Chapter Fifteen

Agriculture

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The major source of the statistics in this chapter is the Agricultural Census conducted by the ABS at 31 March each year.

The ABS excludes from the Census those establishments which make only a small contribution to overall agricultural production. Since 1986–87, the Census includes establishments with agricultural activity which have an estimated value of agricultural operations of $20,000 or more. Prior to this (1982–83 to 1985–86) the cut-off value was $2,500.

While this alteration has resulted in some changes in the counts of numbers of establishments engaged in agricultural activities, the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small scale operations may be affected to a greater extent.

Details of the method used in the calculation of the estimated value of agricultural operations (EVAO) are contained in the publication *Agricultural Industries: Structure of Operating Units, Australia* (7102.0).

Financial statistics are collected in the Agricultural Finance Survey, conducted annually since 1986–87.

STRUCTURE OF AGRICULTURAL INDUSTRIES

The following tables provide information on the number, size and type of agricultural establishments during 1989–90.

ESTIMATED VALUE OF AGRICULTURAL OPERATIONS OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY
YEAR ENDING 31 MARCH 1990

ASIC Code	Industry of establishment(a) Description	Estimated value of agricultural operations ($'000)(b) Less than 20	20–29	30–39	40–49	50–59	60–74	75–99	100–149	150–199	200–499	500 or more	Total establishments
0124	Poultry for meat	11	12	17	19	14	38	68	148	113	158	83	681
0125	Poultry for eggs	18	17	13	13	10	19	29	57	62	217	190	645
0134	Grapes	134	249	291	366	346	453	652	578	218	173	61	3,521
0135	Plantation fruit	90	168	162	152	132	161	179	208	113	157	58	1,580
0136	Orchard and other fruit	474	448	413	378	345	431	554	753	458	761	256	5,271
0143	Potatoes	17	34	25	41	58	80	137	216	190	430	132	1,360
0144	Vegetables (except potatoes)	235	244	247	220	202	249	308	391	284	682	389	3,451
0181	Cereal grains (incl. oilseeds n.e.c.)	186	241	314	317	311	443	731	1,233	839	2,011	552	7,178
0182	Sheep—cereal grains	76	224	416	471	582	928	1,929	3,670	2,915	6,730	1,615	19,556
0183	Meat cattle—cereal grains	96	161	209	182	160	247	301	440	286	473	98	2,653
0184	Sheep—meat cattle	231	491	590	596	578	761	1,030	1,512	907	1,634	417	8,747
0185	Sheep	672	1,216	1,580	1,572	1,465	2,025	3,185	4,689	3,111	5,566	1,208	26,289
0186	Meat cattle	2,206	2,992	2,732	1,922	1,434	1,478	1,622	1,605	891	1,502	564	18,948
0187	Milk cattle	157	268	389	548	696	1,386	2,827	4,433	2,037	1,620	90	14,451
0188	Pigs	50	69	89	94	92	100	180	261	217	405	176	1,733
0191	Sugar cane	66	110	140	183	274	507	905	1,288	678	954	98	5,203
0192	Peanuts	3	9	13	11	16	22	27	29	17	14	2	163
0193	Tobacco	2	3	7	8	14	31	74	170	98	90	5	502
0194	Cotton	2	1	2	2	4	6	11	22	19	185	332	586
0195	Nurseries	456	152	158	218	93	110	253	211	174	308	150	2,283
0196	Agriculture n.e.c.	456	485	442	305	225	235	218	222	123	210	56	2,977
	Total (ASIC code 01)	*5,638*	*7,594*	*8,249*	*7,618*	*7,051*	*9,710*	*15,220*	*22,136*	*13,750*	*24,280*	*6,532*	*127,778*
02	Services to agriculture	11	15	14	9	2	13	15	9	5	7	—	100
03	Forestry and logging	2	3	2	5	—	2	1	5	—	—	1	21
04	Fishing and hunting	3	1	—	1	1	1	1	4	—	—	—	12
	Total (ASIC Division A)	*5,654*	*7,613*	*8,265*	*7,633*	*7,054*	*9,726*	*15,237*	*22,154*	*13,755*	*24,287*	*6,533*	*127,911*
B	Mining	—	—	1	—	1	2	2	—	1	2	—	9
C	Manufacturing	14	14	10	12	10	12	13	16	9	12	21	143
D	Electricity, gas and water	—	—	—	—	—	1	—	—	—	1	—	2
E	Construction	14	22	16	15	10	9	4	11	5	8	—	114
F	Wholesale and retail trade	25	16	19	16	9	9	10	10	8	14	4	140
G	Transport and storage	20	30	21	17	9	17	11	15	9	6	1	156
H	Communication	—	—	—	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	5	6	1	8	—	2	2	2	—	1	1	28
J	Public administration and defence	—	—	1	—	—	—	1	—	1	—	—	3
K	Community services	6	6	4	7	2	8	11	21	18	38	13	134
L	Recreation, personal and other services	4	4	6	2	1	3	—	5	3	2	—	30
	Total all industries	**5,742**	**7,711**	**8,344**	**7,710**	**7,096**	**9,789**	**15,291**	**22,234**	**13,809**	**24,371**	**6,573**	**128,670**

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0). (b) Determined by valuing the principal crop and livestock information collected in the Agricultural Census.
Source: Characteristics of Australian Farms (7102.0).

ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, 31 MARCH 1990

ASIC Code	Industry of establishment(a) Description	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
0124	Poultry for meat	349	121	91	59	51	10	—	—	681
0125	Poultry for eggs	199	141	139	53	90	16	5	1	645
0134	Grapes	576	1,533	55	1,202	135	18	2	—	3,521
0135	Plantation fruit	693	—	779	—	103	—	7	—	1,580
0136	Orchard and other fruit	1,577	1,008	982	1,093	392	209	9	1	5,271
0143	Potatoes	121	474	221	131	148	265	—	—	1,360
0144	Vegetables (except potatoes)	593	588	1,180	440	417	216	16	1	3,451
0181	Cereal grains (incl. oilseeds n.e.c)	1,416	1,566	1,998	1,671	510	8	9	—	7,178
0182	Sheep — cereal grains	6,155	3,408	337	4,535	5,097	24	—	—	19,556
0183	Meat cattle — cereal grains	840	105	1,616	69	14	4	5	—	2,653
0184	Sheep — meat cattle	3,770	2,514	650	818	600	381	—	14	8,747
0185	Sheep	10,152	7,612	1,591	2,337	3,582	980	—	35	26,289
0186	Meat cattle	5,473	4,389	6,997	398	995	510	175	12	19,948
0187	Milk cattle	2,273	7,989	2,022	905	496	761	2	3	14,451
0188	Pigs	510	254	560	234	107	67	1	—	1,733
0191	Sugar cane	422	—	4,781	—	—	—	—	—	5,203
0192	Peanuts	1	—	162	—	—	—	—	—	163
0193	Tobacco	18	190	294	—	—	—	—	—	502
0194	Cotton	326	—	260	—	—	—	—	—	586
0195	Nurseries	778	330	691	211	200	55	16	2	2,283
0196	Agriculture n.e.c	944	694	745	280	208	97	9	—	2,997
	Total (ASIC code 01)	*37,186*	*32,916*	*26,151*	*14,436*	*13,145*	*3,621*	*254*	*69*	*127,778*
02	Services to agriculture	5	32	23	13	25	2	—	—	100
03	Forestry and logging	2	1	8	—	1	9	—	—	21
04	Fishing and hunting	—	—	1	2	3	6	—	—	12
	Total (ASIC Division A)	*37,193*	*32,949*	*26,183*	*14,451*	*13,174*	*3,638*	*254*	*69*	*127,911*
B	Mining	2	2	1	2	2	—	—	—	9
C	Manufacturing	14	34	10	37	40	6	1	1	143
D	Electricity, gas and water	—	2	—	—	—	—	—	—	2
E	Construction	11	53	20	14	11	5	—	—	114
F	Wholesale and retail trade	30	32	26	16	13	22	1	—	140
G	Transport and storage	36	48	20	20	13	19	—	—	156
H	Communication	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	6	4	7	6	4	—	1	—	28
J	Public administration and defence	2	—	—	1	—	—	—	—	3
K	Community services	28	9	52	10	27	8	—	—	134
L	Recreation, personal and other services	9	11	2	2	6	—	—	—	30
	Total all industries	**37,331**	**33,144**	**26,321**	**14,559**	**13,290**	**3,698**	**257**	**70**	**128,670**

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0).

Source: Characteristics of Australian Farms (7102.0).

EMPLOYMENT IN AGRICULTURE

EMPLOYED PERSONS IN AGRICULTURE AND SERVICES TO AGRICULTURE ('000)

August	Males	Married females	All females	Persons
1985	287.5	90.3	107.7	395.3
1986(a)	278.6	94.8	112.8	391.4
1987	271.6	90.1	103.1	374.7
1988	284.0	97.5	118.7	402.7
1989	269.0	93.3	111.1	380.1
1990	282.9	99.4	116.8	399.7

(a) From April 1986, the estimates of employed persons include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e., unpaid family helpers).

