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## AGRICULTURE

### FARMING IN VICTORIA

#### Land settlement

##### *Beginnings*

The first permanent settlement of the then Port Phillip District of the Colony of New South Wales occurred in 1834 when the Henty brothers 'squatted' on Crown land at Portland. They were followed by Batman and Fawkner who in 1835 similarly squatted on the present site of Melbourne. Further details concerning land settlement and the development of farming in Victoria can be found in the *Victorian Year Book* 1984. Full details of the Acts of Parliament dealing with land settlement can be found in the *Victorian Year Book* 1973.

##### *Land occupation*

The following tables show alienation and utilisation of Crown land in Victoria:

#### ALIENATION OF LAND, VICTORIA, AT 30 JUNE 1984

Particulars	Area
	hectares
Lands alienated in fee simple	13,974,000
Crown lands	8,786,000
Total	22,760,000

#### CROWN LANDS, VICTORIA, AT 30 JUNE 1984

Particulars	Area
	hectares
Reservations –	
Reserved forest	2,744,199
Timber reserves (under Land Act)	42,558
Water catchment and drainage purposes	76,749
National parks (under National Parks Act)	1,150,586
Wildlife reserves	75,381
Water frontages, beds of streams, and lakes (not included above)	307,365
Other reserves	197,299
Total	4,594,137

#### Agricultural characteristics of statistical divisions

##### *Introduction*

A brief description of the characteristics and land utilisation of each Victorian Statistical Division can now be found in Chapter 7 of this *Year Book*. The following table describes the main agricultural activity of each statistical division and the estimated value of such operations:

## AGRICULTURAL ESTABLISHMENTS (a) BY STATISTICAL DIVISION, 1983-84 (b)

Main activity of establishment (a)	Estimated value of agricultural operations (\$'000)						Total establishments
	<2.5	2.5-9	10-19	20-39	40-99	100+	
MELBOURNE STATISTICAL DIVISION							
Meat cattle	100	466	200	91	38	6	901
Orchard and other fruit	8	34	51	74	84	58	309
Vegetables	3	21	46	76	143	133	422
Nurseries	1	22	36	61	78	69	267
Poultry	2	3	15	19	50	75	164
Potatoes	—	4	1	6	20	22	53
Other	119	242	212	214	275	80	1,142
<b>Total</b>	<b>233</b>	<b>792</b>	<b>561</b>	<b>541</b>	<b>688</b>	<b>443</b>	<b>3,258</b>
BARWON STATISTICAL DIVISION							
Milk cattle	3	19	33	130	467	98	750
Meat cattle	50	192	102	42	26	6	418
Sheep	15	126	104	110	88	36	479
Other	41	122	149	200	222	132	866
<b>Total</b>	<b>109</b>	<b>459</b>	<b>388</b>	<b>482</b>	<b>803</b>	<b>272</b>	<b>2,513</b>
SOUTH WESTERN STATISTICAL DIVISION							
Milk cattle	4	32	102	284	1,316	282	2,020
Sheep	23	195	299	647	794	233	2,191
Sheep and meat cattle	4	71	78	192	274	173	792
Meat cattle	45	327	228	158	84	23	865
Other	53	71	71	107	174	98	574
<b>Total</b>	<b>129</b>	<b>696</b>	<b>778</b>	<b>1,388</b>	<b>2,642</b>	<b>809</b>	<b>6,442</b>
CENTRAL HIGHLANDS STATISTICAL DIVISION							
Sheep	30	232	235	302	318	85	1,202
Meat cattle	43	143	43	22	6	2	259
Sheep and meat cattle	7	51	53	59	37	15	222
Sheep and cereals	—	16	32	76	191	84	399
Potatoes	1	4	15	27	79	100	226
Other	68	96	81	83	125	51	504
<b>Total</b>	<b>149</b>	<b>542</b>	<b>459</b>	<b>569</b>	<b>756</b>	<b>337</b>	<b>2,812</b>
WIMMERA STATISTICAL DIVISION							
Sheep and cereals	—	19	75	223	477	255	1,049
Cereal grains	4	27	71	273	816	884	2,075
Sheep	12	94	105	177	144	28	560
Other	33	74	57	40	54	36	294
<b>Total</b>	<b>49</b>	<b>214</b>	<b>308</b>	<b>713</b>	<b>1,491</b>	<b>1,203</b>	<b>3,978</b>
NORTHERN MALLEE STATISTICAL DIVISION							
Grapes	2	35	114	612	875	128	1,766
Cereal grains	2	13	34	94	448	811	1,402
Sheep and cereals	—	1	15	41	77	66	200
Orchard and other fruit	10	30	24	40	53	64	221
Other	58	129	130	141	245	96	799
<b>Total</b>	<b>72</b>	<b>208</b>	<b>317</b>	<b>928</b>	<b>1,698</b>	<b>1,165</b>	<b>4,388</b>
LODDON-CAMPASPE STATISTICAL DIVISION							
Meat cattle	83	238	94	54	21	3	493
Sheep	38	229	209	184	164	26	850
Milk cattle	3	17	19	102	570	144	855
Sheep and cereals	1	37	105	198	403	168	912
Sheep and meat cattle	17	67	49	53	43	5	234
Pigs	2	9	8	15	27	54	115
Other	91	151	169	213	353	305	1,282
<b>Total</b>	<b>235</b>	<b>748</b>	<b>653</b>	<b>819</b>	<b>1,581</b>	<b>705</b>	<b>4,741</b>

AGRICULTURAL ESTABLISHMENTS (a) BY STATISTICAL DIVISION, 1983-84 (b) – *continued*

Main activity of establishment (a)	Estimated value of agricultural operations (\$'000)						Total establishments
	<2.5	2.5-9	10-19	20-39	40-99	100 +	
GOULBURN STATISTICAL DIVISION							
Milk cattle	11	39	69	280	1,532	227	2,158
Meat cattle	98	403	248	152	86	11	998
Sheep and meat cattle	9	76	113	186	155	39	578
Sheep and cereals	5	27	70	198	334	71	705
Orchard and other fruit	4	25	34	62	162	129	416
Cereal grains	6	51	73	74	119	38	361
Meat cattle and cereals	1	14	32	45	37	3	132
Other	128	294	335	371	291	146	1,565
<b>Total</b>	<b>262</b>	<b>929</b>	<b>974</b>	<b>1,368</b>	<b>2,716</b>	<b>664</b>	<b>6,913</b>
NORTH EASTERN STATISTICAL DIVISION							
Meat cattle	66	389	292	266	130	21	1,164
Milk cattle	1	13	23	83	297	82	499
Tobacco	—	—	1	28	151	87	267
Sheep and meat cattle	8	34	72	93	89	14	310
Other	48	116	133	149	222	100	768
<b>Total</b>	<b>123</b>	<b>552</b>	<b>521</b>	<b>619</b>	<b>889</b>	<b>304</b>	<b>3,008</b>
EAST GIPPSLAND STATISTICAL DIVISION							
Meat cattle	41	281	171	113	61	9	676
Milk cattle	2	7	19	60	299	84	471
Sheep and meat cattle	4	41	53	91	98	22	309
Other	40	112	108	121	123	52	556
<b>Total</b>	<b>87</b>	<b>441</b>	<b>351</b>	<b>385</b>	<b>581</b>	<b>167</b>	<b>2,012</b>
CENTRAL GIPPSLAND STATISTICAL DIVISION							
Milk cattle	9	37	93	427	1,678	348	2,592
Meat cattle	71	548	391	279	142	33	1,464
Other	79	178	140	212	251	152	1,012
<b>Total</b>	<b>159</b>	<b>763</b>	<b>624</b>	<b>918</b>	<b>2,071</b>	<b>533</b>	<b>5,068</b>
EAST CENTRAL STATISTICAL DIVISION							
Meat cattle	44	222	121	64	34	6	491
Milk cattle	1	16	38	87	239	44	425
Other	49	77	58	72	118	85	459
<b>Total</b>	<b>94</b>	<b>315</b>	<b>217</b>	<b>223</b>	<b>391</b>	<b>135</b>	<b>1,375</b>

(a) 'Establishment' is a term used in economic statistics and refers to the full range of activities at the smallest operating level of a business, which in general corresponds to a location. Establishments are classified according to their predominant activity/(ASIC) based on the estimated value of commodities produced; the sum of these comprises the 'estimated value of operations' of the establishment as a whole. This table includes those establishments with an estimated value of agricultural operations (EVAO) of less than \$2,500. Due to a variety of reasons a number of establishments neither grew crops nor grazed livestock during the year ended 31 March 1984, resulting in a 'nil activity' ASIC and EVAO.

(b) The period covered in this and most subsequent tables in this Chapter is the 1983-84 season which in general refers to the year ended 31 March, 1984 but also includes activities which may have been finalised after 31 March (e.g. grape picking). In most of these the growing period occurred before 31 March.

**Economic contribution**

*Gross value of agricultural production*

The gross value of agricultural commodities produced provides a measure of the output from farming. The gross value of commodities produced is the value placed on recorded production at the wholesale prices realised in the principal markets. In general, the 'principal markets' are the metropolitan markets in each State. In cases where commodities are consumed locally or where they become raw materials for a secondary industry, these points are presumed to be the principal markets.

