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Dairy industry in New Zealand

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Overview

With annual exports in excess of \$NZ6.3 billion, the dairy industry is New Zealand's biggest export earner – an established global industry with an exciting future.

Key strengths of New Zealand's world-class dairy industry are its efficient all-grass farming system, large-scale processing, high research and development investment and creative marketing.

Known around the world for products with a full-flavoured, distinctive natural taste, the New Zealand dairy industry is focused on providing consumers with goodness, well-being and premium quality. It also upholds a reputation for clean, safe products complying with rigorous health and safety standards.

The industry has been successful at diversifying both its products, and the number of markets it exports to. Products range from high quality basics such as milk powders, butter and cheese, through to specialty foods such as ice cream, and to highly specialised ingredients like spray-dried milk proteins, protein hydrolysates and freeze-dried biologically active proteins.

Development of new functional foods – like low-fat, high calcium and protein milk – and biomedical and biohealth products are also growing trends in the industry.

Despite most of the western world markets being subject to quota restrictions or effectively closed to New Zealand dairy products, the country still accounts for 35 percent of the world trade in dairy products.

Approximately 95 percent of New Zealand's milk production is handled by Fonterra Cooperative Group Ltd, a company formed when the industry was deregulated in 2001 by the merger of the two biggest dairy



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companies and the abolition of the New Zealand Dairy Board (a statutory body).

Westland Co-operative Dairy Company and Tatua Cooperative Dairy Company Ltd elected not to join Fonterra and both export to a variety of markets. There are a growing number of other independent dairy companies and co-operatives entering the market.

Since 2001, Fonterra has had exclusive rights to export to regulated markets in a range of countries with tariff quotas, but other dairy companies will soon be able to compete for a share of the quota trade to the European Union, Japan, Canada and the United States.

New Zealand is also home to a range of smaller, stand-alone exporters, including boutique gourmet and organic cheese makers and producers of goat's milk infant formula. Over 200 different types of specialty cheeses are now exported and in high demand by leading hotels and airlines around the world.

Fast facts

- New Zealand accounts for approximately 33 percent of the world trade in dairy products.
- New Zealand accounts for about 2 percent of world dairy production, but exports more than 95 percent of all its products (this is in stark contrast with the global trend where approximately 95 percent of total milk production is consumed within the country of origin).
- Fonterra is New Zealand's largest company, representing more than 20 percent of total New Zealand merchandise exports and 7 percent of the country's Gross Domestic Product.
- In recent years, speciality cheese products manufactured in New Zealand for the premium end of the market have increased substantially. There are now over 30 boutique cheese makers in New Zealand.
- New Zealand ranks as the world's fifth largest cheese exporter, with export sales worth almost \$1.4 billion in 2006.
- Development of functional foods is a growing trend in New Zealand's dairy industry, and includes products such as low-fat, high calcium and protein milk, and biomedical and biohealth products, such as colostrum-based health supplements.
- Organic dairy production is growing fast. Fonterra has 70 suppliers of organic milk, and expects to contract another 130 by 2013.
- New Zealand Organic Dairy Farmers Co-operative has recently started operations in the fast growing organic dairy sector. It has 10 organic suppliers in its first season and expects to grow this to at least 70, both from its own 40-plus shareholder base as well as new organic suppliers.
- Tatua has cornered 40 percent of the world market for lactoferrin, an iron binding protein.



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- New Zealand has 11,883 dairy herds (2005/06) and 3.8 million dairy cows (2004/05).

Statistics

Export value

New Zealand exports over \$NZ6.6 billion worth of dairy products each year. New Zealand represents over 33 percent of the world trade in dairy products, despite only accounting for 2 percent of the world's dairy production.

Major export markets include Philippines, the United States, Venezuela, Malaysia, Saudi Arabia, China and Mexico. Southeast Asia and China are among Fonterra's fastest growing markets.

A recent study by Massey University for New Zealand Trade and Enterprise found that 44 percent of the country's dairy exports are currently added-value products, a figure that has progressively grown since 2000. However, it is estimated that the sector's value-added export total may be even higher, due to the sector's trend to process and package value-added products in New Zealand-owned offshore operations.

Product	NZ\$ YE June 2005	NZ\$ YE June 2006
Milk and cream, concentrated	2,481,904	2,949,558
Butter	858,157	1,032,979
Cheese	1,052,289	1,147,092
Casein	651,099	658,607
Other dairy	696,250	818,296
Total	5,739,699	6,606,532

(Source: Statistics New Zealand)

Industry structure

The dairy industry is one of New Zealand's largest and best examples of a vertically integrated, co-ordinated global supplier industry.

In the past 20 years, there has been a huge reduction in the number of relatively independent dairy cooperatives – from 36 in 1983 to three key cooperatives today. The dominant players are now Fonterra, Tatua and Westland. Other new players are entering the market, for example, Open Country Cheese based in eastern Waikato, which sources milk from local farms to produce premium quality cheese and whey powder exported around the world. In Canterbury, Synlait is expanding its farming operations to produce 100 million litres of milk a year, which will be processed into export milk powder products and high-value functional ingredients.