Source: Labour Statistics, Australian Bureau of Statistics.

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED

The gross value of agricultural commodities produced is the value placed on recorded production at the wholesale prices realised in the market place.

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED ($ million)

Commodity	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Crops						
Barley for grain	759.3	586.8	423.0	454.9	558.1	708.8
Oats for grain	129.6	138.3	160.5	191.0	232.6	178.0
Wheat for grain	3,202.9	2,693.7	2,379.4	2,002.8	2,950.3	2,775.1
Other cereal grains	400.8	346.4	316.4	392.5	411.0	360.7
Sugar cane cut for crushing	512.2	494.2	580.2	608.9	744.2	874.0
Fruit and nuts	670.9	678.6	785.9	832.1	951.6	1,022.1
Grapes	259.4	270.0	251.5	345.6	427.3	392.2
Vegetables	628.8	713.6	868.2	928.4	1,165.3	1,328.2
All other crops(a)	1,303.5	1,430.4	1,614.3	1,882.4	2,202.9	2,237.2
Total crops	*7,867.4*	*7,352.0*	*7,379.4*	*7,638.6*	*9,643.3*	*9,876.3*
Livestock slaughterings and other disposals(b)						
Cattle and calves(c)	2,253.2	2,393.9	2,824.7	3,047.9	3,189.6	3,860.5
Sheep and lambs	576.1	531.6	721.2	803.9	738.3	585.4
Pigs	438.1	(d)438.3	(d)468.5	(d)536.1	629.3	656.0
Poultry	512.6	(d)559.1	(d)601.7	(d)671.2	730.3	777.9
Total livestock slaughterings and other disposals(e)	*(e)3,783.4*	*(d)3,923.0*	*(d)4,624.6*	*(d)(e)5,074.3*	*5,302.3*	*5,893.3*
Livestock products						
Wool	2,434.4	2,693.4	3,333.6	5,517.3	5,906.0	5,718.1
Milk	1,035.4	1,106.7	1,257.4	1,390.9	1,635.1	1,749.0
Eggs	291.2	297.7	291.6	304.4	321.4	311.8
Total livestock products(f)	*(g)3,792.8*	*(h)4,125.3*	*(h)4,915.6*	*(g)7,247.0*	*(i)7,894.0*	*(i)7,806.7*
Total value of agricultural commodities produced	**15,443.5**	**(j)15,406.9**	**(j)16,927.8**	**(j)19,962.5**	**(k)22,840.4**	**(k)23,585.1**

(a) Includes pastures and grasses. Excludes crops for green feed or silage. (b) Includes net exports of livestock. (c) Includes dairy cattle slaughtered. (d) Excludes Northern Territory pigs and poultry. (e) Includes goat slaughterings, exports and buffalo slaughterings. (f) Includes honey and beeswax. (g) Includes cashmere, cashgora, mohair, liquid goat milk, honey and beeswax. Excludes Northern Territory and Australian Capital Territory milk and eggs. (h) Excludes Northern Territory and Australian Capital Territory milk and eggs. (i) Excludes Northern Territory milk and eggs. (j) Includes Northern Territory pigs, poultry, milk and eggs. (k) Includes Northern Territory pigs, poultry, milk and eggs and Australian Capital Territory milk and eggs.

Source: Value of Agricultural Commodities Produced, Australia (7503.0).

The following table shows the index of the gross value of commodities produced at constant prices, i.e., it is a measure of change in value after the direct effects of price changes have been eliminated.

INDEX OF VALUES AT CONSTANT PRICES OF AGRICULTURAL COMMODITIES PRODUCED(a)
(Base year: 1984–85 = 1,000)

Commodity	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
Crops						
Barley for grain	1,000	876	645	625	596	728
Oats for grain	1,000	943	1,171	1,276	1,325	1,164
Wheat for grain	1,000	857	880	652	750	759
Other cereal grains	1,000	974	924	1,066	899	799
Sugar cane(b)	1,000	987	967	978	1,036	1,049
Fruit and nuts	1,000	1,007	1,099	1,138	1,097	1,160
Grapes	1,000	1,018	936	921	1,002	912
Vegetables	1,000	988	1,046	1,178	1,172	1,264
All other crops(c)	1,000	1,024	1,053	1,134	1,133	1,101
Total crops	*1,000*	*931*	*932*	*873*	*906*	*920*
Livestock slaughterings and other disposals						
Cattle and calves(d)	1,000	1,057	1,138	1,202	1,139	1,280
Sheep and lambs	1,000	1,065	1,106	1,073	1,073	1,004
Pigs	1,000	1,041	1,086	1,141	1,184	1,218
Poultry	1,000	1,063	1,100	1,161	1,178	1,231
Total livestock slaughterings(e)	*1,000*	*1,057*	*1,122*	*1,170*	*1,129*	*1,224*
Livestock products						
Wool	1,000	1,002	1,070	1,109	1,154	1,328
Milk	1,000	996	1,019	1,015	1,038	1,033
Eggs	1,000	1,010	1,022	1,051	1,010	999
Total livestock products(f)	*1,000*	*1,000*	*1,052*	*1,078*	*1,110*	*1,219*
Total agricultural commodities produced	**1,000**	**979**	**1,009**	**996**	**1,011**	**1,068**

(a) Indexes of values at constant prices (weighted by average unit values of the year 1984–85). (b) Sugar cane cut for crushing and planting. (c) Includes pasture and grasses. Excludes crops for green feed or silage. (d) Includes dairy cattle slaughtered. (e) Component series based on carcass weight. Includes goat slaughterings. (f) Includes honey, beeswax and goat products.
Source: Value of Agricultural Commodities Produced, Australia (7503.0).

FINANCIAL STATISTICS OF AGRICULTURAL ENTERPRISES

Estimates of selected financial aggregates of enterprises predominantly engaged in agricultural activity are shown in the following tables. The estimates have been derived from the Agricultural Finance Survey (AFS), which was conducted on an irregular basis until 1986–87 when it was re-introduced as an annual survey. From 1986–87 the population for the AFS consisted of all management units classified to an industry class within Subdivision 01 'Agriculture' of the Australian Standard Industrial Classification and with an estimated value of agricultural operations of $20,000 or more.

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES(a) 1980–81 AND 1987–88 TO 1990–91
($ million)

	1980–81	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Sales from crops	4,543.7	6,507.7	6,991.2	7,795.2	6,879.2
Sales from livestock	3,134.6	5,052.1	5,399.3	5,519.1	4,640.0
Sales from livestock products	2,422.2	6,024.1	6,715.7	7,157.9	5,827.8
Turnover	10,439.7	18,708.0	20,272.3	21,823.5	18,425.0
Purchases and selected expenses	5,283.5	9,852.5	10,672.6	11,447.8	10,348.5
Value added(b)	5,034.9	10,239.0	11,690.3	10,237.4	7,092.6
Adjusted value added(b)	4,471.7	9,160.6	10,500.3	8,924.4	5,845.6
Gross operating surplus(b)	3,669.1	7,563.1	8,643.3	6,897.0	3,989.2
Interest paid	n.a.	1,473.6	1,681.1	2,227.5	1,872.7
Cash operating surplus(c)	3,419.1	4,999.9	5,227.3	5,330.6	3,506.3
Total net capital expenditure	1,301.3	1,566.1	1,849.1	1,906.3	n.y.a.
Gross indebtedness	4,941.0	11,425.6	12,948.0	14,518.0	13,081.7

(a) Data for 1986–87 onwards are not strictly comparable with previous periods. (b) Includes an estimate for the value of the increase in livestock. (c) Excludes an estimate for the value of the increase in livestock.
Source: Agricultural Industries, Financial Statistics, Australia, First Preliminary (7509.0).

ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES 1989–90(a)
($ million)

	NSW(b)	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(c)*
Sales from crops	1,735.8	1,362.2	2,275.5	1,055.9	1,167.8	132.6	7,795.2
Sales from livestock	1,711.0	920.5	1,572.9	363.5	485.8	115.6	5,519.1
Sales from livestock products	2,470.7	1,686.6	690.2	672.4	1,299.3	265.0	7,157.9
Turnover	6,304.4	4,238.1	4,863.6	2,233.8	3,099.4	559.1	21,823.5
Purchases and selected expenses	3,636.6	2,121.3	2,586.1	1,054.4	1,682.1	288.7	11,447.8
Value added(d)	2,656.7	2,040.7	2,691.1	1,109.7	1,198.7	292.7	10,237.4
Adjusted value added(d)	2,246.1	1,769.5	2,433	4,983.1	1,016.7	261.8	8,924.4
Gross operating surplus(d)	1,627.9	1,347.6	1,956.9	814.4	804.3	198.8	6,897.0
Interest paid	677.8	427.1	526.1	217.4	278.5	59.3	2,227.5
Cash operating surplus(e)	1,324.7	1,004.9	1,125.5	743.0	846.8	129.0	5,330.6
Total net capital expenditure	460.4	339.4	415.7	239.2	331.5	64.9	1,906.3
Gross indebtedness	4,486.0	2,608.5	3,235.6	1,328.6	2,144.6	398.9	14,518.0
Number of enterprises	32,547	30,180	23,347	13,082	12,003	3,215	114,860

(a) State dissection for 1990–91 not yet available. (b) Number of enterprises includes estimates for Australian Capital Territory. (c) Includes Northern Territory and estimates for multi-State enterprises. (d) Includes an estimate for the value of the increase in livestock. (e) Excludes an estimate for the value of the increase in livestock.
Source: Agricultural Industries, Financial Statistics, Australia, First Preliminary (7509.0).

