New Zealand's agriculture industry

New Zealand is one of the world’s most efficient agricultural economies, with a reputation for producing internationally significant research, agriculture practices and products.

The New Zealand dairy industry began in 1814, when two cows and a bull were imported. In 1871 the first cooperative dairy company was formed to make cheese. Historically, New Zealand’s agriculture developed to fulfil the demands of the United Kingdom, with the first refrigerated shipment of butter to Britain in 1882. Over time the industry has adapted to meet the needs of diverse markets around the globe.

Early innovations included the introduction of cream separators in 1884 and mechanical milking machines in the 1890s. The ethos of continuous improvement still pervades the industry, from on-farm production, through processing and product development, to the marketing of New Zealand dairy products.

New Zealand has a temperate climate and fertile soil, making the country ideal for agricultural production. Together with its support and processing components, the agriculture industry regularly contributes almost a quarter of New Zealand’s Gross Domestic Product (GDP).

High-quality farming exports of dairy products, beef, lamb and wool, have seen New Zealand secure a reputation as a world leader in agriculture.

New Zealand is widely regarded as leading the international farming community in animal welfare, traceability and food safety, and agricultural sustainability.

New Zealand’s major agricultural exports include dairy products, meat and wool with the dairy sector exporting over 4 million kilograms of butter a year (2009) and over 2 million kilograms of cheese a year (2009). With annual exports of more than $NZ 11 billion, the dairy industry is New Zealand’s biggest export earner.

Agriculture is one of New Zealand’s largest industries, employing more than 114,000 people in full-time equivalent positions.
The agricultural technology industry

High-quality farming exports of dairy products, beef, lamb and wool, have seen New Zealand secure a reputation as a world leader in agriculture.

These premium exports are a product of the practices and technology designed and employed by New Zealand’s agricultural industries.

Agricultural technology (agritech) developed in New Zealand has emerged as a key differentiator for the international farming industry. It is helping to deliver higher yields and greater consistency in farming outcomes around the globe.

New Zealand’s agritech sector has created advances in soil testing, pasture species development, DNA testing, breeding and farm management technology.

New Zealand company LIC is one of the first companies in the world to offer genomic selection technology for use in identifying elite sires as yearlings. This head start in identifying animals with the desired genetic traits for breeding is predicted to deliver billion-dollar gains over the next several generations.

New Zealand is also widely regarded as leading the international farming community in animal welfare, traceability and food safety, and agricultural sustainability. As a result of environmental and sustainability concerns there is an increasing interest in New Zealand’s reputation and expertise in pastoral based farming.

Fast facts

- New Zealand agritech is a $NZ 3 billion industry, generating export sales in excess of $NZ 700 million annually.
- Total global demand for agricultural machinery and equipment is projected to reach $US 111 billion by 2012 (The Freedonia Group).

International innovations

- Ancare has achieved world firsts in animal health products, including dual active pour-on treatments for resistant parasites in cattle. In 2007 the global animal health brand Merial bought Ancare’s operating business. The company continues as Ancare Scientific with greater access to international markets through the Merial network.
Deosan is an innovator and manufacturer of dairy shed hygiene and animal health products. Deosan’s organic acid detergent SUPERNOVA reduces dairy shed energy consumption through its cold water wash programme option, and has low toxicity and high biodegradability. Deosan’s chlorhexidine teat spray TEAT-EX provides effective mastitis management through lowering BSCC and improving teat condition. TEAT-EX is the teat care choice of dairy farmers committed to sustainable dairying and animal welfare.

EcoCover has developed the world’s first 100 percent biodegradable, organically certified mulch mat. The mat, which is mostly made from recycled office waste paper, aids land management by conserving water, controlling weeds, promoting plant growth, reducing soil erosion, and eliminating or reducing herbicide use. EcoCover also manufactures and sells the machines that produce the mat.