Quantity data are, in the main, obtained from the agricultural census held at 31 March each year, and from supplementary collections which cover crops that have not been harvested at the time of the census. Information covering such commodities as livestock slaughterings, dairy produce, and bee farming is obtained from separate collections and from organisations such as the Department of Primary Industry. Price data for commodities are obtained from a variety of sources including statutory authorities responsible for marketing products, e.g. the Australian Wheat Board, marketing

reports, wholesalers and brokers, and auctioneers. For all commodities, values are in respect of production during the year, irrespective of whether or when payments are made.

The gross value of agricultural commodities produced in Victoria during 1983-84 was \$3,435m. This figure is thirty-three per cent more than the gross value of production for 1982-83, and is a consequence of the drought which affected large tracts of the Victorian countryside during 1982-83. In 1983-84, Victoria contributed twenty-two per cent of the Australian total value of agricultural production of \$15,309m.

**VALUE OF AGRICULTURAL COMMODITIES PRODUCED, VICTORIA**  
(\$'000)

Particulars	Year ended 30 June -					
	1979	1980	1981	r1982	r1983	1984
<b>Crops -</b>						
Cereals for grain	465,670	587,338	505,360	476,765	99,999	814,819
Hay	64,793	71,752	99,461	153,331	177,855	311,638
Industrial crops	27,708	32,486	33,655	24,877	23,443	34,463
Vegetables	124,332	123,468	148,245	153,457	139,223	197,641
Grapes	63,747	128,333	r75,537	104,876	107,143	93,116
Fruit	78,420	94,431	110,621	91,653	114,722	113,962
Other	51,545	70,765	63,945	77,559	81,430	93,592
<b>Livestock slaughtering and other disposals -</b>						
Cattle and calves	419,554	455,072	485,372	420,138	467,670	352,069
Sheep and lambs	116,879	180,896	227,051	182,073	154,688	159,775
Other	123,572	146,468	160,356	183,918	211,632	207,102
<b>Livestock products -</b>						
Wool	271,243	341,201	334,356	358,826	324,133	381,858
Dairy products	281,155	307,987	455,713	520,641	615,000	589,062
Other	41,614	47,005	51,087	69,913	71,097	86,019
<b>Total</b>	<b>2,130,232</b>	<b>2,587,202</b>	<b>r2,750,758</b>	<b>2,818,027</b>	<b>2,588,035</b>	<b>3,435,118</b>

**Agricultural improvements**

*Pasture improvement*

Most of Victoria's sheep, beef, and dairy animals are grazed on pastures described in official statistics as 'improved'. These pastures are based on clovers or medics introduced from overseas, and also contain varying proportions of sown or unsown perennial or annual grasses (also mostly introduced) and of unwanted species (weeds). With adequate fertiliser, the introduced species are capable of supporting much greater animal production than pastures of native species.

During the past forty years, the area of improved pastures in Victoria increased from about 2 million to 5.5 million hectares (two-thirds of the total pasture area in the State). Much of this increase has resulted from the widespread use of subterranean clover and superphosphate, which alleviated the almost universal soil shortages of nitrogen and phosphorus.

The remaining 3.1 million hectares of pastures (listed as 'native' pastures in the statistics) comprise indigenous perennial grasses (e.g. spear, wallaby, and kangaroo grasses) or more commonly a range of volunteer exotic species of low productivity.

Where annual rainfall is 750 mm or more, mainly south of the Great Dividing Range, improved pastures of perennial grasses (e.g. perennial ryegrass and cocksfoot), white clover and subterranean clover are used for intensive dairying and beef production. In the medium rainfall areas (500-750 mm) of north-east through to south-west Victoria, sheep and beef cattle are run on pastures comprised of annual clovers, mainly subterranean clover, together with volunteer annual grasses and sown perennial grasses (perennial ryegrass, phalaris, cocksfoot, and tall fescue). The remaining pastoral areas (250-500 mm annual rainfall) grow pastures of annual medics or clovers, with volunteer annual grasses such as barley grass, Wimmera ryegrass, annual fescues, and bromes. Commonly, these pastures are grown in rotation with cereal crops, and are grazed by sheep.

Irrigated pastures, principally white clover, perennial ryegrass, and paspalum, are used mainly for dairying. They occupy about 380,000 hectares of the northern plains and 44,000 hectares in southern Victoria, mainly Gippsland.

The productivity from pastures continues to increase steadily, though perhaps less spectacularly than in the early years of pasture improvement. The main advances in recent years have been through the introduction of more productive, higher quality cultivars of pasture grasses and legumes, use of

more appropriate types and rates of fertiliser, better pasture management methods, more efficient use of irrigation water, and more effective control of pests, diseases, and weeds.

*Fertiliser*

The need to topdress pastures with superphosphate for high productivity has been generally accepted since the 1920s, and soil fertility has been much improved by this practice.

The use of superphosphate steadily increased in recent years after a slump in the mid-1970s. In 1983-84, 581,000 tonnes of superphosphate were used in Victoria, of which 334,000 tonnes (57 per cent) were applied to pasture. In the same year, 594,000 tonnes of artificial fertilisers were used on 1,359,000 hectares of wheat and 2,327,000 hectares of pastures. Superphosphate amounted to 81 per cent of the total fertiliser used in 1983-84.

For further details concerning the use of fertiliser see previous editions of the *Victorian Year Book*.

ARTIFICIAL FERTILISERS, VICTORIA

Year (a)	Crops		Pastures	
	Area fertilised	Quantity used	Area fertilised	Quantity used
	'000 hectares	'000 tonnes	'000 hectares	'000 tonnes
1978-79	1,913	277	3,093	476
1979-80	n.a.	263	3,530	552
1980-81	n.a.	257	3,494	556
1981-82	1,842	289	3,340	556
1982-83	n.a.	261	2,599	438
1983-84	n.a.	296	2,327	422

(a) See footnote (b) to table on page 237.

*Private storage dams and livestock disease eradication*

Details concerning these topics can be found in previous editions of the *Victorian Year Book*.

*Vermin and noxious weeds control*

The control of pest animals and plants affects the whole range of agricultural industries of Victoria, as well as the forests and natural bushland environments, such as wildlife and game reserves. The Vermin and Noxious Weeds Destruction Board, which was established in 1959 to work with the Department of Crown Lands and Survey, is responsible for intensifying the control of vermin and noxious weeds and implementing a philosophy of pest control. Further information on this subject can be found in previous editions of the *Victorian Year Book*.

*Land cultivation*

The following table shows details of the broad utilisation of land under occupation in Victoria for agricultural purposes for the season 1983-84.

LAND IN OCCUPATION FOR AGRICULTURAL PURPOSES, VICTORIA, 1983-84 (a)

Statistical division	Number of establishments (b)	Area of crops	Area of sown pasture and lucerne	Native pasture	Total area of establishments
		hectares	hectares	hectares	hectares
Melbourne	3,258	29,299	126,976	53,844	259,971
Barwon	2,513	59,212	270,989	95,557	502,217
South Western	6,442	103,996	1,254,126	310,026	1,868,128
Central Highlands	2,812	114,487	479,031	162,439	877,990
Wimmera	3,978	884,256	719,862	275,953	2,432,339
Northern Mallee	4,388	764,533	381,553	537,133	2,555,120
Loddon-Campaspe	4,741	376,866	575,234	356,330	1,609,140
Goulburn	6,913	226,864	676,526	347,255	1,497,392
North Eastern	3,008	67,778	271,531	192,780	814,965
East Gippsland	2,012	9,221	231,631	416,424	1,072,811
Central Gippsland	5,068	14,340	451,407	80,876	652,888
East Central	1,375	3,986	74,354	17,958	111,998
<b>Total</b>	<b>46,508</b>	<b>2,654,838</b>	<b>5,513,220</b>	<b>2,846,575</b>	<b>14,254,959</b>

(a) See footnote (b) to table on page 237.

(b) See footnote (a) to table on page 237.

## AGRICULTURAL COMMODITIES

## Introduction

In the following pages some detailed descriptions and statistical information about all the main crops, livestock, and livestock products produced in Victoria are given. The section deals, first, with the field crops including wheat, oats, and barley; and then with the intensive crops including fruit and vegetables. The section then discusses livestock including sheep, milk and meat cattle, pigs, poultry, goats, deer, and bees, together with the various livestock products.

## Field crops

The cereals wheat, oats, and barley are the principal field crops in Victoria. These, together with hay production, green feed, and silage, represent about ninety-two per cent of the total area sown, although there is some variation from year to year.

## Wheat

Wheat is Victoria's largest crop. The average area sown in the six-year period 1978-79 to 1983-84 was 1.4 million hectares, about sixty-three per cent of the State's total area under crop. The area under wheat is normally subject to fairly minor fluctuations. Over the same period production has averaged 2.4 million tonnes, ranging from a drought reduced 0.4 million tonnes to a record 4.0 million tonnes in 1983-84. Further information concerning wheat production and marketing can be found in previous editions of the *Victorian Year Book*.

## WHEAT FOR GRAIN, VICTORIA

Season	Area	Production	Average yield per hectare	A.S.W. (a) wheat standard
	'000 hectares	'000 tonnes	tonnes	kg/h.l
1978-79	1,337	2,998	2.24	80.9
1979-80	1,457	3,250	2.23	81.5
1980-81	1,431	2,538	1.77	80.5
1981-82	1,322	2,467	1.87	81.3
1982-83	1,327	394	0.30	83.0
1983-84	1,614	3,971	2.46	76.7

(a) Australian Standard White, quoted in kg/h.l (kilograms per hectolitre).