LAND USED FOR AGRICULTURE

The total area of agricultural establishments in 1989–90 constituted 60.7 per cent of the Australian land area, the remainder being urban areas, State forests, mining leases and national parks etc., with an overwhelming proportion of unoccupied land (mainly desert).

The balance data include large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also include variable amounts of fallow land.

The area cropped represents up to 3.6 per cent of the area of agricultural establishments.

AREA OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY
(million hectares)

At 31 March	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust. (incl. ACT)
1985	63.7	14.2	157.2	62.7	114.0	2.1	74.0	488.0
1986	60.0	13.2	154.3	57.9	109.6	1.9	71.4	468.3
1987	60.8	13.1	151.7	59.5	112.7	1.9	71.2	471.0
1988	61.5	13.1	152.5	60.0	113.5	1.9	69.6	472.0
1989	61.6	13.1	151.3	58.0	112.6	1.9	68.3	466.9
1990	62.0	13.1	152.3	57.5	110.9	1.9	68.8	466.6

Source: Summary of Crops, Australia (7330.0).

LAND UTILISATION
(million hectares)

	Area of			Total	
Year	Crops(a)	Sown pastures and grasses	Balance(b)	Area of establishments	Percentage of Australian land area (768,284,000 hectares)
1984–85	21.1	27.1	439.8	488.0	63.5
1985–86	20.6	26.4	421.3	468.3	61.0
1986–87	19.8	27.3	423.9	471.0	61.3
1987–88	18.4	28.6	425.0	472.0	61.4
1988–89	17.5	30.2	419.2	466.9	60.8
1989–90	17.0	30.9	418.7	466.6	60.7

(a) Excludes pastures and grasses harvested for hay and seed which have been included in 'sown pastures and grasses'. (b) Used for grazing, lying idle, fallow, etc.
Source: Summary of Crops, Australia (7330.0).

CROPS

The following tables show the area of crops in the States and Territories of Australia since 1870–71, and a summary of the area, production and gross value of the principal crops in Australia in recent years.

AREA OF CROPS(a)
('000 hectares)

Year	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
1870–71	156	280	21	325	22	64	—	—	868
1880–81	245	627	46	846	26	57	—	—	1,846
1890–91	345	822	91	847	28	64	—	—	2,197
1900–01	990	1,260	185	959	81	91	—	—	3,567
1910–11	1,370	1,599	270	1,112	346	116	—	—	4,813
1920–21	1,807	1,817	316	1,308	730	120	—	1	6,099
1930–31	2,756	2,718	463	2,196	1,939	108	1	2	10,184
1940–41	2,580	1,808	702	1,722	1,630	103	—	2	8,546
1949–50	2,295	1,881	832	1,518	1,780	114	—	4	8,424
1954–55	2,183	1,904	1,049	1,711	2,069	122	—	2	9,040
1959–60	2,888	1,949	1,184	1,780	2,628	130	1	3	10,564
1964–65	4,182	2,621	1,605	2,414	3,037	163	2	4	14,028
1969–70	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1971–72	4,186	1,925	2,017	2,278	3,751	67	7	1	14,231
1972–73	4,329	1,943	1,963	2,122	3,814	80	12	1	14,265
1973–74	4,628	1,981	1,786	2,451	4,133	74	6	1	15,060
1974–75	4,089	1,772	1,898	2,257	3,754	67	7	1	13,845
1975–76	4,285	1,851	2,010	2,116	4,208	60	8	1	14,539

For footnotes *see* end of table.

AREA OF CROPS(a) — *continued*
('000 hectares)

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1976–77	4,520	1,943	2,026	2,036	4,417	65	2	1	15,010
1977–78	4,984	2,163	2,107	2,564	4,910	70	1	1	16,800
1978–79	5,020	2,209	2,307	2,827	4,993	80	2	1	17,438
1979–80	5,243	2,243	2,334	2,771	5,281	79	2	1	17,954
1980–81	5,208	2,180	2,481	2,772	5,547	84	1	1	18,273
1981–82	5,744	2,184	2,765	2,865	5,963	90	2	1	19,613
1982–83	5,200	2,234	2,648	2,856	6,380	98	3	1	19,420
1983–84	6,566	2,655	2,998	3,108	6,526	101	5	1	21,961
1984–85	5,789	2,569	3,047	2,902	6,723	99	6	1	21,136
1985–86	5,990	2,528	3,231	3,039	5,970	88	7	1	20,853
1986–87	5,325	2,317	3,036	3,066	5,930	78	12	—	19,764
1987–88	4,908	2,159	2,870	2,990	5,334	84	13	1	18,359
1988–89	4,560	1,990	2,842	2,961	5,082	82	11	1	17,527
1989–90	4,077	1,989	2,580	3,042	5,174	83	9	1	16,953

(a) The classification of crops was revised in 1971–72 and adjustments made to statistics back to 1967–68. After 1966–67 lucerne for green feed, hay and seed, and pasture cut for hay and harvested for seed or green feed are excluded.

NOTE: From 1970–71 to 1980–81 figures related to area 'used for' crops, i.e., an area used for more than one purpose during the year was counted only once. From 1981–82, an area double cropped has been counted separately each time used.

Source: Summary of Crops, Australia (7330.0).

CROPS: AREA, PRODUCTION AND GROSS VALUE

	1988–89			*1989–1990*			*1990–91p*		
	Area ('000 ha)	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*
Cereals for grain									
Barley	2,190	3,242	558	2,310	4,044	709	2,510	4,054	569
Grain sorghum	625	1,244	188	380	946	136	401	n.a.	121
Maize	52	217	34	52	219	39	52	n.a.	33
Oats	1,309	1,838	233	1,089	1,640	178	1,051	1,501	148
Rice	97	748	147	105	846	141	88	730	139
Wheat	8,827	13,935	2,950	9,004	14,214	2,775	9,236	13,053	1,950
Legumes for grain	1,473	1,444	368	1,294	1,160	295	7,222	1,061	284
Crops for hay									
Oats	220	749	77	206	720	79	251	836	77
Wheat	71	198	19	57	159	17	n.a.	n.a.	n.a.
Crops for green feed, silage									
Barley	84			85			n.a.		
Forage sorghum	182	n.a.	n.a.	147	n.a.	n.a	n.a.	n.a.	n.a
Oats	684			633			n.a.		
Wheat	35			32			n.a.		
Sugar cane cut for crushing	314	27,146	744	322	26,940	874	328	24,596	699
Tobacco	5	11	66	5	12	73	5	14	76
Cotton	194	812	537	240	792	640	251	n.a.	821
Peanuts (in shell)	22	25	25	18	18	18	18	n.a.	24
Soybean	71	130	51	49	77	29	42	n.a.	19
Rapeseed	43	58	21	50	78	24	67	92	28
Sunflower	185	172	55	66	73	25	155	n.a.	39
Fruit (excl. grapes)	115	—	952	122	—	1,022	115	—	1,023
Fruit									
Orchard	96	—	727	99	—	754	91	n.a.	714
Oranges	n.a.	399	177	n.a.	487	176	n.a.	446	162
Apples	20	323	236	19	319	212	n.a.	n.a.	487
Pears	n.a.	142	64	n.a.	164	79	n.a.	n.a.	76
Peaches	n.a.	52	42	n.a.	58	51	n.a.	55	48
Bananas	9	196	135	9	180	181	9	n.a.	220
Pineapples	7	154	43	7	142	41	7	n.a.	37
Grapes	58	859	427	59	824	392	60	854	428
Vegetables	119	—	1,165	126	—	1,328	146	n.a.	1,259
Potatoes	38	1,048	319	41	1,178	393	37	n.a.	337
Total all crops (excluding pastures and grasses)	**17,527**	**—**	**9,158**	**16,953**	**—**	**9,381**	**17,267**	**—**	**8,368**

Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Viticulture, Australia (7310.0).

The characteristics of the main crops are outlined below.

Cereal grains

In Australia, cereals are conveniently divided into autumn–winter–spring growing ('winter' cereals) and spring–summer–autumn growing ('summer' cereals). Winter cereals such as wheat, oats, barley and rye are usually grown in rotation with some form of pasture such as grass, subterranean clover, medics or lucerne. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced to cereal rotation in areas where they had not previously been grown. Rice, maize, sorghum and the millets are summer cereals with the latter two being grown in association with winter cereals in some areas. In northern Queensland and Western Australia there are two rice growing seasons.

Wheat

Wheat is Australia's most important crop. It is produced in all States but primarily on the mainland in a narrow crescent known as the wheat-belt. Inland of the Great Dividing Range, the wheat-belt stretches in a curve from central Queensland through New South Wales, Victoria and southern South Australia. In Western Australia, the wheat-belt continues around the south-west of the State and some way north up the western side of the continent.

