

The consumer total approach. Innovate with Orafti® β -Fit, rich in betaglucans for heart health.

Around the globe, almost 70% of people are interested in products that can improve their heart health¹, even when not suffering from specific health problems. Heart health is a key concern for consumers of all ages and good food should be at their focus to prevent chronic diseases.

Coronary heart disease (CHD) is the leading cause of death worldwide. Choosing to eat whole grains and fibre as part of a healthy diet, can lower the risk of CHD. Including such ingredients in your product offering and stating their health claims are an effective way to help consumers make better nutritional choices.

Barley is considered an ancient grain and beta-glucans from barley are dietary fibres that offer a wide ray of health benefits, including heart health. And between 1 in 2 and 1 in 3 Europeans believe high fibre products help them to manage their blood cholesterol². So why not develop your next product innovation with Orafti® β -Fit? With its heart health claims, this affordable wholegrain barley flour, rich in beta-glucans, is a perfect addition to BENEO's functional fibre portfolio.



82% of consumers worldwide recognise the link between "heart health" and their overall health.³



A large group of consumers have heard of beta-glucans.⁴

- 1 in 2 globally
- > 60% in USA



1 in 3 of consumers (globally) eat wholegrain to improve their heart health.⁵

- Asia Pacific: 36%;
- Europe: 36%
- North America: 34%
- South & Central America: 27%

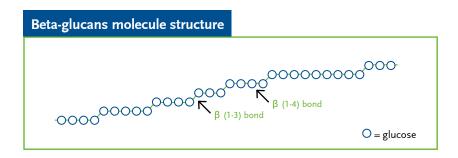


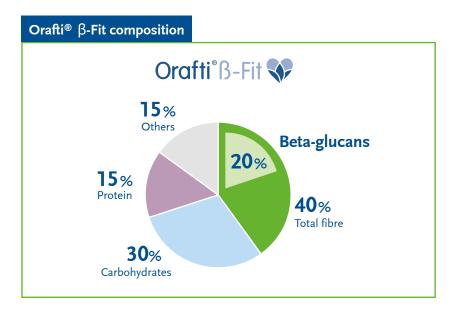


Beta-glucans, an untapped source of healthy nutrition.

Orafti® β -Fit is produced from barley via an eco-friendly milling and dry enrichment process. The ingredient offers a convenient and tasty opportunity to improve your products and claim nutritional and health benefits in a very cost-effective way. These health benefits are contributable to the 20% fraction of beta-glucans, soluble fibres with a positive effect on cholesterol and heart health.

Beta-glucans are naturally present in cereals, like oats and barley. They are polysaccharides composed of glucose molecules, linked together with mixed β (1-4) and β (1-3) bonds. Containing 20% beta-glucans, Orafti® β -Fit can be labelled as beta-glucan rich barley flour.





Orafti® β -Fit is a wholegrain barley flour, rich in beta-glucans, that are fermentable dietary fibres.

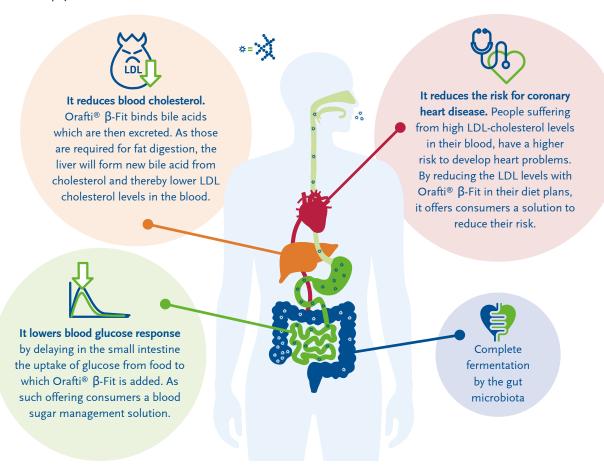
These can offer various health benefits to the mindful consumer; such as:

- help reduce blood cholesterol levels
- · support cardiovascular health
- · contribute to improved blood sugar levels
- support digestive health thanks to the fibre enrichment



The viscosity build-up of Orafti® β -Fit lies at the foundation of its approved health claims.

Beta-glucans are soluble viscous fibres (\cancel{x}), that are present in Orafti® β -Fit, making the consumed food thicker and as such, they delay the passage through the digestive system. This gel-like structure forms a physical barrier that results in **several beneficial effects**:



These benefits have been shown in a vast number of scientific studies (>120 in total) and the positive health effects of beta-glucans have been recognised by official bodies such as EFSA⁶, FDA⁷ and other national authorities.

Beta-glucans are fermentable fibres that can help bridge the fibre gap.

Beta-glucans, like chicory root fibres, are not digested by the human enzymes of the small intestine, but are completely fermented by the microbiota in the colon.

Adding Orafti® β -Fit to a meal is a way to deliver fibre enrichment to consumers daily diet. As such, it can support peoples ambition to increase their fibre intake for an overall improved digestive wellbeing. Dependent on the amount of Orafti® β -Fit included in your product, on-pack messages can range between "source of fibre", "high fibre" or "increased fibre". Communicating on "wholegrain" is another way to draw consumer attention.

With a fibre content of 40%, Orafti® β -Fit is a perfect addition to BENEO's 100% plant-based functional fibre range, designed to fortify your product innovations that support consumers inner wellbeing and overall fitness.

Just 3 grams a day makes all the difference.

People can lower their cholesterol levels by consuming 3g of beta-glucans every day. These are naturally present in cereals like oats and barley in low dosages, making it a challenge for people to achieve the required intake of 3 g/day without fortification. With Orafti® β -Fit, beta-glucans can be easily and economically included in a variety of tasty food items people generally enjoy on a regular basis, like their breakfast cereals.



Technical properties for a wide range of applications.

Besides these nutritional properties and health benefits, Orafti® β-Fit is available at an affordable price and comes with a ray of interesting technical advantages. It can be used in many applications like pasta, bread, baked goods, cereals, dairy (alternatives) and even finds its way in functional nutrition. On top, Orafti® β-Fit blends well with customers sustainable and clean business ambitions, like non-GMO and vegan-friendly labelling. It is also produced by a dry milling process (limited water usage) and with all other nutrients from the barley being used, it comes with zero-waste.

What makes Orafti® β-Fit a pleasure to work with:

- Soluble
- Clean taste
- Neutral colour
- · Thickening property
- pH and temperature stable

Sources: 1 Health Focus International 2021; 2 Mintel - Attitudes towards fibre in food & drink - Europe - 2022; 3 FMCG Gurus Heart Health Surveys 2021; 4 FMCG Gurus Digestive Health Surveys 2022; FMCG Gurus Global Heart Health Survey Q2 2021; Art.13 health claims: "Beta-glucans contribute to the maintenance of normal blood cholesterol levels", "Consumption of beta-glucans from oat or barley as part of a meal contributes to the reduction of the blood glucose rise after that meal"; Art.14 health claim: "Barley beta-glucan has been shown to lower/reduce blood cholesterol. High cholesterol is a risk factor in the development of coronary heart disease". FDA Model health claim (21 CFR §101.81(e)): "Soluble fibre from foods such as barley flour, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease. A serving of [name of the food] supplies X grams of the 3 g soluble fiber from barley flour necessary per day to have this effect.

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