



# FOODS & FUNCTIONALS

RESEARCH • RESULTS • PARTNERSHIP • PROGRESS • 2/2015



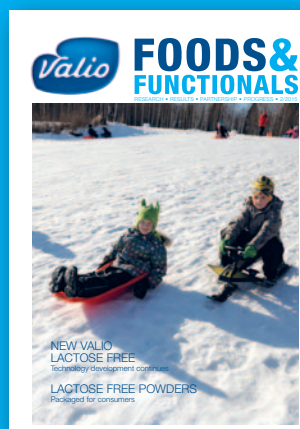
NEW VALIO  
LACTOSE FREE

Technology development continues

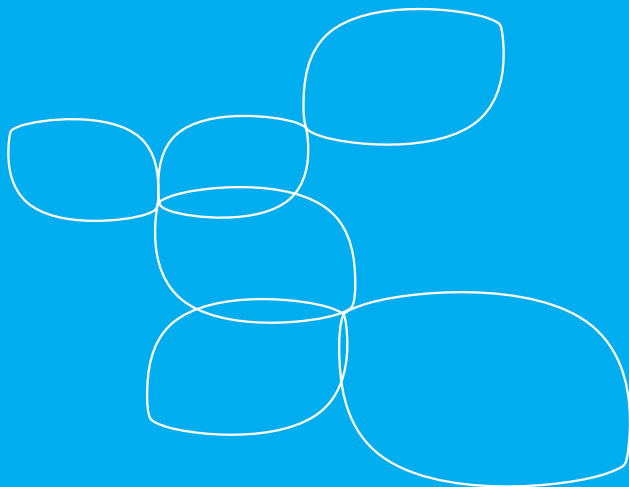
LACTOSE FREE POWDERS

Packaged for consumers

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for even more sensitive stomachs
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*Healthy fun for kids in the Finnish snow,  
helped along by nutritious Valio milks.*



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## Farewell and thanks to all!

This is my final editorial for Valio Foods&Functionals and I write it acknowledging that I've been privileged to spend almost half of my career working in the field of Technology Sales at Valio Ltd.

It could be described as the story of a shy Finnish country boy who went on to work in international business. I was fortunate that just a few months after I joined Valio in 1980 the company organized a one-month training course on Fermented Milks for the FAO with participants from more than 10 countries around the world. I remember meeting one of them again 20 years later in South America working for an LGG® customer dairy company.

Perhaps my second most formative lesson, this time specifically about cultures (both human and dairy!), came when I was a member of a team of specialists attending a two-week training course in China. It took place in part at a working dairy plant in central Beijing from which yoghurt was being distributed by bicycle. Ten years later the area was completely rebuilt and packed with skyscrapers.

When I started in technology licensing, Valio had already experienced the first and fastest wave of growth of the probiotic dairy market. With the guidance of Professor Kari Salminen, Mr Jaakko Lehtonen, Mr Juhani Ristaniemi, Dr Maija Saxelin and many others I learned more about the principles of the business and how to answer questions from our customers. Fortunately, I'd attended many of the meetings with our LGG® customers before starting to work exclusively for the Technology Sales group back in October 1998.

I want to thank all our customers. I've learned so much working with you. Perhaps most importantly that people are the same wherever you go. We may have different cultural and educational backgrounds but most of our values in life are the same.

I also want to thank readers of Valio Foods&Functionals. One of the things I've enjoyed most is being Editor of this publication and in the early days I wrote some of the articles, too. Recently it's been more about collating ideas. I hope you have enjoyed reading what we've put together for you.

And my plans for the future? Simply to continue enjoying life and time with my loved ones, and I hope you're doing the same. Don't forget you may well have a friend in Finland who remembers you warmly!

**Kalle Leporanta**



# Next generation lactose free dairy for even more sensitive stomachs

In its ongoing commitment to promoting health and wellbeing from dairy, Valio R&D has now moved to make milk proteins easier to digest.

Valio continues to pursue ways of helping people who wish to consume milk products and benefit from the nutrients they contain, but for one reason or another cannot do so without suffering unpleasant consequences.

## Seeking new challenges

Both lactose and milk proteins can be hard to digest for some, and together with milk allergy constitute the three principal factors hampering the enjoyment of milk. Valio resolved the first of these problems with its revolutionary and unique lactose free technology.

For those of us with a sensitive stomach prone to developing symptoms such as abdominal pain, flatulence, bloating and rumbling after consuming dairy, research findings suggest that incompletely digested milk proteins may be a culprit as well as lactose intolerance.

## Finding new solutions

If protein is not digested completely in the GI tract it travels to the large intestine causing excess gas, following much the same mechanism as non-tolerated lactose. The technology underlying Valio's next generation solution allows the body to digest the milk protein faster and helps alleviate gas formation and its unpleasant outcomes.

Drawing inspiration from established knowledge, the proteins in the new generation Valio Eila® lactose free milk drink come in the same form as they occur in fermented milk products such as cultured buttermilk, which have traditionally been considered beneficial to stomach function.