## Oats

Oats are sown for grain production, winter grazing, and hay production. The average annual area sown for grain, grazing, and hay between 1978-79 and 1983-84 was 344,000 hectares of which about 75 per cent was harvested for grain, some of it after being grazed during the winter. About half of the oats produced in Victoria are held on farms or used as stock feed, especially during periods of seasonal shortage or in drought conditions. About a quarter of the crop goes to mills, but only a small fraction of this is processed for human consumption. The bulk of the 'milled' oats is destined for incorporation in proprietary stock feeds or as unkilned groats for export. The remaining twenty-five per cent of the crop is exported as grain.

Further information concerning the production and marketing of oats can be found in previous editions of the *Victorian Year Book*.

## OATS FOR GRAIN, VICTORIA

Season	Area	Production	Average yield per hectare
	'000 hectares	'000 tonnes	tonnes
1978-79	291	446	1.53
1979-80	256	390	1.52
1980-81	219	322	1.47
1981-82	245	306	1.25
1982-83	213	98	0.46
1983-84	324	494	1.52

*Barley*

Barley is now the second largest crop grown in Victoria, and has proved to be the most popular alternative crop to wheat, particularly in the Northern Mallee. The area sown to barley for all purposes in 1983-84 was 408,000 hectares, compared to 83,000 hectares in 1965-66.

The general trend for increased barley production in Victoria is now well established. While some barley is grown in all statistical divisions, production has been traditionally centred in two distinct areas where high quality grain is produced. The largest production is in the south-west of the Northern Mallee and the adjacent north-western Wimmera. The second source of high quality barley grain is in an area between Melbourne, Geelong, and Bacchus Marsh in southern Victoria. Further information on the production and marketing of barley can be found in previous editions of the *Victorian Year Book*.

## BARLEY FOR GRAIN, VICTORIA

Season	Area		Production		Average yield per hectare	
	2-row	6-row	2-row	6-row	2-row	6-row
	'000 hectares	'000 hectares	'000 tonnes	'000 tonnes	tonnes	tonnes
1978-79	361	4	513	6	1.42	1.50
1979-80	321	4	487	7	1.52	1.75
1980-81	298	5	412	6	1.38	1.20
1981-82	311	4	455	5	1.46	1.23
1982-83	269	9	71	3	0.27	0.34
1983-84	390	13	736	22	1.89	1.69

*Maize*

Maize is grown on a small scale in Victoria and is cultivated mainly in Gippsland. Lower values in the late 1960s and other more profitable alternatives in vegetables and livestock, led to a substantial decline in the production of maize grain. The area and yield of maize for each of the six seasons to 1983-84 were:

## MAIZE FOR GRAIN, VICTORIA

Season	Area			Production			Average yield per hectare
	Hybrid	Other	Total	Hybrid	Other	Total	
	hectares	hectares	hectares	tonnes	tonnes	tonnes	tonnes
1978-79	421	92	513	1,930	64	1,994	3.89
1979-80	483	92	575	2,798	52	2,850	4.96
1980-81	557	11	568	2,939	63	3,002	5.29
1981-82	434	42	476	2,188	169	2,357	4.95
1982-83	564	38	602	2,331	118	2,449	4.07
1983-84	719	141	860	4,516	508	5,023	5.84

*Rye*

Cereal rye is a crop of minor importance in Victoria but there is a small but specific demand for the grain in speciality breads. Rye is chiefly grown to stabilise loose sand or sandhills in the Northern Mallee Statistical Division. There is also some interest in it for winter grazing in cold areas.

## RYE FOR GRAIN, VICTORIA

Season	Area	Production	Average yield per hectare
	hectares	tonnes	tonnes
1978-79	2,449	1,750	0.71
1979-80	2,261	1,489	0.66
1980-81	1,898	1,390	0.73
1981-82	2,715	1,622	0.60
1982-83	3,889	875	0.22
1983-84	7,138	5,278	0.74

*Triticale*

The synthetic cereal triticale produced from a cross between wheat and rye was grown on a limited scale following release of locally selected adapted varieties. Most crops sown in 1983-84 were grown for grain for sale to pig or poultry farmers. Triticale flour is blended with wheat and rye flours in speciality bread and biscuit production.

*Fodder*

The stability of livestock production on Victorian farms depends largely on fodder conservation. Natural irregularities in the diet of grazing animals are met by conserved fodders, fed as supplement, when the paddock ration of crop or pasture is deficient in quantity or quality. Such deficiencies occur regularly with seasonal changes, e.g. lush spring growth contrasts with sparse winter growth and dried-off feed in summer. Deficiencies also occur during extended dry, or excessively cold or wet periods; ravishment of pasture by pests or disease; failed crops; floods; or fire. All or any of these events may result in feed shortages for grazing animals. Fodder conservation provides a means of overcoming such shortages.

## HAY PRODUCTION, VICTORIA, SEASON 1983-84

Variety	Area	Production	Average yield per hectare
	hectares	tonnes	tonnes
Meadow grass and clover	615,479	2,569,162	4.17
Oaten	67,735	305,148	4.51
Lucerne	23,992	124,889	5.21
Wheaten	7,178	22,707	3.16
Barley and other	3,209	10,088	3.14
<b>Total</b>	<b>717,593</b>	<b>3,031,994</b>	<b>4.23</b>

SILAGE MADE AND FARM STOCKS OF SILAGE AND HAY, VICTORIA  
(tonnes)

Statistical division	Silage made, season 1983-84	Stocks at 31 March 1984	
		Silage	Hay
Melbourne	20,255	7,800	107,452
Barwon	20,999	9,369	204,469
South Western	35,194	13,824	566,742
Central Highlands	7,274	5,108	241,972
Wimmera	10,556	5,908	337,687
Northern Mallee	3,438	2,433	160,979
Loddon-Campaspe	10,487	3,706	414,050
Goulburn	13,163	6,845	560,147
North Eastern	25,777	24,266	177,778
East Gippsland	6,341	6,571	101,728
Central Gippsland	83,937	32,799	381,869
East Central	13,229	6,970	63,124
<b>Total</b>	<b>250,650</b>	<b>125,595</b>	<b>3,317,995</b>

*Oilseeds*

A demand for high protein meals for livestock feed, together with a general worldwide trend to increased consumption of vegetable oils, has been evident in Australia, where domestic oilseed prices rose with prices on world markets.



## SELECTED OILSEEDS PRODUCTION, VICTORIA

Season	Area	Production	Average yield per hectare
	hectares	tonnes	tonnes
LINSEED			
1978-79	4,474	4,747	1.06
1979-80	5,284	5,208	0.99
1980-81	4,567	4,057	0.89
1981-82	3,864	3,898	1.01
1982-83	2,067	942	0.46
1983-84	1,973	1,510	0.77
RAPESEED			
1978-79	2,992	2,825	0.94
1979-80	3,438	3,476	1.01
1980-81	2,539	2,078	0.82
1981-82	3,846	3,584	0.93
1982-83	3,822	1,227	0.32
1983-84	4,258	4,161	0.98
SAFFLOWER			
1978-79	3,227	2,180	0.68
1979-80	1,055	688	0.65
1980-81	3,366	1,630	0.48
1981-82	4,799	3,113	0.65
1982-83	1,305	491	0.38
1983-84	3,619	2,610	0.72
SUNFLOWER			
1978-79	14,220	10,997	0.77
1979-80	9,363	7,325	0.78
1980-81	8,195	8,552	1.04
1981-82	11,970	10,086	0.84
1982-83	1,170	790	0.68
1983-84	14,105	12,546	0.89

*Grain legumes*

Interest in the production of cheap sources of protein for both human and livestock consumption is worldwide. The legumes, including soybeans, field peas, and lupins comprise a major group of high protein grains. Since 1973, the area sown to lupins has risen from about 100 hectares to about 17,000 hectares in 1984.

The average area sown to field peas in the decade 1974-75 to 1983-84 was about 20,000 hectares, the majority being in western and central Victoria. However, most of the area of about 47,477 hectares sown to field peas in 1983-84 was in the Northern Mallee, Wimmera, and Loddon-Campaspe Statistical Divisions.

**Intensive crops***Fruit**Introduction*

In Victoria in 1983-84, the area planted with fruit, nuts, and berries was 19,365 hectares, and the area of vineyards was 20,127 hectares. This total of 39,492 hectares is approximately 1.8 per cent of the total area under crops in Victoria, yet fruit and vine growing make a valuable contribution to the economy of the State.

*Tree fruit*

In Victoria, the main fruit growing areas are in the Goulburn, Northern Mallee, Melbourne, and East Central Statistical Divisions. There are smaller areas in the North Eastern Statistical Division and also in the Gippsland, Bacchus Marsh, and Ballarat areas.

