

# The PROBIOTIC Edge

HOW TO SUCCEED IN CHANGING  
FUNCTIONAL FOOD MARKETS



## THE DYNAMIC FUNCTIONAL FOOD ENVIRONMENT

Markets for functional foods– products formulated with ingredients offering a health or wellness benefit– are growing across the world.

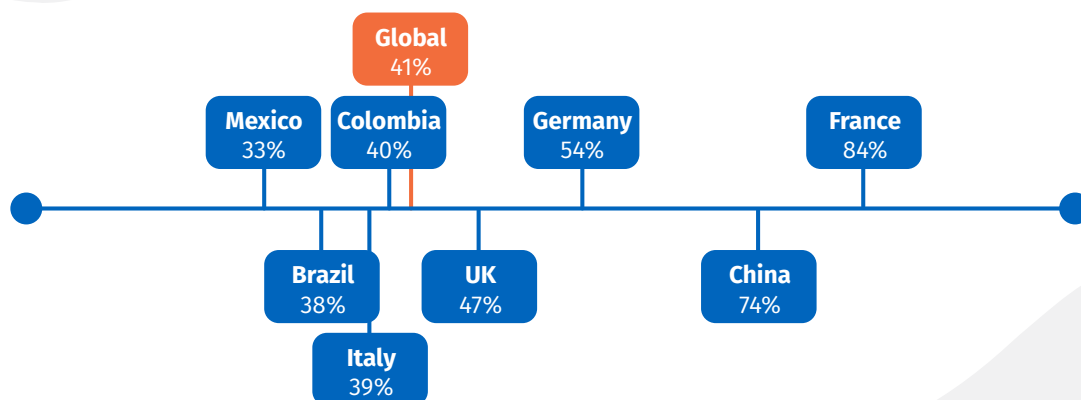


**Largely driven by consumer demand for well-researched ingredients, such as probiotics, and a blurring of the boundaries between food and medicine, sales of functional/fortified foods topped \$175 billion in 2020 globally.<sup>1</sup>**

Consumer interest in functional foods with probiotics is especially strong worldwide, with global consumers increasingly choosing foods fortified with probiotics. Regionally, the story is much the same.



### Percentage of consumers who have consumed a probiotic in a functional food, past 6 months:<sup>2</sup>



As well, nearly 50% of global and regional consumers surveyed say they have purchased probiotic products in the past 12 months.<sup>3</sup>

**The research also shows that overall, consumers say that foods and beverages are their preferred way to consume probiotics, because of the ease of incorporating them into everyday diets.**

But this is a story about change as well as growth. New markets are emerging, technological

advances are being made, consumers are asking more questions, and regulatory environments are evolving in response.

#### **This paper:**

- Explores these changes
- Looks at the keys to success in highly dynamic and increasingly competitive functional food markets
- Focuses on probiotics, one of the most versatile functional food ingredients, markets for which have been subject to both an explosion of consumer demand and regulatory change

<sup>1</sup> Euromonitor Passport analysis

<sup>2, 3</sup> FMCG GURUS: Insights & Opportunities – Global Probiotics, 2020

## GUT HEALTH IN FOCUS: PROBIOTIC MARKETS ARE GROWING

Demand for functional benefits is especially high when it comes to digestive health. In the probiotics sector, consumer interest and an increasingly proactive focus on health in light of the pandemic have spurred innovation and driven sales. The market for probiotic products worldwide is now projected to be worth **\$69 billion by 2023**. Probiotics in food and beverages account for over 80% of the global market and are growing at 6.8% CAGR.<sup>4</sup>

**Probiotics in food and beverages account for over 80% of the global market<sup>4</sup>**



**Consumer interest is also reflected in probiotic product markets by region:<sup>5</sup>**

Market	Projected value by 2023
Asia Pacific	\$32B
North America	\$12B
Europe	\$15B
Latin America	\$10B

## HEIGHTENED INTEREST IN DIGESTIVE HEALTH

Prior to 2020, consumers were already highly aware of the role of digestive health in overall well-being.



