

AGRICULTURE IN AUSTRALIA AN OVERVIEW

Australian agriculture is characterized by:

- a heavy dependence on overseas markets
- a large scale of activities compared with similar enterprises in other parts of the world
- a heavy and long concentration on a limited range of products
- a dependence on a low rainfall, seasonally dry and periodically drought environment.
- an old land resource with limited fertility and a high propensity to degradation.
- a relatively high standard of living of the agricultural community.

The community only consumes a small amount of the total Australian production and therefore, most Australian products must be sold in competition with overseas producers. Therefore, Australian agriculture must be efficient by world standards to compete.

A LAND OF LOW PRODUCTIVITY

A large part of Australia has low productivity and fertility compared with overseas competitors.

See diagrams 1-3 that show the 9 month growing seasons in Europe, Australia and the USA.

DIAGRAM 1 Europe

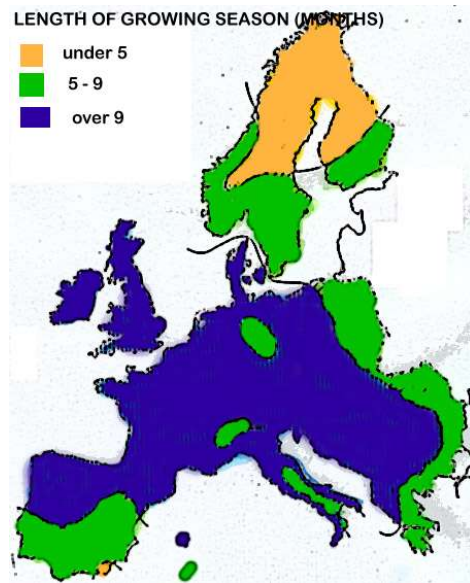


DIAGRAM 2 -United States of America

