

## 14 Other agricultural industries



**Interspersed with Australia's more prominent agricultural industries are a broad range of niche industries that highlight the diversity of Australian agriculture. Some of these smaller industries are briefly canvassed in this report, including long-established ones such as goats, deer and honey production, and a range of new and emerging industries such as emu and Angora rabbit farming.**

Some of the industries discussed here were once larger and more widespread than today, while others are expanding rapidly and may emerge as significant contributors to rural wealth in future years. While niche industries often attract new capital and skills from outside the agricultural sector, they are also important options for primary producers seeking to diversify or expand their production base.

Many smaller agricultural industries are characterised by entrepreneurial management and have evolved in response to early-stage market opportunities and emerging trends in consumer demand. Some enterprises operating in these industries have established close links to regional tourism and are important drivers of local economies. Given their size and often narrow focus, the success of many of these industries will be highly dependent on their ongoing capacity to establish tight supply-chain linkages and tailor specialty high-value products to select markets.

### Organic farming

Organic production methods, along with similar practices such as biodynamics and permaculture, are providing emerging opportunities for Australian producers, processors and marketers. At the core of the industry are certified farming systems and management practices that promote the sustainable use of natural resources.

- Organic products now occupy prime shelf space in big supermarket chains and present export opportunities for Australian growers.

The estimated area of certified organic farmland in Australia in 2003 was 7.9 million hectares, about 1.7 per cent of Australia's agricultural area. An estimated three-quarters of the area under organic production was in Queensland, mainly in extensive beef grazing lands. There were an estimated 1500 certified organic farms in Australia in 2003, and the number is expected to increase by 20–30 per cent in the next few years.

- The industry produces a diverse range of products, including fruits, nuts, vegetables, meat from various animals, dairy products, cereals, oilseeds, plant and animal fibres, and health and body-care products.
- Supply-chain relationships are developing as the industry matures, with most organic produce reaching the consumer via supply-chain intermediaries.

### Game

A wide range of established and emerging game animals are being farmed and harvested from the wild for domestic and export markets. Some of these industries are long established; others are emerging and have yet to demonstrate their ongoing viability.

### Deer

The Australian deer industry is based mainly on breeding temperate deer species (fallow, red deer and elk) for production of velvet antler, venison and venison co-products. The industry has a strong export focus, with about 80 per cent of product sold into European (meat) and Asian (velvet antler) markets. Production is concentrated in the south-eastern states, with some breeding of temperate species in other states and tropical species (rusa and chital deer) in Queensland. In 2003–04 the estimated annual gross value of production of the industry was about \$6 million at the farm gate (70 per cent from venison and 30 per cent from velvet antler), with some local value adding (RIRDC 2005b).

Venison production is expected to increase significantly in 2004–05 as a result of herd rebuilding after the recent drought. Numbers are estimated to have dropped from a 2002 peak of 200 000 head to 120 000. Exports



have also been affected by the appreciation of the Australian dollar and lower demand from traditional markets. Profitability of on-farm production could limit industry expansion.

- Statutory levies are paid by the industry on slaughter, live exports and velvet exports. These fund RIRDC programs and, in the case of meat, the National Residue Survey. The Deer Industry Association of Australia is the peak industry body.

## Buffalo

Buffalo production is concentrated in the Northern Territory. The campaign to eradicate brucellosis and tuberculosis in the 1980s resulted in the buffalo population dropping significantly from about 280 000 to around 50 000 in 1992. Following the campaign, herds were more manageable and meat quality improved through better breeding, including from imported Riverine buffalo in the 1990s.

- Crossbreeds, particularly those with a high infusion of the Riverine breed, and purebred Riverine are being milked for cheese and yoghurt products.
- Statutory levies are applied on slaughtered and exported buffalo. Since 1995–96, levy funds and matching Australian Government contributions have been administered by RIRDC for research and development. The Australian Buffalo Industry Council was formed in 2000 to represent the industry.

## Camel

There are an estimated 400 000 feral camels in Australia, mainly in the arid areas of Central Australia, Western Australia and South Australia. The Australian camel industry is an emerging industry that relies mostly on harvesting feral camels in these regions for live animal exports and, to a lesser extent, farmed camels for tourism and milking. While few camels are currently farmed commercially, interest in breeding is increasing, particularly for racing camels. Most camel farms rely on tourism for income from rides.

- In 2003, 333 live camels were exported (valued at \$161 505), and 397 camels were slaughtered for domestic and export markets (valued at \$83 370).
- There is no single representative industry group; however, the Central Australian Camel Industry Association is the largest and most established. The Queensland Camel Industry Association Inc was established recently to meet the specific needs of some Queensland producers.

