduced end product offers the desired creamy mouthfeel, without negatively affecting the taste of the final product. Inulin and oligofructose can also partially replace sugar in end products.

For example, using Orafti® Oligofructose in an ice cream recipe can reduce the sugar content by 30 per cent without loss of flavour. Such a partial exchange of sugar or other high glycaemic carbohydrates through dietary fibres as inulin or oligofructose also reduces the glycaemic response of foods. Products containing Orafti® Inulin and Oligofructose cause blood sugar levels to raise less after a meal compared to highly glycaemic sugars.

Recipes with health benefits

In order to test the suitability of BENEEO ingredients for different applications, the BENEEO-Technology Center regularly develops sample recipes. The company's prebiotic chicory root fibres, for instance, were used to develop a plant-based almond milk. Inulin matches well with the natural almond flavour in the recipe, as it has no off-taste, while contributing to a creamy mouthfeel. The almond milk is designed in such a way that not only its positive effects on gut health can be highlighted on-pack by means of an EU health claim, but also its low sugar and high fibre content.



Inulin and oligofructose from the chicory root are the only scientifically proven plant-based prebiotics. They have been extensively studied for more than 25 years. A recent systematic review with meta-analyses confirmed that they promote significant growth of bifidobacteria in the gut.⁴ The improved gut activity was observed in healthy adults, for example, through increased stool frequency. Other studies also demonstrate favourable effects of the prebiotic fibres on weight or blood sugar management.

BENEEO's Orafiti® Inulin and Oligofructose are also available in organic versions, which promise the same sensory, nutritional and technological properties. Furthermore, all of BENEEO's prebiotic fibres are non-GMO and do not carry an E number.

High fibre almond drink

INGREDIENTS (% w/w)	BENEEO recipe
Water	91
Almond paste	5
Orafiti® Inulin	2
Sugar	1
Minor ingredients (e.g. emulsifier, rice starch, flavour, sea salt, stabiliser)	q.s.



Revamp an all-time favourite

On a global scale, consumers are looking for ways to eat more healthily, and people in India are no different. Over the years, India has witnessed an alarming increase in the prevalence of lifestyle diseases like diabetes and obesity. There is a clear focus on sugar and fat reduction, as well as the search for nutrition enrichment.

Did you know that 1 in 3 Indians consume a dairy drink on a weekly-to-daily basis? Sugar and fat reduction can be achieved in many more dairy or dairy-free applications to meet the needs of today's consumer. For example like with this reformulation of the all-time favourite Indian drink, a flavoured milk!

Benefit from the expertise of our food scientists and use this recipe that is easy to formulate and tackles the daunting technical challenges for you. Develop a **30% sugar-reduced** and **50% fat-reduced flavoured milk** that tastes great, has a soft mouthfeel and comes with a digestive health claim!



HIGH FIBRE



50% LESS FAT



30% LESS SUGAR

Get the recipe

process instructions & nutritional values

Read this paper

with deeper insights into the Indian dairy drink consumer.
Find inspiration from our recipe and product concept.

Sources:

1. <https://www.nutrition-hub.de/post/trendreport-ernaehrung-10-top-trends-2023>, 2. FMCG Gurus, Dairy report Q4 2021 India, 3. WHO 2023 updates guidelines on dietary fibre, 4. Nagy DU, Sándor-Bajusz KA, Bódy B, Decsi T, Van Harsselaar J, Theis S & Lohner S (2022) Effect of chicory-derived inulin-type fructans on abundance of Bifidobacterium and on bowel function: a systematic review with meta-analyses. Critical Reviews in Food Science and Nutrition. Published 14 July 2022, DOI: 10.1080/10408398.2022.2098246

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