

## **Functional Bakery Products - Current Directions and Future Opportunities**

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This presentation reviewed consumer trends, general food and drink opportunities for functional ingredients, and provided examples of how the bakery is currently exploiting and increasing consumer concerns about health.

There are many different models and consultants providing information on consumer trends but all have common themes. There are undoubtedly many changes occurring in the way we shop and live. For example, there is more access to product information via the internet and we can virtually shop anytime, anywhere. A variety of new food product categories are emerging and health and wellness are becoming important buying criteria. In terms of the way we live, we are more time pressured and so increasingly looking for food that can be prepared in a shorter and shorter amounts of time. There is increasing consumer concerns about health and a growing acceptance by the consumer of the need to take responsibility for health issues. Research undertaken by Healthfocus International in the United States has considered key health concerns in a number of different countries. Recent research has shown that key current health concerns in the USA are heart disease, cancer and stress. Major concerns in Europe include cancer and heart disease. Other emerging concerns include eye health in France, arthritis in the UK and hypertension in Germany. In addition, shoppers do appear to believe in the concept of functional nutrition. Healthfocus International research has shown that one in two shoppers believe that foods contain functional ingredients and can improve health. According to their research, German and Dutch shoppers are the Western Europeans most likely to select foods for health reasons.

There is therefore considerable interest from the industry in developing food for health. Functional foods are defined as food which provide benefit to the consumer over and above simple nutritional effects.

The current focus in the global functional foods market is in heart, bone, and gut health and immune system enhancement. There had been considerable innovation in the market but many market failures. Functional foods are complex products to develop, market and communicate. Successful functional products need to fit into existing behaviours and lifestyles and satisfy food consumption drivers. A thorough new product development approach is required to consider consumer need target, selection of bioactive ingredient, consideration of processing factors, and sensory attributes. Taste is key. There are also many issues regarding whether the consumers will recognise the association between the product category and the claimed functional benefits.

The global market is estimated to be worth around \$9bn, of which heart and bone health each account for around \$3.5bn and bone \$2bn. Future growth is expected,

with the functional foods market forecast to reach \$12bn by 2005.

Heart health products currently available on the market were focused around cholesterol reduction with the inclusion of sterol and stanol esters, soluble fibre and soya protein isolate. Omega 3 fatty acids have an anti-thrombosis action and these were finding application in a wide variety of different foods. A number of bakery mixes have been launched in recent years that contain omega 3 fatty acids, particularly in Germany where Ruf Lebensmittelwerk introduced Aktifit Brot in 1999 and VK Muhlen launched Omega 3 Kruste under the Diamant brand. The bakery sector offers considerable opportunities for development of heart health products, with wider uptake of omega 3 fatty acids expected and the development of

lowering products containing soya and cholesterol lowering agents.

Gut health products including probiotics (beneficial live bacteria) and prebiotics (substrates for growth of probiotics) have enjoyed significant growth in Europe over the last few years. The prebiotic inulin has been added to breads and bread mixes in

Germany. Examples include Activ 3, and Pre Plus Vivat Brot both from Mestemacher and B1 containing bifogenic dietary fibres and beta glucans for cholesterol balance. In Australia, high fibre white breads have also been positioned on a gut health platform, for example, one of the Hyfibe bread products from George Weston contains inulin.

Bone health products have largely been based on the inclusion of calcium. In the bakery sector, a number of calcium-fortified breads have been launched including Milk Roll from Warburtons launched in the UK in 2001, containing 40% more calcium than standard bread. Future opportunities in bone health for the bakery sector

include the wider use of calcium fortification, addition of other minerals, increased application of prebiotics and the inclusion of soya isoflavones and trehalose, which are thought to increase the absorption of calcium.

In the future, the key functional food sectors will remain most important but there is increasing interest in wellbeing products with a broader range of health propositions. These include products aimed at improving mental performance and anti-ageing products designed to improve skin, joint and eye health. There is also a recognition of the need to develop gender specific foods with tailored nutritional compositions.

A variety of products are now available aimed at improving memory and concentration. Key innovators in this sector are Gerblé in France who have produced

Barre Memoire (memory bar) for many years. Interestingly in 2002, Cadbury reformulated its Boost bar to include glucose and guarana, thereby repositioning the product as a "mental boost" product.