A recent survey found that **56%** of consumers globally were interested in improving their digestive health.<sup>6</sup>



Forty-two percent recognized the link between digestive and overall health and **83%** were familiar with probiotics.<sup>6</sup>



As well, **44%** consumers globally were likely to seek out food/drink to support digestive health when they shop.<sup>7</sup>

**The pandemic has accelerated this trend and appears to be driving demand for probiotics.**



By the mid-point of 2020, more than **20% of consumers** globally reported that they had become more conscious of their digestive health as a result of COVID-19.<sup>8</sup>



In the wake of the pandemic, **75%** of global consumers associate probiotics with immune system support.



It's predicted that over the next twelve months, consumers will increasingly **seek out products that are high in functional ingredients** that are positioned around benefiting overall wellness by supporting digestive health.<sup>9</sup>



## MAINSTREAM AWARENESS OF PROBIOTICS, ESPECIALLY AMONG YOUNGER CONSUMERS

Interest in digestive health and demand for scientifically proven ingredients have led to an explosion in consumer awareness of probiotics in both supplements and functional foods.

Kerry's 2019 Global Consumer Survey found that over half (**51%**) of consumers in the U.S. and **62%** of those in Asia use, or consider using, beneficial bacteria, like probiotics.

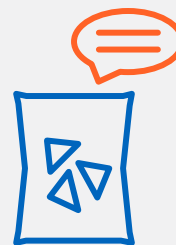


In Europe and Latin America interest is also high at **46% and 45% respectively**.<sup>10</sup>



**There is evidence that interest in probiotics is particularly high among younger consumers.**

A recent survey by Ingredient Communications found that **50% of U.S. consumers consider "contains probiotics"** an appealing statement on food and beverage products.



However, this figure rises to **67% among 25 to 34 year-old consumers**. The youngest consumers are also the most likely to consider a product "healthy" if it contains probiotics (74% of 18 to 24 year olds, compared to 50% of 55 to 64 year olds).<sup>11</sup>



10 Kerry Global Consumer Survey, Digestive and Immune Health, 2019  
11 Ingredient Communications 'OK, Boomer: Survey highlights gulf between youngest and oldest consumers', 7 December 2020



## PROBIOTICS FOR OVERALL WELLNESS

Consumers want functional foods that offer health benefits. In 2014, a consensus statement from an expert panel convened by the International Scientific Association for Probiotics and Prebiotics concluded that common probiotic strains are likely to provide general health benefits.<sup>12</sup>

Meanwhile, a growing number of studies have shown that in addition to digestive health benefits, **some probiotic strains can offer health benefits in areas such as immunity and protein absorption.** Recent research shows that consumers associate probiotics with both immune-and digestive-health benefits.<sup>13</sup>

Region	Percentage of consumers who associate probiotics with improving immune system health	Percentage of consumers who associate probiotics with promoting good digestive health
Global	46%	54%
Asia	48%	50%
Europe	40%	47%
USA	48%	65%
Latin America	52%	69%

<sup>12</sup> Hill, C., Guarner, F., Reid, G. et al. 'The International Scientific Association for Probiotics and Prebiotics consensus statement on the scope and appropriate use of the term probiotic', Nat Rev Gastroenterol Hepatol 11, 506–514, 2014

<sup>13</sup> Kerry Global Consumer Survey, Digestive and Immune Health, 2019

## HOW ARE MARKETS RESPONDING?

**Product innovation:** Technological advances and consumer demand are driving innovation and blurring lines between functional food, beverage and supplement product formats.<sup>14</sup>

**Transparency:** Consumers continue to expect functional food brands to be open and honest; Innova cited transparency as the “clear winner” in its list of the top ten global food trends in 2021.<sup>16</sup> With increasing focus on transparency, consumers want to understand the ingredients used in their functional foods, including the strain of probiotics and whether their efficacy is supported by clinical evidence. Choosing a research-backed branded ingredient creates opportunities for manufacturers to create innovative food with benefits in everyday formats consumers desire.

“Key players are investing in R&D and innovative delivery methods to respond to the demand.”<sup>15</sup>

Around the world– and across multiple food categories– a combination of consumer demand and technological advances is driving innovation with functional ingredients. As current trends show, consumers are also finding the concept of beneficial bacteria in food and drink appealing. And as we’ve seen over the last year, consumers have become more proactive about their health and are researching ingredients they believe will benefit them. Formulating with well-documented, branded ingredients can help manufacturers create the innovative foods consumers want.

