leatherhead food research

What’s In and What’s Out?

Nutrition Trends 2016

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A Leatherhead Food Research white paper

What's In and What's Out? – Nutrition Trends 2016

Have you discovered your inner cavemen while following the paleo diet? When will insects really take off? Jenny Arthur explores the key nutrition trends impacting the food and drink industry in 2016 and beyond.

Holistic health

Consumers are connecting what they eat with how they look and feel. 'Holistic nutrition' describes the growing consumer trend of eating healthy foods that promote physical and mental health, support a strong immune system and prevent disease - it is about a more purposeful approach to healthy eating and a conscious assessment of the impact on your body of what you eating. If consumers believe certain products or ingredients are negatively impacting their health, then they are choosing to eliminate them from their diets.

From a product perspective, this trend is manifesting itself in a growing consumer interest in whole foods, such as whole grains and cereals, and a rejection of products which are believed to be overly 'processed' or refined. It also fuelling the growth in 'free-from' foods, such as 'dairy-free' and 'gluten-free', as discussed below.

Diets that celebrate difference

It used to be hard enough for vegetarians to find something suitable to eat on the average restaurant menu, but now the food and drink industry is catering for a whole range of consumer needs. Eating habits once dubbed 'alternative' or 'niche' have become mainstream. The following diets, in particular, are gaining popularity:

Gluten-free diet: Despite the fact that only people with intolerances or allergies need avoid gluten, gluten-free products have taken the shelves by storm. Conservative estimates valued the worldwide sales of gluten-free foods at $4.85 billion in 2014[1]. Analysts regularly predict healthy annual growth rates for the gluten free market in excess of 10% in value terms[2]. We are also seeing strong growth in the other free-from categories.

The flexitarian diet: There has been an increase in the number of people cutting back on the amount of meat they eat for health and environmental reasons. This has been coined a 'flexitarian diet' or a 'flexible vegetarian diet'. The report by the World Health Organisation (WHO) in October 2015 discussing the relationship between cancers and red/processed meat, which was widely reported in the media, is one driver of the meat reduction trend. The environmental impact of rearing livestock for human consumption and concerns about food sustainability in the context of a growing global population are also

1 Based on Leatherhead Food Research analysis
2 Mintel

causing consumers to stop and think about their meat consumption.

The paleo or caveman's diet: This is a diet based on meat, fish, fruit and vegetables and involves eating no dairy, refined sugar or processed food. It can be difficult to follow as it is quite restrictive, and for busy people, it may be challenging to cut out processed foods from their diets.

Non-exclusive dairy milk diet: People are experimenting with a wide range of non-dairy milks in light of dairy allergies or concerns about chemicals found in milk. The promise of a new sensory experience is also enticing many consumers. In the last decade, the range of products available has rocketed – milk made from oat, almond, coconut, hemp and rice are now available on market shelves.

Multi-functional foods kick empty calories into touch

Consumer mood is turning against products high in saturated fat, salt and sugar which only add extra calories to a person's diet. People with busy lives who have to eat on-the-go do not want to be forced to default to the unhealthy eating option because nothing else is available. They want products which contain nutrient-rich ingredients which support their health and wellbeing. This is more than the so-called 'healthy' option – they want the next generation of healthy eating products, or healthy eating 2.0. In particular, the following ingredients are gaining popularity:

- Protein in all types of food and beverage products, especially those promoting weight management or which make you feel full for longer. In 2015, yoghurts and cereals fortified with proteins were launched on the market.
- Natural ingredients with a 'health' halo e.g. aca berries, ginger, essential oils, collagen (a type of protein).
- Vitamins and minerals e.g. vitamin D, magnesium, zinc, calcium.

Protein, but not as we know it

By 2018, the global market value of the protein ingredients market is forecast to increase to $31 billion[3]. There is currently a lot of innovation in meat free protein alternatives and novel protein sources e.g. insects, algae and whey.

Insects, in particular, have been occupying a lot of column inches in the media. From a sustainability point of view, insects need less food, water and space than livestock. Furthermore, they do not produce as much methane, and therefore have a smaller environmental impact. From a nutrition point of view, insects are a good source of protein, iron and calcium.

