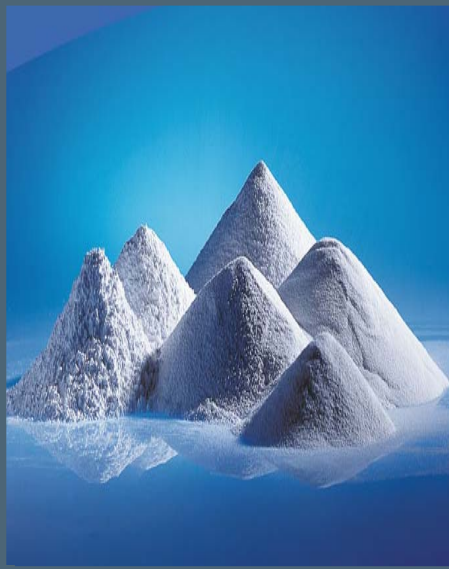


SEPTEMBER 2007



New Report

The World Market for Whey and Lactose Products 2006–2010

– From commodities to value added ingredients –



3A Business Consulting

The World Market for Whey and Lactose Products 2006–2010

– From commodities to value added ingredients

A new report on whey and lactose products named *The World Market for Whey and Lactose Products 2006–2010 – From commodities to value added ingredients*, clearly demonstrates how whey and lactose ingredients continue to show significant growth rates both in volume terms and particularly in value terms. Most processed foods are incorporating whey and lactose products into a wide range of products. However, the broader nutrition industry including dietary supplements, sports nutrition, clinical nutrition and functional foods is becoming the main driving force for market development.

The report is global in scope with a regional distinction and focuses on whey and lactose products market sizes with regards to commodity type products as well as more specialised derivatives. Specifically the report covers whey powder, DWP, WPC35, WPC80, WPH, WPI, lactose, and specialty ingredients such as whey protein fractions and lactose derivatives. The whey protein fractions covered are lactoferrin, lactoperoxidase, colostrum/IgG, α -lactalbumin and β -lactoglobulin, while the lactose derivatives include pharma-grade lactose, galactose, lactulose, lactitol, lactobionic acid, galactooligosaccharides (GOS), lactic acid and lactosucrose.

For most products covered no official statistics are available so the report is based on original research. Headlines are:

- Market size (volume and value) and expected growth
- Current applications and trends
- Applications and end user segments breakdown
- Producer profiling including product quantification
- Major world trade flows
- 2006–2010 outlook
- Global survey of product launches containing whey and lactose
- Industry characterization and strategic alliances

The market for industrially utilised whey ingredients has clearly moved towards a healthy food and health care orientation leading to an increasing focus on the more value-added whey and lactose products, such as fractions and derivatives showing significant growth rates, as high as 20% p.a. However, high-end whey protein concentrate, whey protein hydrolysates and whey protein isolates are also experiencing significant growth rates on the back of increasing demand from the nutritional segments, e.g. sports nutrition.

USA is the biggest market for WPC35 and WPC80 as well as WPI, however with EU following close by. The global WPC, WPH and WPI market is estimated at approx. 438,000 MT in 2006 representing a value of approx. US\$ 2,200 million. USA is taking the lead with production of 197,000 MT (MUS\$ 1,050) followed by Europe with 187,000 (MUS\$ 825).

3A Business Consulting projects the positive trends identified to continue for the review period 2006–2010 with WPH and the whey protein fractions showing the greatest growth potential. However, a renewed interest in permeate and lactose research and application is clearly noticeable. Especially lactulose, lactitol and galactooligosaccharides (GOS) are receiving more attention. E.g. new players are about to enter the GOS market.

The report contains highly business-oriented and detailed commentary and statistics

The report can be purchased for EUR 4,400

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Scope and objectives of the report

The main objective of the report is to provide the reader with a strategic business intelligence tool providing an elaborate overview of the current and expected future global market for whey and lactose products on the basis of a comprehensive assessment and characterisation of production, utilisation and trade issues. The report provides strategic insight and detailed information on each of the products covered with regards to volumes, values, applications and growth rates.

