GoodMills Innovation

SNOW® PREBIOTIC FIBRES

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Effective dietary fibre for bread, rolls, biscuits, waffles, pancakes and bars

Seven prebiotic fibres working together for a healthy microbiome: Snow® Prebiotic Fibres is a multi-fibre complex that delivers outstanding results in terms of baking technique, sensory properties and nutritional physiology. With this concentrate, you no longer have to compromise on enjoyment when adding dietary fibre for microbial diversity in bread, rolls, biscuits, waffles, pancakes and bars. On the contrary: Snow® Prebiotic Fibres even has clear advantages in terms of freshness and bite. What's more, the fibre blend is easy to handle and integrates well in a multitude of recipes.

A MARKET OPPORTUNITY

With Snow® Prebiotic Fibres, food manufacturers can benefit from the growing demand for high-fibre convenience products. Baked goods and fibre are already strongly linked in consumers' perception. Plus, the prebiotic effect is now well known: 63 per cent of consumers worldwide say that they associate prebiotic foods with gut health.

63 %

THE PREBIOTIC EFFECT IS NOW WELL KNOWN:

Consumers associate fibres clearly with gut health*.

* Innova Report: Top Global Trends 2026 in Bakery

HIGH-FIBRE

With a fibre content of over 60 percent, more than half of which is prebiotic, the Snow® Prebiotic Fibres complex enables effective product concepts. Depending on the concentration, the final product can be labelled as ‘high in fibre’.

MULTI-FIBRE APPROACH

Snow® Prebiotic Fibres combines different types of dietary fibre, which work together to optimise taste and nutritional properties.

FERMEN-TABLE

Are included for a particularly healthy effect on the gut flora.

GREAT FLAVOUR

Despite their high fibre content, Snow® Prebiotic Fibres delivers excellent flavour without sacrificing the aroma and texture typical of the baked product category.

FINE TEXTURE

The special composition ensures a slightly shorter bite, which improves the texture and raises consumer acceptance.

EASY HANDLING

Snow® Prebiotic Fibres can be processed without major adjustments or additional investment. Simple integration into existing recipes makes the complex an ideal ingredient for successful product development.

CLOSE THE GAP

A WIDE SPECTRUM OF FIBRES

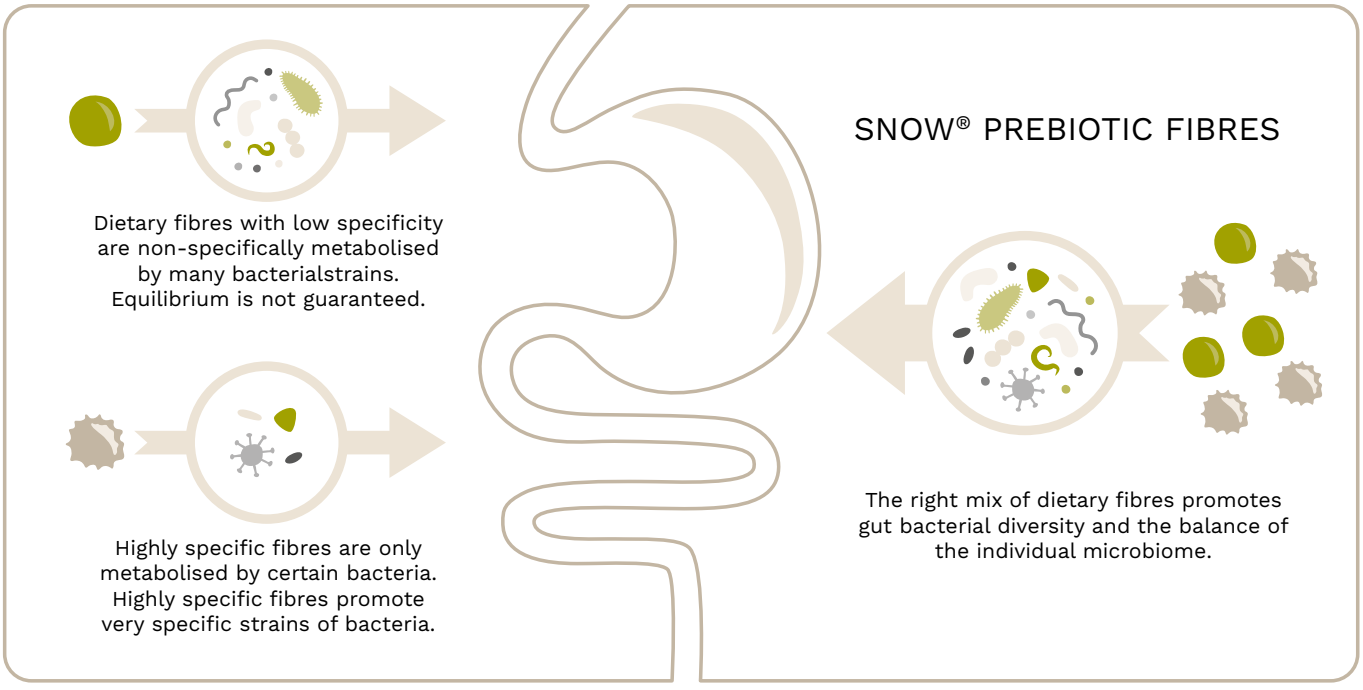
Not all fibres are the same and different bacteria digest them in different ways. This factor is called specificity. The specificity of the fibres determines their effectiveness on the microbiome and the subsequent effects on a person's health. It all depends on the right composition: Dietary fibres with low specificity have simple structures and can be digested by many bacteria. In contrast, highly specific dietary fibres have complex structures that can only be processed by specific microorganisms, making them precision prebiotics.