WHEAT: AREA, PRODUCTION AND RECEIVALS

	Area(a)		*Production(a)*		*Australian Wheat Board receivals*
Season	*For grain ('000 ha)*	*All purposes ('000 ha)*	*Grain ('000 tonnes)*	*Gross value ($m)*	*('000 tonnes)*
1984–85	12,078	12,150	18,666	3,202.9	17,544
1985–86	11,682	11,766	15,999	2,693.7	15,085
1986–87	11,135	11,274	16,119	2,410.3	15,288
1987–88	9,005	9,141	12,287	2,015.7	10,740
1988–89	8,827	8,932	13,935	2,975.9	12,954
1989–90	9,004	9,093	14,214	2,792.0	13,057
1990–91p	9,236	n.a.	13,053	1,960.6	n.y.a.

(a) Area and production data relate to the year ending 31 March.
Source: Summary of Crops, Australia (7330.0).

WHEAT FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	3,663	1,508	973	1,443	4,148	2	11,682
1986–87	3,099	1,364	795	1,616	4,260	2	11,135
1987–88	2,464	1,026	646	1,556	3,312	1	9,005
1988–89	2,309	931	768	1,520	3,297	1	8,827
1989–90	2,123	952	894	1,557	3,476	1	9,004
1990–91p	2,182	867	1,113	1,462	3,611	1	9,236
			PRODUCTION ('000 tonnes)				
1985–86	5,898	2,316	1,686	1,781	4,313	4	15,999
1986–87	4,855	2,795	833	2,255	5,377	5	16,119
1987–88	3,997	1,882	718	1,803	3,882	4	12,287
1988–89	4,105	1,691	1,550	1,361	5,225	2	13,935
1989–90	3,423	1,961	1,420	2,607	4,800	3	14,214
1990–91p	2,108	1,431	2,078	2,030	5,414	2	13,063

Source: Summary of Crops, Australia (7330.0).

Oats

Oats are traditionally a cereal of moist temperate regions. However, improved varieties and management practices have enabled oats to be grown over a wide range of soil and climatic conditions. They have a high feed value and produce a greater bulk of growth than other winter cereals; they need less cultivation and respond well to superphosphate and nitrogen. Oats have two main uses: as a grain crop, or as a fodder crop, (following sowing or fallow or rough sowing into stubble or clover pastures). Fodder crops can either be grazed and then harvested for grain after removal of livestock or else mown and baled or cut for chaff.

OATS FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	429	212	21	108	288	10	1,068
1986–87	482	215	20	113	302	8	1,140
1987–88	526	216	19	132	373	10	1,275
1988–89	548	189	18	156	389	10	1,309
1989–90	365	189	15	172	340	8	1,089
1990–91p	387	168	27	138	322	9	1,051
			PRODUCTION ('000 tonnes)				
1985–86	538	300	26	110	338	17	1,330
1986–87	635	356	19	149	414	11	1,584
1987–88	707	325	14	135	502	16	1,698
1988–89	780	276	15	131	618	18	1,838
1989–90	504	330	14	250	529	13	1,640
1990–91p	525	287	31	146	494	18	1,501

Source: Summary of Crops, Australia (7330.0).

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley is grown principally as a grain crop although in some areas it is used as a fodder crop for grazing, with grain being subsequently harvested if conditions are suitable. It is often grown as a rotation crop with wheat, oats and pasture. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may therefore provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

BARLEY FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	546	389	343	1,169	826	12	3,284
1986–87	408	265	168	955	468	8	2,274
1987–88	465	366	169	876	461	8	2,346
1988–89	413	350	200	837	383	8	2,190
1989–90	413	389	179	900	421	8	2,310
1990–91p	447	426	187	947	494	9	2,510
			PRODUCTION ('000 tonnes)				
1985–86	821	476	810	1,709	1,024	28	4,868
1986–87	614	444	276	1,592	601	21	3,548
1987–88	744	529	244	1,261	617	22	3,417
1988–89	712	545	374	1,036	552	22	3,242
1989–90	656	696	321	1,724	628	19	4,044
1990–91p	787	606	384	1,514	738	25	4,054

Source: Summary of Crops, Australia (7330.0).

Grain sorghum

The sorghums are summer growing crops which are used in three ways: grain sorghum for grain; sweet or fodder sorghum, sudan grass and, more recently, columbus grass for silage, green feed and grazing; and broom millet for brooms and brushware.

Grain sorghum has been grown extensively only in the last two decades. Rapid increases in production have resulted in a substantial increase in exports over this period. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

GRAIN SORGHUM FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(a)*
			AREA ('000 hectares)				
1985–86	160	1	569	—	—	—	734
1986–87	188	—	625	—	—	—	818
1987–88	175	—	565	—	—	—	745
1988–89	152	—	468	—	—	—	625
1989–90	138	—	238	—	—	—	380
1990–91p	91	—	306	—	1	—	401
			PRODUCTION ('000 tonnes)				
1985–86	299	4	1,109	—	1	—	1,416
1986–87	392	1	1,019	—	1	—	1,419
1987–88	412	1	1,213	—	—	—	1,633
1988–89	301	1	934	—	1	—	1,244
1989–90	359	1	578	—	1	—	946
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Includes States with less than 500 hectares.

Source: Summary of Crops, Australia (7330.0).

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. Maize for grain is almost entirely confined to the south-east regions and the Atherton Tablelands of Queensland; and the north coast, northern slopes and tablelands and the Murrumbidgee Irrigation Area in New South Wales. Small amounts are grown in all States, except South Australia, for green feed and silage, particularly in association with the dairy industry.

MAIZE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	18	1	63	—	1	—	84
1986–87	16	1	38	—	1	—	58
1987–88	15	1	37	—	1	—	56
1988–89	14	—	36	—	1	—	52
1989–90	17	—	34	—	1	—	52
1990–91p	18	—	33	—	1	—	52
			PRODUCTION ('000 tonnes)				
1985–86	90	5	176	1	5	—	278
1986–87	77	3	118	1	6	—	206
1987–88	72	6	124	—	5	—	208
1988–89	78	1	132	—	4	—	217
1989–90	98	1	115	—	5	—	219
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Rice

In Australia, rice was first grown commercially in 1924–25 in the Murrumbidgee Irrigation Area, one of three irrigation areas in southern New South Wales where rice is now produced. About 95 per cent of Australia's rice is grown in New South Wales. The remainder is grown in the Burdekin River basin and at Mareeba in northern Queensland.

RICE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	103	—	3	—	—	—	107
1986–87	92	—	4	—	—	—	96
1987–88	102	—	4	—	—	—	106
1988–89	94	—	3	—	—	—	97
1989–90	100	—	5	—	—	—	105
1990–91p	84	—	4	—	—	—	88
			PRODUCTION ('000 tonnes)				
1985–86	702	—	14	—	—	—	716
1986–87	589	—	19	—	—	—	608
1987–88	721	—	19	—	—	—	740
1988–89	730	—	18	—	—	—	748
1989–90	816	—	30	—	—	—	846
1990–91p	711	—	15	—	—	—	726

Source: Summary of Crops, Australia (7330.0).

Vegetables

The area sown to vegetables reached a peak of over 200,000 hectares in 1945. It remained static at around 109,000 hectares from the mid-seventies to the mid-eighties but has been increasing steadily since. Yields from most vegetable crops have increased due to variety breeding for increased yields, greater use of irrigation and better control of disease and insect pests.

VEGETABLES FOR HUMAN CONSUMPTION: AREA UNDER PRODUCTION

Year	*French and runner beans*	*Cabbages*	*Carrots*	*Cauliflowers*	*Onions*	*Green peas*	*Potatoes*	*Tomatoes*	*Total vegetables*
				AREA ('000 hectares)					
1985–86	5.9	2.3	4.3	3.6	4.5	11.2	36.1	9.5	110.7
1986–87	5.9	2.9	4.6	3.7	4.3	11.7	36.7	8.6	111.3
1987–88	6.0	2.8	4.6	3.4	5.0	11.2	39.8	8.9	116.7
1988–89	6.9	2.2	4.8	3.5	5.3	11.9	37.6	9.1	119.0
1989–90	7.3	2.3	4.8	3.7	5.1	13.3	40.6	9.6	125.8
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	5.1	n.y.a.	37.0	9.0	146.0

Source: Summary of Crops, Australia (7330.0).

PRODUCTION OF VEGETABLES FOR HUMAN CONSUMPTION

	French and runner beans	*Cabbages*	*Carrots*	*Cauliflowers*	*Onions*	*Green peas: Processing (shelled weight)*	*Green peas: Sold in pod (pod weight)*	*Potatoes*	*Tomatoes*
	PRODUCTION ('000 tonnes)								
1985–86	31.3	69.1	127.6	103.8	159.7	39.7	1.5	964.9	252.6
1986–87	29.4	82.9	146.0	91.6	164.7	33.4	1.2	1,015.2	266.0
1987–88	32.7	80.1	144.0	112.2	181.7	43.0	1.2	1,081.5	282.6
1988–89	35.5	87.8	148.7	79.6	196.3	46.0	1.1	1,048.0	318.6
1989–90	38.4	77.8	154.9	88.6	192.5	49.8	1.0	1,178.0	322.1
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	209.0	n.y.a.	n.y.a.	n.y.a.	400.0

Source: Summary of Crops, Australia (7330.0).

