



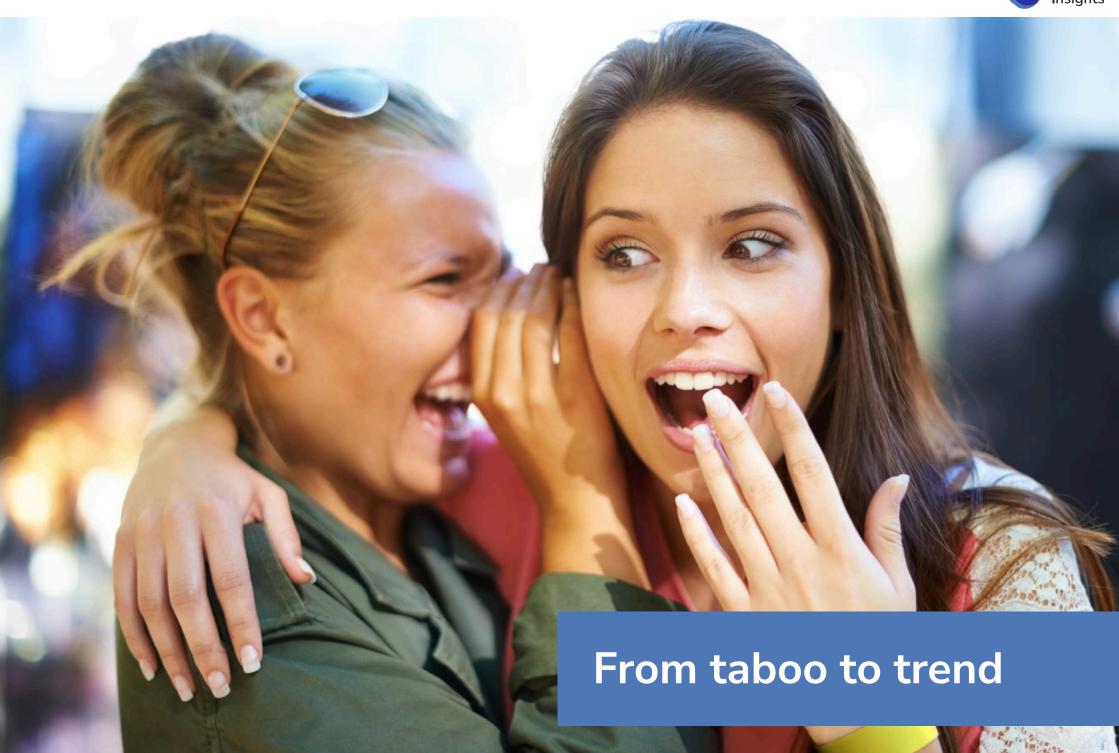
## Introduction

Functional food and drink products already play their part in protecting gut health, but growing consumer familiarity with the microbiome means they have the potential to do much more. From prebiotics to probiotics and from the microbiome to the gut-brain axis, many are looking for support, information, and products that help them feel the benefit.

The Health and Wellbeing report 2023 is written in two parts that will be published throughout 2023. You are reading part one.







ven a few years ago, the gut microbiome was unheard of to most of the general public. Having a primetime TV series in the UK on the theme of gut health – above all, with the title 'Know your Sh!t' – would have been unthinkable. But this is undoubtedly a hot topic.

The unique mix of microbes in the gut microbiome is understood not only to house the majority of our immune system, but also to exercise a strong influence over mood and mental state – and, of course, optimised digestion. The links between the microbiome and different disease states is a rapidly-expanding area of science.

In terms of this science behind digestive health, one of the presenters of the 'Know your Sh!t television show, dietician Sophie Medlin, says the UK is in many ways ahead of the game. "Some of the best microbiome research is happening in the UK."

But in terms of consumer familiarity with the topic, there may still be some catching up to do.



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"A lot of other Europeans tend to be less squeamish about discussing it," she says. "In Germany, for instance, there's less of a taboo."

At Mintel, senior consumer and lifestyles analyst Francesca Smith says that, whatever the level of UK consumer understanding, the prevalence of

66

### A lot of other Europeans tend to be less squeamish about discussing it"

Sophie Medlin, consultant dietitian, CityDietitians

gut-health messaging has risen steadily.

