

DAIRY TECHNOLOGY AND SERVICES



Australian Government
Australian Trade Commission



INDUSTRY OVERVIEW

The dairy sector is Australia's third largest rural industry. The total supply chain (farm production, manufacturing and export) generates \$A13 billion each year.¹

Australian dairy exports were valued at A\$2.76 billion in 2012-13. The main export destinations were China, Japan, Singapore, Malaysia, Indonesia and the Middle East.²

Australian dairy products are trusted by consumers around the world who are looking for premium quality, safety and nutrition. This global reputation for quality is backed by stringent biosecurity and food safety systems and a transparent supply chain.

KEY CAPABILITIES

Australia's dairy sector is known for much more than fresh and processed milk products. Australian firms and research centres also work with dairy producers around the world, providing the technology, equipment, services, skills and systems to improve production in a range of climates and settings.

Australia has expertise in both temperate and tropical dairy production, with a particular focus on pasture-fed operations and open, versus shed-based or intensive, herd management. Although Australian dairy herds are predominantly pasture-fed, the industry operates with high efficiency and achieves good response to grain and conserved fodder supplements, meaning that capabilities can be readily adapted to different practices in other settings.

The Australian dairy industry is also recognised globally for its expertise in livestock genetic research, breed development and reproductive physiology as well as food product traceability and electronic farm management techniques.³

Australian dairy farming services support all requirements of the farming community, particularly dairy productivity, genetics and herd quality, animal health and nutrition, pasture improvement, soil management, waste management and other specialised farming needs.

Australian dairy farmers have a strong track record of productivity gains through innovation and continuous improvements in efficiency and animal health management, optimising milk production and quality against cost of fodder.

For example, average milk output per dairy cow in Australia more than doubled between 1968-69 and 2012-2013, from 2,430 litres per head to 5,389 litres per head.⁴

Herds in the temperate southern regions consistently achieve averages over 7000 litres per head.⁵



LIVE DAIRY BREEDER CATTLE

Australia exports live dairy cattle (mainly pregnant heifers) to numerous countries around the world, including China, the Middle East, South-East Asia and Mexico. Australia is recognised as being free of many serious cattle diseases such as foot-and-mouth disease and bovine spongiform encephalopathy.

Australia's diverse climatic conditions ensure that livestock can be bred and reared to be well suited to either tropical or temperate climates. The Australian livestock industry is underpinned by a solid commitment to food safety, product quality, animal health and welfare and enforces stringent livestock export standards, ensuring animals arrive at overseas destinations in premium condition.

Australia has a number of live dairy cattle exporters and related organisations who can help with all aspects of the export-import process.

CASE STUDY

AUSTRALIAN COWS AND EXPERTISE HELPING BUILD SRI LANKA'S DAIRY INDUSTRY

In 2012, Sri Lanka's National Livestock Development Board (NLDB) formed a joint venture with Australian firm Wellard Rural Exports to supply dairy cattle, infrastructure, equipment and management.

The objective was to increase Sri Lanka's local milk production by importing high-yielding animals and improving NLDB dairy farms.

Wellard is one of Australia's largest exporters of cattle and sheep, with interests in land, shipping, logistics, livestock and crop production, breeding, processing, animal feed, farm machinery and transport throughout Australia, New Zealand, Asia, the Middle East and South America.

In the initial phase of the project, Wellard supplied 2000 dairy cows to three farms in the central Bopaththalawa region. A mix of Jerseys, Friesians and Jersey Friesian-cross cattle arrived in March 2012. In phase two, Wellard will supply a further 2500 dairy cattle and infrastructure to a new dairy farm in southern Sri Lanka.

In addition to high-quality Australian dairy cattle, Wellard is also supplying farming infrastructure, plant and equipment, and farm management services. The initial farms are part of a pilot project for development of large-scale dairy production in Sri Lanka.

Since the arrival of the first 500 cows, milk production has increased from 3 litres per day to between 18 and 21 litres per day. Fodder development had been the biggest challenge, but all three farms are now self-sufficient in fodder production.



ANIMAL NUTRITION AND FODDER

Australia has a long history of research and development into the role of nutrition in improving dairy productivity.