Fruit

A wide variety of fruit is grown in Australia ranging from pineapples, mangoes and papaws in the tropics to pome, stone and berry fruits in the temperate regions.

In recent years there has been rapid expansion in the cultivation of many relatively new fruit crops in Australia and there is considerable scope for continued growth in the future.

SELECTED FRUIT STATISTICS

	Orchard fruit number of trees ('000)				*Tropical and other fruits area (ha)*			*Total area of fruit (ha)*
Year	*Apples*	*Oranges*	*Pears*	*Peaches*	*Bananas*	*Pineapples*	*Other fruit*	
1985–86	6,397	6,777	1,592	1,793	9,640	6,325	2,432	112,655
1986–87	6,350	6,897	1,552	1,797	9,391	3,762	1,245	107,492
1987–88	6,555	6,873	1,779	1,867	9,195	6,269	2,024	166,100
1988–89	6,810	7,122	2,028	2,004	9,319	6,660	1,239	119,756
1989–90	7,023	7,187	2,201	2,035	9,092	6,461	1,427	121,785
1990–91p	6,781	7,235	2,065	2,135	9,110	6,554	1,796	n.y.a.

	Apples	*Apricots*	*Bananas*	*Cherries*	*Oranges*	*Peaches*	*Pears*	*Pineapples*	*Plums and prunes*
	PRODUCTION ('000 tonnes)								
1985–86	292.1	29.6	134.4	3.9	496.2	61.4	142.9	131.6	21.7
1986–87	325.0	27.0	157.7	4.0	504.0	61.1	145.0	142.3	22.0
1987–88	300.0	28.0	160.1	5.0	479.0	66.0	162.0	146.5	18.0
1988–89	323.0	27.9	195.8	4.0	399.2	51.9	142.1	154.4	19.9
1989–90	319.4	29.7	180.3	4.7	487.2	58.0	164.2	141.6	19.9
1990–91p	n.y.a	24.1	n.y.a.	5.1	446.6	56.9	n.y.a.	n.y.a.	15.1
	GROSS VALUE OF PRODUCTION ($ million)								
1985–86	139.0	24.5	101.7	9.5	132.5	29.3	63.7	32.6	23.5
1986–87	197.3	21.3	125.1	10.5	120.4	35.8	74.9	40.2	22.7
1987–88	183.1	30.4	118.8	14.2	143.9	44.9	77.0	34.0	21.8
1988–89	235.6	27.8	134.8	14.0	177.0	42.4	63.9	43.2	26.7
1989–90	211.6	28.0	181.3	17.4	175.9	50.9	79.3	40.7	24.3
1990–91p	208.1	n.y.a.	214.3	n.y.a.	n.y.a.	48.0	70.4	49.9	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Grapes

Grapes are a temperate crop which require warm to hot summer conditions for ripening and predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a lesser extent, for table use. Some of the better known wine producing areas are the Barossa, Clare, Riverland, Southern Districts and Coonawarra (South Australia); North–Eastern Victoria and Great Western (Victoria); Hunter and Riverina (New South Wales); Sunraysia (New South Wales and Victoria); Swan Valley and Margaret River (Western Australia).

VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

	Area		*Production: grapes used for*			*Total(a)*
Year	*Bearing ('000 ha)*	*Total ('000 ha)*	*Winemaking ('000 tonnes fresh weight)*	*Drying ('000 tonnes fresh weight)*	*Quantity ('000 tonnes fresh weight)*	*Gross value ($m)*
1985–86	60	64	510	359	907	270.0
1986–87	54	57	477	262	783	251.5
1987–88	54	57	460	293	799	345.6
1988–89	54	57	563	248	859	427.3
1989–90	54	59	530	249	824	392.0
1990–91p	55	59	490	321	858	n.y.a.

(a) Includes grapes used for table and other purposes.
Source: Summary of Crops, Australia (7330.0).

VITICULTURE: AREA AND PRODUCTION, 1990 SEASON(a)

	Area of vines at harvest			*Production of grapes used for*			
Variety	*Bearing*	*Not yet bearing*	*All vines*	*Wine-making*	*Drying*	*Other*	*Total*
	— hectares —			— tonnes (fresh weight) —			
Red grapes							
Cabernet Sauvignon	3,684	934	4,618	35,736	—	—	35,736
Currant (incl. Carina)	1,210	58	1,267	270	18,097	2	18,369
Grenache	2,129	30	2,158	29,890	—	—	29,890
Mataro	620	2	623	9,838	—	—	9,838
Pinot Noir	801	328	1,130	8,408	—	—	8,408
Shiraz	4,711	399	5,110	58,618	—	—	58,618
Other red grapes	3,407	795	4,202	16,566	239	13,440	30,246
Total red grapes	*16,562*	*2,546*	*19,108*	*159,326*	*18,336*	*13,442*	*191,105*
White grapes							
Chardonnay	3,123	1,198	4,321	34,735	—	2	34,737
Doradillo	863	—	863	21,586	4	—	21,589
Muscat Blanc	404	4	408	5,749	—	9	5,758
Muscat Gordo Blanco	3,703	48	3,751	67,148	10,539	177	77,864
Palomino and Pedro Ximenes	1,215	7	1,222	20,436	—	2	20,438
Rhine Riesling	3,615	67	3,682	41,457	—	—	41,457
Semillon	2,526	262	2,788	39,537	—	—	39,537
Sultana	15,254	522	15,776	55,723	214,394	22,123	292,240
Waltham Cross	959	10	970	2,609	6,537	3,221	12,368
Other white grapes	5,749	604	6,352	83,263	105	5,331	88,699
Total white grapes	*37,411*	*2,722*	*40,133*	*372,243*	*231,579*	*30,865*	*634,687*
Total grapes	**53,973**	**5,268**	**59,241**	**531,569**	**249,916**	**44,307**	**825,792**

(a) Varietal data not collected in Northern Territory and the Australian Capital Territory.
Source: Viticulture, Australia (7310.0).

Selected other crops

Oilseeds

The oilseeds industry is a relatively young industry by Australian agricultural standards. The specialist oilseed crops grown in Australia are sunflower, soybeans, rapeseed, safflower and linseed. Sunflower and soybeans are summer grown while the others are winter crops. In Australia, oilseeds are crushed for their oil, which is used for both edible and industrial purposes and protein meals for livestock feeds.

Oilseed crops are grown in all States but the largest producing regions are the grain growing areas of the eastern States.

OILSEEDS: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1985–86	207	48	203	16	4	—	479
1986–87	150	39	145	9	6	—	349
1987–88	109	50	175	10	4	—	348
1988–89	103	46	189	8	3	—	349
1989–90	84	39	69	7	1	—	200
1990–91p	125	23	130	5	2	—	285
			PRODUCTION ('000 tonnes)				
1985–86	207	51	162	22	3	—	447
1986–87	157	40	116	12	3	—	329
1987–88	116	48	201	12	4	—	384
1988–89	138	46	195	11	3	—	394
1989–90	119	38	84	7	2	—	251
1990–91p	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

Source: Summary of Crops, Australia (7330.0).

Cotton

Cotton is grown primarily for its fibre (lint). When the cotton is matured, seed cotton is taken to a gin where it is separated (ginned) into lint, seed and thrash. Lint is used for yarn while seed is further processed at an oil mill. There the short fibres (linters) remaining on the seed after ginning are removed. They are too short to make into cloth but are used for wadding, upholstery and paper. The seeds are then separated into kernels and hulls. Hulls are used for stock feed and as fertiliser, while kernels are crushed to extract oil. The remaining cake is ground into meal which is protein roughage used as stock feed.

COTTON: AREA, PRODUCTION AND EXPORTS

	Seed cotton(a)					*Raw cotton export*	
Year	*Area ('000 ha)*	*Quantity ('000 tonnes)*	*Gross value ($m)*	*Cotton-seed(b) ('000 tonnes)*	*Lint ('000 tonnes)*	*Quantity ('000 tonnes)*	*Value f.o.b. ($m)*
1985–86	177	685	324.9	366	259	241	378.4
1986–87	156	612	372.1	418	214	251	344.7
1987–88	245	762	421.6	435	281	176	353.0
1988–89	194	769	536.9	449	286	286	460.0
1989–90	240	792	639.5	493	305	291	540.0
1990–91p	251	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Before ginning. (b) Estimated by the Australian Bureau of Agricultural and Resource Economics.
Source: Summary of Crops, Australia (7330.0).

Sugar

Sugar cane is grown commercially in Australia along the east coast over a distance of some 2,100 kilometres in a number of discontinuous areas from Maclean in northern New South Wales to Mossman in Queensland. The geographical spread contributes to the overall reliability of the sugar cane crop and to Australia's record as a reliable sugar supplier.