"Products such as kefir and kombucha are now commonplace on supermarket shelves," she says. "Indeed, Mintel's [global new product database] GNPD data shows a substantial increase in the share of food launches with digestive claims over the past seven years."

Of US consumer awareness of the issues, terminology and key ingredients, Medlin says: "I think conversations about gut health happen in a similar space to ours." But as in other health areas, the different approach to claims regulation between the EU and US has an impact. "The US market is often flooded with products before consumer understanding has had time to catch up with them."



os Angeles-based product formulator and creator Alan Roberts, owner of Nutrition Innovation, stresses the importance of adapting the ingredients list to suit the market or, as he puts it: "You want to be fishing where the fish are."

In other words, when it comes to prebiotics, 'soluble fibre' may be enough for certain mass-market products. Alternative sources of inulin that can be utilised and accented in a slightly higher tier include Jerusalem artichoke and agave, he says. "Organic sources of fibre are a 'nice-to-have', and they don't usually mean a big mark-up," he adds.

Forecasts for growth in prebiotics are impressive. He quotes Reports & Data research, which sees global demand for prebiotic



ingredients expanding by over 10% year-onyear (YOY) to reach \$8.34 billion by 2026.<sup>1</sup>

The findings of Fairfield Market Research talk about YOY global sales growth in prebiotics of closer to 12%, but starting from a lower base, with the worldwide total reaching \$10.2 bn by 2029.<sup>2</sup>

Consumer interest in these ingredients, and hunger for knowledge about them, can be fruitful from the perspective of products – and of popular TV, as Medlin can attest. But they come with their own attendant risks.

"Because consumers are often still struggling to get their heads around the terminology, if a brand starts addressing this topic, it might attract people who have problems such as Crohn's disease or irritable bowel syndrome (IBS)," she warns.

Medlin, who is director of City Dieticians and chair of the British Dietetic Association for London, assesses these risks from a brandowner's perspective. "If these people that your



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product accidentally attracts go on to have an extreme reaction to it, that could cause distress, and end up with bad reviews," she predicts.



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"Inulin can cause a lot of people digestive discomfort, particularly people with IBS, which can be as much as 20% of the population," Medlin says. "I see a lot of kids' food products adding a fair amount of prebiotics, partly because the sweet taste allows them to make a 'No Added Sugar' claim. But that can also lead to abdominal discomfort."

Alternative sources of prebiotic fibre, such as

oligosaccharides, are highly fermentable, she cautions, and can also cause gut problems for some.<sup>3</sup>

#### **Considering ingredient interactions**

The role of functional foods in helping to maintain overall wellness, rather than treating specific conditions, is critical in all health areas. But this contrast is especially true in the context of gut health, she argues. "It is as important how messages are communicated about as who your product is for."

Like Medlin, Alan Roberts mentions the sweetening profile of inulin, as well as the positive role it can play in sugar-reduction. "But it also takes away vanilla flavour – big time," he points out.

Ingredient-on-ingredient interaction is always a risk in liquids, he says, but these can be positive as well as negative. "In a beverage, you can get the symbiotic effect between prebiotic and probiotic, for example," he says. Where relevant, these effects can be underscored for the benefit of the consumer.



# Where the tastemakers of the world create a world of taste









hen it comes to probiotics, consumers have also become increasingly attuned to effective dosage, in terms of the survivability of probiotic strains through the gut. But the battle for survival starts much earlier than that. "Shelf-stability and the choice of formats are always a primary concern," Roberts confirms. "You need to establish the stability over time of the specific strain you're using."

Many consumers have been educated to look on-pack for the number of viable colony-forming units (CFUs) throughout any given probiotic's shelf-life.

With prebiotics, food and drink formats have an advantage over capsule-type supplements in terms of effective dosage. While food categories such as bars and cereals can deliver fibre efficiently, he emphasises the role of beverage. "People will always like the sensory experience of a drink," he contends.

Any development project in gut health is likely to start in a similar way, he says: "You need to

know what product form the brand-owner is looking for. If it's about fibre, you'll want gram amounts. What claims is the client trying to make: inner beauty; digestive support; or gutbrain axis?"

