



Australian Government

Department of Agriculture,
Fisheries and Forestry

**Australia's Agriculture,
Fisheries and Forestry**
at a glance
2010



Foreword

Australia's primary industries make a vital contribution to our economic wealth and social wellbeing by supporting regional jobs and generating significant export earnings.

Our primary producers face the fundamental challenge of boosting productivity in a changing climate and ensuring Australia continues to help feed the world.

The government recognises that profitable and productive primary industries will help to underpin Australia's long-term growth.

We are working with our primary producers to ensure they are well-positioned to meet the challenges of the future.

This includes funding research and development to boost productivity right along the value chain and helping our primary producers to pursue new skills and training.



The Hon. Tony Burke MP
Minister for Agriculture,
Fisheries and Forestry

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Overview

Agriculture, fisheries and forestry make an important contribution to Australia's economic prosperity. The combined gross value of production was \$45.9 billion in 2008-09 and the contribution of the agriculture, fisheries and forestry industries to gross domestic product was 2.6 per cent.

Australia is one of the world's largest agricultural export nations in terms of wheat, beef, dairy products, wine and wool. Around 60 per cent of agricultural production is exported, which generated \$32 billion in 2008-09.

Agriculture and forestry occupy 63 per cent of Australia's 7.6 million square kilometre landmass. Our fisheries, although based largely inshore, utilise an Exclusive Economic Zone (EEZ) of approximately 8 million square kilometres.

These primary industries also provide many direct and indirect employment opportunities for the 33 per cent of Australians who live in rural and regional areas (9 per cent rural and 24 per cent in towns of up to 100 000 people). Agriculture, fisheries and forestry industries together employ 280 923 people.



Agriculture at a glance

Agricultural production

In 2008-09, the gross value of agricultural production is estimated to have fallen by 4 per cent, to \$42 billion, compared with the previous year. The net value of farm production fell by 14 per cent, to \$5.7 billion in 2008-09.

Farm incomes

As a result of an improvement in seasonal conditions leading to increased crop production, farm cash incomes rose in 2008-09, to an average around \$76 000 per farm for broadacre industries. There were 140 704 businesses with agricultural activity in 2008.

Agricultural exports

Australian agriculture is strongly export oriented, with around 60 per cent of farm production exported each year. Among the larger industries, the average proportion of production exported ranges from 98 per cent for wool to 50 per cent for dairy products. The value of agricultural exports in 2008-09 was \$32 billion.

Over the past 20 years, exports of beef, wine and dairy products have increased significantly in response to growing overseas demand.

Agriculture

There has been a shift in emphasis from European to Asian markets from the early 1990s to the present.

As Australia has a comparatively small population, most future growth in Australian agriculture will depend on exports.

Agricultural exports summary

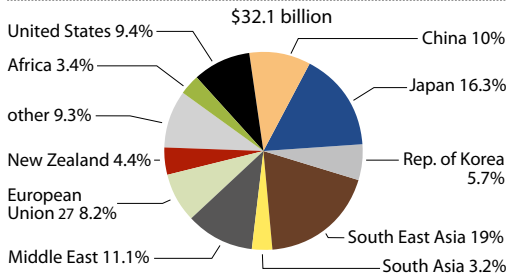
	2005	2006	2007	2008
	-06	-07	-08	-09
	\$m	\$m	\$m	\$m
Barley	1 108	833	1 496	1 321
Beef and veal	4 272	4 634	4 190	4 857
Canola	331	108	303	595
Cheese	837	824	968	796
Cotton	1 137	823	466	500
Cottonseed	53	31	8	19
Dairy - excluding cheese	1 732	1 614	1 794	1 883
Horticulture	810	749	733	903
Lamb	767	748	803	925
Live cattle	358	437	451	559
Live sheep	291	289	286	339
Mutton	432	458	443	482
Pig meat	143	142	128	124
Rice	171	347	71	31
Sugar	1 454	1 510	1 006	1 338
Wheat	3 296	2 765	2 990	5 028
Wine	2 799	2 990	2 683	2 428
Wool	2 539	3 065	2 796	2 322
Other	5 294	5 532	5 913	7 600
Total farm exports	27 824	27 900	27 530	32 052

Farm sector indicators

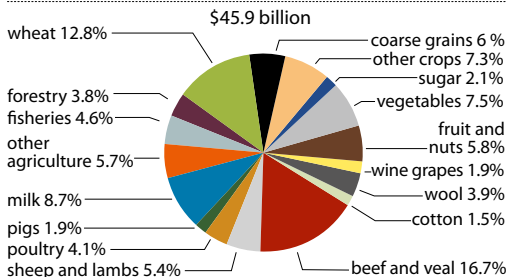
		2005 -06	2006 -07	2007 -08	2008 -09 s
Gross value of farm production					
Crops	\$m	20 882	18 434	24 272	22 753
Livestock	\$m	17 796	18 252	19 514	19 272
Total	\$m	38 678	36 686	43 786	42 025
Farm costs	\$m	31 339	31 443	37 137	36 328
Net cash income	\$m	11 227	10 390	10 868	6 263
Net value of farm production	\$m	7 338	5 243	6 649	5 697
Value of farm exports (fob)					
Crops	\$m	13 996	13 086	13 027	16 886
Livestock	\$m	13 828	14 815	14 503	15 166
Total	\$m	27 824	27 900	27 530	32 052
Farm price indexes (1997-98 = 100)					
Prices received by farmers	index	118	130	142	132
Prices paid by farmers	index	129	136	155	149
Farmers' terms of trade	index	91	96	91	89
Crop area and livestock numbers					
Grains and oilseeds area	'000 ha	22 197	21 054	23 237	23 393
Sheep	million	91	86	77	72
Cattle	million	28	28	27	27
Employment					
Agriculture	'000	300	306	301	318
Forestry and logging	'000	8	8	8	7
Commercial fishing	'000	12	10	14	9
Total portfolio, incl. service	'000	348	350	353	358
Total Australia	'000	10 070	10 353	10 621	10 741

s Estimate.

Australian agricultural exports, 2008-09



Gross values of agriculture, fisheries and forestry production, 2008-09

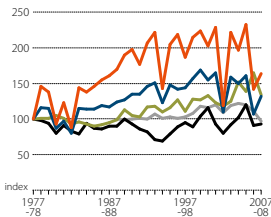


Productivity

Given limitations to the land, labour, water and other resources available to agriculture, long-term growth in food production largely depends on increases in productivity (increases in output in excess of additional input use).

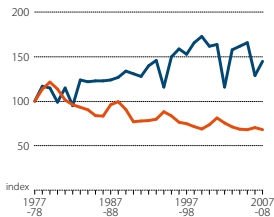
Productivity growth in Australian agriculture has been strong relative to other sectors of the economy and comparable to other OECD countries. Broadacre and dairy industries, accounting for 65 per cent of agricultural gross value of production, have achieved long-term productivity growth of 1.4 per cent and 0.8 per cent, respectively, a year for the period 1977-78 to 2007-08.

Total factor productivity, broadacre and dairy industries



- cropping
- mixed crop-livestock
- beef
- sheep
- dairy

Broadacre TFP and agricultural terms of trade



- total factor productivity
- terms of trade

This growth has helped maintain competitiveness in export markets and, over the long term, has helped to offset a decline in farmers' terms of trade. The terms of trade, a ratio of the prices farmers receive to the prices paid for inputs, has declined over this period at an average annual rate of 1.6 per cent a year. Over the past decade this rate has declined to 0.6 per cent a year.

Productivity growth in Australian agriculture has also slowed over the past decade, most notably in the broadacre cropping and dairy industries. For example, broadacre productivity growth has averaged -1 per cent a year since 2000-01.

It is likely that a variety of factors are behind this decline, with major influences likely to include extended drought conditions and a long-term reduction in public investment in research and development.

Climate

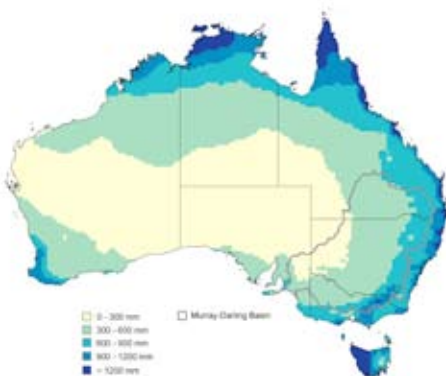
Australia is a generally warm and dry continent with unreliable rainfall, both in distribution and timing. Recurring droughts and floods are natural features. Australia has a number of distinct climates:

- subtropical and tropical regions to the north and north-east with most rainfall in the summer
- temperate regions to the south with most rainfall in the winter

- grassland and desert regions in the middle of the continent with rain falling irregularly
- areas of high rainfall on the coastal fringes and in the eastern ranges.

These climates have a strong influence on agricultural land use. The tropical north is suited to extensive grazing (principally cattle), intensive horticulture (including vegetables) and sugar cane. The temperate regions include grain cropping and livestock production, while

Mean annual rainfall



low-density grazing (mainly cattle) is found in the drier central regions.

The Murray–Darling Basin in the south-east has a large irrigation infrastructure to support the production of fruit, vegetables, dairy and many other intensive agricultural activities.

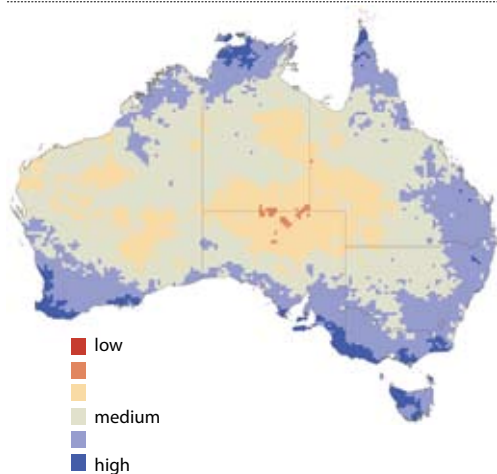
Drought

Multi-year rainfall deficiencies remained at record or near-record levels over many parts of southern Australia during 2009, continuing the long-term drought.

The widespread droughts of 2002–03, 2006–07 and 2007–08 combined with low rainfall in the intervening years, resulted in the Australian Government declaring a significant proportion of agricultural land eligible for financial assistance ('Exceptional Circumstances assistance') during this period. Many areas of Australia are still Exceptional Circumstances declared, with more than \$4.2 billion in drought funding and assistance provided to farmers and small business operators since July 2001.

Southern areas of Australia are particularly affected by long-term rainfall deficiencies, including areas of the Murray–Darling Basin, which has been a critical issue for agricultural production. These deficiencies have been exacerbated by a warming climate, with 2009 Australia's second warmest year on record and ending the warmest decade on record.

Index of reliability of annual rainfall



Climate change and agriculture

Australia's climate is changing as part of a global trend. Change is expected to continue and perhaps accelerate throughout the 21st century, presenting both challenges and opportunities for Australian agriculture.

Regions receiving Exceptional Circumstances assistance, December 2009

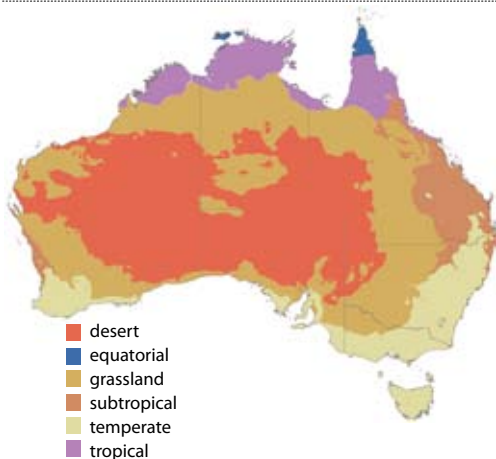


The effects of climate change will vary across sectors and regions, altering risk profiles—both positively and negatively. Adapting to climate change will require information systems that will allow the effects of climate change to be identified alongside other business management risks.