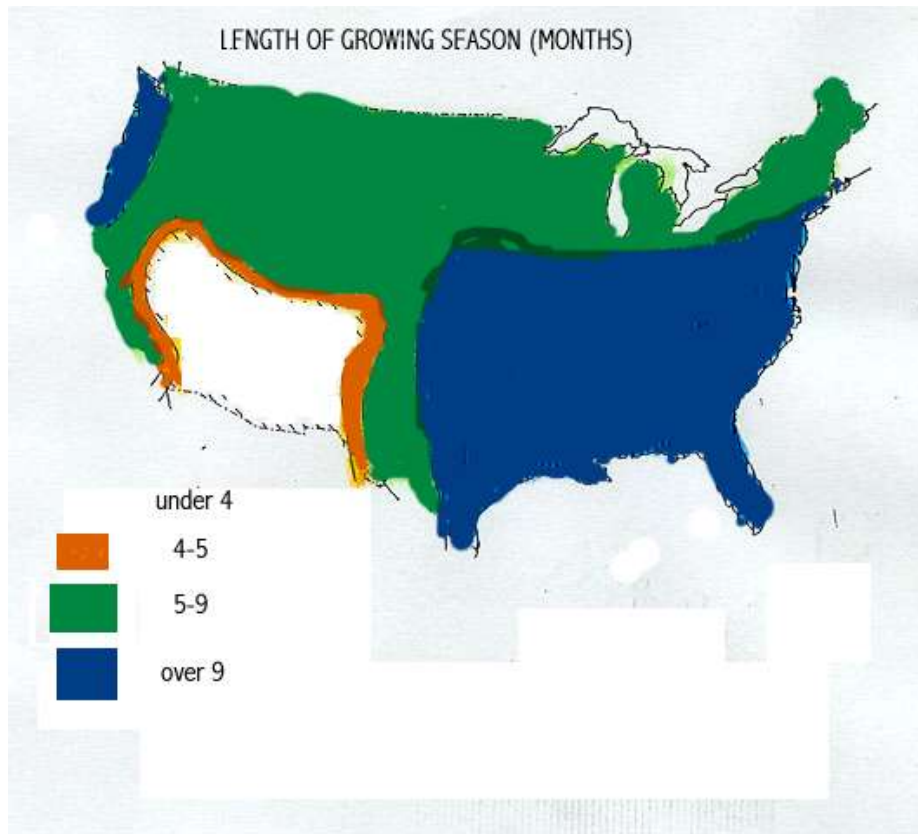
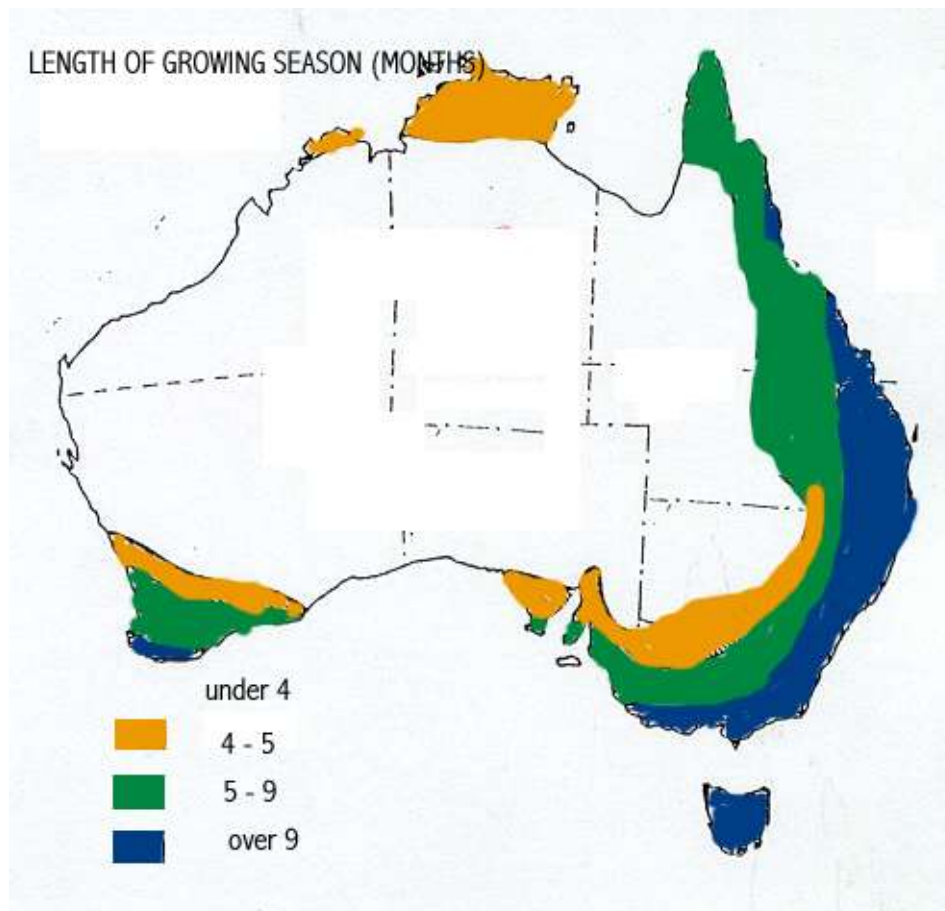


DIAGRAM 3 Australia.



The comparatively low area for Australia is mainly caused by the seasonality and limited rainfall combined with very high rates of evaporation and prolonged drought periods.

The vast interior of Australia receives little rainfall in either winter or summer that is, less than 3000mm per annum. Combined with high evaporation rates greater than 3000mm per annum for most years and most seasons there is a soil moisture deficit. Such land is best used for extensive livestock grazing.

The northern portion receives all its rainfall of 400-1200mm in the hot summer months when evaporation is at its the highest rate of 2800-3200mm pa. Therefore, the northern regions are less effective for plant growth than the southern parts of Australia. Generally, there is a severe dry period during winter requiring irrigation for crop management except for the sugar cane belt of Queensland which receives more than

1600mm per annum and has less than 1600mm per annum rate of evaporation.