Fonterra was formed in 2001, following industry reforms and legislative change, to unite the industry and to provide the critical mass and



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efficiencies needed for New Zealand to successfully compete in a global industry.

Fonterra has been an outstanding success, growing to become one of the top six dairy companies in the world by turnover and responsible for more than a third of international dairy trade.

Outside of the milk processing companies, there are hundreds of specialist dairy product companies exporting niche products.

Employment in the New Zealand dairy processing industry has increased from around 7,300 in 1994 to 10,320 in 2006. Over the same period milk volumes have increased by around 1.4 percent each year, indicating steady productivity gains.

Regional strengths

The North Island is home to 81 percent of New Zealand's dairy farms, with one third of the country's total located in the Waikato/South Auckland region.

Taranaki is the second most populated region at 16 percent. South Island dairy farms account for 19 percent of the national total.

Other specific regional activity includes a cluster of dairy sheep farmers in Otago and Southland, which is focusing on three key areas: producing sheep milk for cheese plants such as Whitestone Cheese (added-value sheep milk cheese), feta cheese production and biotech applications. A dairy education and innovation centre in the Manawatu also offers specific graduate training for the dairy industry by Massey University in conjunction with Fonterra.

Innovation and invention

- The Anmum range of milk powders has extra nutrients, specifically designed for pregnant and breastfeeding women. They are marketed by Fonterra Brands, Fonterra's fast-moving global consumer products business.
- The team behind Fonterra's Anlene bone nutrition product has formed a partnership with leading healthcare company GE Healthcare to tackle bone health issues using Anlene products and GE's bone mineral density technology.
- Fonterra scientists have achieved a world-first by breeding cows that produce low-fat milk that is also high in omega3 oils and polyunsaturated fat. The cows were bred from a single female discovered by researchers to have a particular genetic mutation during a routine milk screening programme.
- The Memphis Meltdown, made by Tip Top, has been accepted by the United States Patent Office. This decadent ice cream on a stick has an ice cream centre, a layer of chocolate completely



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surrounded with gooey caramel or chocolate and then another layer of thick chocolate. The effect is a first for the industry and is created using a ground-breaking liquid nitrogen process.

- Fonterra's mozzarella took top honours in its class at the prestigious Nantwich International Cheese Show (2004). The winning cheese beat mozzarella from Belgium and Northern Italy to claim first place in the block mozzarella category.
- Dairy Goat Co-operative (New Zealand) Ltd is the world's leading manufacturer of goat milk nutritional powder products. It developed the world's first commercialised infant formula from goat milk and the world's first long-life goat milk, and continues to develop and make a range of premium specialty formulations based on goat milk. The company says the compositional features of goat milk give rise to a number of benefits when compared with cow milk or other milks, including enhanced digestibility.
- A break-through project by Fonterra with researchers at Massey University's Riddet Centre aims to pioneer a novel food delivery system called POSIFoods or 'point-of-sale individualised foods' to provide fast, nutritious snacks tailored to individuals' taste and dietary requirements.
- A long-term collaboration between Fonterra's ingredients business and Industrial Research Ltd has led to the world's first processing plant to produce complex lipids from milk. In a purified form, these lipids can be worth thousands of dollars a kilogram. They have a variety of applications in nutritional and cosmetic applications.
- Functional Nutraceuticals Ltd is enhancing the properties of colostrum with scientifically validated ingredients such as green tea to provide new products with 'soft' health claims.

Specialty cheeses

New Zealand has developed a thriving cheese industry and is now the fifth largest cheese exporter in the world. There is an increasing emphasis on adding value to cheese through creativity and innovation, with a growing range of low-fat varieties and products such as sliced and grated cheese in easy to open packaging.

As well as mainstream varieties such as edam, cheddar, camembert, brie, blue and gouda, a growing number of boutique cheese makers are producing specialty cheeses and niche products from sheep and goat's milk.

An industry group, The New Zealand Specialist Cheesemakers Association, runs annual cheese awards which showcase technical excellence in the manufacture of New Zealand cheese. The awards attract entries from big players such as Fonterra, (which in 2007 won the Champion Export cheese award for its Hautapu Cheddar), through to cottage industry producers such as Crescent Dairy Goats (which took the Champion of Champions cheese award in 2007 for its Old Gold hand-crafted goats cheese).



Other specialty cheese producers experiencing growing demand for their product overseas include Whitestone Cheese, Kapiti Cheeses, Puhoi Valley Cheese and the recently established Te Mata Cheese company.

Organic production

Organic production is a fast growing sector of the dairy industry. It is expected to be worth more than NZ\$130 million within five years. In 2000, Fonterra had just seven farms supplying organic milk. By 2007 that number had grown to more than 70 and Fonterra expects to have 200 certified organic suppliers by 2013.

Fonterra provides financial incentives, on-farm support and regular farm visits to encourage farmers to convert to organics, and help it meet rapidly growing international demand for organic dairy products.

Taranaki, Waikato and the Bay of Plenty have regional clusters of organic milk producers.

There are around 200 suppliers of organic farming inputs, such as seaweed drenches and organic fertilisers and animal health products, supporting the sector.