Agriculture is the dominant source of both methane and nitrous oxide emissions in Australia. Most agricultural emissions come from livestock (methane),

burning of savannas and nitrous oxide emissions from soils. According to Australia's National Greenhouse Accounts, greenhouse gas emissions from agriculture, at 16 per cent of Australia's total emissions in 2009, were 4 per cent higher than in 1990. Australian emissions from land clearing, mainly for agriculture and urban development, were 6 per cent of Australia's total in 2009 and more than 50 per cent less than in 1990.

Climate zones



Further information:

Climate variability: www.bom.gov.au/climate

Climate change: www.climatechangeinaustralia.gov.au;
www.bom.gov.au/climate/change; www.climatechange.gov.au

Australia's national greenhouse accounts: www.climatechange.gov.au/government/initiatives/national-greenhouse-accounts.aspx

Water

Long-term average annual rainfall across Australia varies from less than 300 millimetres per year in the majority of central Australia to more than 3000 millimetres per year in parts of far north Queensland.

Annual average rainfall for Australia is approximately 3.7 million gegalitres. Of this approximately:

- 89 per cent (3.29 million gegalitres on average) evaporates, or is transpired by plants into the atmosphere (the proportion of rainfall used by plants depends on soil type and depth, plant type, condition and stage of plant growth and crop management)
- 9 per cent (350 000 gegalitres on average) runs off into streams, rivers and storage
- 2 per cent (65 000 gegalitres on average) drains below the root zone into groundwater aquifers and rivers.

Of all the inhabited continents, Australia has the lowest proportion of rainfall going into its rivers and aquifers—11 per cent compared with a world average of 65 per cent. The flow rate of Australian rivers varies more than twice as much from season to season as that of European rivers.

Water availability

About 65 per cent of runoff occurs in far north Australia and coastal Queensland. By contrast, only 6.8 per cent of Australia's runoff occurs in the Murray–Darling Basin, although more than 50 per cent of Australia's water use occurs there. The seasonal distribution of rainfall also varies widely, with the runoff in northern Australia occurring predominantly in the monsoonal wet season. The runoff in the Murray–Darling Basin is spread throughout the year.

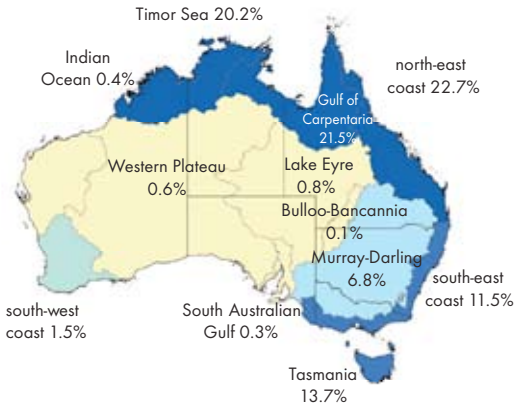
Irrigation is a well established and important feature of the agricultural landscape, especially in the Murray–Darling Basin. Water use for irrigation, industry and urban needs has placed pressure on water-dependent ecosystems. The challenge is to balance the use of water for production purposes while maintaining water quality and conserving the natural environment. A national program of water reform is being implemented in an effort to achieve this balance.

The Murray–Darling Basin is one of 12 drainage divisions in Australia and is comprised of 26 river

basins. The average annual outflow from the Murray River mouth is approximately 4700 gigitalitres, based on historic climate and current development. It is estimated that without the current flow regulation and consumptive water use, the average annual outflow would be around 12 200 gigitalitres per year.

Australia has more than 500 large dams supplying around 84 000 gigitalitres of water for irrigation, industrial, hydroelectricity and urban use.

Long-term average runoff from each drainage division



Murray system inflows have been below average for nine out of the past 10 years and 2006-07 was the driest on record.

Water storage levels in the Murray–Darling Basin were at approximately 25 per cent of capacity in February 2010, with inflows and water storage well below the long-term average.

Water use in agriculture

Agricultural industries remained a major consumer of water in 2007-08 (latest available data). Of the water used, 90 per cent (6285 gigalitres) was used for irrigating crops and pastures and 10 per cent (704 gigalitres) for other agricultural purposes.

Agricultural water use decreased 18 per cent in 2007-08 to 6989 gigalitres, because of drought, following a 27 per cent drop in 2006-07. The biggest drop occurred in the Murray–Darling Basin where water use decreased by 30 per cent, compared with a 1 per cent drop for the rest of Australia.

While nationally the volume of irrigation water decreased significantly, there was only a slight fall in the area irrigated, down only 4 per cent, giving an average application rate of 3.4 megalitres per hectare, the lowest in recent years.

Water quality

The natural cycle of drought and flood across much of Australia has resulted in stream flows that are highly variable, both seasonally and annually. These variable flow regimes affect water quality, particularly where water harvesting and water use increase the variation in stream flow.

Risks to water quality include the effects of salt, acid sulphate minerals and algal blooms.

The recent drought has caused a general reduction in the amount of salt in Australia's major rivers, because of an overall decrease in saline inflows from irrigation areas, tributaries and floodplains. However, scientists believe that this has resulted in a large amount of salt building up in the landscape, which is likely to enter rivers when heavy rains return.

The drought has caused many wetlands and watercourses to dry out. Some contain acid sulphate minerals in the sediment and, as these minerals dry out and oxidize, they undergo chemical changes which will result in the production of strong acids when they next come into contact with water. The drought has potentially also increased the risk of toxic algal blooms, which thrive in stagnant or low flow conditions, forming in Australia's rivers.

Further information:

Murray-Darling Basin Authority: www.mdba.gov.au

Bureau of Meteorology: (water) www.bom.gov.au/water/; (drainage and river basins) www.bom.gov.au/hydro/wr/basins

Water use on Australian farms: www.abs.gov.au

National Water Commission: www.nwc.gov.au

Murray-Darling Basin sustainable yields project: www.csiro.au/partnerships/MDBSY

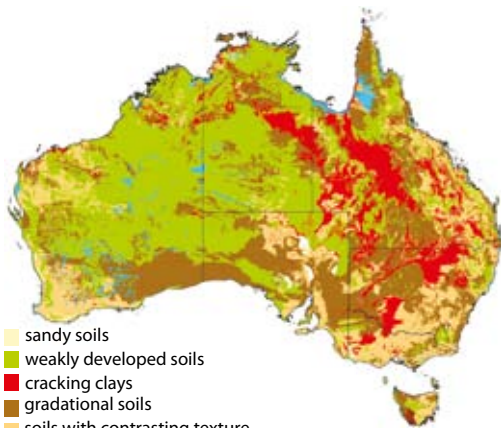
Soils

The agricultural landscape includes a wide range of soil types, ranging from old, deeply weathered and infertile soils, to younger, more fertile soils. The types and their uses include:

- weakly developed soils (40 per cent), widespread but limited to sheep and cattle grazing
- gradational soils (29 per cent), including earthy soils and those dominated by carbonate, primarily used for horticulture and grazing
- soils with contrasting texture (17 per cent), used for forest and cereal production in temperate areas and for beef cattle grazing in tropical areas
- cracking clays (12 per cent), primarily used for grazing and limited agriculture where rainfall is adequate
- wet soils (2 per cent), saturated for prolonged periods, which require drainage before agricultural use, including for sown pastures and sugar cane

- organic soils (less than 1 per cent), including peaty soils, mainly in the world heritage site in south-west Tasmania
- sandy soils (less than 1 per cent), characterised by a build-up of organic matter, iron and aluminium. They have limited use because of low fertility, poor water retention and seasonal water logging.

Australian soil types



- sandy soils
 - weakly developed soils
 - cracking clays
 - gradational soils
 - soils with contrasting texture
 - wet soils
 - organic soils
-

Compared with soils in the northern hemisphere, Australian soils have less organic matter, low amounts of phosphorous and other nutrients, and poorer structure resulting in reduced nutrient storage and water-holding capacity.

Important soil-management issues include erosion (wind and water), salinisation (dryland and irrigation), acidification and compaction. Soils are managed by maintaining ground cover and wind breaks, avoiding the use of steep slopes, applying fertilisers (mainly phosphorus and nitrogen) and by using lime and gypsum.

Further information:

Soil Health Knowledge Bank: www.soilhealthknowledge.com.au

Australian Collaborative Land Evaluation Program: www.clw.csiro.au/aclep

Australian Soil Resource Information System: www.asris.csiro.au

Soil condition indicators: www.nlwra.gov.au/national-land-and-water-resources-audit/soils

Land use

Agriculture (livestock grazing, dryland and irrigated agriculture excluding timber production) occupies 469 million hectares or slightly more than 61 per cent of the continent. Dryland livestock grazing, which is largely in arid and semi-arid regions, accounts for most of the area (443 million hectares or 58 per cent of the continent).

Summary of Australian land use, 2000-01

Land use	Area ('000 hectares)	per cent
Dryland livestock grazing	442 874	57.6
Minimal use	117 225	15.3
Other protected areas including		
Indigenous use	98 094	12.8
Nature conservation	52 707	6.9
Dryland agriculture	23 799	3.1
Timber production	15 175	2.0
Water	13 487	1.8
Irrigated agriculture	2 814	0.4
Intensive uses	2 445	0.3
Unknown	230	0.0
Total	768 850	100.0

Source: 2001-02 Land Use of Australia Dataset, Version 3, Bureau of Rural Sciences, Canberra 2006.

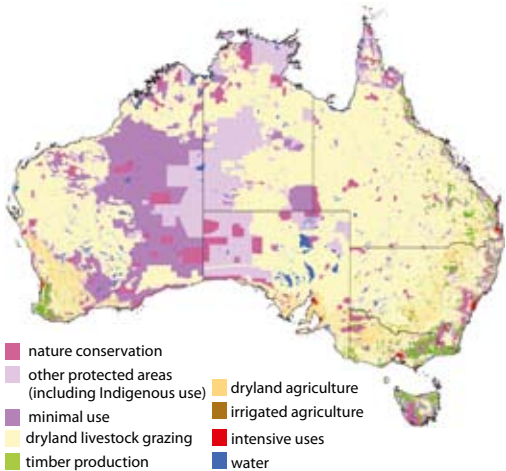
Further information:

Land Use Mapping for Australia: www.brs.gov.au/landuse

Australian Natural Resources Data Library: www.adl.brs.gov.au

Australian Natural Resources Atlas: www.anra.gov.au

Land use in Australia, 2000-01



Vegetation

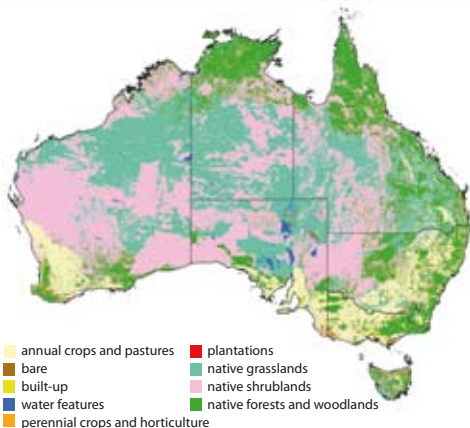
Land managed for agriculture includes a wide range of vegetation types, both native and non-native.

Native vegetation cover comprises 89.5 per cent and is made up of shrublands and heathlands (37 per cent), grasslands and minimally modified pastures (33 per cent) and native forests and woodlands (19 per cent). The primary use of vegetation is for grazing sheep and cattle (58 per cent).

In areas with higher rainfall and more fertile soils, native vegetation has been extensively fragmented and replaced with intensive agriculture. This includes annual crops and highly modified pastures (9 per cent), plantations (0.2 per cent) and horticultural trees and shrubs (0.1 per cent). The remaining land cover, including bare ground and water bodies, is around 1.1 per cent.

