

Beverages – a perfect carrier for functional benefits

Beverages have been typical examples for functional food for a long time. If a health benefit is offered using a beverage as a carrier, the nutrient profile has to be taken into account.

Consumers have become more conscious about their diet during the last few years. This is partly due to the significant increase of nutrition-related diseases and the awareness that nutrition can have a major impact on health and well-being not only now, but also for later in life.

It is essential to drink enough during the day. The recommendation is a minimum of two litres for adults. With beverages being regularly consumed and in significant volumes, they are perfect to provide the body with important nutrients, vitamins and minerals, and they also present a perfect carrier for functional ingredients.

A broad range of different kinds of beverages can be seen in the market ranging from pure water, lemonades and juices to energy drinks and others. Beverages often contain a lot of sugar and are very high in calorie. If a health benefit is offered using a beverage as a carrier, the nutrient profile has to be taken into account. Beverages that are consumed regularly and in higher volumes should be low in energy and without added sugar.

In a more concentrated form, beverages can be positioned as a “healthy shot”. Recently, smoothies are increasingly popular. These concentrated fruit products are positioned as a convenient alternative to real fruit.

The consumer is interested in products that make it easy for him to actively support his health. Such products need to fulfil certain requirements:

- They need to be part of daily diet to enable regular consumption without having to change habits
- Innovative to differentiate from other concepts
- The added value has to be clear and understandable for the consumer
- The product has to match the requirements on taste and texture

Beverages have been typical examples for functional food for a long time. First-generation products have primarily been enriched with vitamins or minerals. Examples are the well-known ACE products. Already for some time, second-generation

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functional beverages are finding their place on the shelves. These products contain bioactive ingredients which promote specific body functions. Especially these products consumed for their health benefit, they need to come in an attractive and convenient way to facilitate regular consumption. "Healthy shot" products offer added value in concentrated form. Main trends are: Gut health, digestive and immune system health, mental performance and cognitive function, bone health, heart health, weight control, energy, and sport and recovery.

A successful product has to fulfil as many consumer demands as possible. Products combining great taste, health and convenience address all the important aspects. And in order to develop such products, suitable ingredients need to be available.

Fitting with the demands

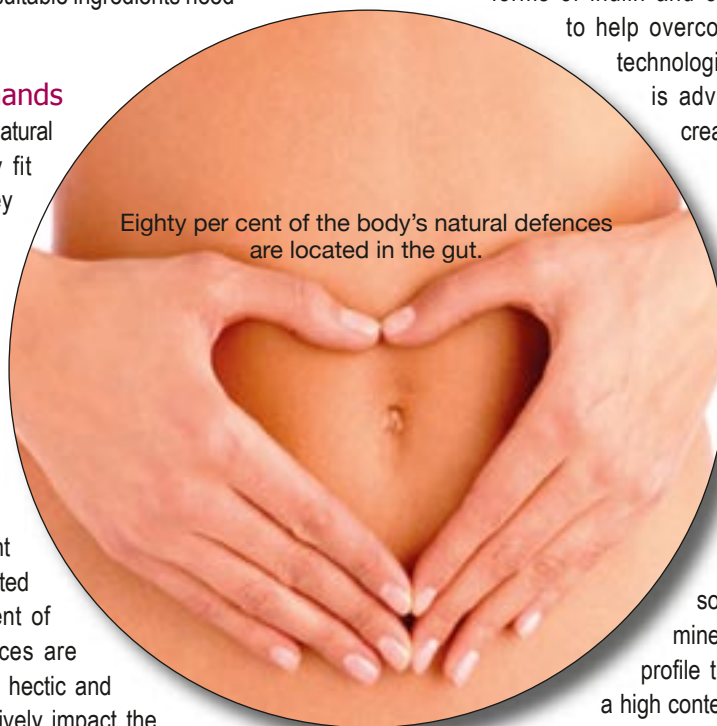
Inulin and oligofructose are natural ingredients that perfectly fit with these demands. They can help to develop new products that can offer most of these benefits. The prebiotic effect of these soluble fibres has been proven in scientific studies. Gut health can be significantly improved by regular uptake of only a few grams daily, an amount that can easily be incorporated into drinks. Eighty per cent of the body's natural defences are located in the gut. Stress, hectic and an unbalanced diet negatively impact the balance of the gut flora.