NUMBER OF BEARING ORCHARD FRUIT AND NUT TREES (EXCLUDING CITRUS) BY  
STATISTICAL DIVISION, VICTORIA, AT 31 MARCH 1984

Statistical division	Apples	Pears	Peaches	Apricots	Other
Melbourne	390,664	31,022	60,858	2,605	85,422
Barwon	2,998	565	1,287	540	175
South Western	8,604	200	941	436	26
Central Highlands	44,939	2,089	4,310	2,320	6,880
Wimmera	1,671	1,003	1,511	915	40,580
Northern Mallee	1,235	226	17,542	49,859	224,428
Loddon-Campaspe	74,553	22,322	813	132	3,300
Goulburn	285,645	920,323	433,828	89,700	67,109
North Eastern	75,413	890	1,140	330	11,963
East Gippsland	2,022	44	75	55	1,578
Central Gippsland	33,076	514	960	4	1,550
East Central	100,871	6,913	12,165	162	10,462
<b>Total</b>	<b>1,021,691</b>	<b>986,111</b>	<b>535,430</b>	<b>147,058</b>	<b>453,473</b>

NUMBER OF BEARING CITRUS TREES BY STATISTICAL  
DIVISION, VICTORIA, AT 31 MARCH 1984

Statistical division	Oranges	Lemons and limes	Other
Melbourne	2,180	16,638	—
Barwon	—	105	—
South Western	75	—	—
Central Highlands	—	510	—
Wimmera	20	26	—
Northern Mallee	584,551	57,788	94,716
Loddon-Campaspe	—	20	—
Goulburn	52,261	18,211	10,760
North Eastern	14,775	4,984	558
East Gippsland	—	228	—
Central Gippsland	—	—	—
East Central	—	2,987	—
<b>Total</b>	<b>653,862</b>	<b>101,497</b>	<b>106,034</b>

ORCHARD FRUIT PRODUCTION, VICTORIA  
(tonnes)

Type of fruit	Year ended 31 March -					
	1979	1980	1981	1982	1983	1984
Pears	100,896	96,844	121,734	85,078	98,712	97,150
Apples	89,343	75,128	77,047	68,535	77,526	64,379
Peaches	28,337	35,398	41,765	33,853	34,702	23,824
Apricots	8,135	7,626	8,611	6,754	7,302	5,857
Cherries	2,295	(a)	2,273	1,920	1,705	1,130
Plums and prunes	7,069	(a)	3,263	3,160	2,810	2,574
Olives	1,492	(a)	556	1,812	226	938
Nectarines	4,607	(a)	1,201	1,658	1,816	1,544
Quinces	179	(a)	(a)	(a)	(a)	111
Figs	65	(a)	5	(a)	(a)	1
Oranges -						
Valencias	24,911	28,865	31,950	26,921	32,936	31,192
Navels	15,367	16,741	20,590	15,506	17,117	16,051
Other	673	911	1,064	310	468	314
Lemons and limes	13,883	7,281	10,197	8,004	5,349	4,134
Grapefruit	3,740	(a)	4,367	4,656	4,913	5,071
Mandarins	2,874	(a)	2,898	2,470	2,509	2,933

(a) Not collected.

*Marketing*

Most of the fruit grown in Victoria for the fresh fruit market is sold locally in Melbourne, and some in Sydney and Brisbane. While in Melbourne up to half of the total crop sold as fresh fruit may be sold direct to supermarkets or at the orchard gate, the price established at the Melbourne Wholesale Fruit and Vegetable Market still provides the basis for all Victorian sales.

For further details concerning the distribution, production, and marketing of Victoria's fruit crops, refer to previous editions of the *Victorian Year Book*.

*Small fruit*

Climatic requirements have restricted the commercial production of strawberries, and cane and bramble fruits in particular, to the cooler southern regions of Victoria, and most of the fruit is grown in the hills of the eastern Melbourne metropolitan and Mornington Peninsula areas which are relatively close to the Melbourne market. During the last few years, fruit growers in other parts of the State interested in diversification have taken up the production of strawberries and raspberries, for the fresh fruit market in particular.

The use of mechanical harvesters, replacing expensive hand picking, has been an additional factor in the development of a viable cane and bramble berry industry in the State. Currently the blueberry industry is in its infancy and plantings to date have not reached full productive capacity. However, by 1988 these plantings are expected to be in full production. In the meantime, the total area planted is expanding.

**SMALL FRUIT PRODUCTION, VICTORIA**  
(kilograms)

Type of fruit	Year ended 31 March –					
	1979	1980	1981	1982	1983	1984
Strawberries	1,115,344	1,030,053	1,012,226	1,044,361	1,055,270	1,443,800
Youngberries	53,860	(a)	(a)	(a)	(a)	(a)
Raspberries	86,741	142,864	186,464	179,905	204,430	154,622
Gooseberries	8,371	(a)	4,531	(a)	(a)	2,500
Loganberries	6,955	(a)	8,859	(a)	(a)	6,782
Other berries	63,739	(a)	(a)	(a)	(a)	(a)
Passionfruit	910	(a)	(a)	(a)	(a)	(a)

(a) Not collected.

*Nuts*

In Victoria a wide range of nuts can be grown such as almonds, walnuts, chestnuts, hazelnuts, pecans, pistachios, and others. In the past, only a few of these trees have been grown in commercial plantings. Almonds were mainly planted in the northern areas; walnuts and chestnuts in situations with deep soil in the north-east, the Dandenongs, and Gippsland; and hazelnuts on shallower soils in the north-east and the Dandenongs. In 1983-84, production of nuts exceeded 622 tonnes.

Among the other nuts, greatest expansion has occurred with chestnuts and the area of groves has increased tenfold, to well over 200 hectares. However, most of these groves and the more recently planted other nut trees are still not bearing.

**NUT PRODUCTION, VICTORIA**  
(kilograms)

Type of nuts	Year ended 31 March –					
	1979	1980	1981	1982	1983	1984
Walnuts	68,016	(a)	122,267	(a)	(a)	71,550
Chestnuts	24,884	(a)	(a)	(a)	(a)	35,796
Almonds	277,212	272,677	444,829	507,692	603,900	621,747
Hazelnuts	1,337	(a)	(a)	(a)	(a)	15,005

(a) Not collected.

*Grapes*

In Victoria, most wine grapes are grown under irrigation in the Northern Mallee Statistical Division, and in the Goulburn Valley and the Murray Valley areas. Wine grape varieties are also being grown in the traditional non-irrigated areas in the north-east (Rutherglen) and in the west (Great Western) of the State. With the increasing interest in wine grapes over recent years, many vineyards of varying sizes have been established in other suitable areas throughout the State.

In 1983-84 Victoria had 18,806 hectares of bearing vines and 1,321 hectares of non-bearing vines producing 82,973 tonnes for winemaking and 70,515 tonnes for drying and table grapes.

Between 1960 and 1980, the intake of grapes by wineries had increased from 11,000 tonnes to over 72,000 tonnes. Many of these grapes are now mechanically harvested. Until recently, wineries were able to absorb the greatly increased volume of grapes produced. However, since 1977 there has been evidence of over-production.

The production of sultanas and other drying varieties has remained fairly steady at around 42,000 tonnes to 60,000 tonnes (dry weight). Only about one-third of the Victorian crop is marketed locally and the rest is exported. Thus growers' returns depend largely on prices established in world markets according to supply and demand. Due to the depressing effects of world over-production on prices for dried fruit and wine, the industry is facing a period of rationalisation.

Table grape production in recent years has increased considerably, and within the last five years sales of Victorian table grapes on local and export markets have increased to 12,600 tonnes and it is expected that this trend will continue.

## VITICULTURE, AREA AND PRODUCTION, VICTORIA

Season	Area		Production for -	
	Bearing	Non-bearing	Wine making	Drying and table (a)
	hectares	hectares	tonnes	tonnes
1978-79	19,597	961	65,201	177,623
1979-80	19,820	944	72,485	283,550
1980-81	19,617	1,139	65,076	196,927
1981-82	19,327	1,192	57,699	292,125
1982-83	18,976	1,365	64,900	254,117
1983-84	18,806	1,321	82,973	259,160

(a) Production for drying is estimated fresh weight equivalent of dried weight.

*Vegetables*

Victoria is the leading State for vegetable production in Australia and produces approximately thirty per cent of the total national crop. Most of the fresh vegetable production is located adjacent to the Melbourne urban area at Werribee and Keilor to the west, and Narre Warren, Clyde, and Keysborough in the sandy south-eastern area.

Potatoes are the largest crop with major production areas in the Central Highlands around Ballarat, Thorpdale in the Gippsland Hills, and Koo Wee Rup, with additional areas around Warrnambool, the Bellarine Peninsula, Colac, the Otway Ranges, and metropolitan market gardens.

The tomato industry in Victoria is predominantly processing-orientated with most of the crop produced in the irrigated areas between Shepparton and Rochester in northern Victoria.

## VEGETABLES FOR HUMAN CONSUMPTION, VICTORIA

Type of vegetable	Area sown			Production		
	1981-82 (a)	1982-83 (a)	1983-84 (a)	1981-82 (a)	1982-83 (a)	1983-84 (a)
	hectares	hectares	hectares	tonnes	tonnes	tonnes
Potatoes	13,668	13,520	13,497	354,197	291,380	362,379
Onions	643	627	474	14,391	12,229	11,210
Carrots	970	923	1,065	30,635	27,761	36,581
Parsnips	158	181	224	4,481	5,387	5,423
Beetroot	(a)	19	26	(a)	250	579
Tomatoes	3,413	2,928	3,150	108,136	87,403	105,409
French beans	742	633	323	3,540	2,702	1,071
Green peas -						
Market (b)	287	289	281	608	473	520
Factory (c)	2,216	1,675	276	5,183	1,868	1,233

VEGETABLES FOR HUMAN CONSUMPTION, VICTORIA - *continued*

Type of vegetable	Area sown			Production		
	1981-82 (a)	1982-83 (a)	1983-84 (a)	1981-82 (a)	1982-83 (a)	1983-84 (a)
	hectares	hectares	hectares	tonnes	tonnes	tonnes
Cabbages	752	809	857	29,892	23,677	28,873
Cauliflowers	1,090	1,149	1,110	37,481	26,159	30,494
Lettuce	1,104	1,215	1,162	20,846	24,977	27,147
Pumpkins	632	727	644	9,698	10,486	9,418

(a) See footnote to table on page 237.

