

# Natural ingredient solutions for healthy food & beverages

In addition to the megatrends of health, naturalness and convenience, the food industry is coming up with a wide variety of interesting approaches and new developments that are increasingly influencing the market. Sustainability, individualisation and 'better for me' are among the top themes here. However, what exactly does the buzzword 'better for me' mean? AMEFT guest author Diana Wolfstaedter, Marketing Manager at Doehler shares insights.

**A**re we talking, as the term implies, about a number of healthier food products that are scientifically 'better' for the well-being of the consumer? In short, not at all! 'Better for me' not only describes products that are 'free from' or contain 'less', it also refers to a consumer's outlook, a lifestyle or an attitude towards nutrition and eating. Of course, in most cases, this represents an objective approach to healthier nutrition; but, in addition, the very subjective feeling of health also plays a key role in this ever-evolving product segment. Doehler explains how to deal with current market developments in the food industry and examines how to satisfy health issues.

## Sometimes less means more

The 'better for me' concept is reflected in for example the growing demand for gluten-free products. Interestingly, very few people actually need to avoid gluten for medical reasons. Nevertheless, the sector is booming; the number of gluten-free alternatives is constantly growing and, regardless of the much higher end prices, consumer demand continues to increase at a considerable pace. All this simply for the one and only reason that consumers perceive this aspect of nutrition to be 'better for me'. It might be a logical development in consumer behaviour: it is no longer just a small group of end-users that is driving this trend; more and more consumers now 'work' their knowledge and follow nutritional trends and lifestyles.

This presents quite a demanding challenge for food manufacturers. We're no longer talking about simply translating objective health concerns into food and beverage concepts, such as sugar or salt reduction, for example. These aspects – along with good taste – now represent a kind of precondition for market acceptance. And this market segment is more dynamic than ever before. It is growing, networking and creating new impulses; we're even witnessing the rise of opposing trends at the same time. Consequently, it is imperative for manufacturers to remain vigilant at all times and be careful not to miss any important developments.

With its own market research department, the ingredients specialist Doehler identifies these shifts in the market at an early stage and, using its core competences, translates them into innovative, good-tasting, natural ingredient solutions.

In the process, Doehler has developed a broad portfolio of innovative ingredients, ingredient systems and technologies for products that meet current demands, including gluten-free malt extracts for various beverages and a technology that enables the production of gluten-free beers. Another key topic is the 'dairy-free/lactose-free' trend, offering ingredient solutions for products based on rice, almonds, oat and soy. Doehler also provides solutions for dairy-free vegan products using plant-based proteins and, last but not least, supplies first-class solutions for sugar-reduction or sugar-free concepts while maintaining a very sugar-like taste. In light of an ever-increasing number of restrictions around the world regarding sugar, and the most health-conscious consumers ever, this competence is critical when it comes to developing market-leading 'better for you' concepts that satisfy consumer demands for both subjective and objective health issues.

## Cheers to 'gluten-free'

Although markets change rapidly, there is one universal truth that always applies: products must taste good to generate consumer acceptance. Up until now, taste was the most pressing issue when it came to gluten-free beers. Previously, the only way to produce them was by using gluten-free raw materials such as millet, buckwheat, rice and corn. Doehler has developed a technology which enables the production of gluten-free beer that, when it comes to taste, is indistinguishable from conventional beers.

And the timing is perfect. Like other gluten-free products, market demand for gluten-free beers is rising. Although only around 1% of the global population suffers from coeliac disease, and another 6 to 10% are sensitive to gluten, more and more people who do not suffer from either of these are opting

for gluten-free products. Given these developments, the number of gluten-free products around the world rose by an average of around 20% per year between 2009 and 2014.<sup>1</sup>

Doehler's patented technology now makes it possible to produce gluten-free beers using 100% barley or wheat malt. They have the same taste and quality properties as regular gluten-containing beers but, as only very low traces of gluten remain in the end product, they can be marketed as 'gluten-free'.<sup>2</sup>

This technology can be integrated into classic brewing processes without having to make significant modifications.

Under licence, any brewery can use the technology to treat its own wort. Experts can help implement the process, define the ideal level of enzyme treatment and assist with testing, production and gluten analyses. In addition, Doehler provides all the necessary enzymes. Alternatively, it can supply a portfolio of gluten-free wort concentrates that can be used to produce high-quality beers, either prepared in the brewhouse or readied for fermentation straight away. There are numerous ways for breweries, microbreweries and home brewers to brew top-quality, gluten-free beers.

For other gluten-free foods and beverages, Doehler offers natural and gluten-free malt extracts from 100% barley malt. This new portfolio is the result of intensive research and represents a significant breakthrough. With gluten content that is predominantly less than 20 ppm – which is checked batch-wise – these extracts comply with the *Codex Alimentarius* and can be labelled as 'gluten-free'. The extracts contribute to the overall taste or can be used as a natural colouring agent. Moreover, they perform as a sweetener, giving dairy products, non-alcoholic beverages, malt drinks and even gluten-free bakery products the typical 'malt-sweetness'.

