Global market review of probiotics – forecasts to 2013

2009 edition
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By Jonathan Thomas

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Seneca House
Buntsford Park Road
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B60 3DX
United Kingdom

Tel: +44 (0)1527 573 600
Fax: +44 (0)1527 577 423
Web: www.just-drinks.com

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**Liz Hague**
Research manager, just-drinks.com
Tel: +44 (0)1527 573 604
Email: liz.hague@just-drinks.com

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Executive summary

Probiotics represent a major sector within the US$xxbn global functional foods market, of which the US, Western Europe and Japan account for over xx%. In 2008, the global probiotics market (including both foodstuffs and supplements) was worth over US$xxxxbn, or over xx% of the global functional foods market. Since 2003, the global probiotics market has more than doubled in value terms, and is currently rising by almost xx% per annum.

Although probiotics remain best suited to dairy products such as spoonable and drinking yoghurts, probiotic products have emerged in sectors such as breakfast cereals, infant formula and soft drinks. However, dairy products still account for over xx% of the global probiotic foods market, with recent growth especially high in North America. Between 2003 and 2008, global sales of probiotic supplements increased by over xx%, although this still accounts for less than x% of the world market for dietary supplements.

Many of the trends currently affecting the global probiotics market are related to the global regulatory environment, which is generally becoming stricter and affecting which health claims manufacturers can make for their products. Other important trends include ongoing research into the possible benefits of probiotics, as well as product development trends. Around xx% of the global population buys into the probiotic dairy sector on a regular basis, with consumer penetration particularly high in Asia-Pacific countries such as Japan. Elsewhere, fairly high levels of consumer scepticism still exist regarding the efficacy of probiotics, and this is thought to be holding back the market.

The global market for probiotic products is dominated by a number of multinational dairy operators, of which the largest and most significant include Danone, Nestlé, Yakult Honsha and Müller. Many represent leading suppliers of yoghurt and yoghurt drinks sectors, and have also devoted considerable resources throughout the years to researching probiotics and their effects.

The global probiotics market is currently at a strategic turning point. The next few years are likely to prove vital, as companies balance the changing regulatory environment with growing consumer awareness of probiotics and technological advancements extending the presence of probiotics into other...
product sectors. Market value is expected to increase by almost xx% during the period between 2008 and 2013, although annual growth is expected to fall over the next few years.
Chapter 1 Introduction

Probiotics are the so-called ‘good bacteria’ which help to maintain a healthy balance of bacteria within the digestive system. The World Health Organization (WHO) defines probiotics as “live micro-organisms which, when consumed in adequate amounts, provide measurable health benefits”. The term ‘probiotics’ can be literally interpreted as ‘for life.’

Although probiotics were first consumed by humans thousands of years ago in naturally fermented products such as milks, they only entered into the scientific community early in the 20th century. The concept of bacteria as beneficial to health was first proposed in the early 1900s by Elie Metchnikoff, the Nobel Prize-winning Russian scientist. He attributed the long and healthy lives of people in the Bulgarian locality to heavy consumption of fermented milk products, after which the first lactic starters were developed.

Probiotic bacteria are naturally present in the digestive system. The two best known types are the Bifidus bacteria and Lactobacillus, of which there are several strains. Unlike the Bifidus strain, the Lactobacillus bacteria exists and thrives in an acid environment, which means it can survive the passage through the stomach and remain intact within the intestinal tract where it has its beneficial effects. Probiotics perform a natural function within the gut, helping to prevent the growth of harmful bacteria while also benefiting intestinal function.

The longstanding historical association between probiotics and fermented dairy products still holds true to the present day. As a result, probiotic products are most common within sectors such as dairy foods and beverages, although many are also consumed as supplements. In recent years, probiotic products have emerged in sectors such as cereal bars, fruit juices and breakfast cereals, although the efficacy of probiotics varies as a result of different cultures having different properties.

Some of the more significant probiotic products on the global market are listed below, together with the strain of probiotic bacteria featured. Many of the probiotic strains used are patented by the manufacturers themselves.
Chapter 2 Global market overview

Probiotics represent a major sector within the global functional foods market, which are generally defined as food and drinks offering a specific health-promoting or disease-preventing benefit, rather than simply contributing towards overall healthiness and well-being. The term ‘functional foods’ was first used in Japan during the 1980s, while the Japanese authorities were instrumental in setting up the world’s first system allowing companies to make functional health claims during the early part of the 1990s.