## EUROPE

### The Opportunity

In Europe’s **sports and functional nutrition** sectors, a focus on digestive health and better-for-you snacking has sparked innovation in applications such as bars, where high-protein and high-fiber are among the fastest growing claims.<sup>17</sup> In 2021, growth in the category is forecast to continue being driven by functional claims.<sup>18</sup>

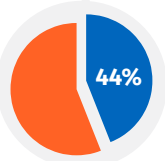
Similarly, consumers of **bakery products** are searching for healthier options (such as gluten-free and reduced sugar), creating further opportunities to formulate with functional ingredients.

And in **dairy**, there is significant demand for products with ingredients that offer a health boost beyond basic nutrition.

### Key Takeaway

Adding probiotic benefits can enhance the positive reputation of products with other healthy ingredients, like protein and fiber.

In Russia, for example, **44% of consumers now say they look for probiotic claims in yogurt.**<sup>19</sup>



<sup>14</sup> FMCG Gurus 'The Growth of Personalized Nutrition in 2020', July 2020

<sup>15</sup> Nutrition Insight 'Prebiotics and Probiotics in synergy set the stage for NPD: Innovations and Applications, 6 Feb 2020

<sup>16</sup> Innova Market Insights 'Innova Identifies Top 10 Food and Beverage Trends to Accelerate Innovation in 2021', October 2020

<sup>17</sup> Innova Market Insights 'Sports and Nutrition Bars', January 2020

<sup>18</sup> Innova Market Insights 'Cereal and Energy Bars', December 2020

<sup>19</sup> FMCG Gurus 'Consumer and Market Trends in the Dairy Market in Russia', 2020

# NORTH AMERICA

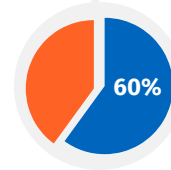
## The Opportunity

Demand for better-for-you products in North America was increasing long before 2020 but even more so during the pandemic. In July 2020, more than half of consumers in the region said they planned to improve their digestive health to support their overall wellness.<sup>20</sup>

Functional food categories where innovation is taking place include **bars and snacks**, where new flavors and the inclusion of healthful ingredients “may jumpstart the category,” according to Innova Market Insights.<sup>21</sup>

## Key Takeaway

Common perceptions of categories perceived as indulgent or unhealthy have provided a powerful impetus for innovation that focuses on reformulation with functional ingredients to increase the healthful benefits of everyday foods.<sup>23</sup>



Another category that is ripe for innovation is **salty/savory snacks**, which **60% of U.S. consumers buy on a typical shopping trip**.<sup>22</sup>

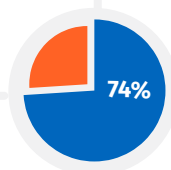
# LATIN AMERICA

## The Opportunity

In this region, consumer health consciousness has increased as a result of the pandemic, driving demand for functional nutrition products.<sup>24</sup> A 2020 Kerry analysis revealed interest in products perceived to strengthen immune health, as well as those low in sodium, calories and sugar.<sup>25</sup>

## Key Takeaway

Growing health consciousness provides an opportunity for manufacturers to create functional foods with ingredients that offer probiotic benefits.



In July 2020, the proportion of consumers in Latin America who associated probiotics with **immune support stood at 74%, with 71% of these turning to functional foods for this benefit**.<sup>26</sup>



# ASIA, MIDDLE EAST AND AFRICA

## The Opportunity

Interest in functional claims continues to rise in markets in Asia Pacific, the Middle East and Africa. Kerry research has found that consumers in Asia are focusing on holistic health, with growing interest in more natural forms of health and wellness, delivered through diet, exercise and general lifestyle. As such there is demand for convenient functional and fortified foods.<sup>27</sup>

In recent years, consumer awareness of the benefits of probiotics has been highest in Japan and South Korea, but interest is also on the rise in China. A report from the country's Chamber of Commerce for Import and Export revealed that the category grew by over 10% in 2018.<sup>29</sup>

### One category offering new opportunities for innovation with functional ingredients is bakery.

Growth in the category is mainly driven by strong performance in China and Japan, where younger consumers have been open to adopting western eating habits, including the regular consumption of baked goods. Increased demand for value-added or healthier products is also driving purchases. The desire for better-for-you ingredients, as well as clean-label or reduced sugar, provides opportunities to enhance the perception of these products by offering digestive health benefits.