The southern portion of Australia receives most of its rainfall, 400-1200mm per annum during the cooler months and where pan evaporation is less than 1600 mm per annum. Therefore, there is more moisture available for plant growth for a given amount of rainfall especially during the wet winter season when even relatively dry lands can be used for cereal crops.

The eastern coastal zone receives more rainfall than most other parts of Australia, 800-1600mm per annum and has a relatively low pan evaporation of less than 1600mm per annum. This rainfall occurs during all seasons providing a potentially longer growing seasons than for most other parts of Australia. Because of the rugged terrain and cooler temperatures of the eastern highlands the land use is more varied ranging from wilderness to intensive cropping and horticulture.

See droughts

See land capability

POST WORLD WAR 2 CHANGES

The post World War 2 period saw a remarkable change in the markets for Australian rural products including major shifts in structure and organisation of the rural economy. War time marketing restrictions on agricultural products led to a more stable market.

Considerable benefits from scientific research into problems of cropping and farm animal husbandry. For example, the introduction of *myxomatosis* devastated the immense rabbit population and thus allowed a large increase in the number of grazing animals.

Post world war 2 also saw an economic boom and rural to urban migration encouraged by widespread mechanization. This in turn opened up large tracts of grazing lands in NSW central and eastern Queensland and southern Western Australia for cereal cultivation.

Road trucking for livestock helped to reduce the impact of local and regional drought.

The period also saw the expansion of irrigation areas especially for the

cultivation of cotton and rice, the introduction of a wide range of crops such oil seeds and improved varieties to suit varying regional conditions and a general intensification of land use particularly in the higher rainfall areas of the southern and eastern portions of the continent.

The period was subject to new techniques in cropping and new crops (eg canola), increasing scale of rural enterprises, more capital investment in auto headers and 4 wheel drive tractors.

Conservation has become important becoming a social issue. Generally, improved land management and a longer term view on agriculture has resulted.

Urban development has led to the proliferation of hobby farms and an urban influence on nearby farms.

EXTERNAL PRESSURES

A traditional major market disappeared following the UK's entry into the European Economic Community (EEC). The EEC has, because of protection, become a competitor to Australian produce. To counter this, Australia has turned to USSR, China and Japan as alternative markets.

The USA has recently shown strong protectionist policies which together with a propensity to “dump” reserve commodities, has helped to undermine Australia’s international markets.

See landforms and their history

see agriculture – characteristics of Australian farms

see employment in agriculture

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED

The contribution of agriculture to the Australian economy can be measured in a number of ways. The most direct measurement available is the gross value of agricultural production for the year ending 30 June. In 1999-2000, the gross value of agricultural production in current prices was \$30.2b.

TABLE 6 shows the gross value of agricultural commodities produced

for the years 1994-95 to 1999-2000. The values shown are the values of recorded production at the wholesale prices realised in the principal market place. Also shown are chain volume indexes of the value of production, which provide an indication of the change in value after the direct effects of price change are eliminated. Chain volume measures are discussed in the section Chain volume or 'real' GDP in National accounts. See table below:

TABLE
AGRICULTURAL COMMODITIES PRODUCED
Gross Value and Chain Volume Index(a)