Selected whey and lactose products

- Whey powder
- DWP
- WPC35
- WPC80
- WPH
- WPI
- Whey protein fractions (lactoferrin, lactoperoxidase, colostrum/IgG, α -lactalbumin and β -lactoglobulin)
- Lactose
- Permeate powder
- Lactose derivatives (pharma-grade lactose, galactose, lactulose, lactitol, lactobionic acid, GOS, lactic acid and lactosucrose)

Points of analysis

- Market size (volume and value) and expected growth
- Current applications and trends
- Applications and end user segments breakdown
- Producer profiling including product quantification
- Major world trade flows
- 2006–2010 outlook
- Global survey of product launches containing whey and lactose
- Industry characterization and strategic alliances

Country coverage

- Global coverage
- Ongoing distinction between Europe, USA, and ROW
- Individual country comments

Time frame

- Present: 2006 figures
- Future: Short term growth rates and 2010 estimates

Language

- English

Price

- EUR 4,400

Timing

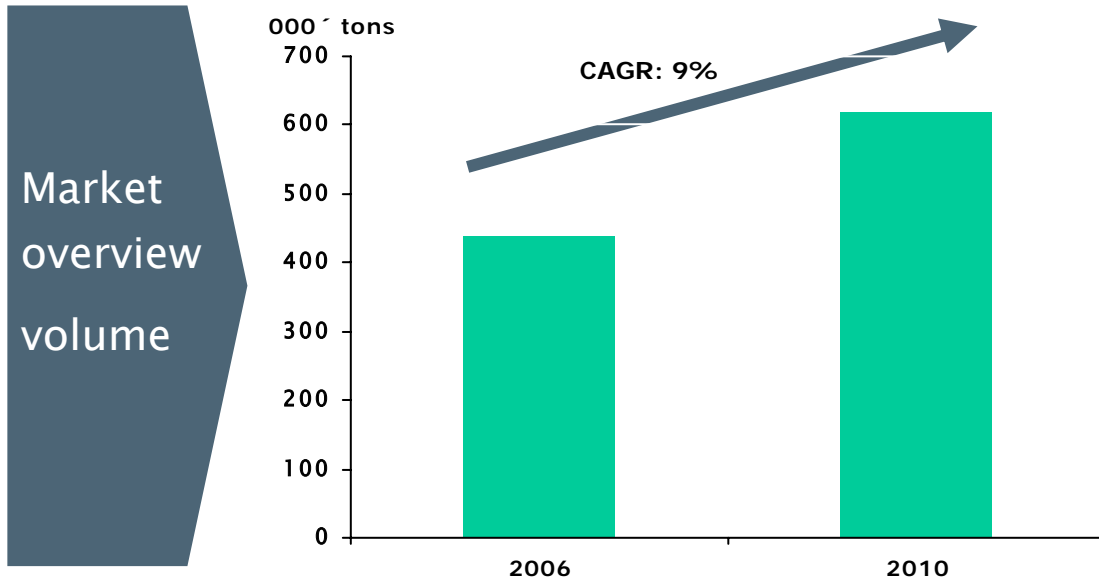
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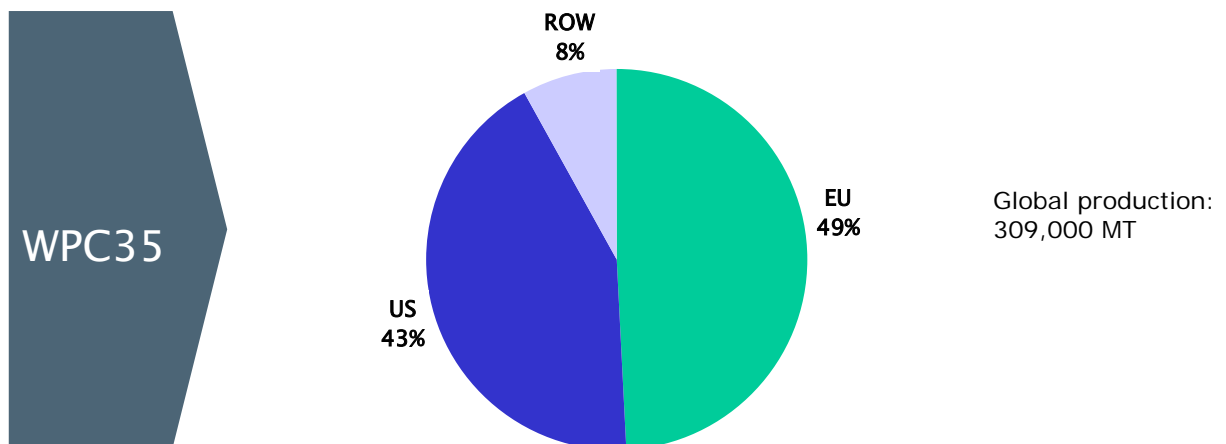
Estimated 2010 WPC, WPI and WPH production