In terms of the regulation around the use of insects in food and beverages, in the US and Canada, the onus falls on the manufacturer to ensure the insects used are safe for human consumption.

As far as regulation in the EU is concerned, in October 2015, the European Food Safety Authority (EFSA) concluded that insects fed with approved feed materials pose no greater microbiological hazards than other non-

[3] Based on estimates by Frost & Sullivan and Grand View Research

processed sources of protein of animal origin[4]. Actual approval for the use of insects in food and beverage products in the EU is tied up with their novel food status. Insects (whole or ground into flour) are not classed as novel foods, while parts of insects fall under the controls of the novel foods regulation. In October 2015, the European Parliament and the Council reached agreement on new novel foods regulation which will extend the scope to whole insects and introduce a fast-track procedure to approve novel foods; when the regulation comes into effect from January 2018, it is likely to speed up the review of novel products derived from edible insects in Europe. From 2018 therefore, we expect to see an acceleration in insect product innovation.

But what do consumers think? Leatherhead research with UK consumers shows only 18% would be happy to eat a whole insect, such as a cricket. More than half, however, would consider eating insects as a flour or in a snack, such as a burger, crisps, chocolate or a smoothie. This suggests that while UK consumers aren't quite ready to tuck into an insect kebab, they are open to insect protein in less obvious places.

Hello to 'good' fats

Fats have been a controversial subject in the last decade. Initially demonised, which led to the rise of the low-fat diet and low fat products and which saw many people mistakenly trying to eliminate all fats from their diets, we are now seeing 'good' fats coming back into favour. There is growing recognition that, rather than cutting all fats from your diet, individuals should focus on the type of fat consumed. For example, polyunsaturated fats reduce blood cholesterol levels and provide long chain fatty acids, essential for the body. These fats are found in corn and sunflower oils, nuts, seeds, soybeans and fatty fishes.

The benefits of fats have recently been studied and discussed in a report by the American Heart Association, which states that consuming healthier fats could save more than one million people worldwide from dying prematurely from cardiovascular diseases[5].

Not so sweet on sugar

Sugar remains on the agenda following the announcement by the UK government of a sugar tax on soft drinks, set to come into force in 2018. Sugar also gained a lot of attention in 2015 following the UK's Scientific Advisory Committee on Nutrition (SACN) recommendation that 'free sugars'[6] should make up no more than 5% of daily calories, which is approximately 30g for an adult.

In 2016, sugar consumption and its effects will continue to make headlines. The food industry will need to consider all reformulation options in response to the focus on sugar. Read Leatherhead's white paper giving top tips for reformulation.

Eat your greens

According to the National Diet and Nutrition Survey Rolling Programme (NDNS RP), many

4 http://www.efsa.europa.eu/en/press/news/151008a

5 http://newsroom.heart.org/news/eating-healthier-fats-could-reduce-heart-disease-deaths-worldwide

6 Free sugar is defined as any form of sugar or sweetening agent, except sugars naturally found in milk and sugars from the consumption of whole fruit or vegetables

consumers in the UK do not eat the recommended five fruit and vegetables a day. Those aged under 65 are the group least likely to eat their five a day[7].

Attention is now focussing on the importance of vegetables over fruit because they are more nutrient dense and contain less sugar than fruit. A survey of 40 popular smoothies, frappes and shakes found that some smoothies can contain up to 131g total sugars. However, the proportion of these total sugars which are actually 'free sugars' and the proportion which are naturally-occurring sugars retained within cell walls is difficult to measure – this distinction is important because sugars retained within cell walls of fruit and vegetables are excluded from the latest UK recommendation regarding sugar consumption. Accurate scientific methods have yet to be devised to distinguish and measure accurately free sugars as a proportion of total sugars.

In order to encourage consumers to eat more vegetables, there is a need for alternative and convenient ways to introduce vegetables into our diets. The food industry is responding to this trend and 2016 will see more vegetables in products e.g. smoothies made from fruit and vegetable blends, pasta made from vegetables and vegetable crisps.

The clean-up continues

There is no sign of the clean-label trend disappearing (the trend calling for the removal of artificial ingredients from products). In fact, the evidence is that consumers want greater ingredient transparency on their labels in order to understand fully what is in their food and how the products are sourced and produced.

