



# Agricultural technology industry in New Zealand

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## Overview

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 developed in New Zealand has emerged as a key differentiator for the international farming industry. Advances in soil testing, pasture species development, DNA testing, breeding and farm management technology are delivering higher yields and greater consistency in farming outcomes.

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's agritech sector is a NZ\$3 billion industry, generating export sales in excess of NZ\$700 million annually.
- There are more than one billion domestic farm animals in the world.
- Total global demand for agricultural machinery and equipment is projected to reach US\$89 billion by 2010.
- In New Zealand pastoral farming extends over 13.5 million hectares (grazing, arable, fodder and fallow land), which is more than 80



- percent of the occupied land area and nearly half of the total land area.
- New Zealand is one of the top five dairy exporters in the world which supply around 90 percent of dairy products traded on the international market.
  - According to the China Dairy Herd Improvement Plan for Year 2008 – 2020 issued by the Ministry of Agriculture, the number of dairy cows using herd testing in China will increase by 80,000 annually through to a million cows in 2020.

## **International innovations**

### **PGGRC**

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 NZ\$19 million investment the consortium has made into research and development to find a solution to reduce methane and nitrous oxide emissions.

### **Gallagher Group**

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.

### **Tru-Test**

Tru-Test is the world's largest supplier of ICAR (International Committee for Animal Recording) approved milk meters, and livestock scales. As part of its commitment to greater on-farm efficiencies, Tru-Test has developed the animal management software Pinnacle. The 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.

### **Milfos**

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.

### **Racewell**

Racewell specialises in the physical sorting of livestock through electronic



identification or weight data. Systems range from manual products such as the V3 sheep weigh and draft, through to full automated systems with wireless connectivity such as the sheep “superhandler” and cattle “autodraft”. Racewell’s focus is on open system technology which means that their control boxes can communicate with a wide range of weighing and recording brands. The company has been recognised with a number of major industry awards including Waikato Innovator of the Year (2007) and the PriceWaterhouseCooper Clever Companies Award (2005).

## **International collaborations**

### **Grasslanz**

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 US 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\$1.0 billion loss of US beef production owing to fescue toxicosis.

### **PGG Wrightson**

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.

### **Ancare**

Ancare has achieved world firsts in animal health products, including dual active pour-on treatments for resistant parasites in cattle. In 2007 the global brand 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.

## **Sustainability achievements**

### **MAF Sustainable Farming Fund**

The Ministry of Agriculture and Forestry (MAF) provides up to NZ\$9.5 million in grants for projects that contribute to the ongoing economic, environmental and social wellbeing of the country’s primary producers through the Sustainable Farming Fund – more than 500 projects have been funded to date including minimising off-target impacts of kiwifruit orchard sprays and characterising soil nutrient accumulation and loss from dairy farm pastures.

This information was prepared by New Zealand Trade and Enterprise. Visit [newzealand.com/business](http://newzealand.com/business) for more information about New Zealand and its export industries.



### [EcoCover](#)

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.

### [Deosan](#)

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.

## **Industry contacts**

### [New Zealand Agritech](#)

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.

### [AgResearch](#)

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

### [PGGRC](#)

The Pastoral Greenhouse Gas Research Consortium (PGGRC) is a commitment by the pastoral sector to address New Zealand's GHG emissions in keeping with its commitments under the Kyoto treaty on climate change, to reduce emissions to the level they were in 1990.

### [National Animal Identification and Tracing project](#)

The National Animal Identification and Tracing project (NAIT) is driving the development of a universal livestock identification system in New Zealand, supported by a core registry of data linking people, property and animals.