(b) Sold in pod.

(c) Shelled weight.

*Tobacco*

The tobacco industry in Victoria is centred at Myrtleford in the north-east with production areas in the adjacent valleys of the Buffalo, Ovens, Upper King, and Kiewa Rivers. With 37 per cent of the national quota, the 274 tobacco growers produce around 5.9 million kilograms of cured leaf annually. Australian manufacturers currently use 57 per cent of local leaf in tobacco products while a usage rate of 50 per cent is specified to qualify for by-law duty remission on leaf imports.

TOBACCO PRODUCTION, VICTORIA

Season	Area	Production	Average yield per hectare
	hectares	tonnes (dry)	tonnes
1978-79	3,505	5,563	1.59
1979-80	3,313	6,119	1.85
1980-81	3,015	5,911	1.96
1981-82	2,757	4,418	1.60
1982-83	2,803	4,928	1.76
1983-84	2,823	5,856	2.07

*Hops*

In Victoria, hops production is confined to the alluvial soils in the valleys of the Ovens and King Rivers where good quality irrigation water is available to supplement the natural summer rainfall. The hop is a summer growing perennial plant, propagated from root cuttings, that develops long vines supported on a post and wire trellis system about six metres above the ground surface. In 1984, there were thirty-one hop gardens in Victoria with a total area of 456 hectares producing 687 tonnes (dried weight) of hops for both domestic brewers and export markets.

HOP PRODUCTION, VICTORIA

Season	Area	Production	Average yield per hectare
	hectares	tonnes (a)	tonnes
1978-79	427	745	1.74
1979-80	457	908	1.99
1980-81	506	751	1.48
1981-82	461	789	1.71
1982-83	499	491	0.98
1983-84	456	687	1.51

(a) Dried weight.

*Plant nurseries*

In 1983-84, there were 414 nurseries in Victoria with a total production area of 1,331 hectares.

## NURSERIES (a), VICTORIA

Particulars	1983-84
Number of nurseries	414
Sales of nursery products (\$'000) –	
Seeds and bulbs	4,934
Seedlings	6,539
Cut flowers (including orchids)	14,512
Cultivated turf and ferns	8,915
Fruit trees and vines	3,086
Rose bushes	1,328
Other shrubs and trees	20,331
<b>Total nursery sales</b>	<b>59,644</b>

(a) Details of sales of nursery products are only collected triennially. For the purpose of the census, a nursery was defined as a location commercially engaged in growing or raising nursery products from seeds, bulbs, cuttings, etc., or significantly 'growing-on' any of these items.

## Livestock and livestock products

## Introduction

For a brief history of livestock and livestock products in Victoria, refer to previous editions of the *Victorian Year Book*.

The following table shows the numbers of livestock in Victoria on agricultural holdings for each of the six years 1979 to 1984.

SELECTED LIVESTOCK NUMBERS (a), VICTORIA  
( '000)

Year	Cattle			Sheep	Pigs
	Dairy	Beef	Total		
1979	1,516	2,619	4,134	22,750	390
1980	1,527	2,725	4,252	24,400	422
1981	1,538	2,775	4,312	25,487	400
1982	1,530	2,591	4,121	25,341	406
1983	1,488	1,921	3,408	22,748	387
1984	1,535	1,952	3,487	24,632	404

(a) A table showing livestock numbers for each year from 1837 is published in the *Victorian Year Book* 1984, pages 700-1.

The following table shows details of the livestock slaughtered in Victoria during each of the six years 1978-79 to 1983-84:

LIVESTOCK SLAUGHTERED, VICTORIA  
( '000)

Particulars	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Sheep	3,879	4,386	5,115	3,869	3,651	4,224
Lambs	5,399	5,945	6,433	6,174	6,390	4,330
Cattle and calves	2,929	2,237	2,435	2,413	2,668	1,578
Pigs	961	978	1,149	1,138	1,167	571

## Sheep

## Distribution

At 31 March 1984, the Victorian sheep population was 24.6 million head — 1.9 million head higher than the drought depressed level of a year earlier but still well below the 1971 peak of 33.8 million head. Sheep are widely distributed throughout Victoria and the numbers of sheep in each statistical division are shown in the following table:

SHEEP AND LAMBS IN EACH STATISTICAL DIVISION  
AT 31 MARCH 1984  
(’000)

Statistical division	Rams	Ewes	Wethers	Lambs	Total
Melbourne	4	126	79	65	274
Barwon	20	790	278	275	1,363
South Western	91	4,003	1,474	1,664	7,232
Central Highlands	37	1,732	1,063	679	3,511
Wimmera	39	1,747	1,011	681	3,478
Northern Mallee	13	680	183	253	1,129
Loddon-Campaspe	31	1,452	787	495	2,765
Goulburn	35	1,496	536	429	2,496
North Eastern	10	382	131	111	634
East Gippsland	9	457	235	189	890
Central Gippsland	12	470	102	203	787
East Central	2	51	1	23	77
Total	303	13,384	5,879	5,067	24,638

*Main sheep breeds*

Victorian sheep can be divided broadly into ‘wool’ and ‘meat’ breeds. The distinction is necessarily an arbitrary one, since wool is an important source of income from ewes kept for prime lamb production, while mutton is produced mainly from surplus or aged sheep from ‘woolgrowing’ flocks.

The Merino is the most numerous breed in Victoria, although not as dominant as in the other mainland States. At 31 March 1983, the 11.9 million Merinos represented 52 per cent of the Victorian flock.

Other breeds derived from Merino crossbreeds and kept mainly for wool production include the Corriedale (half Merino, half Lincoln), 11.9 per cent, and Polwarth (one-quarter Lincoln), 2.5 per cent. Comebacks (predominantly Merino, fine-woolled crossbreeds) made up another 5 per cent. Other stronger woolled crossbreeds are used mainly for prime lamb production. At 31 March 1983, these contributed 19.3 per cent (4.4 million) to the total, compared with 25 per cent at 31 March 1974. Prime lamb breeds developed from British breed crosses, and carpet wool breeds derived from mutant Romney types, account for a very small but increasing part of the total flock.

British meat breeds and Australasian breeds developed from them, such as the Poll Dorset, are widely used as sires in crossbreeding programmes, so that their influence is much greater than their contribution to total numbers (6.5 per cent in 1983) would suggest. British longwool breeds, such as the Border Leicester and the Romney Marsh, are commonly mated to Merino ewes to produce crossbred breeding ewes and prime lambs.

Shortwool breeds, such as the Dorset Horn, Poll Dorset, and Southdown are used mainly as terminal sires, mated with crossbred, Corriedale, or Merino ewes to produce prime lambs.

BREEDS OF SHEEP (INCLUDING RAMS), VICTORIA, AT 31 MARCH (a)

Breed	1977		1980		1983	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
Merino	11,973,587	54.61	12,752,386	52.26	11,896,162	52.30
Corriedale	2,419,208	11.03	3,135,726	12.85	2,696,234	11.85
Polwarth	626,895	2.86	732,463	3.00	579,102	2.55
Border Leicester	782,107	3.57	439,662	1.80	320,141	1.41
Cheviot	4,687	0.02	6,753	0.03	3,233	0.01
Dorset Horn	389,699	1.78	556,201	2.28	237,539	1.04
Poll Dorset	209,465	0.96	443,607	1.82	251,116	1.10
Perendale	7,871	0.04	21,164	0.09	36,526	0.16
Romney Marsh	280,854	1.28	433,876	1.78	486,087	2.14
Ryeland	12,870	0.06	17,014	0.07	12,427	0.05
Southdown	89,612	0.41	134,742	0.55	81,367	0.36
Suffolk (including South Suffolk)	18,625	0.08	29,081	0.12	33,737	0.15
Corno	(b)	—	32,220	0.13	51,573	0.23
Zenith	40,912	0.19	30,554	0.13	26,905	0.12
Comeback	1,031,150	4.70	1,130,172	4.63	1,593,642	7.01

## BREEDS OF SHEEP (INCLUDING RAMS), VICTORIA, AT 31 MARCH (a) – continued

Breed	1977		1980		1983	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
Crossbreed (including half breed Merino and coarser)	4,017,269	18.32	4,459,959	18.28	4,398,271	19.33
Other (including unspecified)	20,639	0.09	44,485	0.18	44,350	0.19
<b>Total</b>	<b>21,925,450</b>	<b>100.00</b>	<b>24,400,065</b>	<b>100.00</b>	<b>22,748,412</b>	<b>100.00</b>

(a) Collected triennially.

(b) Included under 'other'.

*Lambing*

The lambing performance of the Victorian flock fluctuates according to seasonal conditions around a fairly static twenty year average of 83 lambs marked for each 100 ewes mated.

Victoria's largest lambing season occurred in 1970-71, when 12.7 million lambs were marked from 14.8 million ewes mated (86 per cent), but in 1983-84 reduced matings led to the smallest lambing season (8.4 million) since 1978-79.