#### Leveraging beauty from within

Roberts reports fielding many requests for inner beauty (sometimes known as 'beauty from within'), with the nutrition around gut health being targeted this way.

One UK-based crossover between these two types of benefit is smoothie and juice brandowner Exalt's Glow Up product. Describing itself as a "gut health pressed juice", but doubling up with beauty references, the drink gives pride of place to chicory root.

The brand's head of business development, performance nutritionist Caroline Roberts, emphasises the "full spectrum of colourful, fibre-rich ingredients", which are important for more than vitamins and minerals. "They also contain a variety of phytochemicals that can help encourage the production of a diverse range of



good bacteria in our gut," she says.

When it comes to fibre, she highlights a paradox – and an opportunity. "Despite the UK not meeting the recommended daily intake of fibre – 30 g a day – consumers have a high level of awareness of its importance," she says. "What's really interesting is that consumers are beginning to differentiate among the various types of fibre."

That said, the use of the term 'prebiotic' is not clear-cut, according to Exalt. "The latest version of the Glow Up label uses the term, as we felt the messaging could be stronger," she explains.

"But the scientific community continues to debate what it fully means to be a prebiotic, and there is still consumer confusion around the differences between probiotics and prebiotics."

Clearly, levels of knowledge are going to vary. Among European consumers, awareness of prebiotics is much stronger than it was, Medlin confirms, with good potential for growth. "People understand the terms 'prebiotic' and 'probiotic' in general terms," she adds. "But there still isn't good generally-available information to allow them to have an even better understanding of these ingredients."

A mix of wariness and curiosity regarding unfamiliar ingredients, whether in foods or supplements, is a worldwide phenomenon. Mintel's data shows that in China, the top three reasons why consumers take supplements remained the same between 2020 and 2022, namely: improving immunity; complementing an everyday diet; and improving digestive functions.

"But Chinese consumers tend to place greater trust in health supplements that contain traditional ingredients (41%) than innovative ingredients (28%)," says senior analyst Catherine Liu.



# Opportunities with probiotics



t the International Probiotics
Association (IPA), executive director of IPA Europe Rosanna Pecere notes the changing EU landscape since the Commission's 2006 guidance that the wording 'contains probiotics' should be considered a health claim in its own right.<sup>4</sup>

Over the past five years, Spain, Italy, the Czech Republic and, more recently, France have all adopted national guidelines allowing certain strains to be qualified as 'probiotics'. Other member states have introduced the term for supplements.

"It is evident that this situation is not helping European manufacturers and is not providing clear information to EU consumers," she says. Harmonisation across the EU is a priority for IPA Europe.

In the meantime, she quotes data which shows the value of European probiotic food and supplement markets growing from €8.6 bn in 2018 to €9.4 bn in 2021.<sup>5</sup> This increase in retail value, says the IPA, correlates with increased

use of the term 'probiotic', rather than other circumlocutions, across important EU markets.

While probiotics find their way into other food formats, dairy still predominates in Europe. Nor is this only because of the 'category language' which predisposes consumers to look for probiotic-type claims, under the guise of 'live cultures' and other gut-friendly phrasing, in that aisle of the supermarket.

"Dairy seems to provide some sort of protection to the probiotic bacteria through the digestive tract," Medlin points out. "At the same time, the





cultures created as a result of dairy fermentation are the ones that are often known to be the most beneficial."

In the US, Mintel reports that sales related to gut-health claims are on the up, despite the pressure on household incomes. "US retail sales of digestive-health products are estimated to have increased by 4.6% in 2022 to reach \$5.7 bn," says health and wellness analyst Dorothy Kotscha. "Probiotics have gained in popularity in recent years, and 45% of consumers have incorporated them into their overall digestive health plan."





Botanicals, too, can play a role in providing specific gut-health benefits, says Alan Roberts. He cites as an example the effectiveness of Astragalus membranaceus and Panax notoginseng in combination.

"It's a very cool ingredient," he enthuses. "It improves the structure of the gut membrane, and so helps to boost bioavailability." This attribute means it is often used in conjunction with types of active ingredient which operate in areas other than gut health. As Roberts puts it: "By including this, you're amplifying your formula."