As one of the industry pioneers, Japan has one of the world’s largest markets for functional foods. The global market was valued at US$xxbn in 2008, having experienced annual growth worth up to x% in recent years. It should be noted that estimates regarding the size of the global functional foods market vary according to source, since many use a looser definition of the term.

Table 2: Global functional foods market by country/region, 2008 (US$bn and %)

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Value (US$bn)</th>
<th>Share of global market (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>xx</td>
<td>xxxx</td>
</tr>
<tr>
<td>Japan</td>
<td>xx</td>
<td>xxxx</td>
</tr>
<tr>
<td>Western Europe</td>
<td>x</td>
<td>xxx</td>
</tr>
<tr>
<td>Others</td>
<td>xx</td>
<td>xxx</td>
</tr>
<tr>
<td>Total</td>
<td>xx</td>
<td>xxxxxx</td>
</tr>
</tbody>
</table>

Source: just-drinks

With sales worth an estimated US$xxbn, the US has the world’s largest market for functional foods, ahead of Japan (US$xxbn). Together with Western Europe, these countries account for over xx% of the global market. Although these are the world’s most developed markets, strong growth has recently been observed in other parts of the world (most notably parts of Latin America, some of the Asia-Pacific countries and Eastern Europe), indicating that the market is becoming truly global.
Chapter 3 Current trends

Many of the trends currently affecting the global probiotics market are related to the regulatory environment, which governs how products can be marketed and labelled, as well as which health claims the products are allowed to make. Ongoing research into the possible benefits of probiotics is also important, since this can assist in providing scientific evidence to back up health claims and therefore attract more consumers to the category. This also helps to counter some of the criticisms still being aimed at probiotics regarding their effectiveness.

Also important are product development trends. Not only does this relate to the extension of probiotics into sectors other than dairy and dietary supplements, but also the increasing use of probiotics in combination with other functional health ingredients. Improvements in technology are also helping manufacturers to preserve and improve the stability of probiotics during food processing.

The changing regulatory environment

The regulatory environment remains crucial to the ongoing development of the global probiotics industry, given its impact upon health claims made by manufacturers. Although regulation concerning health claims appearing on foods differs across the world, the trend is towards greater harmonisation. More regulations appear to be likely in the future – according to a supplier of probiotic ingredients: “the regulatory environment is likely to be stricter going forward… there will be more demand for scientific documentation”.

As an example, the EU Health and Nutritional Claims Regulation will control claims made on products in Europe from 2010 by obliging suppliers to prove them to the European Food Safety Authority (EFSA). Any claims which do not gain approval will not be able to be made. According to one supplier of probiotic drinks, the new regulations are welcome since “they will help to explain to consumers in clearer detail the benefits available to them… and enable them to purchase with more confidence”.

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Chapter 4 Consumer dynamics

A greater awareness of health issues has been the major reason behind the recent growth of the global functional foods industry. As the market has developed, more consumers have been moving beyond simple motivations such as trying to lose weight or maintain normal health levels. Instead, people are increasingly looking to optimise levels of performance and wellness, in areas such as digestive and cardiovascular health. Furthermore, many are actively seeking to reduce the risk of illnesses such as heart disease and osteoporosis, and their diets are altering to reflect these concerns.

Although health concerns are the main driver within the global functional foods market, other factors have also contributed towards growth. More functional foods are being marketed on a convenience platform, thereby catering to the needs of time-pressed people seeking to maintain well-being. The rising average age of the population in regions of the world such as Europe has also contributed to the market’s development. With greater sections of the population now living longer, demand is rising for products which can help people lead healthy lifestyles well beyond what has traditionally been thought of as middle age.

Attitudes to health claims

One of the main obstacles that manufacturers of functional and probiotic foods still need to overcome is the high degree of consumer scepticism which exists regarding the health claims made by products themselves. As the global functional foods market has developed, consumers are increasingly demanding more robust evidence to back up the health claims made on the products, which is one of the main reasons the regulatory environment within the industry is growing tougher.