## Crocodile

Crocodiles are both farmed and harvested from the wild. Farming began in Queensland in the 1960s and later expanded to the Northern Territory and Western Australia. Crocodile farming is capital intensive, long term and export oriented. Australia primarily exports raw or 'green' skins for processing and manufacturing into high-quality leather goods, and meat is considered a byproduct. Eleven Australian farms supply skins and meat, with two other farms producing small crocodiles that are on-sold for growing out.

- The main markets for the skins are Japan, France and, to a lesser extent, Singapore and Italy. In 2000, Australia exported just over 13 000 skins (1 per cent of the world skin market) and produced 66 tonnes of meat.

## Rabbit

Rabbits are farmed throughout Australia primarily for meat (mainly New Zealand whites), but Angoras are kept for fleece and Rex for pelts. The meat rabbit industry is growing at an estimated 10 per cent a year, with 250 tonnes of meat produced in 2003. Skins go to manufacturers such as the Akubra hat factory at Kempsey in New South Wales. Australian rabbit meat has so far not been competitive on the export market.

## Wild boar

Wild boar is harvested mainly for export to the European game meat markets. Exports have dropped significantly in recent years – 563 tonnes were exported in 2003, down from 3300 tonnes in 2002. Shipments in 2002 were unusually high as importers sought alternative meats in the wake of outbreaks of bovine spongiform encephalopathy and foot-and-mouth disease in Europe and the United Kingdom. The Australian Game Meat Producers Association is the peak body representing the industry.

## Kangaroo

The kangaroo industry employs more than 4000 people, mostly in remote rural communities. Kangaroos are harvested for their meat and skins under an annual quota system. This quota is rarely filled, reflecting market demand.

- Industry estimates indicate that around 70 per cent of meat and 30 per cent of skins are used domestically, with the remainder exported to more than 25 countries. In 2002–03, exports of kangaroo meat for human consumption reached 12 114 tonnes, valued at \$28 million.
- The Kangaroo Industry Association of Australia represents the industry. A statutory levy, which began on 1 January 2004, is applied to carcasses processed commercially in Australia for human consumption and pet food.



### Ratites (ostrich and emu)



The ostrich industry currently has around 100 commercial producers, as well as smaller operators, and has been recovering steadily since the crash of the late 1980s. Ostriches are bred for meat, with skins and feathers as byproducts. Around 99 per cent of ostrich meat is exported, mainly to Europe, with exports of 544 tonnes worth \$4.1 million in 2002–03. This was a drop of 40 per cent from the previous year, after strict EU import conditions were imposed as a result of the outbreak of Newcastle disease in Australia. A statutory levy for research and development and the National Residue Survey is applied to birds at slaughter.

There are an estimated 30 000 birds on registered emu farms, which are located around Australia. Emus have been farmed primarily for meat production, although the industry considers that oil is a more viable product for the future. Exports of emu meat in 2002–03 were 544 tonnes, valued at \$4.1 million. Europe and Japan are Australia's main export markets. New Zealand and the United States have established emu populations and are Australia's major competitors on world markets. Countries such as Jordan, China, Malaysia, Chinese Taipei and Korea have sought live emus for farming purposes, but have been unsuccessful because Australia has an embargo on the export of native wildlife.

### Goats and goat meat

Goat meat is obtained both from feral and from farmed goats. Domestic goats, mainly on mixed grazing enterprises, number around 300 000, and the feral goat population is estimated at 4–5 million. There is increasing demand for high-quality farmed goats to produce meat for domestic and export markets because of its improved consistency and quality.

- Australia is the largest goat-meat exporter in the world, but produces only 0.2 per cent of the world's goat meat. In 2002–03, 15 000 tonnes of goat meat were exported. The United States, Chinese Taipei, Singapore and Malaysia take around 70 per cent of exports. Australia's major competitor is New Zealand.
- Exports of live goats have dropped significantly since 2002, following the loss of the Saudi trade and the appreciation of the Australian dollar, with 88 000 head exported in 2003. Malaysia is Australia's most valuable live goat export market.

The Goat Industry Council is the peak body representing Australian goat producers. Statutory levies on live exports and slaughtered goats are used by Meat and Livestock Australia and for the National Residue Survey.

### Goat and sheep milk



The Australian sheep dairy industry is centred on Victoria, with other dairies in South Australia, Western Australia and New South Wales. Interest in gourmet food and better milking breeds has led to new dairies being established in recent years. The industry produces for the domestic market and is predominantly cottage based, producing mostly yoghurt and cheese made on farm in licensed factories. There is a limited market for sheep milk, with farmers receiving higher returns for yoghurt processing. Some milk is sold to other producers for processing.

Goat milk in Australia has traditionally been produced for sale as fresh milk, but in recent years it has been used for specialty cheese production. Consequently, the industry has been growing. Some producers are vertically integrated up to manufacturing stages, although most are located near a manufacturer.