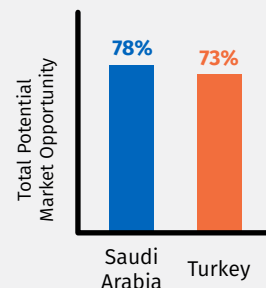
Similarly, growth in the Asian market in the **savory snacks** market can be attributed to western-style consumption habits, often combined with a focus on local flavors.

## Key Takeaway

Growing awareness of the need for healthier options in categories like bakery or savory snacks<sup>31</sup> creates opportunities to formulate with ingredients such as probiotics, which can provide the digestive health support sought by many consumers.



### Market Opportunity Saudi Arabia and Turkey



Kerry's July, 2020 research shows that in the first six months of the year, 48% of consumers in Saudi Arabia have used products with beneficial bacteria, and 30% have considered doing so, representing a **total potential market opportunity of 78%** of Saudi consumers. In Turkey, the figures are 42% and 31% respectively, representing a **total potential market opportunity of 73%**.<sup>30</sup>

<sup>27</sup> Kerry Digest, '2020 Asia Pacific Food and Beverage Trends', June 1 2020  
<sup>28</sup> FMCG Gurus 'How Has COVID-19 Changed Consumer Behavior?', July 2020  
<sup>29</sup> Koe, T 'Entering China's booming probiotics market: The six big challenges to overcome', Nutraingredients, 29 October 2019

<sup>30</sup> Kerry Global Consumer Research, 2020  
<sup>31</sup> Neo P 'Biting back: Better-for-you options and localised flavours are 'the future' for APAC savoury snack industry', Food Navigator Asia, 21 August 2020

## THE CHANGING REGULATORY SCENE

As consumer demand for functional foods grows, regulatory environments are changing in response. This has created challenges, but also opportunities to innovate with clinically supported ingredients that clearly communicate benefits.

In recent years the regulation of probiotics has been a particularly contentious area. It generally focuses on the legitimacy of health claims (rather than quality or efficacy) and is complicated by the fact that many of the properties of probiotics are specific to strains.<sup>32</sup>

Probiotic regulation varies considerably between regions. However, one recent theme across the world has been change, as governments and regulators look to adapt to the growing demand.

## EUROPE

### The Challenge

The substantiation of health claims is especially important in the European Union, where they are validated and regulated by EFSA (the European Food Safety Authority).

As well, there is currently no EU-wide framework defining probiotics, but in recent years the predominant view has been that use of the term constitutes an implicit health claim. Because of this, the term “cultures” is used in most EU countries.

### The Opportunity

This changed dramatically in November 2020, when Spanish regulators published a decision that the term “probiotic” should be accepted on food labels.<sup>33</sup> While the statement was clear that use of the term should not be accompanied by any health claim, this was a major step forward for brands formulating probiotic products. In addition, the term is gaining acceptance in Italy. The hope is that other countries will follow.



### Formulation Example

#### **Oomf Bio Cultured Porridge**

– A bio-cultured porridge pouch containing whole-grain rolled oats boosted by a specially formulated probiotic culture.

## NORTH AMERICA

### The Challenge

In the U.S., structure function claims such as “supports healthy digestion” are allowed if they are truthful and substantiated by scientific evidence.<sup>34</sup> The requirement for safety and efficacy studies applies even in the case of widely used probiotics with a Generally Recognized as Safe (GRAS) designation.

### The Opportunity

Branded probiotics backed by clinical research help to communicate the probiotic’s safety, efficacy, and benefits.



### Formulation Example

**Shrewd Food Probiotic Cookies:** High-protein cookies containing BC30 in optimal numbers of CFUs (colony-forming units) for digestive health.

<sup>32</sup>, <sup>34</sup> Koe, T ‘Entering China’s booming probiotics market: The six big challenges to overcome’, Nutraingredients, 29 October 2019

<sup>33</sup> Kerry Global Consumer Research, 2020

# LATIN AMERICA

## The Challenge

Across Latin America, high demand has driven functional foods to the top of the regulatory agenda, with approaches to the regulation of probiotics varying by country.

## The Opportunity

Some countries in this region have made major changes, creating new opportunities for innovative functional products. In Brazil, the region's largest market, probiotics are beginning to be recognized as functional ingredients. In November 2020, ANVISA, the Brazilian agency responsible for the regulation of food and supplements, approved a health claim for leading probiotic BC30™.