The amount in a formulation can be as little as 50 mg, he says. "So it's easy to include, and [in the US] it has great regulatory."

Alongside the positive interactions between complementary ingredients, he suggests the compound highlights synergies of a different kind: those between Asian traditions of use and modern western science. "Astragalus has been used for thousands of years in traditional Chinese medicine," he reports. "NuLiv Science in California has begun studying its effects and validating outcomes using western methods."

In Europe and North America, there is now a greater focus on Chinese and Indian traditions, 6 particularly in relation to botanicals, and much of it relating to benefits which span the physicalmental divide.

At Mintel, Kotscha reports the growing appeal in the US of digestive health products with

"multifunctional" benefits. "Formulas that include both digestive support and improve energy levels, boost immunity and provide stress relief and relaxation are of particular interest," she says.



Astragalus has been used for thousands of years in traditional Chinese medicine."

Alan Roberts, owner, Nutrition Innovation

It is not, perhaps, complete chance that this interest among western consumers in botanicals with traditions of multi-layered benefits coincides with an improving understanding, separately, of the gut-brain axis.





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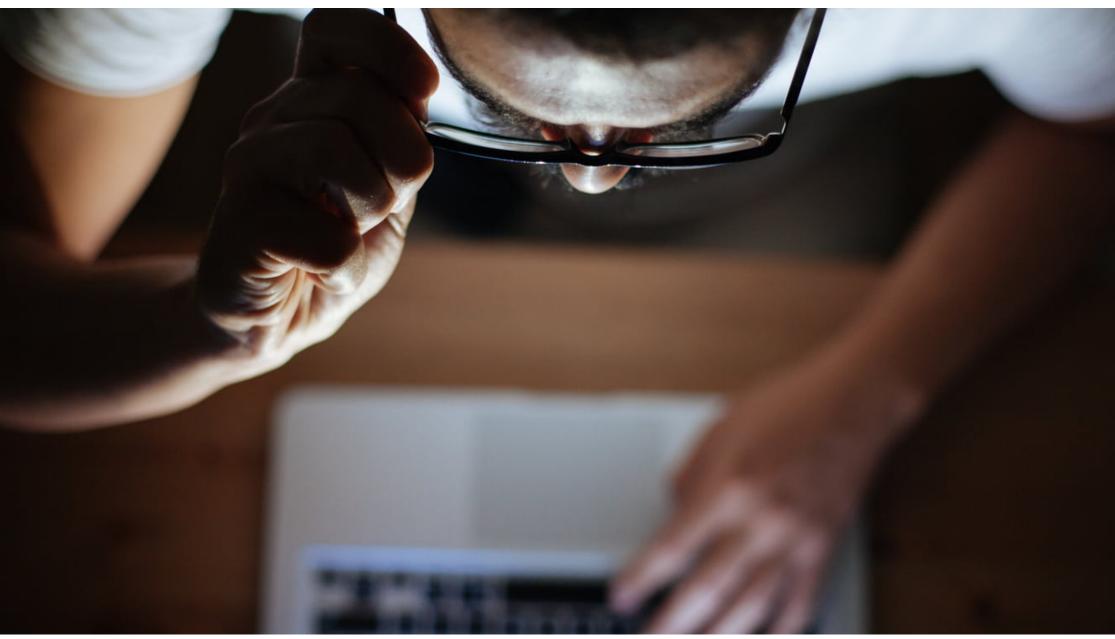
Key takeaways



- Consumer awareness of and knowledge about – different ways of describing fibre and of specific sources is highly variable; know your target audience and choose your language accordingly.
- Be aware of the possible adverse effects of high-fibre foods on some consumers, and label your product clearly.
- At the same time, many people are aware that they do not consume enough fibre and welcome innovative, satisfying, and easy ways of upping their intake.
- With probiotics, consumer interest and knowledge has survived the EU's health claims regime, but more consistent regulation could make the category even stronger.
- Nearly half of US consumers polled in a survey said they incorporated probiotics into their diet.







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Health and Wellbeing Report 2023, Part 1: Gut health goes from taboo to trend