Source: 3A Business Consulting

The following overview presents the figures that are believed to comprise the “best estimate” of the global WPC35 market. It can be seen that the EU is the biggest market for WPC35 closely followed by the US. However, the US is market leader in WPC80 as well as WPI, followed by the EU. Oceania is the only area besides the US and the EU that plays a significant role in production of WPC80 and WPI.

Overview of global WPC35 production 2006



Source: 3A Business Consulting estimate

The EU dominates the WPC35 production with 49% of the current production volume of approx. 152,000 MT. The US is the other major producer, WPC35 not being produced in Oceania. The rest of the world (ROW) includes production in Canada, Argentina, and other South American countries.

Sample from the report (2)

Pharma-grade lactose

Pharma-grade lactose is produced to meet different criterias such as specific form and size distribution - monohydrate, crystalline, 40 mesh to 325 mesh and a spray-dried mixture of crystalline and amorphous lactose for all applications. Pharma-grade lactose is mainly for use in tablets, injectables, capsules, sachets, pellets and dry powder inhalers. Currently, dry powder inhalers are estimated to approx. 500 MT p.a., however new inhaled drug delivery therapies are expected to increase significantly.

Pharma-grade lactose

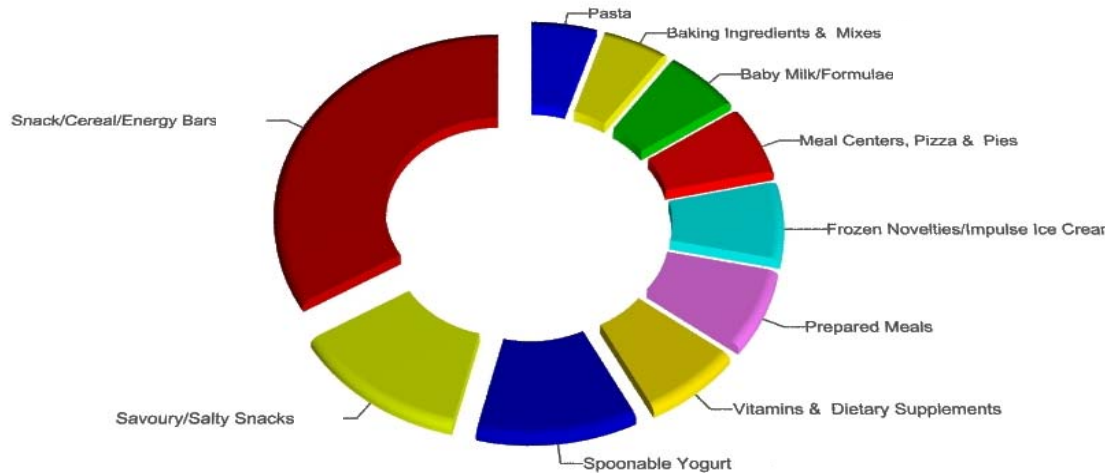
Parameter	Characteristics
Market situation	The market for pharma-grade lactose is dominated by seven suppliers which constitutes X % of the pharma-grade lactose industry. The present global market is estimated at approx. X MT. Prices for pharma-grade lactose are generally X times higher than edible grade lactose prices. The market size is estimated to approx. USD X million
Competition	Campina/Fonterra (NL/NZ), Meggle (DE), Friesland-Domo (NL), Foremost (US), Kerry Quest (IR)
Main competing products	Starch based cellulose and microcrystalline cellulose (MCC)
Market positioning/segments	Pharma-grade lactose is readily obtained in a chemically pure form, which is cost-effective with other excipients. Non-reactive with most drug substances. Main potential segments include pharmaceutical applications mainly used as a filler and binder in solid dose pharmaceuticals, tablet dosages, powder sachets, tablets, injectables, capsules, pellets and dry powder inhalers
Competitive differentiation	Health regulations and health related risks for applying edible grade lactose in medicines force the pharmaceutical industry to rely on pharma-grade lactose, which has to go through a rigid testing and certification process
Overall evaluation/market potential/future prospects	Future potential seems rather promising with short term growth rates of X % per annum