In areas with lower rainfall, producers have historically modified native timber to promote pasture production from native grasses, with or without the addition of

Australian vegetation



exotic species. Providing water (bores) has enabled extensive development of these rangelands.

Vegetation management includes:

- increasing and maintaining groundcover to prevent soil erosion (wind and water)
- using revegetation and restoration of native vegetation to enhance the sustainable management of on-farm vegetation
- using planned fire to promote improved productivity from native pastures
- Improving the resilience and ecological connectivity of vegetation within the landscape to assist capacity for biodiversity to adapt to climate change.

In addition to providing food, fibre and fodder, vegetation plays a vital role in nutrient and water cycling, carbon capture, landscape stability as well as habitats for many animal, insect and plant species, and human amenity.

Further information:

Bureau of Rural Sciences (vegetation):
www.daff.gov.au/brs/forest-veg

Genetic resources

Australia's agricultural industries are mostly based on introduced plant and animal species, bred over time to adapt to local conditions.

There are more than 1 million native plant and animal species in Australia, many of which are unique. Native grasses, legumes and cottons are increasingly being used as genetic resources for agriculture.

Most plant genetic resources for food and agriculture in Australia are conserved and managed in five state government seed banks for crops and pastures. Australia is a party to the International Treaty on Plant Genetic Resources for Food and Agriculture.

On-farm conservation of rare animal breeds in Australia is mainly undertaken by private breeders and breed societies. Off-farm conservation of animal genetic resources is through gene banks maintained by breeding companies and gene conservation organisations.

Further information:

International Treaty on Plant Genetic Resources for Food and Agriculture: www.planttreaty.org

Plant and animal genetic resources: www.fao.org

Pests and diseases

It is vital to prevent new pests and diseases from becoming established in Australia. Quarantine and environment protection authorities use control measures at Australia's borders and conduct risk assessments to determine whether exotic species can be imported and, if so, how they can be kept.

More than 80 species of exotic vertebrate animals have established wild populations in Australia and more than 30 of these species have become agricultural or environmental pests. Major agricultural impacts of pest animals include:

- grazing and land degradation by rabbits and feral goats
- livestock predation by wild dogs, foxes and feral pigs
- damage to grain and fruit crops by mice and birds.

The direct costs to agriculture (including pest impacts and expenditure on management, administration and research) from wild dogs, rabbits, foxes, pigs, pest birds and mice was estimated at approximately \$745 million in 2009.

Introduced insects, such as cattle ticks and aphids, cost agriculture more than \$5 billion per year in production losses and \$1 billion in control costs. The cost of an undetected or uncontrolled plant pest incursion can be enormous. For example, economic modelling has shown that an outbreak of the fungal disease, Karnal bunt, would cause an immediate loss of export markets valued at \$3 billion per year.

Further information:

Vertebrate pest animals: www.brs.gov.au/feral; www.feral.org.au

Invertebrate pest animals: www.csiro.au/org/entomology

Plant pests/diseases: www.planthealthaustralia.com.au

Animal pests/diseases: www.animalhealthaustralia.com.au

Weeds

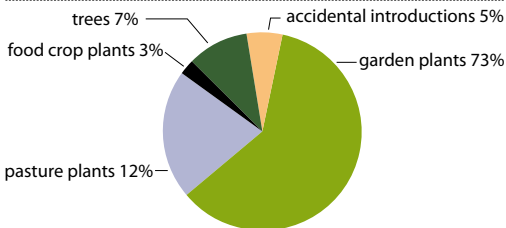
Around 28 000 exotic plant species have been introduced into Australia since European settlement and 3480 of these have become weeds. Many of these weeds are escaped garden plants. Weeds contaminate crops, displace pasture plants and compete with crop and pasture plants for water and nutrients. Weeds also harbour diseases and insect pests, reduce livestock-carrying capacity and condition, and can be toxic to livestock.

The impact and control of weeds costs Australian agriculture more than \$4 billion per year. Farmers consider weed control as one of their highest priorities in preventing long-term land degradation.

Biological control is proving effective in managing and controlling weeds such as Paterson's curse and blackberry, and work is continuing to identify new biocontrol agents for other species.

Twenty weeds of national significance have been selected as management priorities. These weeds and related research needs are outlined in the Australian Weeds Strategy.

Sources of Australian weeds



Virtue JG, Bennett SJ and Randall RP (2004)

Further information:

Weeds: www.weeds.gov.au

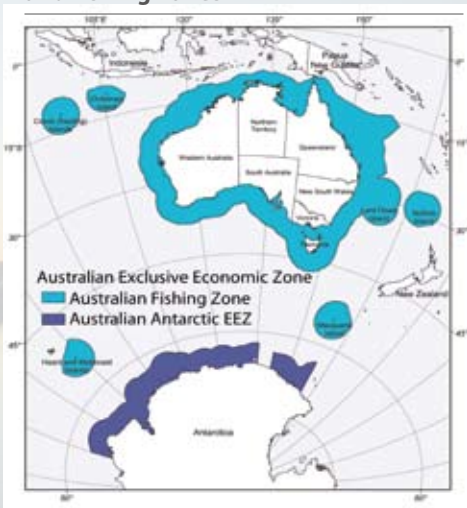


Fisheries at a glance

Fishing zones

The Australian Exclusive Economic Zone (EEZ) extends up to 200 nautical miles off the coast of Australia. It is the world's third largest EEZ, spanning the tropics to Antarctic waters and covering around 8 million square kilometres. The Australian Fishing Zone is a subset of the EEZ and is defined in Australian Government legislation.

Australian Exclusive Economic Zone and fishing zones



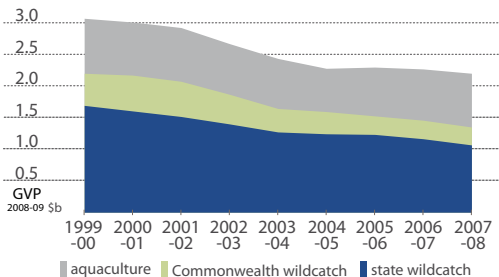
Fisheries production

In 2007-08, the gross value of Australian fisheries production (GVP) was \$2.19 billion. This included the harvest of wild stocks and production from aquaculture. Rock lobster remained the highest value product, followed by salmonids, prawns, tuna and abalone.

The volume of Australia's commercial catch at about 60 in the world. Although modest in a global context, aquaculture is important to Australia's fisheries GVP. In 2007-08, aquaculture GVP increased from the previous year by 8 per cent to \$869 million.

Most of Australia's fishing GVP comes from relatively shallow continental shelf and near-shore areas.

Gross value of production of Australian fisheries, by sector, 1999-00 to 2007-08 real value \$2008-09



Australian fisheries production, by sector and state

	2004 -05	2005 -06	2006 -07	2007 -08 ^a
	\$m	\$m	\$m	\$m
State wild catch fisheries				
New South Wales	80	80	88	89
Victoria	86	78	75	68
Queensland	198	218	206	203
Western Australia	415	418	352	330
South Australia	183	193	219	206
Tasmania	167	170	184	157
Northern Territory	33	26	29	33
Total	1 161	1 183	1 153	1 086
Aquaculture				
New South Wales	48	45	46	48
Victoria	24	21	20	18
Queensland	65	67	72	76
Western Australia	128	128	129	123
South Australia	187	210	208	262
Tasmania	157	245	306	319
Northern Territory	25	26	25	23
Total	634	742	806	869
Commonwealth fisheries	330	278	294	289
Total value ^b	2 086	2 166	2 211	2 187

^a Preliminary. ^b Total value has been adjusted to exclude southern bluefin tuna caught in the Commonwealth southern bluefin tuna fishery, which is input to farms in South Australia. This avoids double counting.

Fisheries production, by category and species

	2006-07		2007-08 a	
	\$m	tonnes	\$m	tonnes
Fish				
Tuna	161	13 074	210	14 651
Salmonids	291	25 603	299	25 527
Other	416	121 400	424	115 740
Total	868	160 077	934	155 918
Crustaceans				
Prawns	267	20 774	268	22 430
Rock lobster	443	13 548	407	13 833
Crab	54	5 968	54	5 769
Other	20	1 074	17	862
Total	785	41 364	745	42 894
Molluscs				
Abalone	217	5 470	189	5 320
Scallops	29	10 649	33	10 286
Oysters	91	14 374	89	12 460
Squid	11	3 577	7	1 780
Other	156	5 777	145	5 051
Total	505	39 847	462	34 897
Other	53	2 277	46	1 980
Total value	2 211	243 565	2 187	235 688

a Preliminary. Numbers may vary because of rounding.

Sources: Australian Bureau of Agricultural and Resource Economics.

Significant contributors to GVP come from:

- the rock lobster fishery on the west coast of Western Australia
- the southern bluefin tuna fishery in the Great Australian Bight
- prawn fisheries in shallow seas around Australia.

Fisheries exports and imports

In 2008-09, The value of Australian exports of all fisheries products (edible and nonedible) totalled \$1.5 billion, with rock lobster the most valuable fisheries export, followed by pearls, abalone and tuna. Hong Kong was the main export market for Australia's edible fisheries products.

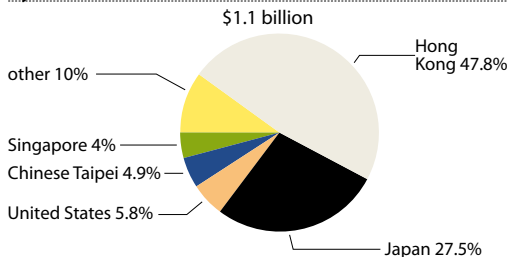
Over the past decade Australia has become a net importer of fish products. Reduced volumes of major edible export species has led to a steady reduction in the value of Australian exports of fisheries products,

Value of Australian fisheries exports and imports

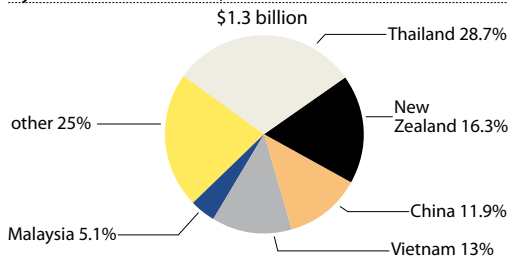


while imports of fishery products into Australia have increased in value. Edible products such as finfish, crustaceans and molluscs made up 75 per cent of the gross value of imports (\$1.7 billion) in 2008-09. Thailand was the largest supplier of imported fishery products.

Australian exports of edible fisheries products, by destination, 2008-09



Australian imports of edible fisheries products, by selected countries, 2008-09



People in fisheries

In 2006, around 16 000 people were employed in the commercial fishing industry, comprising aquaculture, fishing, fish processing and wholesaling.

There is further employment in support industries (such as transport, mechanical services and retailing) that rely on income created from commercial fishing.

Remote regions, such as north-west and northern Australia, have a greater proportion of the workforce in the fishing industry compared with other parts of the country.

Australian recreational fishers catch approximately 136 million fish and other aquatic animals each year.

Employment in the commercial fishing industry

	Aquaculture	Fishing ^a	Seafood processing	Fish wholesaling	Total employment
New South Wales	709	1 106	203	1 039	3 057
Victoria	280	514	259	859	1 912
Queensland	551	1 460	273	1 037	3 321
South Australia	325	1 152	357	452	2 286
Western Australia	766	1 003	509	460	2 738
Tasmania	935	643	385	295	2 258
Northern Territory	62	222	15	43	342
Australian Capital Territory	0	7	0	17	24
Australia	3 628	6 107	2 001	4 202	15 938

^a Includes fishing, hunting and trapping.

Source: Australian Bureau of Statistics census data, 2006, based on 2006 ANZSIC classification.

Around half of this is made up of crustaceans, molluscs and small baitfish. A greater proportion of people in rural areas fish for recreation than in urban areas.

