

Superfruits could wrestle gut health beverages from dairy

By Jess Halliday

10/27/2006 - **New Zealand's HortResearch is conducting research aimed at taking fruit and fruit-derived ingredients into the next generation of gut health drinks based on their prebiotic properties.**

Probiotic products containing beneficial bacteria found in the human gut have captured the public's imagination in recent years, but the majority of probiotic drinks have been in the dairy category.

According to Euromonitor International, the retail sales value of probiotic 'little bottles' grew by 52 per cent in 2004 to be worth £28 million, with the highest growth in the core European markets.

As the marketplace becomes more crowded, manufacturers are seeking to differentiate their products from their competitors'. [HortResearch](#) believes that tapping the *prebiotic* properties of fruit – that is, their ability to make the environment of the gut more amenable to healthy bacteria – could herald the next generation of gut health products.

There are already efforts afoot to develop probiotic fruit [beverages](#), at Finland's Valio, for example. But Dr Lesley Stevenson, science group leader for health and food at HortResearch believes that fruit-derived prebiotics will “*radically enhance*” the functionality of gut health drinks.

Moreover, encouraging the growth of healthy bacteria boosts gut immunity – and immunity is another key area of research for the company.

“Scientists worldwide are beginning to recognise and accept that fruit – and specifically some specific fruit compounds – exhibit anti-inflammatory, antimicrobial and antiviral potential,” said Dr Stevenson.

HortResearch has already identified some interesting examples of this.

For instance, polyphenols have been shown to inhibit salmonella attachment to gut cell models;

Some apple extracts have been seen to inhibit the production of TNF Alpha, a marker for inflammation, in cell systems;

And investigations are underway into how fruit can positively influence the gene-based pathway between an environmental insult and gut inflammation response.

Taking fruit into new market areas with the science to support it should not engender a great leap of faith, since it already wears a 'health halo', based largely on its antioxidant profile.

Dr Stevenson said that combining existing consumer awareness with broader health benefits, scientific evidence of specific function and targeted delivery will be the catalyst for new superfruit-based functional foods.

HortResearch boasts the world's largest fruit compound database, and has developed a number of new varieties bred for their desirable properties – such as crispier, tastier apples and the convenient 'kiwiberry'.

Certain superfruits, such as blueberries, pomegranate and acai, are now used in their whole form in juices, bars and other foods – and are proving remarkably popular.

The challenge has been laid down to identify the *next* big superfruit. Karl Crawford, HortResearch food business leader, said: *"I can't you what it will be, what colour or shape or taste."*

But he said it will have five key qualities. *"Superfruit success requires novelty, validated health benefits, convenience, controlled supply, and promotion"*.

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