Approximately 95 per cent of production occurs in Queensland, with some 75 per cent of the crop grown north of the Tropic of Capricorn in areas where rainfall is reliable and the warm, moist and sunny conditions are ideal for the growing of sugar cane. Farm sizes range between 20 and 70 hectares.

SUGAR CANE: AREA, PRODUCTION AND YIELD

	New South Wales					*Queensland*				
	Sugar cane cut for crushing			*Raw sugar(a)*		*Sugar cane cut for crushing*			*Raw sugar(a)*	
Year	*Area har-vested ('000 ha)*	*Produc-tion (tonnes)*	*Yield ('000 t/ha)*	*Quantity (tonnes)*	*Yield ('000 t/ha)*	*Area har-vested ('000 ha)*	*Produc-tion (tonnes)*	*Yield ('000 t/ha)*	*Quantity (tonnes)*	*Yield ('000 t/ha)*
1985–86	15	1,398	91.1	170	11.1	288	23,004	79.8	3,209	11.1
1986–87	14	1,276	93.2	168	7.0	287	23,466	81.8	3,202	11.2
1987–88	16	1,632	60.4	195	7.2	291	23,200	64.4	3,483	9.7
1988–89	15	1,560	104.0	196	13.1	302	25,586	85.9	3,483	11.5
1989–90	15	1,388	92.5	179	11.9	307	25,552	83.2	3,618	11.8
1990–91p	14	1,108	n.y.a.	n.y.a.	n.y.a.	314	23,488	n.y.a.	n.y.a.	n.y.a.

(a) In terms of 94 net titre.
Source: Summary of Crops, Australia (7330.0).

Fodder crops

Considerable areas of Australia are devoted to fodder crops which are utilised either for grazing (as green feed), or harvested and conserved as hay, ensilage, etc.

This development of fodder conservation as a means of supplementing pasture and natural sources of stockfeed is the result of the seasonal and comparatively unreliable nature of rainfall in Australian agricultural areas.

FODDER CROPS: AREA AND PRODUCTION

	Hay(a)				
		Production		*Green feed or silage(b)*	
Year	*Area ('000 ha)*	*Quantity ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Silage made ('000 tonnes)*
1985–86	252	773	64.5	1,005	603
1986–87	306	942	72.9	1,190	679
1987–88	344	1,003	85.8	1,313	878
1988–89	323	1080	106.8	1,152	825
1989–90	297	964	104.0	1,053	723
1990–91p	330	1,055	107.1	799	n.y.a.

(a) Principally oaten and wheaten hay. (b) Principally from oats, barley, wheat and forage sorghum.
Source: Summary of Crops, Australia (7330.0).

FARM STOCKS OF CEREAL GRAINS, HAY AND SILAGE
('000 tonnes)

	Cereal grains				
At 31 March	*Barley*	*Oats*	*Wheat*	*Hay*	*Silage*
1985	684	1,479	910	5,872	697
1986	863	1,381	1,176	5,179	835
1987	729	1,406	1,045	5,783	817
1988	693	1,366	962	4,972	757
1989	702	1,550	1,028	5,550	975
1990	655	1,610	954	5,687	991

Source: Summary of Crops, Australia (7330.0).

LIVESTOCK

The numbers of each of the principal kinds of livestock in Australia at ten-yearly intervals from 1861 to 1971, and then from 1981 on by single years, are given in the following table.

LIVESTOCK
('000)

Year	*Cattle*	*Sheep*	*Pigs*	*Year*	*Cattle*	*Sheep*	*Pigs*
1861	3,958	20,135	351	1971	24,373	177,792	2,590
1871	4,276	41,594	543	1981	25,168	134,407	2,430
1881	7,527	62,184	816	1982	24,553	137,976	2,373
1891	10,300	97,881	891	1983	22,478	133,237	2,490
1901	8,640	70,603	950	1984	22,161	139,242	2,527
1911	11,745	98,066	1,026	1985	22,784	149,747	2,512
1921	13,500	81,796	674	1986	21,820	146,776	2,512
1931	11,721	110,568	1,072	1987	21,915	149,157	2,611
1941	13,256	122,694	1,797	1988	21,851	152,443	2,706
1951	15,229	115,596	1,134	1989	22,434	161,603	2,671
1961	17,332	152,579	1,615	1990	23,191	170,297	2,648
				1991p	23,347	161,092	2,531

Source: Livestock and Livestock Products, Australia (7221.0).

The years in which the numbers of livestock attained their peaks are as follows: cattle, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

Cattle

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of dairy herds. While dairy cattle are restricted mainly to southern and to coastal districts, beef cattle are more concentrated in Queensland and New South Wales. Cattle numbers in Australia increased slowly during the 1960s and 1970s, despite seasonal changes and heavy slaughterings, to a peak of 33.4 million in 1976. Beef cattle production is often combined with cropping, dairying and sheep. In the northern half of Australia, cattle properties and herd size are very large, pastures are generally unimproved, fodder crops are rare and beef is usually the only product. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

CATTLE BY AGE, SEX AND PURPOSE
('000)

Classification	*1986*	*1987*	*1988*	*1989*	*1990*	*1991p*
						31 March
Milk cattle						
Bulls used or intended for service	42	37	36	36	33	32
Cows, heifers and heifer calves	2,625	2,561	2,506	2,476	2,461	2,304
House cows and heifers	45	41	38	34	28	n.a.
Total	*2,712*	*2,639*	*2,581*	*2,546*	*2,523*	*2,337*
Meat cattle						
Bulls used or intended for service	512	513	528	551	582	532
Cows and heifers (1 year and over)	9,775	9,795	9,818	10,120	10,577	10,596
Calves under 1 year	4,598	4,738	4,716	4,816	5,106	5,086
Other cattle (1 year and over)	4,223	4,230	4,207	4,402	4,401	4,797
Total	*19,108*	*19,276*	*19,270*	*19,888*	*20,668*	*21,011*
Total all cattle	**21,820**	**21,915**	**21,851**	**22,434**	**23,191**	**23,347**

Source: Livestock and Livestock Products, Australia (7221.0).

CATTLE
('000)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*Aust. (incl. ACT)*
1986	4,790	3,383	9,208	854	1,608	509	1,456	21,820
1987	4,868	3,478	9,011	912	1,660	535	1,439	21,915
1988	4,962	3,474	8,825	947	1,705	542	1,385	21,851
1989	5,329	3,509	8,994	943	1,702	560	1,388	22,434
1990	5,506	3,646	9,489	969	1,673	569	1,327	23,191
1991p	5,522	3,408	9,796	997	1,653	580	1,380	23,347

Source: Livestock and Livestock Products, Australia (7221.0).

Sheep

With the exception of a short period in the early 1860s, when the flocks in Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep raising. Western Australia is presently the second largest sheep raising State, followed by Victoria. Sheep numbers reached a peak of 180 million in Australia in 1970. In March 1990, flock numbers reached 170 million. However, poor market prospects for both wool and live sheep exports during 1990 has had a marked impact on flock reduction and numbers declined to 161 million in 1991. This downward trend in numbers is expected to continue through to 1994.

SHEEP AND LAMBS
(millions)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust. (incl. NT, ACT)*
1986	51.5	25.7	14.2	17.5	32.9	4.8	146.8
1987	52.2	26.6	14.6	17.2	33.5	5.0	149.2
1988	54.9	27.0	14.4	17.4	34.0	4.7	152.4
1989	59.1	28.1	14.9	17.4	37.1	4.9	161.6
1990	62.1	29.3	16.7	18.4	38.4	5.3	170.3
1991p	59.0	26.1	17.4	17.3	36.4	4.7	161.1

Source: Livestock and Livestock Products, Australia (7221.0).

SHEEP AND LAMBS
(millions)

31 March	Rams	Sheep (1 year and over)			Lambs and hoggets (under 1 year)	Total sheep and lambs
		Breeding ewes	Other ewes	Wethers		
1986	1.8	72.1	6.6	38.7	36.3	155.6
1987	1.7	72.1	4.2	37.5	33.6	149.2
1988	1.7	71.6	4.3	39.1	35.7	152.4
1989	1.8	74.8	4.7	43.7	36.6	161.6
1990	1.8	74.8	6.0	47.7	40.1	170.3
1991p	1.7	65.2	10.8	47.7	35.7	161.1

Source: Livestock and Livestock Products, Australia (7221.0).

Pigs

PIGS
('000)

31 March	NSW	Vic.	Qld	SA	WA	Tas.	Aust. (incl. NT, ACT)
1986	782	427	574	408	275	42	2,512
1987	830	432	579	422	295	46	2,611
1988	853	437	617	441	307	48	2,706
1989	855	423	611	450	285	45	2,671
1990	865	428	600	437	272	42	2,648
1991p	817	388	607	408	271	37	2,531

Source: Livestock and Livestock Products, Australia (7221.0).