The milk protein is partly degraded using proteinase enzyme, without negatively affecting the organoleptic properties of the milk product.

## Research and testing

In the course of product development, given the scant research in the field, we conducted a clinical trial with consumers back in 2010, says **Olli Tossavainen**, Principal Technology Advisor.

Valio posted an invitation on its website for consumers who experience symptoms associated with a sensitive stomach to take part in the trial. The response was enthusiastic, and ultimately 90 respondents were divided into two groups. In blind testing, one group received Eila® first generation lactose free milk drink, the other the new generation which also has partially digested proteins. Both milks were identically low in fat.

## Summing up the symptoms

Each participant kept a symptom diary, describing complaints such as stomach pain, flatulence, bloating and rumbling, from which a symptom sum was calculated. The new generation group reported a positive significant change in their symptoms





The kindergarten teacher is making sure the kids get the nutrition they need, and a glass of Valio milk provides plenty.



during the test period, indicating they were not simply lactose intolerant.

As a sum of symptoms, the change before and after use of the test products was statistically significant.

### Taste test winner

In a product test conducted by Research Insight Finland\*, 69 percent of the participants reported that the new Valio Eila® milk drink tasted better than any lactose free milk drink on the market. Consumers also chose it as the best-tasting milk drink of any kind. The taste was described as fresh, real milk, and not so sweet.

Next generation Valio Eila® complements our product range as the freshest tasting lactose free milk drink, and there is a clear demand among lactose free milk drinkers for a fresher taste.

### Long-term development builds expertise

Valio's lasting pedigree as the global pioneer in low lactose and lactose free dairy products spans four decades. The company was first to develop HYLÄ® low lactose products in the 1980s and to invent the first and only technology for completely lactose free dairy in the early 2000s.

Valio was also first to develop a totally lactose free milk with the good taste of normal milk. Sales of Valio Eila® milk drinks have grown steadily since their launch in 2001. The new generation product was launched initially in Sweden, October 2013, followed

by Finland in May 2015, and is soon to be rolled out elsewhere, too. All Valio Eila® milk drinks are lactose free without compromising on taste, properties or nutrient content.

### International innovations breed success

Valio Eila® lactose free is our biggest and most successful brand on the international stage, the result of product development expertise based on research and pioneering. Valio's success going forward will continue to stem from unique innovations that genuinely benefit customers and consumers, and these kinds of benefit are scalable creating the potential to add new functionalities.

The number of people suffering from problems associated with an even more sensitive stomach is rising and milk protein intolerance is known to increase with age presenting a demographic potential.

### New technology, new opportunities

Valio's new patented technology delivers unique milk products ideal for consumers suffering from the adverse effects of milk protein as well as lactose intolerance. The technology is now available for licensing and we'll be happy to discuss the opportunities available, says Export Manager **Maritta Timonen**. ■

\*Product test on lactose free semi-skimmed milk drinks. Research Insight Finland (8/2014, n=159).

# Valio Lactose Free Milks Going Global

## Valio Lactose Free Milks Going Global

Valio is stepping up its direct penetration of lactose free milk consumer markets beyond neighbouring countries and those already served by the company's foreign subsidiaries. The new and revamped products are bound early on for sale in Central Europe and China.

## Continuously developing technologies

Valio is the true pioneer in lactose free dairy. After launching the world's first totally lactose free milk drink in Finland in 2001, the company proceeded to develop a complete range for local markets and license the technology worldwide.

Next generation Valio Eila® patented technology for lactose free dairy partly digests the proteins making products ideal for consumers with an even more sensitive stomach. Research indicates that incompletely digested milk proteins in the GI tract may cause unpleasant stomach symptoms.

## Premium milk, authentic taste

Valio offers the widest selection of naturally healthy, high-quality lactose free products made from premium Finnish milk. Our unique production process guarantees products entirely without lactose yet with all the natural taste, vitamins and minerals people expect. Valio has the expertise, experience and passion to make the very best milks for consumers everywhere, says **Pia Jormanainen**, SVP Business Development, New Markets.



*Valio Lactose Free semi-skimmed milk drink tastes exactly like fresh milk with none of the sweetness of lactose adjusted products. A refreshing cold drink, good with coffee or tea, and for cooking and baking.*



Valio Barista Milk, developed working with expert baristas, froths well and is soft with small bubble foam making it easy to handle and pour. The ideal choice for hot and cold drinks. Lactose free and fat free.

Valio Protein Milk contains 50% more protein than regular milk along with calcium and vitamin D, all contributing to the maintenance of muscle mass and healthy bones. For before and after exercise.

Valio Lactose Free whipping cream tolerates heating and is suitable for cooking, baking and desserts. It will double in volume when whipped.