By integrating pasture, forages and crops with supplementary feeds into the herd's diet, farmers are able to achieve optimal productivity, feed conversion efficiency and health.

Capabilities in this area span dairy-specific fodder, feed, nutritional supplements, services and supplies and management of animal nutrition.

Dairy cattle fodder includes cereals such as oats, barley, corn, wheat and cotton seeds. Oaten hay, wheaten hay and vetch are commonly grown for grazing and fodder conservation along with lucerne, ryegrass and clover.

In recent years, oaten hay has been the most popular fodder export. Due to its sweetness and soft texture, oaten hay has proved to be readily eaten, highly digestible and a good source of fibre for stimulating rumen function, maintaining animal health, and increasing milk production.

Australia's strict quarantine standards have enabled Australia to remain free of foot-and-mouth disease, helping Australian-grown fodder achieve worldwide recognition as a safe fibre source with low fertiliser and chemical inputs.

GENETICS, REPRODUCTIVE SERVICES AND ASSOCIATED CAPABILITIES

About a third of the productivity improvements Australian dairy farmers have achieved in the last decade are attributed to better genetics.

The industry body Dairy Australia invests in programmes such as the Australian Dairy Herd Improvement Scheme that provide data from which farmers can select superior animals to breed their herd's next generation.

Australian capabilities in genetics and reproductive services include:

- genetics
 - including bull selection, cow comparison, herd recording
- genomics
 - improving the selection of young bulls and progeny testing
 - providing more reliable information for younger bulls, including traits like fertility
 - selecting superior females at a younger age to breed replacement heifers
- breeding technologies such as fertility services, bull management, heat detection and embryo transfer
- artificial insemination and associated services.



CASE STUDY

BREEDING THE NEXT GENERATION OF EXCELLENCE

Genetics Australia is a farmer-owned and run breeding cooperative supplying the best available dairy genetics to Australian farmers. Established in 1958, it supplies genetics from top rated Holstein, Jersey and Red cattle as well as various beef breeds.

Australian dairy cows are proven performers across a variety of management and farming systems, and Genetics Australia is seeing international demand growing for Australian genetics and live cattle throughout Asia, Europe and the United States.

EDUCATION, TRAINING, SKILLS AND RESEARCH

Australia offers a broad range of education and training with specialised capability in dairy production, as well as research and development (R&D) related to dairy farming and dairy agribusiness.

The National Centre for Dairy Education Australia delivers vocational education and training for the dairy industry and operates with an alliance of partner Registered Training Organisations to deliver dairy farm training nationally as well as advanced manufacturing focused training.

Australian universities deliver tertiary education in agribusiness, animal production and related areas as well as research.

The CSIRO, Australia's national science agency, works with the dairy sector in R&D areas including resource inputs, milk production and processing, product innovation, animal health and genetics.

WASTE, WATER, ENERGY AND RESOURCE MANAGEMENT

Australian firms offer a range of technology, equipment and services related to waste and resource management in dairy production.

SOFTWARE AND ICT

Australia offers a broad range of software and ICT solutions to assist dairy enterprises with all aspects of management and production, such as financial software, pasture management, genetic evaluation, fertility and reproductive management and breed registry applications.



SUPPLY CHAIN MANAGEMENT AND FOOD SAFETY

Australian dairy products have an international reputation for quality and safety that is supported by best-practice systems throughout the supply chain.

Food Standards Australia New Zealand requires all dairy farms to have a documented on-farm food safety programme. All dairy manufacturers and processors must also have a documented food safety programme.

Dairy farms must implement a Quality Assurance Programme based on Hazard Analysis Critical Control Points (HACCP) which covers such areas as food safety, animal welfare, chemical contamination and environmental responsibilities.

Regular auditing ensures dairy farmers assess food safety risks and ensure strategies are in place to deal with risks, including full traceability up and down the input chain.



SOIL AND PASTURE MANAGEMENT

Australian firms can offer a range of soil and pasture products and services for dairy farms, including pasture seeds, fertilisers and soil management advice. The diversity of climates and growing conditions in Australia mean that capabilities span tropical and subtropical settings as well as temperate.