A 12-month national survey of recreational fishing in 2000-01 (latest available data) showed fishers spent an average of \$552 each annually on fishing-related equipment and activities. This amounted to an estimated total of \$1.8 billion in that year.

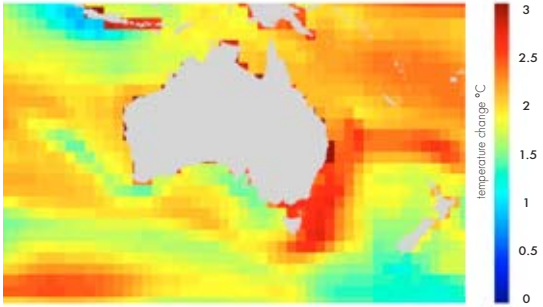
An estimated 37 000 Indigenous people (91.7 per cent of the Indigenous population in northern Australia) fished at least once during the 12-month survey of Indigenous fishing (2000-01). During this time, an estimated 671 000 fishing trips were made.

Climate change and fisheries

The impact of climate change on Australia's commercial fisheries is uncertain and will vary across industries and regions. For example, warmer waters and altered ocean currents could increase growth rates of some species but may also increase disease and stress, and affect the recruitment of juveniles to fish stocks.

Climate modelling suggests that the greatest increase in sea surface temperature from climate change will be off south eastern Australia in the Tasman Sea. This is associated with a predicted strengthening of the eastern Australian current and may result in some species shifting southward.

Projected change in sea surface temperature between the 1990s and 2070s



Note: This projection is the median result from the CSIRO Mk3.5 Global Circulation Model and uses the A2 greenhouse gas emission scenario given by the Intergovernmental Panel on Climate Change. The A2 scenario is a mid-range scenario that projects atmospheric carbon dioxide levels of 536 parts per million by 2050.

As oceans warm, sea levels will rise. Storm activity is likely to increase and there will be changes to currents, winds, water chemistry and available nutrients.

Oceans are likely to become more acidic with continuing carbon dioxide absorption. This may adversely affect corals, crustaceans (e.g. prawns and crabs) and molluscs (e.g. mussels and oysters). Ocean acidification and the change in chemistry reduce the availability of elements that are essential for strong shells and skeletons. Some species of phytoplankton, the foundation of ocean food webs, may also be adversely affected.

Fish stocks and fisheries management

A fish stock is a population of fish that is functionally discrete and largely distinct from other populations of the same species and can be regarded as a separate entity for management or assessment purposes. Some fish stocks are managed by the states and territories while others are managed by the Australian Government. The Australian Government is party to a number of international conventions or agreements for the management of fish stocks including those which range beyond the Australian Fishing Zone. These stocks are exploited across various Exclusive Economic Zones, as well as on the high seas.

Commonwealth legislation relevant to fisheries management includes the *Fisheries Management Act 1991*, the *Fisheries Administration Act 1991* and the *Torres Strait Fisheries Act 1984*. All states and territories have similar legislation for management of fisheries.

The Australian Government *Environment Protection and Biodiversity Conservation Act 1999* requires environmental performance assessments for all fisheries managed under Australian Government legislation and similarly for all state and territory fisheries that export fisheries products or interact with threatened, endangered or protected species.

Principles of conservation, sustainable yield and ecologically sustainable development are common to all Australian fisheries legislation.

Fishery status reporting is part of the management process in all Australian fisheries jurisdictions. Some states and territories take a broader view of reporting, encompassing the economic and social dimensions of fisheries in addition to the biological status.

Of the 98 Australian Government-managed fish stocks classified in the *Fishery Status Reports 2008*, the number of stocks assessed as not overfished had more than doubled since 2004, with the largest yearly increase (11 stocks) occurring from 2007 to 2008. The improvement in 2008 is largely because of an increase in the information available for fish stocks, in conjunction with an increase in the number and rigour of stock

Biological stock status of Australian Government-managed fish stocks, 2004 to 2008

		2004	2005	2006	2007	2008
overfished status	Not overfished	20	25	31	33	44
	Overfished	14	17	15	11	13
	Uncertain	40	41	51	52	41
overfishing status	Not subject to overfishing	12	15	41	45	57
	Subject to overfishing	9	12	5	6	8
	Uncertain	53	56	51	45	33
Total stocks assessed		74	83	97	96	98

Note: Overfished indicates there are too few fish left (biomass is below the limit reference point). Overfishing indicates that the rate of removals is too high.

Source: Wilson et al. 2009.

assessments carried out by the various fishery resource assessment groups and regional fisheries management organisations.

The number of stocks classified as not subject to overfishing has also increased substantially from 12 in 2004 to 57 in 2008. The improvement has been driven by the Commonwealth Fisheries Harvest Strategy policy. The Australian Fisheries Management Authority has also implemented additional management measures intended to halt overfishing and bring about recovery of overfished stocks (e.g. catch reductions, additional area and depth closures).

In 2008, 13 fish stocks were classified as overfished and eight were subject to overfishing. Three of these stocks are both overfished and subject to overfishing (southern bluefin tuna, jackass morwong and upper-slope gulper sharks).

The number of stocks classified as uncertain (overfished and/or overfishing categories) has increased since the inception of the Fishery Status Reports. However, in 2008 this trend was strongly reversed, with 11 stocks being removed from an uncertain overfished status and 12 stocks from an uncertain overfishing status. Much of the historical increase was a consequence of the addition, over time, of new stocks not previously considered for which insufficient information was available. However, in other cases, revised assessments of stocks already classified have indicated that less was

known about their actual status than was previously thought, or the assessments have become dated, thus moving a stock to an uncertain status.

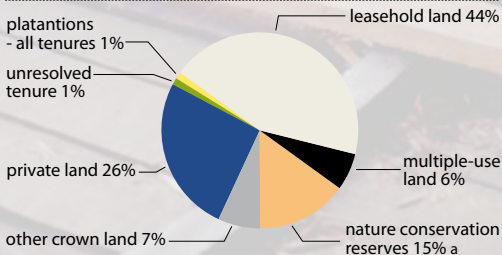


Forests and forestry at a glance

Australia's forest estate comprises 149.4 million hectares, covering about 19 per cent of the continent. Native forests cover 147.4 million hectares and plantations 2 million hectares. Eucalypt forests comprise 78 per cent of Australia's native forests. The plantations are comprised of about 1 million hectares of softwood species (mainly exotic pines) and 1 million hectares of hardwood species (mainly eucalypts).

About 23 million hectares (16 per cent) of the native forests are in nature conservation reserves. Privately managed freehold, leasehold and Indigenous managed land account for 70 per cent of forested land; state, territory and other government agencies manage the

Forest area by ownership



^a Some formal conservation reserves, e.g. freehold Indigenous national park, are included in other categories.

remainder. Indigenous-managed land includes more than 21 million hectares of forest, or 14 per cent of Australia's total forest area.

Multiple-use public forests, 6 per cent of Australia's forests, continue to provide most of Australia's native timber products. States in which native forest harvesting occurs have management processes backed by legislation and codes of forest practice designed

Forest area by forest type

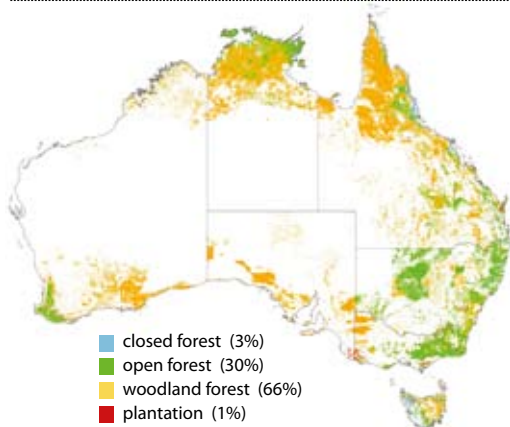
	'000 ha	% of area
Native forest ^a		
Acacia	10 365	6.9
Callitris	2 597	1.7
Casuarina	2 229	1.5
Eucalypt	116 447	77.9
Mangroves	980	0.7
Melaleuca	7 556	5.1
Rainforest	3 280	2.2
Other	3 942	2.6
Total native forest	147 397	98.6
Plantation ^b		
Hardwood plantation	991	0.7
Softwood plantation	1 020	0.7
Other categories	9	0.0
Total plantation	2 020	1.4
Total forest	149 417	100.0

^a 2007 data. ^b 2009 data.

Note: Values are rounded.

Sources: Australia's State of the Forest Report 2008, Bureau of Rural Sciences, Canberra. National Plantation Inventory 2010 Update. National Forest inventory, Bureau of Rural Sciences, Canberra.

Australian forest, 2007



Closed forest: Forest in which the tree crown cover ranges from greater than 80 to 100 per cent of the land area when viewed from above.

Open forest: Forest in which the tree crown cover ranges from greater than 50 to 80 per cent of the land area when viewed from above.

Woodland forest: Forest in which the tree crown cover ranges from greater than 20 to 50 per cent of the land area when viewed from above.

to maintain environmental values and the productive capacity of forests.

Most multiple-use public forests and nature conservation reserves are available to the public for recreation and tourism.

Forest products

The volume of logs harvested in Australia has increased by about 27 per cent in the past decade as a result of higher rates of hardwood plantation establishment and an increase in plantations reaching harvestable age. Plantations supply about two-thirds of all logs harvested in Australia. Production from native forests has declined by 16 per cent over the past decade, mainly because of the transfer of production forests to nature conservation reserves.

In 2008-09 the volume of logs harvested declined by 7 per cent from the previous year to 26.5 million cubic metres. The gross value of logs produced was \$1.7 billion (valued at mill door). The main contributor to this decline was a fall in pulpwood harvested for the export woodchip market.

The total value of turnover in wood and paper products industries in 2007-08 was about \$23 billion, representing 5.8 per cent of the total value of Australian manufacturing production.

Most of Australia's wood products are used in home building and other construction; hence, annual consumption of wood products tends to be linked to rises and falls in building industry activity. Total consumption per person is relatively stable and national wood product consumption has increased in parallel with population growth.

The value of forest product exports in 2008-9 was \$2.3 billion, with woodchip exports accounting for 42 per cent of this. The value of forest product imports was \$4.5 billion, with paper and paperboard accounting for 51 per cent of the value.

Plywood and decorative veneers have been produced in Australia for many years. Veneer manufacture has increased substantially since 2007 because of the construction of two veneer mills in Tasmania. The veneer is exported to plywood manufacturers in Malaysia.

Logs harvested thousand cubic metres

Source of logs	1997-98	2002-03	2006-07	2007-08
Native forests				
Sawlogs and veneer logs	4 151	3 846	3 162	3 176
Pulpwood and other logs	6 061	6 772	5 612	5 974
Total	10 212	10 617	8 774	9 150
Hardwood plantations				
Sawlogs and veneer logs	7	153	159	186
Pulpwood and other logs	199	1 441	3 893	4 421
Total	206	1 594	4 052	4 607
Softwood plantations				
Sawlogs and veneer logs	6 265	8 256	9 253	9 227
Pulpwood and other logs	4 475	5 354	5 103	5 477
Total	10 741	13 609	14 356	14 704
Total log harvest	21 158	25 821	27 182	28 461

Source: Australian Forest and Wood Products Statistics: March and June quarters 2009, Australian Bureau of Agricultural and Resource Economics, Canberra, 2009.