Different microorganisms in the gut obtain energy from different types of fibre.

By consuming a wide range of fibres, you promote a rich diversity of gut bacteria.

This contributes to the stability of the microbiome and improves its ability to regulate the body's immune function.

A balanced intake of different fibres is therefore the key to a healthy digestive system and a robust microbiome.



Different dietary fibres have different effects on the microbiome. The more diverse the range of dietary fibres you eat, the greater their influence on your gut health. These findings have been scientifically proven many times over.

The scientific advice is clear: we should eat at least 25 to 30 grams of fibre per day. However, only a tiny proportion of the European population, just 5 per cent, reaches this target. The vast majority only consume around two-thirds of the recommended amount every day.

This phenomenon is known as the ‘fibre gap’, and it is primarily a problem in the Western diet, which is based on a lot of highly processed products with a low fibre content.

High-fibre foods such as wholegrain products, fruit, vegetables and pulses generally provide a sufficient amount of fibre.

Snacking, rushed meals, eating on the go and convenience foods are, unfortunately, the daily norm for many people today.

Baked goods with a high and effective fibre content can help close the fibre gap and have enormous market potential.

SNOW® PREBIOTIC FIBRES: SEVEN IN ONE

Our broad-spectrum, precision prebiotic formula

In Snow® Prebiotic Fibres we have created a unique combination of different fibre sources. Because it is not only the quantity of fibre supplied that is important for the effect, but also its quality and variety.

A broad spectrum of dietary fibres promotes a vital, diverse intestinal flora and improves gut resilience. The relation between fibres and the formation of intestinal gels, improved water retention, reduced glycaemic effect and more active intestinal motility has been scientifically proven many times over. There is also a positive influence on cholesterol levels and the risk of bowel cancer and heart attacks. In addition, dietary fibres bind and adsorb bile acids, carcinogens and polyphenols and promote the growth of microbial biomass and the production of short-chain fatty acids (SCFAs).

1

ACACIA FIBRES

Acacia fibres are rich in soluble arabinogalactans, which create a good environment for the development of microbes and support digestion.

7

FERMENTED WHEAT BRAN

Fermented wheat bran is rich in arabinoxylans, whose bioavailability is significantly improved through fermentation. They regulate blood sugar levels and promote microbial diversity, thereby strengthening the resilience of the intestine.

6

PEA FIBRES

Pea fibres provide a mixture of soluble and insoluble fibres with a pectin-rich profile, which stimulates beneficial bacteria and their metabolic products. They also contribute to bulking, promote binding capacity and support intestinal motility.

[1] Increasing the diversity of dietary fibers in a daily-consumed bread modifies gut microbiota and metabolic profile in subjects at cardiometabolic risk - PubMed (nih.gov)
Diet-gut microbiota interactions on cardiovascular disease - PMC (nih.gov)
[2] **β**-glucans: a potential source for maintaining gut microbiota and the immune system - PMC (nih.gov)

2

OAT FIBRES

Rich in beta-glucans, oat fibres are characterised by their high specificity. As a result, they specifically promote the growth of the bacterial strains Lactobacillus casei, acidophilus and Bifidobacterium animalis subsp. lactis[2], which are important for fermentation processes.

3

RYE BRAN

Consisting of lignins, cellulose and hemicelluloses such as arabinoxylans, rye bran plays an essential role in maintaining a diverse gut microbiome. It contributes a complex matrix of soluble and insoluble fibres. This structural diversity promotes a balanced intestinal flora.

4

CITRUS FIBRES

With their high levels of soluble pectins, citrus fibres promote intestinal health. Their prebiotic properties improve the environment for microorganisms in the large intestine. Their ability to form intestinal gels ensures efficient water binding. They thus support a healthy gut flora and contribute to moisture regulation in the digestive tract.

5

CHICORY ROOT FIBRES

Consisting mainly of inulin, chicory root fibres actively support the fermentation processes in the intestine. They contribute to the multiplication of bacteria in the microbiome and thus support its diversity and functionality.

FULL OF FIBRE.
FULL OF FLAVOUR.

Snow® Prebiotic Fibres produce light-coloured, high-fibre baked goods with a mild taste and no sensory loss.

A high fibre content is usually noticeable in the taste, mouthfeel and bite of the end product. Slightly bitter, nutty notes are the downside that product developers have to deal with.