## LAMBING, VICTORIA

Season	Ewes mated	Lambs marked	Percentage of lambs marked to ewes mated
	'000	'000	per cent
1978-79	9,562	7,923	83
1979-80	10,723	9,099	85
1980-81	10,836	9,167	85
1981-82	11,066	8,887	80
1982-83	11,018	9,246	84
1983-84	10,112	8,362	83

*Wool production*

Good seasonal conditions following the breaking of the 1982-83 drought boosted average adult wool weights by 0.3 kilograms to 4.8 kilograms in 1983-84, accompanied by some coarsening of the clip. This increased cut contributed to an 8.9 per cent rise in shorn wool production to 119.7 million kilograms in 1983-84. This is still well below the 1970-71 peak of 201 million kilograms.

The Victorian clip spans a very wide range of wool types, ranging from superfine Merino, through the stronger grades of Merino and Comeback, to coarse crossbred and Lincoln and a small quantity of speciality (hairy) carpet wool.

## SHEEP SHORN AND WOOL CLIPPED, VICTORIA

Season	Shorn		Wool clipped (including crutchings)		Average	
	Sheep	Lambs	Sheep	Lambs	Per sheep	Per lamb
	'000	'000	tonnes	tonnes	kg	kg
1978-79	22,569	5,896	105,848	8,582	4.69	1.46
1979-80	23,184	6,845	110,404	9,911	4.76	1.45
1980-81	23,604	6,925	110,884	10,179	4.70	1.47
1981-82	25,360	6,802	115,633	9,509	4.56	1.40
1982-83	22,390	5,920	101,556	8,403	4.54	1.42
1983-84	22,977	5,277	110,715	8,949	4.82	1.70



SHEEP AND LAMBS SHORN, SEASON 1983-84

Statistical division	Shorn		Wool clipped (including crutchings)		Average	
	Sheep	Lambs	Sheep	Lambs	Per sheep	Per lamb
	number	number	kg	kg	kg	kg
Melbourne	244,054	48,773	1,099,851	84,735	4.51	1.74
Barwon	1,279,256	284,899	5,839,039	473,863	4.56	1.66
South Western	7,054,595	1,850,955	33,471,464	3,218,559	4.74	1.74
Central Highlands	3,375,305	580,894	15,638,702	1,004,161	4.63	1.73
Wimmera	3,201,742	675,939	16,746,644	1,136,401	5.23	1.68
Northern Mallee	919,478	227,835	4,616,370	389,199	5.02	1.71
Loddon-Campaspe	2,480,133	512,290	12,500,051	823,019	5.04	1.61
Goulburn	2,325,171	489,206	10,947,791	815,750	4.71	1.67
North Eastern	562,076	132,267	2,515,210	205,526	4.47	1.55
East Gippsland	819,066	180,201	4,007,799	296,131	4.89	1.64
Central Gippsland	659,729	262,670	3,079,060	452,687	4.67	1.72
East Central	56,871	30,798	253,247	48,843	4.45	1.59
<b>Total</b>	<b>22,977,476</b>	<b>5,276,727</b>	<b>110,715,228</b>	<b>8,948,874</b>	<b>4.82</b>	<b>1.70</b>

TOTAL WOOL PRODUCTION, VICTORIA

Season	Clip	Stripped from and exported on skins, etc. (greasy)	Total quantity (greasy)
	tonnes	tonnes	tonnes
1978-79	114,430	24,241	138,672
1979-80	120,316	27,050	147,366
1980-81	121,063	24,756	145,819
1981-82	125,142	22,445	147,587
1982-83	109,959	22,486	132,445
1983-84	119,664	22,409	142,074

*Mutton and lamb production*

Mutton, the meat from adult sheep, is mainly produced from surplus sheep from the wool industry so that production patterns correspond closely to expansions and contractions in that industry. In 1983-84, post drought restocking reduced mutton production to 33,600 tonnes, well down on the 1971-72 peak of 247,000 tonnes.

Prime lamb production is generally more consistent from year to year than mutton, although production in 1983-84 (95,400 tonnes) was down 12.3 per cent on the previous year. Prime lamb producers are found throughout the State. However, early to mid-season producers are distributed in a broad band across northern Victoria, including some irrigated areas. In addition, a considerable number of early lambs are brought from southern New South Wales for slaughter in Victoria. Mid to late-season producers are located mainly in the South Western, Central Highlands, Central Gippsland, and parts of the North Eastern Statistical Divisions of the State.

During 1983-84, domestic consumption of lamb and mutton in Australia remained steady at 16 and 4 kilograms per head per annum, respectively.

*Export of live sheep*

Exports of Australian live sheep for slaughter in the country of destination have grown from 1.3 million head in 1974-75 to 6.3 million in 1983-84 with 99 per cent consigned to the Middle Eastern and North African markets, particularly Kuwait and Saudi Arabia. During the early development of this trade Iran was the major importing country, but ceased live imports early in 1982. While 1.9 million sheep were shipped from Portland in 1983-84, it is estimated that Victorian flocks contributed nearly one million sheep to the live sheep trade. Some of these were shipped through South Australian ports, while some sheep from other States were included in shipments from Portland.

Middle East demand for sheep meat has been enhanced by rapidly growing populations and wealth from oil resources. Traditional taste, religious beliefs, and the lack of refrigeration favour meat from freshly killed sheep. However, the growing demand for lamb and young mutton has also encouraged expansion in carcase meat imports, as suitable refrigeration storage and distribution facilities have been installed, and traditional habits modified. Live exports of breeding sheep have declined to insignificant levels.

*Meat cattle*

The Victorian environment is very favourable for beef production with cattle able to graze on pasture throughout the year. The following table shows the numbers and types of meat cattle in each statistical division at 31 March 1984:

DISTRIBUTION OF MEAT CATTLE, VICTORIA, AT 31 MARCH 1984  
( '000)

Statistical division	Bulls for service		Cows and heifers	Calves under 1 year	Other (a)	Total
	1 year and over	Under 1 year				
Melbourne	3	1	68	36	17	125
Barwon	2	1	50	22	15	90
South Western	10	3	225	83	57	378
Central Highlands	2	1	44	19	11	77
Wimmera	1	—	17	8	4	30
Northern Mallee	1	—	22	15	6	44
Loddon-Campaspe	3	1	57	31	23	115
Goulburn	7	2	142	68	39	258
North Eastern	5	1	144	68	48	266
East Gippsland	4	1	92	45	18	160
Central Gippsland	7	2	154	81	84	328
East Central	2	—	36	18	17	73
<b>Total</b>	<b>48</b>	<b>14</b>	<b>1,053</b>	<b>498</b>	<b>339</b>	<b>1,952</b>

(a) Steers, bullocks, etc.

Most of the Victorian breeding herd (bulls and cows) are in the South Western, Goulburn, North Eastern, East Gippsland and Central Gippsland Statistical Divisions. A significant proportion of Victorian beef and veal production was exported during 1983-84, the main markets being the USA, Japan, Taiwan, and Canada. During 1983-84, total Australian beef and veal exports decreased, as did exports to the main markets.

National consumption of beef and veal fell to 42 kilograms in 1983-84 in the wake of higher prices which accounted for a large part of the decline in total meat consumption in that year.

*Milk cattle**Distribution*

Dairy farming in Victoria is largely confined to the higher rainfall areas of Gippsland, the Western District, and the northern irrigation areas. Although cow numbers have been reasonably stable in recent years production per cow continues to rise.

DISTRIBUTION OF MILK CATTLE, VICTORIA, AT 31 MARCH 1984  
( '000)

Statistical division	Bulls for service		Cows and heifers for milk and cream			House cows and heifers	Total
	1 year and over	Under 1 year	Cows in milk and dry	Heifers			
				1 year and over	Under 1 year		
Melbourne	1	—	24	7	6	—	38
Barwon	1	—	73	17	16	—	107
South Western	5	1	207	48	45	1	307
Central Highlands	—	—	8	3	2	1	14
Wimmera	—	—	2	1	1	1	5
Northern Mallee	—	—	23	6	6	1	36
Loddon-Campaspe	2	—	89	21	21	1	133
Goulburn	4	1	202	48	46	1	302
North Eastern	1	—	46	12	11	1	71
East Gippsland	1	—	52	14	12	1	80
Central Gippsland	5	1	259	61	57	1	384
East Central	1	—	36	9	8	—	54
<b>Total</b>	<b>21</b>	<b>6</b>	<b>1,021</b>	<b>248</b>	<b>230</b>	<b>8</b>	<b>1,534</b>

*Recent developments*

High capital investment in dairying reflects advances in dairy farming technology. These include progress in the mechanisation of milking, the introduction of farm refrigeration and tanker collection of milk from properties, and the improvement in systems of cleaning dairy shed equipment and of disposing of milking shed wastes. These advances have contributed towards expansion of specialist family dairy farm businesses based on more concentrated seasonal calving of dairy herds. Improvements in pasture production and grazing management, and increased mechanisation in growing and harvesting fodder, have made it possible to carry more stock on farms. The introduction of Australian Breeding Values for bulls and cows will lead to larger increases in cow productivity through genetic improvement as more farmers use superior sires and artificial insemination.