Wood product exports and imports (\$million)

	2005	2006	2007	2008
	-06	-07	-08	-09
	\$m	\$m	\$m	\$m
Exports				
Woodchips	839	950	1 072	997
Paper and paperboard	601	650	635	606
Recovered paper	140	175	252	235
Sawnwood	121	145	120	125
Wood based panels	153	126	109	101
Total	2 140	2 355	2 471	2 343
Imports				
Paper and paperboard	2 187	2 270	2 248	2 276
Miscellaneous forest products	528	567	583	651
Paper manufactures	426	470	513	590
Sawnwood	419	418	492	405
Wood based panels	228	276	284	271
Pulp	225	265	285	263
Total	4 017	4 271	4 412	4 459

Employment in the forest-growing and wood product sector, 2006

Sector	Number of employees
Forest growing and management	7 348
Timber harvesting and haulage	8 973
Sawmilling and timber processing	19 081
Timber product manufacturing	37 800
Wood panel and board production	5 635
Pulp and paper manufacturing	11 024
Timber merchandising	22 134
Support service internal to industry	5 445
Support service external to industry	2 745
Total	120 184

Source: Forest and Wood Products Industry Workforce and Industry Data Collection Survey Report, Forestworks, Melbourne, 2006.

People in forestry

The estimated total number of people employed in the forestry and wood products industries is, based on an industry survey, to be about 120 000. The number of people employed in the Australian Bureau of Statistics industry classifications 'forestry', and 'wood, pulp and paper manufacturing' for 2009 was 76 800. Those industry classifications cover a narrower range of activities than the industry survey.

Water and forests

Much of Australia's fresh water for household, industrial and agricultural use is captured in forested catchments.

Forest production

		2005	2006	2007	2008
		-06	-07	-08	-09
Logs harvested, by source					
Native broadleaved	'000 m ³	8 575	8 551	8 940	8 328 s
Plantation broadleaved	'000 m ³	3 779	4 052	4 607	3 935 s
Coniferous	'000 m ³	14 379	14 580	14 913	14 217 s
Total	'000 m ³	26 734	27 182	28 461	26 480 s
Gross value - mill door	\$m	1 673	1 713	1 872	1 747 s
Production					
Sawnwood					
Coniferous	'000 m ³	3 821	4 012	4 263	na
Broadleaved	'000 m ³	1 211	1 152	1 109	na
Total	'000 m ³	5 032	5 163	5 371	na
Wood based panels					
Veneer	'000 m ³	4	2	82	117
Plywood	'000 m ³	1 025	1 024	1 056	1 017
Particleboard	'000 m ³	1 002	933	957	911
Medium density fibreboard	'000 m ³	376	406	391	401
Total	'000 m ³	1 948	1 745	1 882	1 778
Paper and paperboard					
Newsprint	kt	415	411	456	444 s
Printing and writing	kt	663	693	706	723 s
Household and sanitary	kt	203	190	186	196 s
Packaging and industrial	kt	1 926	1 907	1 933	1 949 s
Total	kt	3 207	3 201	3 281	3 312 s
Consumption					
Sawnwood		5 402	5 348	5 806	na
Wood based panels a		1 868	1 800	1 981	1 767
Paper and paperboard		4 139	4 192	4 338	4 199

a Excludes veneer. s Estimate

More than 30 million hectares of public forests (20 per cent of the total forest area) are managed primarily for protection of biodiversity, soil and water values. More than 4 million hectares of forest are managed specifically for water supply, with other activities prohibited. Multiple-use public forests are subject to codes of practice designed to reduce soil erosion and to maintain water quality.

Clearing deep-rooted native vegetation (including forests and woodlands) in the agricultural areas of Australia has resulted in rising water tables. Where the groundwater is saline, a rising watertable leads to saline surface soils and streams. Strategic revegetation for environmental or commercial purposes is being used to limit movement of salt in the landscape and its effects on agricultural production and stream salinity.

Because trees use more water than pasture, plantation expansion has become an issue in catchments where water is in short supply. However, plantation forestry is a relatively minor land use sector across Australia, occupying a small proportion of the catchments in which they are located. However, the effect of expansion on regional water availability could be significant in areas such as the Murray–Darling Basin.

Wildfires increase soil erosion and reduce water quality. Natural regrowth in affected catchments can reduce water yields for decades.

Biodiversity conservation

In the main native-forest timber production areas, the Australian and some state governments have negotiated regional forest agreements (RFAs), which are 20-year plans for the conservation and sustainable management of Australia's native forests. RFAs provide a comprehensive, adequate and representative reserve system. Overall, the aim is to place in nature conservation reserves 15 per cent of the pre-1750 distribution of each forest type, 60 per cent of the existing distribution of each forest type if vulnerable, 60 per cent of existing old-growth forest, 90 per cent or more of high-quality wilderness forests, and all remaining occurrences of rare and endangered forest ecosystems (including rare old-growth forests).

In the five years to 2008, national representation of forests in formal nature conservation reserves increased by 1.1 million hectares to 23 million hectares, which is 16 per cent of Australia's forests. Other reserves have also been set aside for conservation purposes in forests used for the production of timber and other forest products, and in areas of private forest managed for conservation objectives. Outside formal and other conservation reserves, legislative protections and/or codes of practice protect environmental values.

Forest pests and diseases

With the exception of cinnamon fungus, which is widely considered to be introduced, native forest and

plantation species are mostly affected by indigenous diseases, which can cause widespread but usually not severe damage.

Diseases of exotic plantations are usually caused by exotic agents, with occasional outbreaks and epidemics occurring. However, even low-level damage from pests and diseases can adversely affect commercial values. As for agricultural crops, managing pathogens in plantations is an ongoing cost of management.

Kangaroos and wallabies can also damage forests, grazing on seedlings in the early stages of forest regeneration and planting.

Predicted changes in climate, including increased temperatures and lower rainfall, could make forests more susceptible to pests and diseases and extend the geographic distribution of pests and diseases.

The control of pests and diseases using chemicals is highly regulated. The quantity of pesticides used in forest plantations is estimated to be less than 1 per cent of the total Australian pesticides market.

Further information:

Australia's state of the forests report: www.daff.gov.au/forestsaustralia

Science for decision makers: plantations and water use: www.daff.gov.au/brs/forest-veg/publications

Australian forest and wood products statistics: www.abare.gov.au

The changing face of Australia's forests: www.daff.gov.au/brs/forest-veg/publications

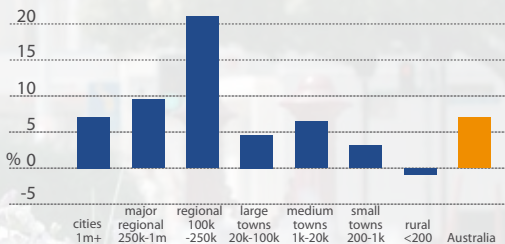


Rural communities

Characteristics of rural and regional Australians

The 2006 ABS Population Census shows that there are 7.5 million Australians, (approximately one-third of the population), who do not live in the capital cities. This population grew by 500 000 between 2001 and 2006.

Population growth by locality, 2001–06



Population growth in regional centres, peri-urban areas and cities along the coast is now higher than in capital cities. There has been continuing decline in rural areas.

In the five years to 2006:

- Australia's total population increased by 7 per cent
- population in small country towns increased by 3.1 per cent
- regional centres increased by 22 per cent

- population in rural areas decreased by 0.9 per cent
- the Australian population is ageing, but at a faster rate in small towns and rural areas as young people and families move to regional centres and cities. The Australian Bureau of Statistics reported the median age of farmers in 2006 as 52 years
- family size in rural areas is generally falling, but families in rural areas and small towns remain larger than in regional centres and cities.

Workforce

In 2006, participation in the workforce in rural areas (68 per cent) was higher than in urban areas of Australia (major urban 65 per cent; regional centres 60 per cent; small towns 58 per cent).

Unemployment in rural areas (4.1 per cent) was lower than in urban centres (major urban 5.1 per cent; regional centres 6.1 per cent; small towns 6.2 per cent).

The proportion of mothers participating in the workforce with dependent children (71 per cent) was higher in rural areas than in all urban areas (major urban 67.5 per cent; regional centres 67 per cent; small towns 64.2 per cent).

Housing

Housing is more affordable and home ownership rates are higher in rural areas (76.2 per cent) than in major urban centres (63.6 per cent).

Volunteerism

People in country areas are more likely to take on voluntary work, with 27.9 per cent of people in rural areas and 26.6 per cent in small towns volunteering, compared with the national average of 19.8 per cent.

Education

In 2006, 48 per cent of people in rural and regional Australia gained qualifications after they left school, compared with 55 per cent in urban areas and the Australian average of 53 per cent.

Social wellbeing

Populations in rural and remote areas generally have poorer access to healthcare services and experience poorer health than people living in major cities.

They have higher levels of mortality, morbidity and health risk factors than those who live in major metropolitan areas.

In 2005, most primary care medical practitioners (80 per cent) were in major cities, providing services to two-thirds (66 per cent) of the Australian population.

Indigenous communities in remote Australia generally have the smallest numbers of healthcare practitioners.

The supply of mental health services to rural populations was also considerably less than for capital cities.

Participation in agriculture, fisheries and forestry

Agriculture, fisheries and forestry industries are an important source of employment in Australia, with 280 923 people identifying themselves as being employed in these sectors in 2006.

Diversity of workforce

The Australian primary industries labour force is made up of a range of people with diverse backgrounds. These individuals make a significant contribution to Australian primary industries.

People from culturally and linguistically diverse (CALD) backgrounds

There are approximately 18 000 people from a CALD background employed in agriculture, fisheries and forestry in Australia, comprising more than 6.7 per cent of all employees in these industries.

Within this group, 24.7 per cent speak Italian at home, followed by Vietnamese (8.4 per cent), Greek (5 per cent), Maltese (3.7 per cent), Cantonese (3.7 per cent), Punjabi (3.5 per cent) and German (3.5 per cent).

People from a CALD background are considered under-represented in decision making roles within agriculture, fisheries and forestry-related organisations. The key

Number of CALD, Indigenous, women and youth within agriculture, fisheries and forestry workforce, 2006

Culturally and Linguistically Diverse (CALD)	17 890
Indigenous	3622
Women	85 913
15 to 30 year-olds	47 077
Total persons employed in agriculture, fisheries and forestry	280 923

reasons for this are poor English language proficiency and literacy skills, lack of industry knowledge, financial pressure, time constraints, disconnect between CALD persons and industry, and fragmentation within some industries.

Women in the agriculture industry

Australian women contribute directly to primary industries both in paid and unpaid positions and indirectly through their support of rural families and communities.

It is estimated that women contribute almost half of all primary industry input into the Australian economy.

In 2006, there were 85 925 women employed in agriculture, fisheries and forestry in Australia (ABS 2006).

The proportion of women working in agriculture fisheries and forestry from CALD backgrounds compared to non-CALD backgrounds is similar: 36.6 per cent and 30.4 per cent, respectively. However, women from a CALD background in rural Australia face issues such as discrimination, lack of services and fear of authority, as well as isolation.

Indigenous people in agriculture

In 2006, there were 3622 Aboriginal and Torres Strait Islander people employed in agriculture, fisheries and forestry in Australia, comprising 1.3 per cent of all employees in these industries. The majority of this group were male (78.2 per cent).

Youth in agriculture

The future of agriculture is in the hands of young farmers and new entrants to the industry. Attracting and retaining young people in primary industries is a significant issue as the average age of farmers has steadily increased since 1981. Between 1981 and 2006, the median age of farmers increased from 44 to 52 years. In 2006, only 16.8 per cent were aged 15 to 30 years inclusive. Of these, 75.7 per cent were male and 24.3 per cent female.

Further information:

Country Matters: 2008 Social Atlas of Rural and Regional Australia:
www.daff.gov.au/brs/publications

Revisiting missed opportunities—growing women's contribution to agriculture: <https://rirdc.infoervices.com.au/items/09-083>



Sector summaries

Wheat

Location

Wheat is grown in all states, but primarily in the 230 to 500 millimetre rainfall belt of south-east and south-west Australia, often in conjunction with livestock and other grain production.