Calcium is an important mineral not only for the development of strong bones. Providing enough calcium in the diet is essential. At the same time, it is important to make sure that the calcium can be taken up from the diet. Unfortunately, the human body uses the calcium inefficiently. Only one third of the ingested calcium is actually absorbed, while the rest is excreted. Calcium enrichment does not necessarily lead to the targeted effect as only a very small part of the additional calcium will be taken up. It has been shown that a regular dose of 8g oligofructose-enriched inulin (Orafti®Synergy I) significantly improves calcium absorption from the diet. The combination of calcium with this type of inulin is an easy and efficient way to support bone health and improve digestive health at the same time.

Studies also indicate a positive impact of oligofructose on

satiety and weight management. The consumption of 8g of Orafti oligofructose with breakfast increased the feeling of satiety, and reduced hunger and prospective food consumption during the next meal. With only 1 to 1.5 kcal per gram, these natural ingredients are low in energy and offer a very clean taste profile similar to sugar, but lower in sweetness.

With fibre consumption being significantly below recommendation, the use of soluble fibres, such as inulin and oligofructose, is an effective and easy way to increase fibre intake. As inulin and especially oligofructose are not stable at low pH, applications should focus on beverages with pH 4 and above, or alternatively beverages for chilled distribution. Different forms of inulin and oligofructose are available to help overcome these limitations, and technological and marketing support is advisable at all stages when creating new products.



Convenient, fresh and tasty – smoothies are increasingly popular

Smoothies are a very interesting possibility. These drinks are getting increasingly popular. They taste good, are being produced based on 100% fruit, and are a good source of natural vitamins and minerals. Looking at the nutrient profile though, they do not contain a high content of dietary fibre. The fibre content of the product can easily be adapted by adding inulin. This way, product labelling, such as "source of fibre" and "prebiotic effect", can be achieved.

Inulin and oligofructose can be used in new product developments, targeting most of the key trends listed earlier. The health effect of these natural ingredients is well documented and can enable the use of specific claims. It is important that the consumer can recognise and understand the added value easily in order for the producer to profit most from such developments. The products with scientifically proven health benefits will stand out on the shelves and will be positioned as premium.

Smoothies can offer all the benefits that have been linked successfully with dairy products for a long time. Smoothies can thus be an interesting alternative for all those who do not like milk, for the increasing percentage of people with lactose intolerance,



and also for those who are just looking for a tasty innovation.

More rice drinks finding way to shelves

Non-dairy products are increasingly popular not only with people who need to avoid milk. With the broadening range of products that are offered, they are also bought by consumers looking for a tasty innovation. Soy products are still dominating the market but more and more rice drinks are finding their way to the shelves.

Due to their clean taste profile, products based on rice are a tasty alternative to soy. Rice-based dairy free powder/syrup, such as Nutriz from BENEIO-Remy, make it easy for manufacturers to produce their own tasty rice drinks. Those 100% vegetable blends are rice syrup compounds containing all the goodness of rice. Rice drinks, based on those compounds, are a new production technology for such products. The compounds are easy



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It can be processed to a pure rice drink but also offers high potential for further developments. Being tasty and balanced, it is a perfect carrier for functional benefits and can be handled very easily, leaving a lot of possibilities for the producer to develop new beverages.

Combining a non-dairy base with fruit meets high consumer acceptance. Several product concepts have been developed and are available to producers. One of them is a rice and fruit smoothie type of drink combining the rice base with high percentage of fruit. The nice tasting drink also contains Orafit Synergy I to help

the body to take up more of the valuable calcium.

Rice drinks can also come as real nutritional shots. The nutritional profile can be further enhanced by adding rice bran and germ to the product. Rice bran and germ contains all the goodness of wholegrain – fibre, vitamins, minerals and antioxidants. It also contains valuable protein and fat with more than 80% unsaturated fatty acids, for example, Oryzanol.

These are only two examples for innovative concepts based on the rice-based compounds.

The development of these



Second-generation functional beverages are finding their place on the shelves. These products contain bioactive ingredients which promote specific body functions.

products has undergone a strict sensorial evaluation knowing that with the consumer being interested in healthy nutrition, taste is still the most important factor during the actual shopping. With a very good taste profile, these new products can be an interesting alternative to existing functional beverages, and producers can participate in the success of functional food. Such products are predicted to have a further significant growth during the next few years.

Uncountable possibilities

Natural ingredients, such as inulin and oligofructose, with proven health benefits, and innovative non-dairy products offer uncountable possibilities – more though if combined. **FBA**



to handle and requires only the addition of water and a stabilisation step to obtain a stable rice drink. Further major advantages of the rice drinks are: Very clean taste profile, white milky colour, good mouth feel and a balanced nutritional profile: No added sugar and low in fat.

Maybe the biggest advantage is the very flexible handling of the basic compound.

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