### Easy to digest

Valio's growing lactose free international range includes a next generation semi-skimmed milk drink, a high protein milk drink, the brand new Barista milk for coffee aficionados, whipping cream, butter and a spread. There's more in the pipeline, all are easy to digest and made in Finland from the finest fresh raw milk. ■

### Value statement

Consumption of lactose free products may help to decrease gastrointestinal discomfort caused by lactose intake in lactose intolerant individuals. Enjoy as part of a varied and balanced diet and a healthy lifestyle.



Valio technology spreading lactose free milk drinks around the world. (See page 14 for more.)







# Valio Lactose Free powder for consumers presents a new opportunity at the right time

Valio has developed the first fully soluble entirely lactose free milk powder for consumers, delivering a new and proven world leading technology to capture a thirsty market, says **Päivi Saarentola**, Valio Marketing Manager for Consumer Milk Powders.

## **Ready-made markets ripe for massive growth**

The initial target markets are areas where liquid milk prepared at home from a soluble milk powder is the norm, namely the Far East and Asia.

These are also the parts of the world where lactose intolerance is most prevalent yet milk nutrients are an essential part of the local diet.

## **Easy to digest because milk nutrients matter**

Valio has made the new powders especially easy to digest so lactose intolerant consumers benefit quickly from the milk nutrients, high protein content and added vitamin D. These qualities also apply to people who can tolerate lactose better.

## **Value added for mixed market trends**

Valio's lactose free consumer SMP has a 47% protein content compared with 35% for standard milk powders, enabling licensees to capitalise on the established popularity of protein products.

Valio skimmed, semi-skimmed and whole milk soluble powders provide for any number of occasions and applications, serving each market with the right choice.

Along with authenticity and safety, consumers everywhere value a secure supply chain, pure natural products, good quality and great taste. In a number of territories, the Valio brand already supports early penetration.

## **Good business, instant results**

While lactose reduced powders are available in some markets, Valio is first to produce soluble lactose free powder with the taste of real milk.

For our customers, it's a textbook example of adopting innovative technology to satisfy a



*Valio lactose free instant soluble powders for consumers come in newly designed cardboard packaging with the powder sealed safely in a bag inside. Available in 400 g skimmed, semi-skimmed and whole milk varieties.*

developing need and raise competitiveness. In this case, the technology is proven, the need is already there, and sales are booming. The critical factor is buying into the best-fit product, the world's only entirely lactose free instant milk powder.

To find out more, contact **Aapo Kukkonen**, Export Manager for Consumer Products, and come and talk to us at Anuga! ■





New products with LGG®

# Around the world with LGG®

Here are just some of the new  
products with LGG® now available

## LITHUANIA, LATVIA



**Countries:** Lithuania, Latvia  
**Company:** Valio  
**Product Brand:** Valio Gefilus®  
**Product type:** Muesli yoghurt with LGG®  
**Package:** 190 g cup



## SWEDEN

**Country:** Sweden  
**Company:** Valio  
**Product Brand:** Valio Eila®  
**Product type:** Kefir, plain and with raspberries  
**Package:** 1 litre carton  
**Note:** Lactose free with LGG®



## New products with LGG®

**Country:** The Philippines  
**Company:** United Laboratories, Inc. (UNILAB)  
**Product Brand:** GI Pro-Tec 1+™  
**Product type:** LGG® powder  
**Package:** 20 x 1.5 g sachets

THE PHILIPPINES



## KOREA

**Country:** Korea  
**Company:** Medi&Care  
**Product Brand:** Junglebebe  
**Product type:** BB12/LGG®  
**Package:** 30 sachets/sticks

**Country:** Korea  
**Company:** Kyowon  
**Product Brand:** Wellseed  
**Product type:** LGG® with L. casei 431 and other strains  
**Package:** 60 capsules bottle



**Country:** Korea  
**Company:** LG Household  
**Product Brand:** Super Kids Bebe Probiotics  
**Product type:** BB12/LGG®  
**Package:** 56 sachets





New lactose free products employing Valio Eila® technology

GERMANY

**Country:** Germany  
**Company:** FrieslandCampina  
**Product Brand:** Landliebe  
**Product type:** Lactose free  
Milk Drink, 1.5% fat, pasteurised  
**Package:** 1 litre carton  
**Note:** Tastes like normal milk, and not  
sweet as in lactose hydrolysed milks



UNITED ARAB EMIRATES



**Country:** United Arab Emirates  
**Company:** Al Ain Dairy  
**Product Brand:** Al Ain Dairy  
Lactose Free Milk  
**Product type:** Lactose free Milk Drink  
**Package:** 1 l bottle  
**Note:** Tastes like normal milk, and not  
sweet as in lactose hydrolysed milks





[valio.fi/eila](http://valio.fi/eila)

# Kun maistat, huomaat eron.

Kaikkien aikojen  
raikkain laktoositon.

\*Lähde: Research insight Finland, laktoosittomien kevytmaitojuomien tuotetesti (8/2014, n=159).





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For other and more general enquiries you can now reach us also at [sales@valio.fi](mailto:sales@valio.fi)  
Read about all Valio technologies [www.valio.com/solutions](http://www.valio.com/solutions)