### **Dairy-free – pure indulgence without milk**

The number of people around the world who are sensitive to milk proteins and/or lactose is already much higher than the number who are gluten-intolerant. As a result, 'dairy-free' products have become increasingly popular with a large part of the population. For a variety of reasons, including 'better for me' health issues, ethics, vegan or vegetarian lifestyles and the rise in the number of certain groups that completely reject the nutritional properties of milk products, the concept of 'dairy-free' is growing in popularity.

In the past, milk substitutes derived from soy or other alternatives suffered in terms of taste. Doehler is now able to offer food and beverage industry customers sensorially convincing, unique portfolios of natural and dairy-free ingredients based on almonds, rice, oat or soy. This portfolio enables the development of delicious lactose-free and dairy-free foods and beverages, providing fresh opportunities to target completely new consumer groups.

In addition to 'lactose-free', and depending on the ingredients used, a number of other claims are possible, including vegan, halal, gluten-free, GMO-free and allergen-free. Furthermore, nutritionally valuable ingredients such as calcium and vitamins E, B2 and B12 are added to almond preparations, for example.

Depending on the application, Doehler offers specific solutions for pH-neutral or acid-stable compounds, for example, which enable the development of innovative and delicious products, (e.g. beverages, ice creams, smoothies and desserts) that satisfy consumers' needs for 'better for me' foods. Taste nuances extend from a neutral and milky profile to a delicate almond flavour and well-rounded cereal notes.

### **Healthy added value for vegan products**

Another way to serve vegans, flexitarians and those who simply want less dairy in their diet is to use plant-based proteins from, for example, rice, oats, peas and potatoes that can replace animal proteins in a wide variety of concepts. Aiming to optimise both sensorial and technical properties, Doehler has used its comprehensive application know-how to develop a portfolio of well-balanced concepts.

One approach is to carefully blend plant proteins from different sources to achieve the best possible technological results, with each blend being individually tailored to the particular formulation. Natural flavours and fruit components round off the taste profile and mask possible off-notes. Another solution focuses on matching the taste of the product to the ingredients used, so that they become undetectable in the final formulation. Bitter off-notes can also be masked with special flavours.

Moreover, plant-based proteins can be combined with lactose-free, non-dairy compounds, such as oat milk, to produce a dairy-free drink with optimal sensory properties. Whatever the approach, a comprehensive understanding of proteins and how they interact with other ingredients is vital.

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<sup>1</sup> Doehler Market Research

<sup>2</sup> The gluten content is significantly less than the threshold of 20mg/kg, using the recognised R5 ELISA method for beer in accordance with AACCI, TTB, AOECs and MEBAK.

### **Less sugar – more taste**

While market developments such as the rise of gluten or lactose-free products is strongly linked to trends and individual lifestyle concepts, earlier paradigm shifts such as sugar reduction have become more or less standard procedure for many product categories. So, as more and more global agencies put restrictions on sugar use, calorie and sugar reduction remain key elements pressuring manufacturers to find sweetening solutions without compromising taste, as taste is the main issue. Depending on the individual product concept, Doehler offers tailored sweetening concepts that facilitate sugar and calorie reduction without sacrificing taste. The company has, for example, developed a natural flavour technology that allows a significant reduction in the amount of sugar without the use of artificial sweeteners, while not affecting the taste at all. Moreover, the MultiSweet® Stevia sweetening system enables natural and calorie-free sweetening solutions. And, its MultiSweet® Classic technology makes possible to eliminate sugar altogether. Thanks to natural masking flavours, products using these systems offer multisensory advantages.

### **Comprehensive approach**

In today's rapidly changing markets, being able to identify emerging trends and react to them quickly is critical. Plus, as sector developments rarely happen in isolation, it is important to keep an eye on the entire industry and take a comprehensive approach to product development. In essence, the successful products of today and the near future must combine objective health issues, such as sugar reduction with great taste, with the more subjective issues of "better for me" and more. With its extensive experience, profound application know-how and broad range of ingredients, Doehler is the partner of choice in developing innovative and ground-breaking products today that meet consumer needs of tomorrow.

### **About Doehler**

Doehler ([www.doehler.com](http://www.doehler.com)) is a global producer, marketer and provider of technology-based natural ingredients, ingredient systems and integrated solutions for the food and beverage industry. Doehler's integrated approach and the broad product portfolio are the optimal basis for innovative and safe food & beverage applications. The product portfolio of natural ingredients ranges from flavours, colours, health & nutrition ingredients, cereal ingredients, dairy ingredients, speciality ingredients, dry ingredients, fruit & vegetable ingredients to ingredient systems.