Recent studies from the EU Commission indicate that over three-quarters (xx%) of European consumers do not trust health and nutrition claims made by food manufacturers on their products. European consumers also appear to be losing faith in health claims, with a majority becoming increasingly distrustful of late as a result of food safety scares. This trend appears to be especially apparent in countries such as the Netherlands and the UK, with less than 30%
Chapter 5 Industry supply

The global market for probiotic products is dominated by a number of multinational dairy operators, of which the largest and most significant include Danone, Nestlé, Yakult Honsha and Müller. Many of these occupy leading positions across the globe in the yoghurt and yoghurt drinks sectors, and have also helped to pioneer and develop the probiotics sector, devoting considerable resources to researching their effects. In 2004, Danone and Yakult Honsha jointly established the Global Probiotics Council, for example.

The supply structure is not so clear-cut in the non-dairy sector, where probiotic products are less evident. At present, the category is made up of leading food and drinks groups (such as Kraft Foods, Coca-Cola and PepsiCo) which have introduced health-oriented brands containing probiotic varieties, as well as smaller firms operating within a fairly specific market niche. The share of the global probiotics market taken by suppliers of non-dairy products remains very small compared with the likes of Danone and Nestlé.

The market for probiotic supplements remains highly fragmented in nature. For example, there are believed to number over xxx suppliers operating in the US alone, of which the larger include ConAgra (which supplies the Culturelle brand) and Swanson’s Health Products, which has developed probiotic supplements containing the unique DDS-1 strain in partnership with ingredients supplier Nebraska Cultures.

Some of the more significant European suppliers include Enterogermina (which specialises in probiotic supplements) in Italy, as well as the Sanatogen brand from Bayer Healthcare, and Merck, owner of the Seven Seas brand in the UK and the Bion3 range of probiotic supplements, which has performed well in European markets such as France and Belgium. In most cases, probiotic supplements are supplied as part of a much larger range.
Chapter 6 New product activity

As the probiotic foods market has developed, levels of new product activity have increased accordingly. In the US, for example, the number of new products featuring either probiotics or prebiotics increased from around xx in 2005 to more than xxx the following year, almost xxx by 2007 and approaching xxx in 2008. This compares with almost xxx for the Asia-Pacific region and over xxx for Europe. It is worth noting that new products have also appeared further afield in the world’s less developed food markets, such as India.

Regarding health claims, over half of all the probiotic products launched globally since 2000 have been marketed on a digestive and/or gastrointestinal health platform. Out of these products, almost xx% have claimed to aid with healthy digestion, while an additional xx% have focused on general claims regarding gut health. Away from digestive health, almost a quarter of products that came onto the global market between 2000 and 2007 also stressed the benefits to immune health of probiotics. This indicates that, for many consumers, a link exists between probiotics and a healthy immune system, and manufacturers are responding to this in their health claims.

New product activity taking place within the global market will now be discussed, segmented into dairy and non-dairy products. It should be noted that this section is not meant to be exhaustive, on account of the large number of new products appearing on a year-to-year basis. Instead, the intention is to illustrate trends in the global market by looking at major examples of probiotic products launched over the last few years.

Dairy products
Levels of new product activity within the world probiotic dairy products market have been relatively high since 2006. Although most of the new products launched have been either spoonable yoghurts or yoghurt drinks, probiotic lines have also emerged in sectors such as cheese, dairy spreads and powdered milk.
Chapter 7 The future

Market size and trends

The global probiotics market is considered by many to be at a strategic turning point. The next few years are likely to be vital for the industry, as companies balance the changing regulatory environment with growing consumer awareness of probiotics and technological advancements extending the presence of probiotics into other sectors of the food industry.

In the years between 2008 and 2013, the global probiotics market is forecast to increase by almost xx%, reaching a value of US$xxxxxbn (excluding probiotic ingredients). Annual growth is expected to drop fairly significantly from present levels within the next couple of years, although sales are forecast to start picking up again during the early part of the next decade.

Table 14: Forecast global probiotics market by sector, 2008-2013 (US$m and %)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foods (US$m)</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
</tr>
<tr>
<td>Percentage</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>Supplements</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
</tr>
<tr>
<td>Percentage</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>Total (US$m)</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
<td>xxxxx</td>
</tr>
<tr>
<td>Percentage</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
</tbody>
</table>

Source: just-food

Foodstuffs are expected to maintain their dominant position within the global probiotics market, registering a higher annual growth rate in the years leading up to 2013 than for supplements, for reasons which will be outlined shortly. During this time, sales of probiotic foods are anticipated to grow by almost xx% to US$xxxxxbn. Lower growth of around xx% is expected for the probiotic supplements category, while the sector’s share of the overall probiotics market is forecast to decrease slightly to less than x% by 2013.