On-farm testing provides crucial data for effective animal management decisions. Gallagher Group’s SmartTSi system marks a significant advance in EID (animal identification) and weighing technology. SmartTSi combines three separate technologies – a weigh scale, computer and animal management software – to create a single, robust, intelligent, on-farm management tool. Gallagher holds major market share with its electric fences and is the top-selling brand in Europe.

Grasslanz Technology invests in the development of novel plant technologies that are then licensed to marketing and sales companies, and has alliances with seed companies in Australia, the United States and Europe. A subsidiary of AgResearch, Grasslanz has had a profound impact on agricultural industries through the development of proprietary forage cultivars, grass endophytes and plant biotechnology. It holds the number one market position in proprietary white clover cultivars and grass endophytes. Grasslanz also developed MaxQ endophyte as a solution for the US$1 billion loss of United States beef production owing to fescue toxicosis.

Livestock Improvement Corporation (LIC) is one of the largest integrated herd improvement organisations in the world. LIC has been providing services to farmers since 1909, and is a dairy farmer owned co-operative. Their national database sets the standard in dairy herd improvement, offering unparalleled traceability, world class genetic improvement systems and laboratory automation solutions.

Milfos specialises in dairy milking and farm management solutions. It offers a range of products, including PortaSCC EMilk – a diagnostic test for mastitis. The test allows for immediate, on-site testing of milk, enabling farmers to proactively manage at-risk animals and reduce the costs associated with the disease. Milfos also offers stalling,
dairy automation and cooling solutions among its suite of products, many of which have a flexible upgrade path.

- In a world first, New Zealand scientists mapped the genetic sequence of a microbe which produces methane from the rumen of cattle and sheep. Scientists from the Pastoral Greenhouse Gas Research Consortium (PGGRC) are now looking at ways of reducing the amount of methane farm animals produce. This project is part of a $19 million investment the consortium has made into research and development to find a solution to reduce methane and nitrous oxide emissions.

- PGG Wrightson Seeds hold market leadership positions in temperate regions for forage ryegrass, tall fescue, white clover, forage brassicas and herbs. Established research and development partnerships exist with the Molecular Plant Breeding Cooperative Research Centre in Australia, Grasslands Innovations in New Zealand, Forage Innovations in New Zealand, and companies in Uruguay, Argentina, Chile, the United States, France and the Netherlands.

- Simcro are leaders in the design and manufacture of agricultural and animal health delivery systems. They received a 2010 Australian International Design Award in recognition of design excellence for their Optiline TM Drencher. This product was developed for the new sheep drench ZOLVIX® (monepantel) from Novartis Animal Health.

- Tru-Test is the world's largest supplier of ICAR (International Committee for Animal Recording) approved milk meters, and livestock scales, supplying products to over 70 countries. As part of its commitment to greater on-farm efficiencies, Tru-Test has developed the animal management software Pinnacle. This software integrates data capture from farm management systems such as scales, weighing equipment and electronic milk meters and supports advanced on-farm animal management practice.

- Waikato Milking Systems incorporates Stainless Innovations Limited and Rotary Platforms New Zealand Limited, and develops designs, manufactures and markets a comprehensive array of milking systems and components. Three new products, developed to enhance milking regimes and identify mastitis at an earlier stage, are: SmartD-tect, SmartSpray, and SmartPlus. SmartD-tect is an early warning mastitis detection system that finds mastitic cows before they cost you valuable production. SmartSpray is an automatic teat spray system for rotary platforms activated by electronic cup removers, and SpartPuls is a 2+2 digital electronic pulsator, designed to enhance the milking performance of the dairy.
Industry contacts

New Zealand Agritech Incorporated is a society of New Zealand agricultural technology firms, producing a wide range of products and services, providing information, organising trade shows and acting as an advocate for the industry. www.agritech.org.nz

AgResearch is a Crown Research Institute that examines ways of improving the safety, quality and range of products of pastoral agriculture. www.agresearch.co.nz