### Honey and honey bees

The honey industry is widespread throughout Australia, with the largest production base in the south-east, particularly in Tasmania and New South Wales. Seventy to eighty per cent of honey is produced from native flora, especially eucalypts growing on public, crown leasehold and freehold land. The annual gross value of production of the honey industry, including queen and package bees, beeswax, pollen and commercial pollination services was an estimated \$65 million in 2002–03. In addition, the annual value of pollination to the Australian economy has been estimated at \$100 million to \$1.7 billion (RIRDC 2005c).

- Australia has approximately 1500 commercial apiarists (mostly small family businesses) and many thousands of part-time and hobbyist producers.

Annual production averages 30 000–32 000 tonnes of honey, with around 15 000 tonnes consumed domestically. The remainder is exported, making Australia the fourth largest exporter of honey. Production was severely affected by drought and bushfires in 2002–03, and the following year Australia became a net importer. Imported honey was blended with domestically produced honey to maintain sales on both domestic and export markets. Easing of the drought in some regions and better seasonal conditions have resulted in better flowering conditions and an expected increase in production.

- The Honey Bee Industry Council is the peak industry body. Statutory levies are collected from the industry for animal health, the National Residue Survey and research and development. A marketing and promotion levy is being considered.

## Rare animal fibres

Cashmere is the down from cashmere-producing goats and, as the world's premier soft-handling luxury fibre, commands some of the highest prices in the world of textiles. Australian cashmere has been sold on international markets since 1982 and is highly sought after for its superior length, high tensile strength and lustre. The current annual Australian production is 10–12 tonnes, from approximately 150 farmers, and constitutes about 0.15 per cent of the world's production. The fibre comes from farmed cashmere-bearing goats, which are often dual-purpose meat and fibre animals.

The Australian alpaca industry started in the late 1980s, with first stock imported from Chile. More recent genetic stock from Peru has improved the quality of the Australian flock. Current production of alpaca fibre is from an estimated population of 50 000, with annual cut per head ranging from 2 kilograms greasy for weaners to 5 kilograms for adults. Australian production in 2002 was in excess of 30 tonnes.

Other rare animal fibres include mohair from Angora goats, angora from Angora rabbits and camel hair. Australia produces around 250 tonnes of mohair a year — around 3.5 per cent of the world's production. Most of Australia's Angora rabbit farms are currently run in conjunction with tourist ventures or as hobbies. Fibre from camels is harvested from feral camels as a byproduct of meat processing.

## Native foods

The native or bush foods industry is small, fragmented and frequently undercapitalised. Bush harvesting is the dominant means of production, but cultivation is expanding. Native foods generally constitute only a part of the overall business activity of many of those involved in the industry.

Estimates (farm-gate and ex-nursery) of the gross value of production of the industry in 2003–04 were between \$5 million for native foods and \$10 million for native foods and essential oils combined. Average returns across the industry are reputedly low, but the recent take-up of native food product by major supermarket chains, both locally and overseas, suggests increasing customer demand.

- Commercially significant foods include aniseed myrtle, Davidson's plum, lemon aspen, lemon myrtle, mountain pepper, quandong, wild limes and wattlesseed.
- The bulk of domestic product is dried, frozen or further processed, often in combination with non-native food ingredients, into a wide range of value-added foodstuffs. Gift and specialty shops are important outlets in this sector of the market.

## Essential oils

Essential oils and plant extracts are inputs to a range of products, including food flavours, pharmaceutical goods and industrial solvents. Increasing consumer interest and a wide and growing range of applications in commercial industries have led to strong, if fluctuating, growth in world demand for these commodities.

- Australia accounts for around 1–2 per cent of world trade, with exports of essential oils and their related products valued at US\$31.5 million (US\$37.3 million in 2003–04 dollars) in 1998, and imports at US\$53.9 million (US\$63.9 million in 2003–04 dollars).
- For most essential oils produced, except tea-tree and boronia oils, Australia has a small share of world production and is a price taker in world markets.

The Australian essential oils industry is made up of around 150 commercial producers, with production dominated by a few larger firms. Most essential oil production takes place in Tasmania, Victoria and New South Wales. Tasmania produces commercial quantities of lavender, parsley, peppermint, dill, boronia, blackcurrant bud and fennel. The main essential oils produced in New South Wales are tea-tree and eucalyptus, while peppermint is the main crop produced in Victoria.

## Wildflowers

The wildflower industry originally comprised small players who concentrated on bush picking and growing natives and South African Proteaceae. Industry composition is trending towards larger plantations and the inclusion of natives in the traditional mix of varieties produced. The range of species cultivated is increasing, and now encompasses more eastern Australian species after earlier heavy reliance on Western Australian species.

- Data on the economic value and composition of the industry are lacking or fragmentary. Exports are estimated to have exceeded \$30 million (\$35 million in 2003–04 dollars) in 1999–2000, comprising more than 90 per cent wildflowers and plantation-grown South African Proteaceae. Japan, the United States, the Netherlands, Canada and Germany are the major export markets. The major products are fillers and focal fillers.