Harvest

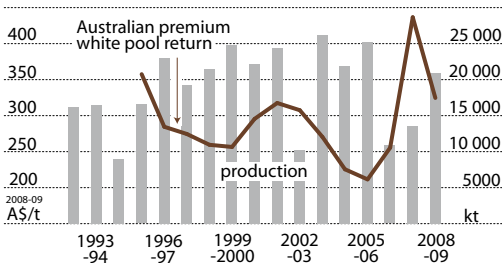
In the temperate climatic zones wheat growing begins with autumn sowing from April to July, depending on rainfall. The wheat crop is harvested in spring and summer.

Production since 1980-81

Highest: 26.1 million tonnes, 2003-04

Lowest: 8.9 million tonnes, 1982-83

Wheat



Wheat production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	Mt	621	598	609	687
China	Mt	98	109	109	113
European Union	Mt	123	125	120	151
India	Mt	69	69	76	79
Russian Federation	Mt	48	45	49	64
United States	Mt	49	49	56	68
Consumption	Mt	625	611	614	639
Closing stocks	Mt	136	123	118	165
Trade	Mt	110	111	110	136
Price	US\$/t	176	212	362	271
Australia					
Area	'000 ha	12 443	11 798	12 578	13 151
Production	kt	25 150	10 822	13 569	20 938
Exports	kt	15 168	11 196	7 408	13 410
Egypt	kt	1 818	251	284	449
Indonesia	kt	3 016	2 574	1 608	2 728
Iraq	kt	715	362	198	531
Japan	kt	1 106	1 114	878	791
Korea, Rep. of	kt	1 002	989	694	712
– value	\$m	3 296	2 765	2 990	5 028
Australian premium white					
– pool return	A\$/t	192	240	423	324

Coarse grains

Location

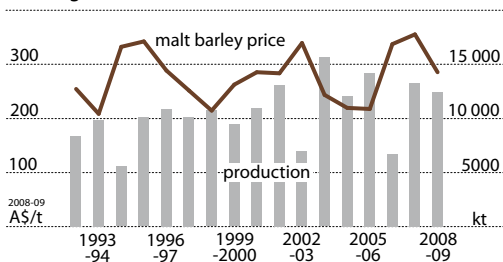
Barley, triticale and oats are winter crops grown primarily in the wheat belt. Sorghum is a summer crop grown in northern New South Wales and southern and central Queensland. A small amount of maize is also grown in Australia.

Production since 1980-81

Highest: 15.6 million tonnes, 2003-04

Lowest: 4.0 million tonnes, 1982-83

Coarse grains



Coarse grains production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	Mt	979	985	1 076	1 100
Consumption	Mt	990	1 007	1 056	1 073
Closing stocks	Mt	166	139	160	189
US corn price (fob Gulf, Oct–Sept)	US\$/t	106	157	218	173
Australia					
Barley					
Area	'000 ha	4 406	4 182	4 902	4 790
Production	kt	9 482	4 257	7 159	7 669
Exports	kt	5 316	3 136	4 051	3 898
– value	\$m	1 108	833	1 496	1 321
Price – feed barley	A\$/t	187	276	308	227
Sorghum					
Area	'000 ha	766	613	942	754
Production	kt	1 929	1 283	3 790	2 671
Exports	kt	173	46	251	1 368
– value	\$m	33	13	76	405
Oats					
Area	'000 ha	931	1 003	1 238	856
Production	kt	1 688	748	1 503	1 205
Triticale					
Area	'000 ha	347	369	360	355
Production	kt	676	199	450	503
Maize					
Area	'000 ha	76	49	68	70
Production	kt	380	240	387	368

Rice

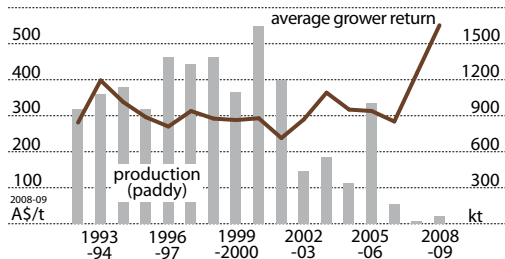
Location

Rice is produced mainly in the New South Wales Riverina region, which includes the Murrumbidgee irrigation areas, and in the Murray Valley irrigation district of northern Victoria. Small amounts are grown in northern New South Wales and Queensland.

Nature

Rice production increased until 2000 but fell between 2002-03 and 2004-05, and again in 2006-07 and 2007-08. In 2008-09 rice production increased on 2007-08, but was only 63 000 tonnes.

Rice



Production since 1980-81

Highest: 1.6 million tonnes, 2000-01

Lowest: 0.02 million tonnes, 2007-08

Rice production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production (milled)	Mt	418	421	433	446
China	Mt	126	128	130	134
India	Mt	91	93	97	99
Indonesia	Mt	35	35	37	38
Bangladesh	Mt	29	29	29	31
Vietnam	Mt	22	23	24	24
Consumption	Mt	413	418	426	435
Closing stocks	Mt	76	75	80	91
Trade	Mt	31	31	28	30
Prices					
Thailand	US\$/t	301	320	551	609
United States	US\$/t	484	538	694	1 119
Australia					
Area	'000 ha	102	20	2	8
Production (paddy)	kt	1 003	163	18	63
Production value	\$m	284	56	7	36
Exports (Apr–Mar)	kt	167	598	92	23
– value	\$m	171	347	71	31
Average grower return	A\$/t	284	265	404	550

Cotton

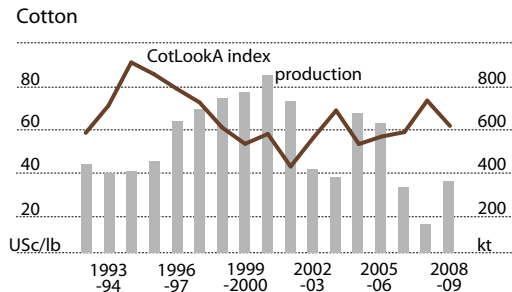
Location

Grown under both irrigated and dry land conditions, around 70 per cent of Australia's cotton is produced in New South Wales. The major production area stretches south from the Macintyre River and embraces the Gwydir, Namoi and Macquarie valleys, as well as regions along the Barwon and Darling Rivers and smaller areas south. The remaining cotton is grown in southern and central Queensland.

Lint production since 1980-81

Highest: 819 000 tonnes, 2000-01

Lowest: 99 000 tonnes, 1980-81



Cotton production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	kt	25 406	26 558	26 107	23 394
Brazil	kt	1 023	1 524	1 602	1 197
China	kt	6 183	7 729	8 056	7 990
India	kt	4 148	4 746	5 356	4 899
Pakistan	kt	2 213	2 155	1 938	1 960
United States	kt	5 201	4 700	4 182	2 790
Consumption	kt	25 350	26 879	26 773	23 973
Closing stocks	Mt	14	14	14	14
Stocks to consumption ratio	%	54	51	51	57
Cotlook 'A' index	USc/lb	56.0	58.1	72.9	61.2
Australia					
Area harvested	'000 ha	336	144	63	164
Lint production	kt	597	301	133	329
Exports	kt	650	487	266	260
China	kt	285	163	91	90
Chinese Taipei	kt	9	4	1	1
Indonesia	kt	141	126	74	81
Japan	kt	35	36	29	20
Korea, Rep. of	kt	54	54	14	12
Thailand	kt	93	75	43	45
- value	\$m	1 137	823	466	500

Oilseeds

Crops

Canola (73 per cent) and cottonseed (18 per cent) were the main oilseeds grown in Australia in 2008-09. Linseed, peanuts, soybeans, safflower and sunflower seeds are also grown in smaller quantities.

Location

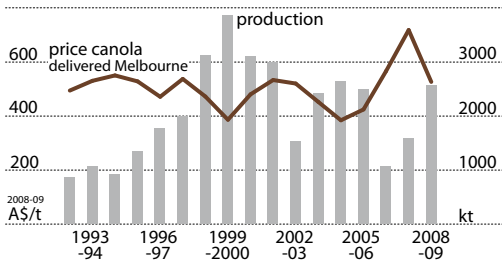
Oilseeds are grown principally in the wheat belt. Cottonseed is grown in the cotton producing regions and the majority of Australia's peanut crop is produced in Queensland's South Burnett region.

Production since 1980-81

Highest: 3.9 million tonnes, 1999-2000

Lowest: 0.3 million tonnes, 1982-83

Oilseeds



Oilseeds production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	Mt	391	404	392	395
Consumption	Mt	384	393	400	400
Closing stocks	Mt	65	74	62	56
Soybeans indicator price (Oct–Sep)	US\$/t	261	335	549	421
Australia					
Total production	kt	2 480	1 056	1 577	2 561
winter	kt	1 457	601	1 241	1 877
summer	kt	1 022	456	337	684
Canola					
Production	kt	1 419	573	1 214	1 861
Exports	kt	884	238	519	973
– value	\$m	331	108	303	595
Price (Nov–Oct) delivered Melbourne	A\$/t	386	530	696	525
Cottonseed					
Area	'000 ha	336	144	63	164
Production	kt	844	388	188	466
Exports	kt	204	104	18	37
– value	\$m	53	31	8	19
Sunflower seed					
Area	'000 ha	79	17	48	43
Production	kt	98	18	73	80
Price (Apr–Mar)	A\$/t	456	753	868	550

Sugar

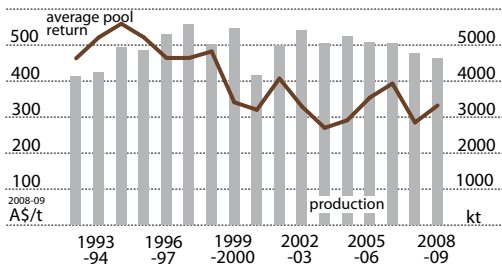
Location

Around 95 per cent of Australia's sugar output comes from Queensland, with the remainder from northern New South Wales. Sugar cane is grown along 2100 kilometres of coastline between Mossman in far north Queensland and Grafton in northern New South Wales. Cane production on the Ord River in Western Australia ceased in 2007.

Nature

Harvested areas of sugar cane in Australia have declined sharply since 2002-03 as a result of a range of factors, including low prices, drought, cyclones, sugar cane smut, urban encroachment and higher returns from alternative land uses, particularly forestry.

Sugar



Production since 1980-81

Highest: 5.6 million tonnes, 1997-98

Lowest: 3.0 million tonnes, 1991-92

Sugar production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	Mt	150	166	167	153
Brazil	Mt	32	32	31	37
China	Mt	10	13	16	14
India	Mt	21	31	29	16
Mexico	Mt	6	6	6	5
Thailand	Mt	5	7	8	7
Consumption	Mt	150	157	161	164
Change in stocks	Mt	- 1	0	0	1
Stocks to consumption ratio	%	40	38	37	36
Price	USc/lb	15.8	11.7	13.7	15.9
Australia					
Area	'000 ha	398	409	381	367
Production	kt	5 063	5 026	4 763	4 634
Average pool return	A\$/t	322	368	276	331
Exports	kt	3 883	3 719	3 493	3 268
Indonesia	kt	532	540	760	594
Japan	kt	493	611	480	440
Korea, Rep. of	kt	1 067	1 005	1 038	1 043
Malaysia	kt	469	520	403	429
- value	\$m	1 454	1 510	1 006	1 338

Wool

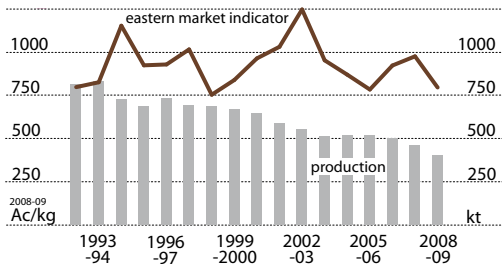
Location

Wool production is the second most common enterprise on Australian farms, with around 95 per cent of sheep in Australia run on broadacre establishments. More than 75 per cent of Australia's wool clip is produced in New South Wales, Victoria, and Western Australia. Tasmania has the highest concentration of superfine wool production in Australia, with around 70 per cent of Tasmanian wool tested falling into the superfine category.