## Formulation Example

### **PROCHIA® Chia + Probiotic Powder**

A dietary supplement formulated from the combination of BC30 (some of the research on which was conducted in Mexico<sup>35</sup>) with an organic superfood high in prebiotic fiber.

# ASIA

## The Challenge

The market for probiotics in Asia is complex. For example, China's definition of probiotics differs from the World Health Organization standard. According to WHO, probiotics are live micro-organisms which, when administered in adequate amounts, confer a benefit on the host. In China, by contrast, a probiotic health food is "a micro-ecological preparation that can promote the ecological balance of intestinal flora and has as a beneficial effect on the human body."<sup>36</sup>

Furthermore, for each food category, there is a list of specific bacteria species that can be used and many probiotic applications that are common in other regions, such as shots, cannot be sold as foods in China.<sup>37</sup>

## The Opportunity

Growth in the market in this region is closely linked to the evolving regulatory environment. As an example, China has recently begun assessing individual claims for probiotics, with scientific evidence key to validating them. Formulating with a branded probiotic with research-supported ingredients can help to communicate the brand's safety and efficacy.



## Formulation Example

### **BioBor Probiotic Gummies**

A candy product containing BC30 (meeting China's particular definition of the term 'probiotic') and other functional nutritional ingredients

<sup>35</sup> Anaya-Loyola, M.A. et al. 'Bacillus coagulans GBI-30, 6068 decreases upper respiratory and gastrointestinal tract symptoms in healthy Mexican scholar-aged children by modulating immune-related proteins', Food Research International, Volume 125, 2019

<sup>36, 37</sup> Koe, T 'Entering China's booming probiotics market: The six big challenges to overcome', Nutraingredients, 29 October 2019

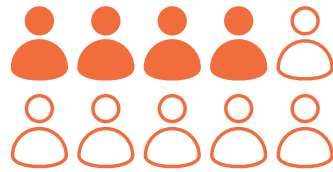
## WHAT DO CONSUMERS WANT FROM FUNCTIONAL INGREDIENTS?

The increasing competitiveness of functional food markets in the digestive health category means brands must work hard to achieve differentiation.

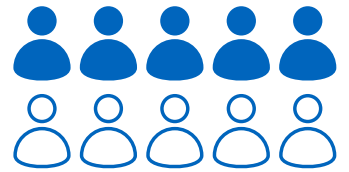
So, what's the best way to ensure your product stands out? Recent research notes that transparency of claims helps encourage consumers to purchase healthy lifestyle products.

Additionally, in its 2020 research, the Trust Transparency Center found that when consumers of products containing probiotics (and other common functional ingredients) were asked: "When deciding which products to purchase, how important is the inclusion of branded or proprietary ingredients?" the percentage of those **stating they were influenced by branded ingredients was above, or close to, 70% across all categories.**<sup>39</sup>

This is especially important for manufacturers seeking to differentiate functional food offerings in a crowded market. The use of branded, scientifically substantiated probiotic ingredients makes sound business sense for more than one reason. As well as addressing regulatory requirements, it delivers on the consumer demand for research-backed products they can trust.



Around four in ten consumers worldwide are more likely to buy a healthy lifestyle product if they see claims based on research or scientific data.<sup>38</sup>



As many as half in some regions say they want to see a product's benefits explained on the packaging.<sup>38</sup>







## HOW BC30™ CAN HELP: FUNCTIONAL FOOD INNOVATION

The BC30 brand connects with consumers by educating them about probiotics, delivering on ingredient transparency, and ultimately building trust in the final product. Kerry, the makers of BC30 has business development staff in every part of the world who know the regions' regulatory environments and challenges.

In combination with BC30 technology and Kerry's leadership, we build upon our knowledge of food and beverage applications and production processes to seamlessly introduce new innovations into the marketplace.

BC30 is now available in more than 1000 food and beverage products worldwide, many of which feature its logo to build recognition and trust.

### Learn more about:



The [probiotic ingredient](#)



Our [research](#)



How we can [support](#) you in your next product innovation



Or contact us at  
[BC30probiotic@kerry.com](mailto:BC30probiotic@kerry.com)

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