*Milk utilisation*

Market milk, manufactured milk products for domestic use and for export utilise thirteen per cent, forty-four per cent, and forty-three per cent of gross annual milk production, respectively. Market (fresh) milk provides 25 per cent of Victorian farmers' income from milk sales.

## MILK PRODUCTION, VICTORIA

Year ended 30 June -	Million litres
1979	3,247
1980	3,155
1981	3,065
1982	3,028
1983	3,164
1984	3,400

*Pigs*

Approximately two-thirds of the pig meat consumed in Victoria is produced in this State. The remaining one-third is acquired from other States.

The number of establishments with pigs declined from 2,937 in 1978-79 to 1,730 in 1983-84. During the same period the average herd size increased from 133 to 234 pigs. This trend toward fewer but larger units is expected to continue, with the bulk of the industry becoming increasingly capital-intensive and established in grain growing areas.

The number of pigs in Victoria at 31 March 1984 was 404,085. The following table shows classification (in statistical divisions) of pigs, together with the numbers of pig keepers.

## PIGS AND PIG KEEPERS, VICTORIA, AT 31 MARCH 1984

Statistical division	Boars	Breeding sows	All other	Total pigs	Pig keepers
Melbourne	364	3,528	25,456	29,348	68
Barwon	70	832	6,683	7,585	47
South Western	208	2,029	13,072	15,309	160
Central Highlands	159	2,473	19,499	22,131	78
Wimmera	382	4,100	30,221	34,703	296
Northern Mallee	264	2,729	21,236	24,229	210
Loddon-Campaspe	1,141	18,534	155,503	175,178	315
Goulburn	600	6,951	56,877	64,428	270
North Eastern	196	2,327	15,240	17,763	122
East Gippsland	50	466	3,203	3,719	49
Central Gippsland	160	1,308	6,354	7,822	96
East Central	14	159	1,697	1,870	19
Total	3,608	45,436	355,041	404,085	1,730

*Poultry*

The trend in the Victorian egg industry has been towards large specialised farms, for example, egg producers, hatcheries, and pullet growers, all of which use modern poultry housing, equipment, and labour saving machinery.

The greater proportion of Victoria's estimated 2.75 million adult female fowls are now contained within the commercial egg industry. There are, however, small household flocks in suburban and country areas. The main areas of commercial production are centred on the outskirts of the Melbourne metropolitan area and in the Bendigo district, with a large centre around Geelong, and substantial populations in Ballarat, the Wimmera, Goulburn Valley, the north-east, and the La Trobe Valley.

Farms consisting of one man or one family usually manage 5,000 to 15,000 layers. There are, however, many larger farms employing labour with up to 40,000 layers, and a few with much bigger establishments.

Most broiler farms range in capacity from 30,000 to 100,000 broilers, and with the present average of 5.5 batches of broiler chickens a year, these farms may grow from 165,000 to 550,000 broilers a year.

Apparent per capita consumption of poultry meat was approximately nineteen kilograms in 1983-84, second only to beef and veal. There has been a marked increase in the proportion of cut-up chicken and further processed chicken products.

The main broiler production centres are located on the Mornington Peninsula, in areas south-east and east of Melbourne, and in the Geelong area – near the processing works and the main centres of consumption. Most of Victoria's production is consumed locally; very little is exported, but some interstate broilers are imported.

The following statistics have been compiled from statistical returns submitted by commercial chicken hatcheries (i.e. those making sales of day-old chicks) and by commercial poultry slaughtering establishments:

**POULTRY SLAUGHTERED FOR HUMAN  
CONSUMPTION, VICTORIA  
( '000)**

Period (a)	Chickens (i.e. broilers, fryers, or roasters)	Hens and stags	Ducks and drakes
1978-79	38,294	2,276	256
1979-80	45,379	1,775	331
1980-81	45,894	2,894	241
1981-82	42,351	2,508	316
1982-83	43,315	2,330	389
1983-84	46,061	2,308	444

DRESSED WEIGHT OF POULTRY SLAUGHTERED (b) (c) ('000kg)

Period (a)	Fresh and frozen	Fresh and frozen	Fresh and frozen
1978-79	48,359	3,423	469
1979-80	56,112	2,599	552
1980-81	56,867	4,354	437
1981-82	55,526	3,660	563
1982-83	51,960	4,051	634
1983-84	61,503	4,249	750

(a) Year ended 30 June.

(b) Dressed weight of whole birds, pieces, and giblets intended for sale as reported by producers.

(c) Fresh: sold immediately after slaughter or chilled for sale soon after. Frozen: frozen hard for storage of indefinite duration.

### Miscellaneous livestock

#### Goats

The main breeds of goats in Victoria are the Angora and the various milking breeds; the Saanen, Toggenburg, British Alpine, and Anglo-Nubian. Since 1977, Angora goat numbers have risen from about 4,000 to 45,000 registered purebred and part Angora breeding animals in 1984.

Angora goats produce mohair – a luxury fibre that has lustre, is light in weight, is soft to handle, and is hard wearing.

The goats are shorn twice a year and the mohair is sorted into grades after which the fibre is sold by auction. Estimated mohair production in 1983-84 was 90,000 kilograms. Cashmere-type goats in Victoria numbered approximately 8,000 in 1984. Victoria produced 1,600 kilograms of dehaired down and 4,000 kilograms of cashgora fibre (i.e. fibre intermediate between cashmere and mohair) in 1984.

Goat milk has been sold in a fresh form in increasing quantities since 1978, although dairy goat numbers had declined to approximately 2,000 in Victoria by 1984. In 1983-84, 12,000 goats were slaughtered for meat in Victoria.

#### *Deer*

Deer produce two valuable products, namely, venison and antler velvet. Farming of deer has begun on a small scale, and in 1984 there were about 2,700 domesticated deer in Victoria. The main breeds of deer being farmed are the fallow and rusa deer. Large herds of sambar deer run wild in Victoria but are not available for capture. The small number of animals available for breeding is hindering the development of this industry.

#### **Apiculture**

Honey production in Victoria rose from 2,704.8 tonnes in 1982-83 to 3,602.9 tonnes in 1983-84. The bulk of the honey produced from the 381 beekeepers with 40 or more beehives each in Victoria, is sold to large processors who clarify and pack the honey. About 43 per cent of the annual production is exported, chiefly to the United Kingdom.

#### BEEHIVES, HONEY, AND BEESWAX, VICTORIA

Season ended 30 June -	Beekeepers	Hives	Production	
			Honey	Beeswax
	number	number	tonnes	tonnes
1979	477	85,817	2,715	47
1980	362	75,883	4,065	69
1981	446	76,123	5,160	88
1982	444	95,038	5,388	99
1983	406	89,796	2,705	48
1984	381	85,596	3,603	65

#### SERVICES TO AGRICULTURE

##### **Australian Animal Health Laboratory**

##### *Establishment of the Laboratory*

The success of the Australian livestock industry as a major exporter of animal produce is largely due to the country's relative freedom from disease. This resulted originally from geographical isolation and has been maintained in recent times by the work of the quarantine service of the Department of Primary Industry. However, the possibility of accidental introduction of foreign or exotic livestock diseases into Australia poses a very serious threat to the country's economy, and requires maintenance of a high level of preparedness to deal with any such outbreak.

There are over forty exotic diseases of concern to Australia. These include foot-and-mouth disease, Newcastle disease, rabies, Rift Valley fever, African swine fever, and rinderpest.

In the event of an exotic disease outbreak, responsibility for its control and eradication lies with the disease control authorities in each State. They are supported in this work by the Australian Agricultural Health and Quarantine Service of the Commonwealth Department of Primary Industry, and by the Australian Animal Health Laboratory (AAHL). The AAHL is part of the Commonwealth Scientific and Industrial Research Organization.

The AAHL was officially opened in April 1985 by the Governor-General of Australia. It is a microbiologically secure laboratory, providing facilities in which disease organisms can be safely contained and handled. The only laboratory of its kind in Australia, the AAHL cost \$158m to build and is situated in Geelong, Victoria.

##### *Role and functions*

The role of the Laboratory is to provide the State disease control authorities with the special facilities and skills needed in the diagnosis and control of exotic diseases. Before the AAHL was opened, these services were available only from overseas laboratories. The AAHL fulfils its role by carrying out the following main functions:

##### *Diagnosis of exotic diseases*

This is the AAHL's most important function. Whenever an exotic disease outbreak is suspected, tissue samples from the infected animals are sent to the AAHL for diagnosis. If the disease identified

is exotic, then many more diagnostic tests are carried out at the AAHL to monitor the spread of the disease and to demonstrate the effectiveness of the control measures used.

Diagnostic tests are also carried out on animals in quarantine to ensure that they are free of exotic disease before being brought into Australia; and on animals being sent for export, to demonstrate that they are free of diseases of concern to the importing country.

#### *Research into exotic diseases*

The AAHL's scientists have an important role in finding out more about the mechanisms of virus infection and of immunity to disease. The aim of their work is to develop improved diagnostic and control methods applicable to exotic disease outbreaks in Australia.

#### *Training veterinarians and other staff*

It is important that veterinarians and other animal health workers can recognise the signs of a possible exotic disease outbreak. The AAHL will provide training to help them to do this, and will also train staff from other laboratories in techniques for the isolation and identification of exotic disease agents.

#### *Development and testing of vaccines against exotic diseases*

The AAHL's scientists are involved in the application of biotechnology to the development of new vaccines for use in exotic disease control. These techniques are expected to result in safer, cheaper, and more effective vaccines. AAHL staff will also test the safety and effectiveness of any vaccines that might be used against exotic diseases in Australia.