Nature

The majority of Australian wool is merino wool with a fibre diameter of 19 to 22 microns. In 2008-09, Australia exported around 439 000 tonnes of greasy wool, valued in excess of \$2.3 billion.

Wool



Shorn wool production since 1980-81

Highest: 1049 000 tonnes, 1989-90

Lowest: 371 000 tonnes, 2008-09

Wool production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Wool production	kt	1 241	1 229	1 201	1 117
Argentina	kt	78	71	65	54
Australia	kt	520	502	459	404
China	kt	395	399	365	na
New Zealand	kt	224	217	206	154
Wool exports	kt	567	590	553	482
Australia					
Sheep numbers	million	91	86	77	72
Sheep shorn	million	107	110	95	87
Wool production - greasy					
shorn	kt	473	451	408	371
other	kt	47	52	51	34
Total	kt	520	502	459	404
Closing stocks - greasy	kt	158	0	na	na
Wool exports - balance of payments basis					
volume - greasy equiv.	kt	544	567	477	439
value	\$m	2 539	3 065	2 796	2 322
Market indicator - clean					
eastern	Ac/kg	713	864	945	794
western	Ac/kg	692	856	947	762
Auction price - greasy	Ac/kg	464	544	599	499

Beef and veal

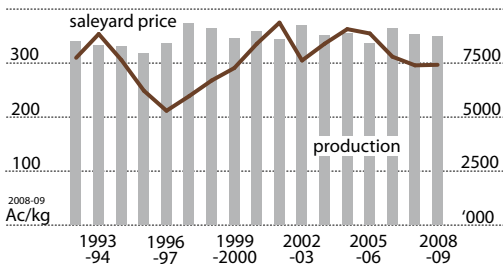
Location

Beef production is widespread across Australia, occurring on large properties in northern Australia and on smaller properties with a high degree of pasture improvement in the southern states.

Nature

An increasing number of cattle are being fattened in feedlots. Most feedlots are in the major agricultural regions with access to adequate supplies of store cattle, grain and other feedstuffs. The majority of feedlots are in southern Queensland and New South Wales. Australia is one of the world's largest beef exporters, although producing only 3.9 per cent of the world's beef supply.

Beef



Production since 1980-81

Highest: 2.2 million tonnes, 2006-07

Lowest: 1.3 million tonnes, 1984-85

Beef and veal production

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production					
Argentina	kt	3 100	3 300	3 150	3 200
Brazil	kt	9 025	9 303	9 024	8 935
China	kt	5 767	6 134	6 132	5 764
European Union	kt	8 150	8 188	8 090	8 000
United States	kt	11 980	12 096	12 163	11 816
Australia					
Cattle numbers	million	28	28	27	27
– on feed, 30 June	'000	940	870	688	744
Slaughterings	'000	8 401	9 081	8 799	8 702
Production	kt	2 077	2 226	2 155	2 148
Exports (shipped weight)					
United States	kt	295	303	240	282
Japan	kt	388	403	365	363
Korea, Rep. of	kt	121	157	146	113
Total	kt	892	974	930	968
– value	\$m	4 272	4 634	4 190	4 857
Live cattle	'000	549	638	713	856
– value	\$m	358	437	451	559
Saleyard price	Ac/kg	322	292	286	296

Pig meat

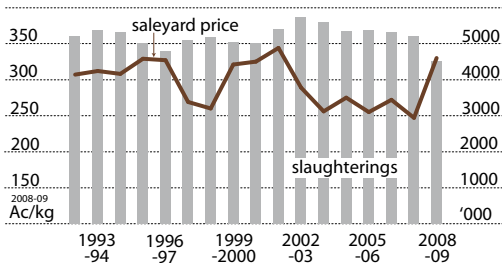
Location

Pig raising is highly dispersed within grain producing regions in each state. The quantity of pork produced by each state is linked to major grain growing regions but is also influenced by proximity to the major population centres of Australia.

Nature

Australian pig meat prices have been increasingly influenced by international price movements as a result of increased exposure to the global market. Exchange rate movements play a significant role in both import and export volumes. Feed grain is a major input into pigmeat production, with variations in feed costs affecting profitability.

Pigmeat



Production since 1980-81

Highest: 420 000 tonnes, 2002-03

Lowest: 228 000 tonnes, 1981-82

Pig meat production and exports

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production					
China	kt	46 505	42 878	46 205	48 500
European Union	kt	21 791	22 858	22 596	22 000
United States	kt	9 559	9 962	10 599	10 446
Brazil	kt	2 830	2 990	3 015	3 123
Canada	kt	1 748	1 746	1 786	1 790
Russian Federation	kt	1 805	1 910	2 060	2 205
Australia					
Breeding sows	'000	352	340	313	276
Slaughterings	'000	5 370	5 322	5 217	4 522
Production	kt	389	382	377	324
Exports	kt	44	41	39	32
Japan	kt	2	2	1	1
New Zealand	kt	11	10	10	8
Singapore	kt	22	22	21	17
– value	\$m	143	142	128	124
Imports	kt	72	107	103	128
Price					
– saleyard	Ac/kg	232	255	240	330
– US national indicator	USc/kg	139	147	134	137

Sheep meat

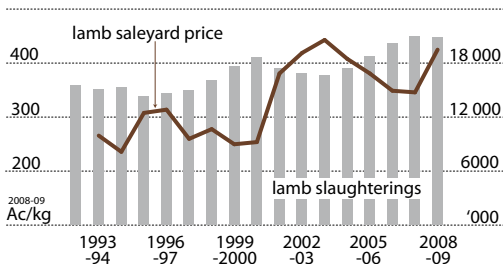
Location

Sheep meat production was once mainly undertaken as an adjunct to wool growing. Now, almost half of the farms that carry sheep receive some revenue from prime lamb sales. Around 6 per cent of Australian broadacre farms receive more than 50 per cent of income from prime lambs. The prime lamb industry is concentrated in New South Wales, Western Australia and Victoria.

Nature

Australia is the second largest sheep meat producing country, after China. Australia is the largest exporter of mutton in the world and the second largest exporter of lamb, behind New Zealand.

Sheep meat



Production since 1980-81

Highest: 715 000 tonnes, 2000–01

Lowest: 465 000 tonnes, 1983-84

Sheep meat production and exports

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production					
Australia	kt	669	692	669	647
China	kt	2 540	2 600	na	na
New Zealand	kt	542	573	598	na
Spain	kt	214	196	157	na
United Kingdom	kt	330	325	326	na
Australia					
Slaughterings					
Sheep	'000	11 830	13 271	11 929	11 282
Lamb	'000	18 666	20 158	20 899	20 767
Production					
Mutton	kt	244	271	258	235
Lamb	kt	382	413	435	423
Exports (shipped weight)					
Mutton	kt	145	162	158	146
Lamb	kt	143	150	163	156
– to United States	kt	39	41	42	38
Export lamb value	\$m	767	748	803	925
Live sheep	'000	4 248	4 138	4 069	4 064
Live sheep value	\$m	291	289	286	339
Saleyards prices					
Mutton	Ac/kg	175	136	159	199
Lamb	Ac/kg	347	326	335	424

Poultry meat

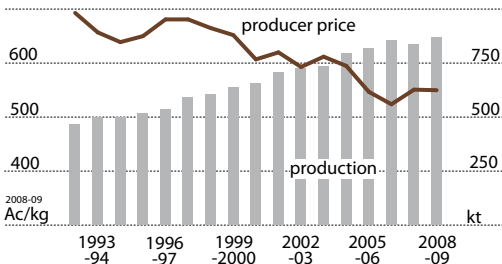
Location

In 2008-09 New South Wales accounted for 34 per cent of chicken meat production, Victoria 29 per cent and Queensland 18 per cent, with the remaining 19 per cent produced in South Australia, Tasmania and Western Australia. Production and processing is located around capital cities and in regional clusters near Casino, Goulburn, Griffith, Newcastle and Tamworth in New South Wales, Mareeba in Queensland, Devonport and Launceston in Tasmania, Geelong and Bendigo in Victoria and Murray Bridge in South Australia.

Nature

The industry is highly integrated and dominated by two major processors supplying 70 per cent of chickens for slaughter.

Poultry



Around 80 per cent of all meat chickens are produced under a contract system, with processors supplying day-old chicks and rearing specifications. Other chickens are grown on company farms.

Production since 1980-81

Highest: 0.9 million tonnes, 2008-09

Lowest: 0.3 million tonnes, 1981-82

Poultry meat production and exports

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production					
Brazil	kt	9 708	10 763	11 471	11 417
China	kt	10 354	11 359	11 845	12 105
United States	kt	18 473	18 889	19 357	18 547
Australia					
Production	kt	817	855	835	866
Consumption per person	kg	38	39	38	38
Exports	kt	22	28	30	37
– value	\$m	21	26	32	43
Retail price	Ac/kg	498	490	534	549

Egg production

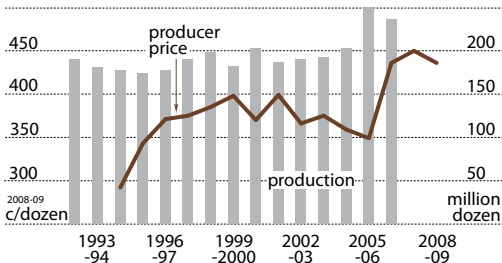
Location

In 2008-09, Victoria accounted for 34 per cent of Australia's egg producing bird flock, followed by New South Wales at 32 per cent and Queensland at 20 per cent. The industry evolved near urban centres and many smaller operators were on the fringes of urban centres. However, planning and associated environmental regulations, as well as scale economies, have resulted in large-scale automated operations being established in key grain growing areas, where land prices are generally cheaper and lower production costs offset higher transport costs.

Nature

Eggs are predominantly produced by commercial operations. Around 333.9 million eggs were produced

Eggs



2007-08 not available.

Egg production and exports

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production	Mt	62.3	64.0	65.6	na
China	Mt	20.9	21.8	22.7	na
United States	Mt	5.4	5.4	5.3	na
India	Mt	2.8	2.9	2.7	na
Japan	Mt	2.5	2.6	2.6	na
Australia					
Production	million dozen	250	236	na	334
Gross value of production	\$m	376	388	468	413
Exports	\$m	1.1	1.1	1.3	1.7
Imports	\$m	1.6	1.1	0.8	1.6
Producer unit value	\$/dozen	3.18	4.09	4.36	4.36
Number of farms	no	423	468	417	na
Number of chickens	million	15.9	15.3	14.8	na

in 2008-09, with shell eggs accounting for around 85 per cent of egg consumption.

Producers use intensive cage, free range and barn lay systems for bird housing. Of the eggs sold in Australian supermarkets, it is estimated that around 79 per cent are produced from cage systems, 15 per cent free range and 6 per cent barn laid.

Raw eggs (shell eggs) are not permitted under quarantine restrictions to be imported into Australia. However, egg powder and pulp, as well as preserved/cooked eggs, are able to be imported.

Production since 1980-81

Highest: 333.9 million dozen, 2008-09

Lowest: 174.1 million dozen, 1995-96

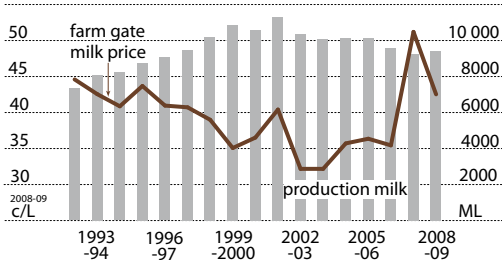
Dairy products

Location

Dairying is conducted largely in the southern and eastern parts of Australia.

Since 2000, on average, Victoria has accounted for around 65 per cent of total milk production, New South Wales 12 per cent, Queensland, South Australia and Tasmania around 6 to 7 per cent each and Western Australia 4 per cent.