Commodity	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
				\$m		
GROSS VALUE OF COMMODITIES PRODUCED (CURRENT PRICES)						
CROPS						
- Barley for grain						
- 622.2	1,276.4	1,308.0	1,032.0	835.5	864.8	
- Oats for grain						
- 165.8	289.4	226.6	223.3	156.6	118.4	
- Wheat for grain						
- 2,127.2	4,304.7	4,877.9	3,801.5	4,011.0	4,831.2	
- Other cereal grains						
- 580.2	733.0	764.9	702.1	810.9	750.4	
- Sugar cane cut for crushing						
- 1,207.7	1,168.7	1,186.4	1,247.7	1,044.1	881.9	
- Fruit and nuts						
- 1,426.4	1,498.8	1,667.8	1,586.8	1,763.0	1,761.1	
- Grapes						
- 511.0	714.4	721.4	998.2	1,200.1	1,118.2	
- Vegetables						
- 1,491.6	1,616.1	1,662.3	1,812.3	1,864.4	1,861.9	
- All other crops(b)						
- 2,999.6	3,729.0	3,580.5	3,904.3	4,540.7	4,735.1	
- TOTAL CROPS						
- 11,131.7	15,330.5	15,995.8	15,308.2	16,226.3	16,923.0	
LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS						
- Cattle and calves						
- 4,213.5	3,575.9	3,597.0	4,138.2	4,476.6	5,050.9	
- Sheep and lambs						
- 836.8	1,035.7	1,042.6	1,066.2	1,053.5	1,053.9	

- Pigs(c)					
- 630.6	597.8	764.8	709.8	689.7	791.7
- Poultry(c)					
- 902.0	948.1	932.0	1,053.6	1,018.5	1,031.0

- TOTAL LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(D)						
	6,618.8	6,192.7	6,376.3	6,991.9	7,255.8	7,946.9

LIVESTOCK PRODUCTS

- Wool					
- 3,319.3	2,559.7	2,621.2	2,753.9	2,141.0	2,149.2
- Milk(e)					
- 2,419.1	2,848.3	2,808.9	2,817.0	2,899.6	2,845.2
- Eggs(e)					
- 230.6	256.9	274.9	347.5	337.1	321.4

- TOTAL LIVESTOCK PRODUCTS(E)(F)						
	5,995.0	5,707.3	5,758.7	5,957.8	5,411.8	5,353.7

TOTAL VALUE OF AGRICULTURAL COMMODITIES PRODUCED(G)

	23,754.8	27,242.0	28,130.8	28,258.0	28,893.9	30,223.6
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CHAIN VOLUME INDEX OF GROSS VALUE OF COMMODITIES PRODUCED

Commodity	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
				\$m		

CROPS

- Barley for grain						
- 57.9	115.7	133.1	127.8	119.0	100.0	
- Oats for grain						
- 82.6	167.7	147.9	145.8	160.8	100.0	
- Wheat for grain						
- 37.3	68.6	95.3	76.1	89.2	100.0	
- Other cereal grains						
- 63.2	81.4	93.0	81.7	103.5	100.0	
- Legumes for grain						
- 59.6	102.5	102.8	93.1	100.4	100.0	
- Oilseeds						
- 15.8	25.8	33.0	36.4	75.7	100.0	
- Sugar cane cut for crushing						
- 85.1	86.2	93.2	98.5	92.6	100.0	
- Cotton						
- 51.1	59.0	92.6	100.0	96.7	100.0	
- Nursery production						

-	88.8	96.7	81.8	72.2	94.2	100.0
-	Fruit and nuts					
-	84.3	84.6	91.1	87.9	86.0	100.0
-	Grapes					
-	65.5	92.6	80.1	79.1	97.4	100.0
-	Vegetables					
-	80.3	89.0	88.6	91.6	96.3	100.0
-	All other crops(b)					
-	68.8	102.0	76.7	86.3	97.5	100.0
-	TOTAL CROPS					
-	56.9	77.8	89.6	84.1	93.6	100.0

LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS

-	Cattle and calves					
-	85.3	86.4	92.9	96.8	99.5	100.0
-	Sheep and lambs					
-	89.3	87.9	88.3	91.5	92.8	100.0
-	Pigs(c)					
-	96.0	97.0	95.2	94.4	99.5	100.0
-	Poultry(c)					
-	76.7	80.1	82.8	91.7	95.5	100.0
-	TOTAL LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(D)					
-	85.7	86.8	90.7	94.9	97.8	100.0

LIVESTOCK PRODUCTS

-	Wool					
-	104.6	98.7	104.6	98.4	98.1	100.0

see financial statistics of farm businesses