

Nutraceuticals

Addressing consumer demands



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With health and wellbeing increasingly front of mind for consumers, drinks producers are seeking innovative ways to service their requirements. FoodBev spoke to nutraceutical ingredients producers about how they can help manufacturers keep up with the panoply of consumer demands.

Nutraceuticals – a portmanteau of the words 'nutrition' and 'pharmaceutical' – are foods or parts of foods that claim medical or health benefits, including in the prevention and treatment of disease. Beverages are one of three key product types, alongside functional foods and dietary supplements, and have proven a particularly dynamic area for innovation.

The nutraceuticals sector has witnessed growing demand from consumers looking to boost their sports performance, enhance wellbeing, or address health needs. According to Research and Markets, the nutraceutical ingredients sector is poised to grow by \$11.47 billion during 2020-2024, exhibiting a CAGR of 6%.

Technological developments, including microencapsulation techniques, have already opened up new opportunities for nutraceutical producers and this trend looks set to continue.

Liquid appeal

The functional beverages segment led the overall market for nutraceuticals in 2019, according to Grand View Research. This format holds strong appeal for millennials – who are a key market for nutraceuticals – due to its offer of on-the-go 'active nutrition'. The sports drinks market is largely propelled by the millennial generation who combine an interest in sports, fitness and wellbeing with a willingness to pay for health products. However, the popularity of nutraceutical beverages may go further than that.

"Nutraceutical beverages are a more appealing and refreshing alternative than the traditional pill and capsule formats," Teresa Negra, new business development manager at Lipofoods Nutraceutical Ingredients, told FoodBev. "They are formulated not only to keep a healthy diet but also to reach a holistic wellness approach that goes beyond the physical body, including aspects such as mood, energy and stress management."

Huib van Bockel, founder of natural energy drink brand Tenzing, agrees these beverages are an accessible entry point for many consumers: "A beverage is perhaps the easiest change to make if you're seeking nutraceutical alternatives. They are positioned alongside traditional soft drinks and

we've found that once people have tried a natural alternative, they won't go back."

However, the liquid format also presents certain challenges, as Negra explained: "The formulation of beverages using some popular and demanded nutraceutical ingredients could be challenging due to their lack of solubility or stability in the liquid matrix".

Lipofoods supplies microencapsulated ingredients, including curcumin, phytosterols and iron. Negra says that this technology – which involves encapsulating tiny particles of an active agent within a coating – addresses specific technical challenges of different ingredients, such as aftertaste, solubility and stability.

"From a nutritional perspective, microencapsulation technologies help to increase the bioavailability of the nutrients in different ways."

She continued: "Absorption can be improved by increasing the affinity with intestinal cells, protecting the active ingredients from the interference of other components of the diet, and protecting it from the stomach barrier, or allowing a sustained release to improve its bioactivity".

Functional benefits

The range of health issues targeted by nutraceuticals is almost limitless, with important areas including skincare, cardiovascular health, iron deficiency and sports performance.

And of course, ageing. As many countries around the world register growth in their geriatric populations, healthy ageing becomes a focal ambition for individuals and governments alike. Because ageing affects every part of the body and mind, it presents many individual targets for nutraceutical products.

Mitsubishi Gas Chemical said that its ingredient MGCPQQ can deliver benefits in the areas of mitochondrial biogenesis and cognitive health, as well as boost nerve growth factor. MGCPQQ is a natural source of pyrroloquinoline quinone disodium salt (PQQ), and because it's water-soluble, can be easily added to beverages. Shoji Matsukawa, vice-president of Mitsubishi Gas Chemical, explained: "Research has shown that mitochondria can become impaired and dysfunctional as we get older, causing vital organs in the body, including the brain and heart, to deteriorate.

"But by boosting mitochondria and stimulating cellular activity, MGCPQQ can help fuel efficient energy production making it beneficial for people

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over the age of 50 who may have decreased levels of energy due to lack of exercise, physical ailments or other issues."

Peruvian superfood ingredients supplier NxtDried has seen the market become increasingly complex as consumer demand evolves. "These now go well beyond sport (energy/protein), into fibre/microbiome, vitamins and minerals, to cover life stages, particular diets, specific organs and increasingly mental health," said Dr Pedro Prieto, head of NxtDried's lab and Daffyd Davies, the company's director EMEA.

NxtDried says its products offer a variety of functional benefits, including elevated levels of vitamins for immune health and bioactive compounds, such as iminosugars and amino acids for their anti-ageing properties.

Ingredient essentials

Shifts in consumer health and wellbeing priorities have determined the changing popularity of different ingredients. Rising focus on cardiovascular disorders worldwide has stimulated interest in omega-3 fatty acids, which are beginning to get picked up by beverage producers. Towards the end of last year, Coca-Cola, for example, announced plans to introduce Gomega, a new 'omega-3 superfusion' drinks line.

NxtDried believes the coronavirus pandemic has created a new focus of interest among consumers. "Immune health will be the current great consumer driver for the next couple of years because of Covid-19," said Prieto and Davies.

The company has already registered popular demand for its Camu Camu powder, said to contain 25% vitamin C, from customers seeking to boost immune health during the crisis. Tenzing's van Bockel observes the same trend: "In light of the current climate, the demand for vitamin C is higher than ever".

Consumers continue to value other nutraceutical properties, with energy still high on the agenda. The same can be said for rehydration: "With more people exercising than ever before, drinks with electrolytes are in high demand," van Bockel added.

Tenzing uses Himalayan rock salt as a source of electrolytes. Other ingredients the brand favours include green tea and green coffee as natural energisers, lemon and acerola cherry for vitamin C, and corn, which provides a source of plant-based branched-chain amino acids (BCAAs), to increase stamina and aid sports recovery.

Nutraceutical beverage companies and the ingredient industry that supplies them must by necessity be responsive to the changing health priorities of consumers. Nobody knows what the pressing health issue will be in a year's time, but it's a safe bet that consumers will look to nutraceuticals to provide a solution. ●

Water solubility



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