Dairy



Most dairying occurs in coastal regions, based largely on rain fed pasture, while inland regions are reliant on irrigation water for growing feed and fodder.

Around 25 per cent of milk is produced in the inland irrigation areas of the Murray-Darling Basin in northern Victoria and southern New South Wales, and it is these areas that have been most affected by recent droughts.

Nature

The dairy industry is a major rural industry and ranks third behind wheat and beef, with a gross value of production of \$3.98 billion in 2008-09.

The industry operates in a deregulated environment with farm-gate prices determined by domestic and international markets. Around half of Australia's milk production is exported as dairy products such as cheese, butter and milk powders. Australia is the third largest dairy product exporter after the European Union and New Zealand.

Milk production since 1980-81

Highest: 11.3 billion litres, 2001-02

Lowest: 5.2 billion litres, 1980-81

Dairy production, prices and exports

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Production					
Butter	kt	7 112	7 539	7 820	8 017
Skim milk powder	kt	3 302	3 479	3 516	3 669
Exports					
Butter	kt	754	812	696	644
Skim milk powder	kt	1 013	1 141	1 103	1 018
Prices					
Butter	US\$/t	1 998	2 023	4 027	2 485
Cheese	US\$/t	2 792	3 004	5 073	3 281
Skim milk powder	US\$/t	2 175	3 188	4 204	2 333
Australia					
Cow numbers	'000	1 880	1 796	1 640	1 645
Milk yields	L/cow	5 367	5 336	5 624	5 707
Production					
Total milk	ML	10 089	9 583	9 223	9 388
– market sales	ML	2 061	2 156	2 202	2 244
– manufacturing	ML	8 028	7 427	7 021	7 144
Butter	kt	146	133	128	148
Cheese	kt	373	364	361	342
Milk powder					
– whole	kt	158	135	142	148
– skim	kt	205	191	164	212
Milk price (farmgate)	Ac/L	33	33	50	42
Value of exports	\$m	2 569	2 438	2 763	2 679

Horticulture

Location

Production occurs across the range of tropical, subtropical and temperate zones, with the greatest concentration in the Goulburn Valley of Victoria, the Murrumbidgee Irrigation Area of New South Wales, the Sunraysia district of Victoria, the Riverland region of South Australia, northern Tasmania, south-west Western Australia and the coastal strip of both northern New South Wales and Queensland. Nursery production generally occurs close to the capital cities.

Nature

Australian horticulture is a labour-intensive industry, employing more than 81 000 people. It is seasonal in nature and characterised by small-scale, family farms, many of which grow a range of crops. A sizeable amount of horticultural produce in the southern states is directed to processing, while Queensland typically

Horticulture GVP

	2005	2006	2007	2008
	-06	-07	-08	-09
	\$m	\$m	\$m	\$m
Vegetables	2 833	3 165	3 363	3 430
Fruit and nuts	2 834	3 739	2 959	2 916
Wine grapes	1 154	1 243	1 446	887
Total	6 821	8 146	7 768	7 234

supplies the southern states during the cooler June to October months. Australian horticulture is counter seasonal to northern hemisphere markets.

The total value of Australian exports of fresh and processed fruit, nuts and vegetables was \$1.29 billion in 2008-09, compared with a total value of imports of these products of \$1.83 billion.

Horticulture exports

	2005	2006	2007	2008
	-06	-07	-08	-09
	\$m	\$m	\$m	\$m
Australia				
Oranges	137	141	135	123
Grapes	115	94	101	189
Mandarins	35	29	34	34
Carrots	41	41	38	46
Apples	12	12	7	9
Cut flowers/nursery	33	30	28	26
Asparagus	22	18	17	24
Plums	14	11	11	10
Onions	22	28	27	27
Macadamias	120	89	84	87
Cauliflowers	2	1	1	1
Nectarines	16	11	10	13
Pears	9	6	7	10
Melons	16	17	15	19
Broccoli	8	8	5	5
Other	208	212	215	278

Wine and wine grapes

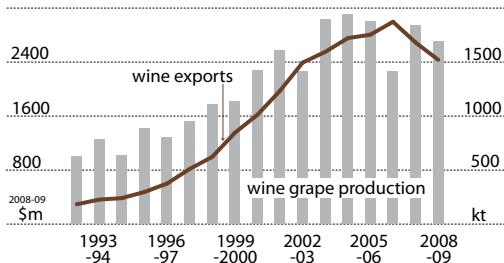
Location

All states of Australia produce wine grapes, with South Australia the largest producer at about 45 per cent of total production in 2008-09, followed by New South Wales and Victoria.

Nature

The industry is based on about 8100 grape growers supplying more than 2000 wineries. In 2008-09, there were approximately 157 000 hectares of wine grapes, with a total grape crush of 1.684 million tonnes. Nearly two-thirds of that was grown in the warm inland regions, including the Riverina, the Murray Valley and the Riverland. Since 1999, the production of red wine grapes has exceeded that of white wine grapes.

Winegrapes



A rapid expansion of the Australian wine industry since the mid-1990s has been accompanied by significant industry development, characterised by a shift in focus from domestic to export markets. In 2008-09, export sales were almost twice domestic sales by volume. In value terms, wine exports were ranked fourth of all Australian food exports in 2008-09 compared with tenth in 1990-91.

Grape production since 1980-81

Lowest: 0.8 million tonnes, 1980-81

Highest: 1.9 million tonnes, 2004-05

Wine grapes production and exports

		2005 -06	2006 -07	2007 -08	2008 -09
Australia					
Total bearing area	'000ha	158	163	166	157
Grape production	kt	1 873	1 410	1 837	1 684
White	kt	773	658	796	796
Red	kt	1 024	674	984	888
Exports					
Table wine	ML	720	780	689	733
Dry red	ML	455	497	446	442
White	ML	265	283	243	292
Sparkling wine	ML	13	15	17	15
Carbonated	ML	1	1	1	na
Fortified wine	ML	2	2	2	1
Other wine	ML	1	1	1	1
Total	ML	736	798	709	750
Value	\$m	2 799	2 990	2 683	2 428
Unit value	A\$/L	3.8	3.7	3.8	3.2
Major destination, by value					
United Kingdom	\$m	960	976	888	723
United States	\$m	901	956	745	741
Canada	\$m	249	267	260	214
Germany	\$m	76	66	49	51
Australian wine sales	ML	432	449	na	na
Imports					
Table wine	ML	20	25	44	51
Sparkling wine	ML	6	7	8	10
Fortified wine	ML	0	0	0	0
Other	ML	2	2	2	2
Total imported wine	ML	27	34	54	62
Total wine available for consumption	ML	460	481	482	493

Food

Nature

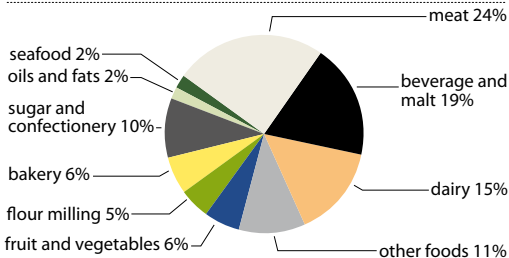
Total food and liquor retail turnover increased by 6 per cent in 2007-08 to \$112.9 billion.

The processed food and beverage industry is Australia's largest manufacturing industry, with sales and service income of \$79.4 billion (excluding spirits) in 2006-07, contributing around \$19 billion, or 1.7 per cent of Australia's gross domestic product.

The food and beverage sector accounts for 19 per cent of employment in Australia's manufacturing sector.

The industry comprises around 3400 firms and employs more than 200 000 people. Around half of the food processing organisations and 40 per cent of employees are located in rural and regional areas.

Processed food and beverage industry turnover, 2006-07



In 2007-08, supermarkets and grocery stores accounted for 61 per cent of food and beverage sector retail turnover by value; cafes and restaurants 14 per cent; other food retailing 10 per cent; takeaway food outlets 9 per cent; and liquor retail outlets 6 per cent.

Food industry overview

		2005 -06	2006 -07	2007 -08	2008 -09
World					
Value of food trade	US\$m	715 102	842 795	na	na
Australia					
Food production	\$m	27 123	21 899	23 616	26 874
– share of GDP	%	3	2	2	2
Food processing	\$m	17 495	18 989	na	na
– share of GDP	%	2	2	na	na
GDP	\$m	967 454	1 045 674	1 132 464	1 201 959
Retail					
Food and liquor	\$m	98 636	106 440	112 880	na
– share of total retail	%	47	52	52	na
Total	\$m	211 219	202 891	216 952	na
Exports					
Value of food exports	\$m	24 070	23 359	23 439	28 056
Export share					
unprocessed	%	4	3	4	4
processed	%	11	11	9	8
– share of merchandise	%	16	14	13	12
Value of total merchandise trade	\$m	154 035	169 524	182 952	231 406

Food export summary

	2005	2006	2007	2008
	-06	-07	-08	-09
	\$m	\$m	\$m	\$m
Minimally transformed				
Live animals except fish	668	752	761	924
Fish or shellfish	657	632	647	747
Horticulture	631	598	571	716
Grains	4 305	3 329	4 221	6 383
Oilseeds	412	167	346	644
Food (other)	49	54	41	49
Substantially transformed				
Meat	6 785	7 117	6 571	7 501
Seafood	606	548	440	417
Dairy	2 569	2 438	2 763	2 679
Fruit and vegetables	555	574	568	575
Oil and fat	150	169	239	303
Flour mill and cereal food	478	642	602	809
Bakery products	132	137	144	152
Other food	2 952	2 907	2 366	3 065
Beverages and malt	3 120	3 294	3 159	3 091
Total food and beverage				
Minimally transformed	6 722	5 532	6 586	9 463
Substantially transformed	17 062	17 530	16 528	18 243
Elaborately transformed	286	297	324	350
Total	24 070	23 359	23 439	28 056

Food import summary

	2005 -06	2006 -07	2007 -08	2008 -09
	\$m	\$m	\$m	\$m
Minimally transformed				
Live animals except fish	1	1	1	2
Fish or shellfish	47	57	65	67
Vegetables	41	45	53	49
Fruit and nuts	191	194	216	225
Grains	1	2	2	2
Oilseeds	20	78	49	49
Food (other)	140	176	188	180
Substantially transformed				
Meat	333	489	431	593
Seafood	998	1 151	1 095	1 249
Dairy	432	480	656	631
Fruit and vegetables	1 043	1 233	1 390	1 559
Oil and fat	417	481	489	578
Flour mill and cereal food	362	358	527	659
Bakery products	337	417	442	493
Other food	1 427	1 577	1 731	2 054
Beverage and malt	1 345	1 582	1 802	2 050
Total food and beverage				
Minimally transformed	441	551	574	574
Substantially transformed	6 435	7 430	8 167	9 437
Elaborately transformed	259	338	396	429
Total	7 135	8 319	9 138	10 441

Exports

In 2008-09, the value of Australia's food exports was \$28.1 billion. Imports of food products amounted to \$10.4 billion.

Australia continues to be a significant exporter of food products. Food exports accounted for 12 per cent of total Australian merchandise exports in 2008-09.

Department of Agriculture, Fisheries and Forestry

The Australian Department of Agriculture, Fisheries and Forestry's role is to develop and implement policies and programs that ensure Australia's agriculture, fisheries, food and forestry industries remain competitive, profitable and sustainable.

Our policies and programs:

- encourage and support sustainable natural resource use and management
- protect the health and safety of plant and animal industries
- enable industries to adapt to compete in a fast-changing international and economic environment
- help improve market access and market performance for the agriculture and food sector
- encourage and assist industries to adopt new technology and practices, and
- assist primary producers and the food industry to develop business and marketing skills, and to be financially self-reliant.

The department employs staff in Australia and overseas, including policy officers, program administrators, scientists, economists, meat inspectors, veterinary officers and quarantine inspectors.