Poultry

POULTRY
('000)

31 March	Chickens			Other poultry			Total all poultry
	Hens and pullets for egg production	Meat strain chickens (broilers)	Total chickens(a)	Ducks	Turkeys	Other poultry	
1986	13,646	35,497	51,565	282	579	365	52,791
1987	13,506	39,187	55,579	350	1,249	430	57,608
1988	13,463	47,988	64,201	663	1,585	365	66,813
1989	13,193	39,709	56,149	263	1,125	420	57,957
1990	13,084	43,906	59,956	276	1,240	449	61,920
1991p	12,243	37,517	52,074	278	1,123	429	53,903

(a) Includes breeding stock.
Source: Livestock and Livestock Products, Australia (7221.0).

MEAT PRODUCTION AND SLAUGHTERINGS

The first of the following two tables contains details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers. The data relate only to slaughterings for human consumption and do not include animals condemned or those killed for boiling down.

PRODUCTION OF MEAT(a)
('000 tonnes)

Year	Beef	Veal	Mutton	Lamb	Carcass weight: Pig meat	Carcass weight: Total meat	Dressed weight(b)(c): Total all chickens	Dressed weight(b)(c): Poultry(d)
1985–86	1,344	41	258	320	271	2,234	334	367
1986–87	1,481	40	288	296	283	2,388	344	380
1987–88	1,549	39	293	293	297	2,471	(e)362	401
1988–89	1,459	32	254	290	308	2,343	(e)368	407
1989–90	1,642	35	333	295	317	2,622	(e)385	425
1990–91p	1,693	37	383	290	310	2,714	(e)388	430

(a) Excludes offal. (b) Excludes the Northern Territory and the Australian Capital Territory. (c) Dressed weight of whole birds, pieces and giblets. (d) Includes other fowls, turkeys, ducks and drakes. (e) Excludes Tasmania.

Source: Livestock and Livestock Products, Australia (7221.0).

NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(million head)

Year	Cattle	Calves	Sheep	Lambs	Pigs	Chickens (a)	Other fowls(b) and turkeys	Ducks and drakes
1985–86	6.2	1.2	13.0	19.1	4.5	258.3	11.6	2.3
1986–87	6.8	1.2	14.7	17.7	4.7	269.3	11.2	2.1
1987–88	6.9	1.2	14.9	17.2	4.9	(c)273.6	11.1	2.3
1988–89	6.3	1.0	12.4	16.5	5.0	(c)274.1	10.6	2.2
1989–90	6.9	1.0	16.1	16.8	4.9	(c)290.0	10.8	2.2
1990–91p	7.2	1.1	18.3	16.6	4.8	(c)284.0	10.0	2.3

(a) Comprises broilers, fryers and roasters. (b) Comprises hens, roosters, etc. (c) Excludes Tasmania.

Source: Livestock and Livestock Products, Australia (7221.0).

GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(a)
($ million)

Year	Cattle and calves	Sheep and lambs	Pigs	Poultry	Total
1985–86	2,367.3	531.6	438.3	559.1	3,896.4
1986–87	2,824.7	721.2	468.5	601.7	4,624.6
1987–88	3,047.9	803.9	536.1	671.2	(b)5,074.3
1988–89	3,189.6	738.3	629.3	730.3	(b)5,302.3
1989–90	3,860.5	585.4	656.0	777.9	(b)5,893.3
1990–91p	3,707.5	335.7	635.0	741.5	(b)5,448.1

(a) Includes adjustment for net exports of live animals. (b) Includes goats.

Source: Value of Agricultural Commodities Produced, Australia (7503.0).

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT(a)
('000 tonnes)

	Beef(b)(c)		Veal(b)		Mutton(b)		Lamb		
	Bone-in	Bone-out	Bone-in	Bone-out	Bone-in	Bone-out	Bone-in	Bone-out	Pork
1985–86	4.8	466.3	2.2	3.7	38.0	51.8	47.8	2.1	2.8
1986–87	4.6	555.3	2.1	3.5	49.9	57.9	53.7	1.5	3.9
1987–88	7.6	310.2	0.4	2.7	31.5	34.0	36.3	1.3	3.0
1988–89	47.4	493.6	1.0	5.3	32.6	53.7	34.9	2.7	6.6
1989–90	83.0	579.8	1.1	4.6	63.3	55.0	36.4	3.6	6.2
1990–91p	82.7	681.3	1.0	5.4	93.2	72.3	44.0	3.5	5.6

(a) Excludes offal. (b) Factors can be applied to beef, veal, mutton and lamb bone-out figures to derive bone-in carcass weight which, when added to bone-in figures, shows total exports in carcass weight. The factor for beef and veal is 1.5 and that for mutton and lamb 2.0 (Source: Australian Meat and Livestock Corporation). (c) Includes buffalo meat.

Source: Agricultural Statistics, Australian Bureau of Statistics.

Production of sheep meats in Australia is closely associated with the wool industry. Sheep grazing often occurs on mixed farms in conjunction with beef and/or grain enterprises and in some areas producers specialise in lamb production. The supply of sheep meat depends greatly on seasonal conditions, decisions to build up or reduce flock numbers, expectations of wool prices, live sheep exports and the pattern of domestic consumption of meat.

As a consequence of the reduction in flock size in 1990–91 mutton production increased substantially to 383,000 tonnes, 51 per cent higher than production in 1989–90.

Of historical significance to the beef industry in 1988 was the opening of the Japanese and Korean beef markets which has provided substantial opportunities to increase beef exports. Exports to Korea reached 81,000 tonnes in 1990–91, 33 per cent higher than the previous season. Liberalisation of the Japanese market occurred in 1991. This involved removal of import quotas in exchange for a percentage of customs value. These tariff rates will be progressively reduced over the next two years. To cater for the type of beef required by the Japanese market, the number of feedlots is expected to increase.

Significant changes have taken place in the pig producing industry in recent years. Capital investment and corporate takeovers have seen the emergence of a few large companies producing 30 per cent of all pigs sold in Australia. These moves on top of the trend to more intensive and efficient production techniques have seen pigmeat production rise steadily since 1982 to reach 310,956 tonnes in 1990–91. In addition, there has been an increase in the slaughter weights of pigs reflecting the demands of the fresh pork trade.

WOOL

Wool production

Wool as shorn from the sheep ('greasy wool') contains an appreciable amount of grease, dirt, vegetable matter and other extraneous material. The exact quantities of these impurities in the fleece vary between differing climatic and pastoral conditions, with seasonal fluctuations and with the breed and condition of the sheep. It is, however, the clean wool fibre that is ultimately consumed by the textile industry and the term 'clean yield' is used to express the net wool fibre content present in greasy wool. Clean yields for Australia have gradually trended upwards; in 1989–90 and 1990–91 the clean yield of the Australian clip was 65.8 and 65.6 per cent, respectively.

SHEARING, WOOL PRODUCTION AND VALUE

			Wool production			
					Total wool	
Year	*Sheep and lambs shorn (million)*	*Average fleece weight (kg)*	*Shorn wool ('000 tonnes)*	*Other wool(a) ('000 tonnes)*	*Quantity ('000 tonnes)*	*Gross value (b) ($m)*
1985–86	173.8	4.39	762.1	67.9	830.0	2,707
1986–87	180.8	4.50	813.7	76.6	890.4	3,334
1987–88	186.3	4.53	843.0	73.4	916.4	5,517
1988–89	196.4	4.58	898.9	60.1	959.0	5,906
1989–90	215.1	4.79	1,030.9	71.1	1,102.0	5,718
1990–91p	216.0	4.69	1,103.2	76.1	1,089.3	4,607

(a) Comprises dead and fellmongered wool, and wool exported on skins. (b) Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

Source: Livestock and Livestock Products, Australia (7221.0).

Wool receivals

The total amounts of taxable wool received by selling brokers and dealers in recent years, excluding wool received by brokers on which tax had already been paid by other dealers (private buyers) or brokers, are shown in the following table.

TAXABLE WOOL RECEIVALS

Year	Receivals: Brokers (NCWSB)	Receivals: Dealers(a)	Receivals: Brokers and dealers	Dealers as per cent of total receivals
	— '000 tonnes —			per cent
1985–86	599.0	167.6	766.4	21.9
1986–87	625.9	188.0	814.0	23.1
1987–88	707.6	134.8	842.4	16.0
1988–89	755.1	136.4	891.5	15.3
1989–90	911.8	138.0	1,050.0	13.1
1990–91p	915.7	93.4	1,009.1	9.3

(a) Includes brokers who are not members of the National Council of Wool Selling Brokers of Australia (NCWSB).
Source: Livestock Products, Australia (7215.0).

Wool marketing arrangements

The auction system reverted to a 'free marketing' system during the 1990–91 season. The Reserve Price Scheme that had operated since 1974 was suspended in February 1991. It had become unworkable due to the massive accumulation of wool in the stockpile and the substantial debt which had been incurred. The stockpile of bales at 8 March 1991 was 4,694,582, and 4,478,130 at 1 November 1991.

From 1 July 1991 the Australian Wool Corporation (AWC) was split into three separate organisations. The Australian Wool Corporation continues in a reduced form and is responsible for wool promotions programs, market regulations, shear training and encouraging efficiency within the sphere of wool handling and transport and market reporting. The Australian Wool Realisation Commission is responsible for the disposal of the wool stockpile, sale of assets and repayment of loans borrowed by the previous AWC to purchase wool. The Wool Research Realisation Commission is responsible for coordinating, developing and funding the wool research and development program.