This is driving research and development into natural additives. Leatherhead have carried out extensive research into the performance of a range of natural emulsifiers, which is the subject of another white paper in this series.

However, changing from artificial to natural additives does have its consequences, for example the shelf life of a product may be reduced. Manufacturers are looking at alternative technologies such as high pressure processing (HPP) and pulsed electric fields (PEF) to extend shelf life. HPP is a non-thermal treatment in which products already sealed in their final package are subjected to a high level of isostatic pressure (300–600MPa/43,500-87,000psi) transmitted by water. PEF uses a high voltage electric pulse to kill certain microbes.

The time and the place for claims

A review of European consumers' views of nutrition and health claims on functional foods showed that health claims were only perceived as positive by the consumers who had a clear need for the product and who had a clear understanding of the benefits. This leaves a group of consumers for whom health claims are failing to hit the mark.

Many of the approved health claims which use terms like 'cognitive function', 'mucus membranes' and 'normal bones' can certainly read more like medical text book terminology than consumer-friendly terms you would

[7] What do we know about fruit and vegetable consumption in the UK? Trends from the National Diet and Nutrition Survey Rolling Programme (NDNS RP). Sumantra Ray et al. April 2015 The FASEB Journal vol. 29 no. 1 Supplement LB407

expect to find on everyday food and beverage products.

We know from Leatherhead research that many consumers approach nutrition claims with a degree of scepticism. Claims such as ‘low-fat’, for example, are becoming synonymous in consumers’ minds with products which are high in sugar, the assumption being that sugar has replaced the fat in the product in order to maintain the taste.

Manufacturers, therefore, need to be mindful of the fact that product claims can be confusing for consumers and may actually be communicating a different message from the one they intended.

When verified nutrition and health claims are clearly presented to consumers, there is the potential for them to have a big impact on purchasing behaviour and perceptions of product performance, but they need to be the right claims for the right audience.

Upping the activity

All ages are interested in becoming more active and the food and drink industry is responding to this trend. Manufacturers of sports’ nutrition products are expanding their target market beyond elite athletes to include a whole range of fit and active consumers. We are also seeing a wide variety of products on the market with different exercise-related claims, for example, ‘recovery after exercise’, ‘enhanced hydration’ and ‘boost of energy release’.

Personalised nutrition

The future for nutrition is taking us ever closer to understanding and responding to dietary needs at the individual level.

There has recently, for example, been a lot of research into microbes in the gut and how they impact people’s ability to digest foods and how likely they are to develop certain intestinal diseases.

Sensory research is exploring differences in taste perception. Super tasters, for example, have a higher perception of bitterness. This raises questions such as how does an individual’s perception of taste impact their food choice, consumption habits and ultimately their health and wellbeing.

As we understand more about how an individual's genetic and microbial make-up impacts their diet, manufacturers will be able to respond with more personalised products to suit individuals’ needs.

How Leatherhead can help

Need nutrition intelligence to help keep your business up-to-date with what is happening in nutrition, be it in the UK, EU or worldwide? Want to test the glucose or insulin response of your product or ingredient to understand what happens to consumers' blood sugar levels? Need to understand more about appetite control or weight loss and maintenance? Leatherhead's nutrition department can help with all these questions.

About the author

Jenny Arthur is the Director of Nutrition at Leatherhead. She is a Marketing Professional and a Nutritionist. She has worked for a range of private sector companies, including Marks & Spencer as their Company Nutritionist, and for the Department of Health running their nutrition programme. Jenny has repositioned the Leatherhead Nutrition offering to focus on Nutrition Intelligence desk based research, Glyceamic Index/Response studies and Weight Management studies.

About Leatherhead Food Research

Leatherhead Food Research provides expertise and support to the global food and drink sector with practical solutions that cover all stages of a product's life cycle from consumer insight, ingredient innovation and sensory testing to food safety consultancy and global regulatory advice. Leatherhead operates a membership programme which represents a who's who of the global food and drinks industry. Supporting all members and clients, large or small, Leatherhead provides consultancy and advice, as well as training, market news, published reports and bespoke projects. Alongside the Member support and project work, our world-renowned experts deliver cutting-edge research in areas that drive long term commercial benefit for the food and drink industry.

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