In the anti-ageing sector, there is increasing interest in skin and beauty and although few products are currently available on the market, innovation is expected in this sector, particularly in view of the recent announcement of a joint venture between L'Oreal and Nestle. Gender and lifestage specific foods are already available in the bakery sector. Burgen bread containing phytoestrogens and linseed and designed to

reduce menopausal symptoms was the first bread to be specifically aimed at menopausal women. The product was first launched in Australia by George Weston and it is now available in the UK. Nutribread from William Jackson, containing

phytoestrogens, evening primrose oil, and calcium was launched in the UK in 1999, but has since been withdrawn. In 2002, French Meadow bakery in the US introduced

Men's bread, containing a variety of nutrients including soya isoflavones, and omega 3 and 6 fatty acids. The UK bread sector also recently saw the launch of a product aimed at children. V-force from Warburtons is a new bread for children, fortified with a range of vitamins and calcium and also launched this year.

In conclusion, there is considerable consumer interest in products aimed at improving

health and the bakery industry, particularly the bread sector has already responded to

this trend with the launch of a variety of functional bread products. There are many future opportunities for the bakery industry to develop a wider range of tailored functional food products and bakery products appear to provide an excellent matrix for the inclusion of a variety of innovative and healthy ingredients.

Q. George Weston, Buckinghamshire

There is a perception that we are probably more sceptical in this country than in some

others about what we put are the benefits of what we eat, is that your conclusion too or are we just being conservative when we think like that?

A. I think consumers in different countries do have different health concerns but I think we are quite resistant to nutrition education in this country and that there is still quite a poor awareness about basic nutrition. If you look at research that has been done on nutritional labeling just covering different types of fat, awareness in the UK is particularly poor so it's perhaps not surprising that we have difficulty getting these complex health messages across. I think a lot more needs to be done. I'm not sure about in other countries, research that we've done does show they have different health concerns. I'm not sure that they understand nutrition that much better but certainly some of these products do seem to be better accepted. Whether this is through better marketing or better understanding I'm not sure. There does seem to be

differences in how they are accepted and in UK there is still a long way to go.

Another point to make is that sometimes the UK consumer is less adventurous, although we are getting better. In Australia where some of these products are well established, I think there is an attitude "here's a tinny lets give it a try".

Q. Tony Cavan, London

Has folic acid successfully been marketed as an ingredient in this country or does it apply to too narrow an age range for ladies?

A. That's opening a can of worms – there is very good evidence that folic acid can prevent spina bifida. There's been a lot of advice over the past few years for women intending to become pregnant to take folic acid supplements. Because a lot of pregnancies are unplanned then obviously more people don't take the folic acid at the

right time so there has been a lot of debate of how that could happen and in the States,

mandatory fortification of flour has happened. There has been a debate in the UK, where it has been asked 'Should the same happen in the UK?'. This has been turned

down and it is not going to happen mainly because folic acid masks vitamin B12 deficiency and there is concern about that. So the decision has been taken at the moment that it is not being done on a mandatory basis. In terms of has it been successfully done, it can be done and some manufactures have added it but I don't think they have actively marketed it on that health platform. Products are starting to come out that are promoting the presence of folic acid.

Q. Martin Conolly

Do you have any evidence of consumer perception of functional foods versus genetically modified introduction into functional foods?

A. Yes, I think that's why the product position you develop is so important. It has to be simple, it mustn't be too medicinal and the benefits have to be explained in a simple way. The GM story will continue to run. There is going to be more Europe legislation, the detection levels are being decreased. But if you can get a positioning that moves it away from some sort of changed food to an added benefit and it tastes good. That to me still remains the key. To go back to the polyunsaturates, that probably took 20 years before the story got through. You have to be selective but the

simpler you can make it the more likely - we do consumer panels and they do pick up

the simple messages. As soon as you start putting in everything like folic acid you can see over their eyes a film appears and they think that's chemical and it shouldn't be in food.

The sessional chairman thanked them both for the enlightenment. There is clearly a lot going on both outside the baking sector in this country and elsewhere in the world inside the baking sector, and I think we ignore it or are sceptical about it at our peril.