DAIRYING

Dairying is a major Australian rural industry, ranking fourth behind the wheat, wool and beef industries in terms of value of production. The gross value of dairy production at farm gate prices in 1989–90 was $1,749 million or approximately eight per cent of the gross value of rural production. The gross value of this industry at an ex-factory level is approximately $4,200 million per annum. The industry is also one of Australia's leading rural industries in terms of the proportion of down stream employment and processing it generates. Employment at manufacturing, processing and farm establishments is estimated to be in the vicinity of 50,000 people.

Production

Australian milk production in 1990–91 was 6,402 million litres, an increase of 2.2 per cent compared with the previous year. This largely reflected productivity gains through a combination of farm and herd management techniques. Average production per dairy cow of 4,080 litres in 1990–91 was around a third higher than the levels of the early 1980s.

Domestic market

Average annual per capita milk consumption has stabilised at around 100 litres since the mid-1980s. However, there have been substantial changes in the types of fresh milk consumed, with fat reduced and modified milks taking an increasing share of overall market milk sales.

After growing strongly throughout the late 1980s domestic sales of cheese have stabilised in recent years at slightly above 150,000 tonnes. This is around nine kilograms per capita on an annual basis. This reflects the fact that recent increases in sales of cheddar varieties (particularly lower fat varieties) have been offset by a decline in sales of round eye cheese (such as Swiss, Gouda and Edam). Imports, mainly of specialty cheese brands, account for around 15 per cent of domestic cheese sales.

Consumer preferences for healthier, more natural foods has boosted demand for short shelf life products in recent years. Yogurt sales in 1990–91 reached 64,000 tonnes which is a third higher than those recorded in the mid-1980s.

MILK CATTLE
('000)

		Cows and heifers used or intended for production of milk or cream for sale		
31 March	*Bulls used or intended for service*	*Cows (in milk and dry)*	*Heifers*	*House cows and heifers(a)*
1986	43	1,770	885	61
1987	37	1,716	845	41
1988	36	1,676	830	38
1989	36	1,663	813	34
1990	33	1,653	808	28
1991p	32	1,569	735	n.a.

(a) One year and over, kept for the establishment's own milk supply.
Source: Livestock and Livestock Products, Australia (7221.0).

PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

			Whole milk intake by factories	
Year	*Market milk sales by factories*	*Milk used in the manufacture of dairy products*	*Total intake*	*Gross value*
		— million litres —		$m
1985–86	1,625	4,412	6,038	1,106.7
1986–87	1,655	4,517	6,172	1,257.4
1987–88	1,667	4,462	6,129	1,390.9
1988–89	1,695	4,594	6,289	1,635.1
1989–90	1,696	4,567	6,263	1,749.0
1990–91p	1,736	4,666	6,402	1,836.6

Source: Australian Dairy Corporation.

BEEKEEPING

Statistics up to and including 1985–86 in the following table relate to apiarists with forty or more hives. In 1986–87 the scope of the Agricultural Census was revised to include establishments undertaking agricultural activity having an estimated value of agricultural operations of $20,000 or more.

BEEKEEPING

Year	Number of apiarists	Honey produced: Number of beehives: Productive ('000)	Honey produced: Number of beehives: Total ('000)	Honey produced: Quantity ('000 tonnes)	Honey produced: Average production per productive hive (kg)	Honey produced: Gross value ($'000)	Beeswax produced: Quantity (tonnes)	Beeswax produced: Gross value ($'000)
1984–85	2,222	413	553	28.0	67.7	21,257	528	2,077
1985–86	2,250	427	560	26.9	63.0	25,387	490	2,035
1986–87	760	293	364	19.2	65.6	31,050	334	1,988
1987–88	770	285	366	23.0	80.8	32,523	428	1,940
1988–89	836	307	405	22.6	73.8	29,586	530	1,967
1989–90	819	298	405	21.2	71.2	26,113	412	1,546

Source: Agricultural Census, Australian Bureau of Statistics.

APPARENT CONSUMPTION OF FOODSTUFFS

Estimates of the consumption of foodstuffs in Australia are compiled by deducting net exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. The term 'consumption' is used in a specialised sense. The estimates derived are broadly the quantities available for consumption at a particular level of distribution, i.e., ex-market, ex-store or ex-factory depending on the method of marketing and/or processing. Because consumption of foodstuffs is measured, in general, at 'producer' level no allowance is made for wastage before they are consumed. The effect of ignoring wastage is ultimately to overstate consumption to some extent.

The estimates of consumption per capita have been obtained by using the mean resident population for the period.

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS
(kg — unless otherwise indicated)

Commodity	1983–84	1984–85	1985–86	1986–87	1987–88	1988–89
Meat and meat products						
Meat (carcass equivalent weight)						
Beef	39.9	40.0	39.3	37.3	38.2	39.5
Veal	2.4	2.1	2.1	1.9	1.8	1.5
Beef and veal	*42.3*	*42.1*	*41.4*	*39.2*	*40.0*	*41.0*
Lamb	16.9	17.1	16.9	15.0	14.9	14.9
Mutton	5.2	6.6	7.1	7.4	7.9	6.8
Pigmeat(a)	16.4	16.4	17.0	16.8	17.6	18.1
Total	*80.9*	*82.2*	*82.3*	*78.3*	*80.4*	*80.8*
Offal and meat, n.e.i.	3.4	2.8	2.7	3.4	3.6	3.0
Total meat and meat products	**84.3**	**85.0**	**85.0**	**81.7**	**84.0**	**83.8**
Poultry						
Poultry (dressed weight)	20.0	21.8	23.0	23.5	24.7	24.7
Milk and milk products						
Market milk (fluid whole litres)	101.6	101.8	102.5	102.9	101.5	100.9
Cheese (natural equivalent weight)	7.7	8.1	7.9	8.1	8.3	8.6

For footnotes *see* end of table.

APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS — *continued*
(kg — unless otherwise indicated)

Commodity	*1983–84*	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*
Oils and fats						
Butter	3.9	3.9	3.8	3.5	3.2	3.1
Margarine						
Table margarine	6.9	6.6	6.9	6.8	6.8	6.8
Other margarine	2.7	2.3	2.1	2.1	2.2	2.2
Total margarine	*9.6*	*8.9*	*9.0*	*8.9*	*9.0*	*9.0*
Beverages						
Tea	1.5	1.4	1.4	1.3	1.2	1.2
Coffee(b)	2.1	2.0	1.6	1.8	2.1	2.0
Aerated and carbonated waters (litres)	63.0	67.3	73.0	73.6	80.2	85.6
Beer (litres)	117.8	114.5	115.5	111.3	110.8	113.1
Wine (litres)	20.4	21.3	21.6	21.0	20.6	19.1
Spirits (litres alcohol)	1.1	1.2	1.3	1.2	1.2	1.3

(a) Includes bacon and ham. (b) Coffee and coffee products in terms of roasted coffee.
Source: Apparent Consumption of Foodstuffs and Nutrients, Australia (4306.0).

AGRICULTURAL IMPROVEMENTS

Irrigation

Irrigation is one of the factors by which agriculture is developed. The variability in stream flow and annual rainfall means that successful irrigation of crops and pastures is dependent on storage. Ground water supplies are used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (approximately 1.8 million hectares in 1989–90) forms 10 per cent of the total area under crops.

AREA IRRIGATED, YEAR ENDED 31 MARCH 1990(a)
(hectares)

Source of water used	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(b)*
Surface water							
From State irrigation schemes	399,204	418,439	89,626	16,886	13,124	3,612	940,917
From other schemes (including private group schemes)							
Direct from rivers, creeks, lakes, etc.	351,876	59,968	65,455	19,626	1,823	16,559	515,699
From farm dams	18,960	25,388	40,856	4,618	6,116	22,267	118,208
Total surface water	*770,040*	*503,795*	*195,937*	*41,131*	*21,064*	*42,439*	*1,574,824*
Underground water supply (e.g., bore, spear, well)	48,514	19,848	115,806	55,953	7,462	1,472	249,804
Town or country reticulated water supply	1,289	2,774	358	1,876	534	176	7,083
Total all water sources	**819,843**	**526,417**	**312,102**	**98,959**	**29,060**	**44,087**	**1,831,813** (c)

(a) Data for irrigation collected every 3 years. (b) Also includes figures for the Australian Capital Territory and Northern Territory. (c) Includes unspecified sources.
Source: Summary of Crops, Australia (7330.0).

Fertilisers

ARTIFICIAL FERTILISERS: AREA AND USAGE

Year	Area fertilised ('000 ha)	Super-phosphate used ('000 tonnes)	Nitrogenous fertilisers used ('000 tonnes)	Other fertilisers used ('000 tonnes)
1984–85	26,407	2,374	421	885
1985–86	25,089	2,160	408	869
1986–87	24,064	1,981	416	830
1987–88	26,651	2,454	431	953
1988–89	27,871	2,523	438	971
1989–90	27,360	2,378	483	1,010

Source: Summary of Crops, Australia (7330.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.