Source: 3A Business Consulting

Sample from the report (3)

The figure below outlines new products launched with WPC. In 2001–03, the total number of new products amounted to 740 spread over several categories, with snack/cereal/energy bars being the major group followed by savoury/salty snacks and spoon-able yoghurt, respectively. These three categories constitute more than 58% of all new products launched in the period.

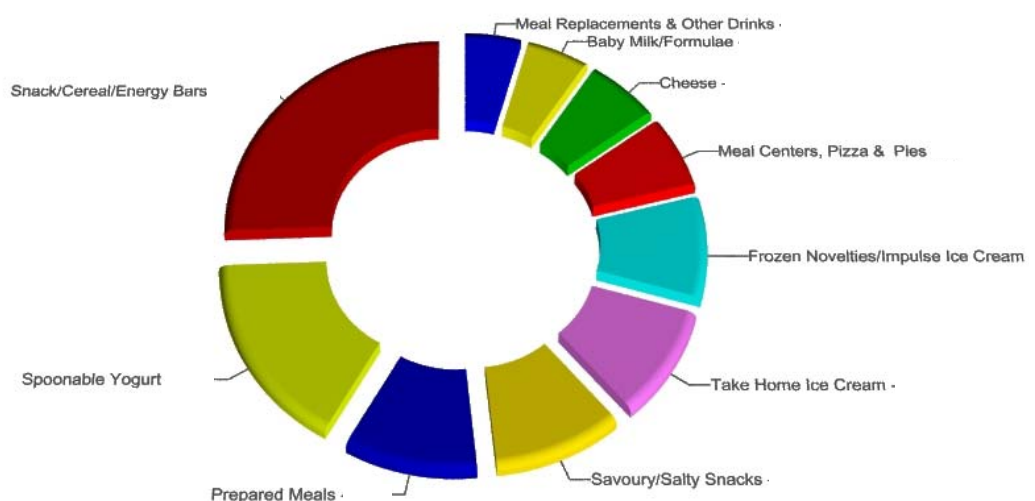
WPC – Number of New Products by Sub-Category – 2001–03



Total number of new products: 740

As can be seen, there has been a significant increase in consumer product launches containing WPC from 2001–03 to 2004–06 corresponding to approx. 60%. Therefore, many categories have become larger. However, spoon-able yoghurt, take home ice cream and prepared meals have seen the most significant rise in product launches in the period, compared to 2001–03.

WPC – Number of New Products by Sub-Category – 2004–06



Total number of new products: 1,179



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