Not with Snow® Prebiotic Fibres: In addition to effectiveness, the focus of development was always on providing outstanding flavour, an appealing appearance and an attractive bite. We have achieved this by combining different sources of fibre.

Snow® Prebiotic Fibres get their name from the extremely light-coloured purity of the mix. The bakes are characterised by a short, pleasant texture in the bite, and this actually improves the sensory properties of buns and sandwich bread in particular.

HOW ARE SNOW® PREBIOTIC FIBRES USED

Our application engineer Sebastian Stolze explains the details.

WHAT NEEDS TO BE CONSIDERED DURING PROCESSING?

Stolze: Not a lot, really. The processing is largely similar to recipes without extra fibre, and adjustments to the kneading time are possible. Snow® Prebiotic Fibres are added to wheat flour in a 1:1 ratio.

DO THE DOUGH PROPERTIES CHANGE?

Stolze: Not much either. The rheological properties remain unchanged. The gas-holding capacity can be slightly impaired if larger proportions are used, but this can easily be compensated for by adding a small amount of gluten, SMART® Wheat or SMART® Spelt. Otherwise, there is no need to change recipes or equipment, although in some cases it makes sense to extend the kneading time slightly.

ARE SNOW® PREBIOTIC FIBRES NOTICEABLE IN THE FINISHED BAKED GOODS?

Stolze: They give a fluffy and tender crumb structure, and you notice a pleasantly short bite. Apart from that, there are no noticeable differences compared to less fibre-rich baked goods. This was also our aim during development: A blend of fibres with a broad functional spectrum that is suitable for almost all types of baked goods without significantly changing their properties. In testing, we found that they even have a positive effect on freshness.

ARE THERE FORMULATIONS FOR THE USE OF SNOW® PREBIOTIC FIBRES?

Stolze: Of course we provide formulations, but we are also happy to develop new concepts together with our customers in our Innovation Centre.

NO MORE EMPTY CALORIES

HIGHLY VERSATILE

The neutral flavour and good processability of Snow® Prebiotic Fibres open up a wide range of possible applications.

HIGH CONSUMER ACCEPTANCE

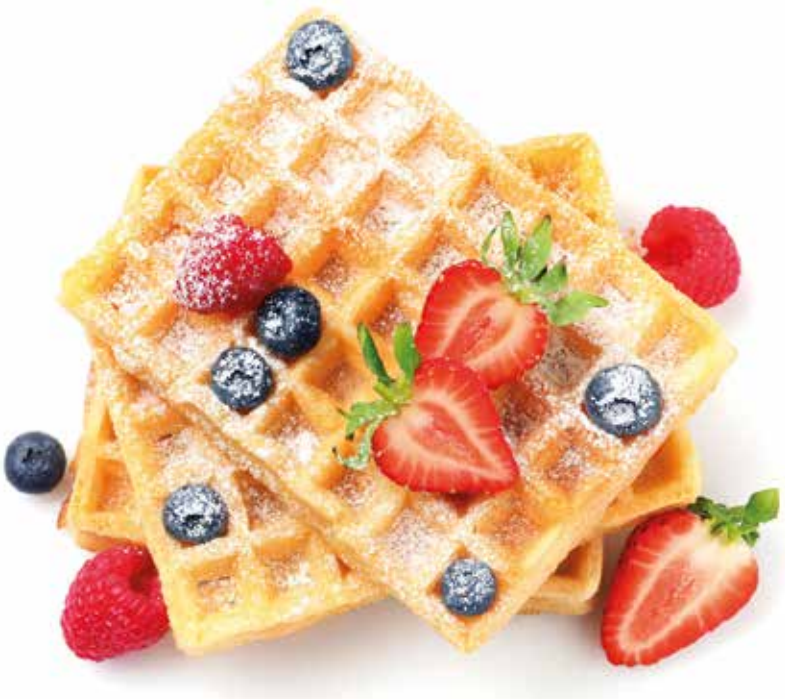
Snow® Prebiotic Fibres can be used to bake products that are compelling from a sensory point of view and at the same time satisfy the demand for high-fibre foods.

GREAT MARKET POTENTIAL

High demand is expected for products that contain effective fibre but are closer in taste to low-fibre baked goods.

BISCUITS

Different types of biscuits such as cookies or butter biscuits gain an advantage over plain ‘sweets’ without fibre enrichment. And they score points for their crumbly bite.



WAFFLES & PANCAKES

Pastries containing egg, such as waffles or pancakes, are given a particularly moist texture with Snow® Prebiotic Fibres.

BREAD & ROLLS

As staple foods, bread and rolls are particularly suited to providing a regular extra portion of fibre. The addition of Snow® Prebiotic Fibres also gives them a good crispness.

BUNS

Snow® Prebiotic Fibres produce a light, tender pastry that is pleasantly short in bite and yet provides fibre.

BARS

Various bars, such as muesli bars, benefit from the attractive, slightly sweet taste of Snow® Prebiotic Fibres – and are an ideal application as a ‘learned’ source of fibre.

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Have you closed the fibre gap?

Let's discuss what your new product with Snow® Prebiotic Fibres could look like.

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