Fonterra produces more than 25 organic dairy ingredients, including a range of cheese, butter, fluids, proteins, blends and milk powders. Numerous smaller companies produce organic cheeses, milk powders and niche dairy products.

International quotes

"...three New Zealand cheeses, including Waimata Farmhouse Blue, a tangy, buttery delicacy that could readily stand comparison with Roquefort or Maytag; and luscious fig and Arataki honey ice cream."

R.W. Apple Jr. writing about a New Zealand food experience in the dining pages of *The New York Times* (January 2004)

"For the past four years I've been championing the wonderful quality of blue cheeses in New Zealand and I comment on it everywhere I go."

John Greeley, United States cheese connoisseur and judge of the Cuisine New Zealand Champion Cheese Awards

"We have pioneered many products but our greatest success has been with colostrum. This product is nature's answer to mankind's greatest health concern – our weakened immune function."



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Graeme Clegg, Managing Director, The New Image Group

Contacts

Industry Groups

Dairy Companies Association of New Zealand

www.dcanz.com

Dairy Companies Association of New Zealand (DANZ) represents the public policy interests of both dairy manufacturers and exporters.

DairyNZ

www.dairynz.co.nz

Created in 2007 through a merger of Dexcel and Dairy Insight, DairyNZ represents New Zealand's dairy farmers.

Federated Farmers of New Zealand

www.fedfarm.org.nz

New Zealand's leading rural sector organisation.

Organic Dairy Producers Group

Email: ridings@wave.co.nz

Promotes organic dairy farming and provides a voice for organic dairy farmers.

Organics Aotearoa New Zealand

www.oanz.org.nz

The umbrella organisation for the New Zealand organics sector.

The New Zealand Ice Cream Manufacturers Association

www.nzicecream.org.nz

Represents New Zealand's manufacturing ice cream industry.

New Zealand Industry Training Organisation

www.nzito.co.nz

Specialist training for the meat and dairy sectors.

The New Zealand Specialist Cheesemakers Association

www.nzsca.org.nz

An industry body for specialist cheesemakers in New Zealand.

Companies

AgResearch

www.agresearch.co.nz/commercial/commercial-development.asp



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AgResearch has commercial science divisions with activities that include developing a range of natural bioactive ingredients for use in nutraceuticals, and functional foods.

Dairy Goat Co-operative (New Zealand) Ltd

www.dgc.co.nz

A farmer owned co-operative which manufactures and exports goat milk nutritional products. DGC's range of consumer branded nutritional powders capitalise on the unique benefits of goat milk, while meeting the nutritional requirements of different age groups.

Fonterra

www.fonterra.com

New Zealand's biggest company and one of the top six dairy companies in the world, Fonterra is the world's leading exporter of dairy products, responsible for more than a third of international dairy trade.

Functional Nutraceuticals Ltd

www.purenzcolostrum.co.nz

A small entrepreneurial Waikato company, Functional Nutraceuticals has successfully developed export markets for high value dietary supplements based on colostrum and is now moving into food ingredients and skincare.

Industrial Research Ltd

www.irl.cri.nz

A leading industrial scientific research company focused on developing world-class technology solutions, and adding real value to the wider industry. Industrial Research Ltd (IRL) works with a wide range of food companies, including many from the dairy industry.

New Zealand Organic Dairy Farmers Co-operative Ltd

Email patrick.geals@xtra.co.nz (CEO) or alanbird@xtra.co.nz (CFO)

An independent producer of high quality organic milk.

Open Country Cheese Ltd

www.opencountry.co.nz

An independent producer of premium cheeses located in the Eastern Waikato.

Synlait

www.synlait.co.nz

A Canterbury milk production company which is expanding its farming operations to become independent from Fonterra. Synlait aims to process 100 million litres of milk a year.

Tatua

www.tatua.com

Tatua is an independent cooperative located in the Waikato region that processes 100 million litres of milk a year and manufactures a wide range



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of consumer, food service and ingredient products. More than 90 percent of its products are exported to markets around the world.

The New Image Group

www.newimageasia.com

One of the world's largest retailers of colostrum and a pioneer of health products and direct selling in the Asia Pacific region.

Tip Top Ice Cream

www.tiptop.co.nz

With an annual turnover of approximately \$150 million and around 400 staff, Tip Top is New Zealand's leading manufacturer of ice cream and dairy desserts, producing 50 million litres of ice cream per year. Tip Top is a division of Fonterra.

ViaLactia Biosciences

www.vialactia.com

Fonterra's biotechnology company.

Westland Milk Products

www.westland.co.nz

Westland is an independent cooperative dairy company on the west coast of the South Island. It produces a diverse range of ingredients for nutritional and food and beverage application at its own, state-of-the-art production facilities.

Government agencies

Ministry of Agriculture and Forestry

www.maf.govt.nz

Ministry of Agriculture and Forestry (MAF) runs an annual farm monitoring report into dairy production.

New Zealand Food Safety Authority

www.nzfsa.govt.nz

Provides assurance to consumers that New Zealand dairy products are safe and true to label.