CASE STUDY

THE SEEDS OF SUCCESS IN PAKISTAN

Founded in 1970 and based in Pittsworth, Queensland, Selected Seeds has been providing tropical pasture seeds for Australian and international customers for over 40 years.

Today, Selected Seeds exports its products to Asia, the Middle East, North America and South America. Exports account for over half of the company's revenue.

In recent years, growing demand for milk products in Pakistan has created increased need for high-quality forage hay for the local dairy industry.

Recognising that Pakistani farmers are seeking more efficient ways to use their land and resources, Selected Seeds has been working with local distributors to supply the products and services that will help increase per acre yields, and help rehabilitate previously unproductive land.

Rhodes Grass – the main product marketed by Selected Seeds – is salt and drought-tolerant and can survive in harsh conditions, making it ideal for the Pakistani environment. The company also plans to develop a training programme to help farmers become familiar with its products and get maximum output from their land.



DAIRY EQUIPMENT

Australian firms provide a range of design and engineering services for dairy production, as well as technology and equipment relating to all aspects of dairy farming, feedlotting, milking and processing.

FARM MANAGEMENT

Australian companies can provide services and advice on a wide range of farm management solutions, spanning management services, animal health and productivity.

CASE STUDY

EXPERT ADVICE AT EVERY STEP

Australian Agricultural Nutrition Consulting Pty Ltd (AANC) is a consultancy service provider for food production companies, with clients throughout South-East Asia, China, Turkey, Eastern Europe, Russia, Ukraine, Kazakhstan, the Middle East and North Africa.

AANC specialises in animal health and nutrition, biosecurity, supply chain quality assurance, food safety and agribusiness advisory services and has been providing international dairy consultancy services since 2000.

A recent example of AANC's dairy consultancy work was in 2012 when AANC provided nutritional, animal health, agronomic and agribusiness consultancy services to the largest fully integrated dairy feedlot company in western Turkey. This involved close daily involvement in all processes (involving 5500 animals, including 2400 milking cows) – farming operations, silage and hay production, ration formulation, veterinary health management, biosecurity, milking parlour efficiency, food safety accreditation programmes and whole company business-plan development.

CASE STUDY

HELPING FARMERS GET THE MOST OUT OF THEIR HERDS

Based in the dairy heartland of Victoria in south-east Australia, Innovative Farm Services has been providing a range of specialist equipment and advisory services for dairy farmers in Australia, New Zealand, South Korea, Pakistan and China for a number of years.

Its expertise spans herd hoof health management products and systems, as well as a project management service for green-site dairies covering facility design, construction and project-management services all the way through to transition to milking cows.

ENGINEERING SERVICES

Australian firms provide a range of design and engineering services and supplies for dairy farm building, construction and maintenance.

INDUSTRY ORGANISATIONS

The following are some of the organisations involved in the Australian dairy industry.

Contact your local Austrade representative about connecting and partnering with the Australian dairy industry.

Dairy Australia is the national services body for dairy farmers and the dairy industry.

dairyaustralia.com.au

CSIRO, the Commonwealth Scientific and Industrial Research Organisation, is Australia's national science agency and one of the largest and most diverse research agencies in the world. Its National Research Flagships include Agriculture, Biosecurity, Food and Nutrition, and Land and Water.

csiro.au

Dairy Innovation Australia Limited is a member-owned innovation hub for dairy manufacturing, providing world-class, integrated, responsive and cost-effective dairy manufacturing R&D and support services.

dairyinnovation.com.au





ABOUT AUSTRADE

The Australian Trade Commission – Austrade – contributes to Australia’s economic prosperity by helping Australian businesses, education institutions, tourism operators, governments and citizens as they:

- develop international markets
- win productive foreign direct investment
- promote international education
- strengthen Australia’s tourism industry
- seek consular and passport services

Austrade helps companies around the world to identify and take up investment opportunities in Australia as well as to source Australian goods and services.

Our assistance includes:

- providing insight on Australian capabilities
- identifying potential investment projects and strategic alliance partners
- helping you to identify and contact Australian suppliers

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