#### *Control of exotic diseases*

An example of the AAHL's role in an exotic disease outbreak is provided by the fowl plague outbreak near Bendigo in Victoria in June 1985. Close co-operation between the AAHL and the Victorian Department of Agriculture and Rural Affairs was an important factor in the swift and efficient control of this disease.

The outbreak was first investigated by the Department. When they realised that they were probably dealing with fowl plague, they asked for the AAHL's help. Samples were sent to the Laboratory from infected chickens, and the Department's diagnosis of fowl plague was confirmed. Other work carried out at the AAHL during the following days and weeks included tests to find out how pathogenic the virus was for chickens, turkeys, and ducks; the production of safe diagnostic reagents for use in screening for the disease in other laboratories throughout the country, and further investigations to find out exactly what strain of the virus was involved in the outbreak and how easily it could be spread from bird to bird.

Meanwhile, diagnostic work was carried out at the AAHL on further samples from the Bendigo area. Samples were also tested from suspected outbreaks in South Australia and Queensland, which fortunately turned out to be false alarms.

The AAHL is only able to do this kind of work because of its high level of microbiological security. Great care is taken to ensure that exotic disease agents, such as fowl plague virus, can be contained safely and cannot escape into the environment.

The Laboratory is basically a set of airtight boxes, one inside the other. Exotic disease viruses are handled only in the innermost boxes, or rooms. The air pressure drops in stages from the outside atmosphere to the innermost rooms. This means that if there was a loss of airtightness in any part of the Laboratory, air would flow only towards the centre of the building and not towards the outside.

All air leaving the Laboratory is passed through two filters which are capable of removing even the smallest virus particles. After filtering, the air from the innermost rooms can also be incinerated. All solid waste, including animal carcasses, is burnt at 1,000°C and all liquid waste, such as sewage, is heat-treated to kill any dangerous organisms before leaving the Laboratory.

The people working at the AAHL are prevented from coming into contact with potentially dangerous material by special equipment and protective clothing including, where necessary, full 'space suits' similar to those worn by astronauts. Staff must change clothes completely on entering and shower on leaving the Laboratory. Showering is also required when moving between some areas within the Laboratory itself.

Access to areas where potentially dangerous materials, such as live viruses, are being handled or stored is severely restricted and directly controlled by the most senior members of the scientific staff. These security systems work together to ensure that even the smallest and most easily transmitted viruses can be handled safely within the AAHL. Their effectiveness is monitored by an independent AAHL Security Assessment Group (ASAG).

### *Importation of disease agents*

In order to carry out its functions effectively, the AAHL needs access to some exotic disease agents before any outbreak of the disease occurs. Because of the damage they can do, there are very strict regulations governing the import of such organisms to laboratories and specific government approval is required before they can be introduced into the AAHL. This approval is given only after extensive consultation with the livestock industry and other interested bodies, and only if the ASAG assesses the Laboratory's security as high enough to contain the agent in question safely.

While these procedures were set in train many months before the opening of the Laboratory, they will take some considerable time to complete. Apart from important work on foot-and-mouth disease being carried out by AAHL staff at overseas laboratories, the initial research work of the Laboratory has therefore concentrated on diseases already present in Australia.

For example, a considerable amount of work has been done on bluetongue disease. This is a very serious disease of sheep in Africa and America and while the disease itself is not present in Australia, strains of bluetongue virus are found in Australian cattle. The similarity between these Australian strains and the exotic, disease-causing strains is so great that current diagnostic tests are unable to tell them apart. This leads to difficulties in the certification of Australian cattle for export. Another problem is that vaccines used overseas to control the disease are made from whole, live virus. These vaccines are not always reliably safe or potent and, if they were used in Australia, there is a possibility that the genes of the exotic viruses which they contain could interact with those of Australian strains to produce new, disease-causing viruses.

Work on bluetongue at the AAHL employs the latest advances in genetic engineering, biotechnology, and protein chemistry. These techniques are used to investigate the structure of the proteins in the virus to find out which areas are responsible for the production of immunity in a vaccinated animal, and to pinpoint the biochemical differences between different bluetongue strains. This information is being used in the development of new diagnostic tests which are able to detect these differences and in the development of new vaccines which do not contain any of the virus genetic material. These vaccines would be completely safe when given to animals. Considerable progress has been made in these two areas and the results are very encouraging.

The overseas work on foot-and-mouth disease (FMD) mentioned above is also of considerable importance. Of all the exotic diseases, this is considered the most important for Australia. It is therefore essential that for AAHL can make a rapid and reliable diagnosis in the case of a suspected outbreak. To carry out conventional diagnostic tests accurately, it would be necessary for the live FMD virus to be already present at AAHL before an outbreak.

However, the Commonwealth Government has banned any such import until at least the end of 1987, and so it has been necessary for AAHL scientists to develop tests which do not rely on the presence of the live virus. Suitable reagents have now been developed by AAHL staff working at the Animal Virus Research Institute in the United Kingdom, and these have been imported into the AAHL. Programmes are being developed in collaboration with the Thai Government to carry out further assessment of these reagents in Thailand.

Over the next few years the AAHL will build up its diagnostic competence for the full range of exotic diseases, will begin its training programmes, and will further develop its research programmes. In this way it will fulfil its role as one of Australia's important lines of defence against the damage which could result, both to the livestock industry and to the country's economy, from an exotic disease outbreak.

## **Regulatory services**

### *Introduction*

A number of government authorities provide services to agriculture in such fields as planning, water supply, forestry, and environmental protection; the Department of Agriculture and Rural Affairs is the major body providing services to agriculture.

### *Department of Agriculture and Rural Affairs*

The Department of Agriculture and Rural Affairs, Victoria, is a client-orientated, knowledge-based Department providing services to producers and consumers of agricultural products through three main functions: regulation, research, and extension.

The Department also has a role in disaster mitigation under the State Disaster Plan, wherein key inputs are provided during environmental emergencies.

### *Government objectives for agriculture*

The overall aims of the Department include the following:

(1) to maximise long-term economic, employment, and income growth for Victoria derived through

rural industries, including agriculture and horticulture, in line with the Victorian Government's Economic Strategy and consistent with sustainable and efficient use of resources;

(2) to facilitate the development, co-ordination, and promotion of initiatives which equitably meet the priority needs of Victorians in rural areas, particularly those whose needs are greatest;

(3) to promote the availability to Victorians of agricultural and horticultural produce which is of reasonable price, quality, nutrition, and variety; and

(4) to promote sound animal welfare practices.

### Financial services

#### Introduction

Australia's national policy for permanent land settlement has been based on the family farm. Recognition of the vulnerability of the rural industry to the changing economic conditions both at home and abroad has led the appropriate authorities to establish various schemes to assist farmers in carrying out the necessary structural changes. To enable land acquisition and clearing, the conditions of purchase were made easy and after each world war special terms of settlement were offered to ex-servicemen.

#### Rural Finance Commission

The Rural Finance Commission was established by legislation in 1961 under the name of Rural Finance and Settlement Commission. This legislation and further detailed legislation in 1963 merged the functions of the former Soldier Settlement Commission and the Rural Finance Corporation. Further details on the Rural Finance Commission and other sources of finance can be found on pages 375-6 of the *Victorian Year Book* 1985.

Details of loans made by the Rural Finance Commission and outstanding loan balances for recent years are provided in the following table:

LOANS BY RURAL FINANCE COMMISSION, VICTORIA  
(\$'000)

Particulars	Year ended 30 June -					
	1980	1981	1982	1983	1984	1985
<b>Lending -</b>						
<b>Primary industry -</b>						
Ordinary lending	22,076	31,576	20,935	12,408	19,813	21,608
Salinity	27	544	582	760	206	90
Young Farmers Finance	..	..	2,175	1,061	715	808
<b>Agency lending -</b>						
General	597	733	795	30,096	12,735	1,045
Rural reconstruction	..	..	..	..	..	..
Rural adjustment (a)	6,443	3,453	4,075	3,605	4,910	6,959
Dairy adjustment	6	..	..	..	..	..
Fruit growing	..	..	..	587	..	1
Beef industry	4	..	..	..	..	..
<b>Secondary industry -</b>						
Ordinary lending	834	2,371	1,107	1,864	1,124	1,994
Agency lending	216	19	..	..	..	109
Land settlement	800	2,956	1,390	784	772	716
<b>Total lending (b)</b>	<b>31,003</b>	<b>41,652</b>	<b>31,059</b>	<b>51,165</b>	<b>40,275</b>	<b>33,330</b>
<b>Loans outstanding at 30 June -</b>						
Ordinary lending	57,812	85,870	103,660	112,499	123,361	134,612
Agency lending -						
General	9,271	7,632	6,252	37,402	32,392	23,507
Rural reconstruction	26,205	22,280	19,090	17,354	15,122	12,989
Rural adjustment (a)	26,377	27,904	30,048	31,753	34,072	37,329
Dairy adjustment	11,212	8,451	5,984	4,291	3,104	2,589
Fruit growing	1,164	1,033	310	588	841	771
Beef industry	2,578	1,823	1,175	684	242	64
Land settlement	12,998	14,952	15,379	15,282	14,856	14,784
Soldier settlement	18,118	16,391	14,858	13,997	12,850	11,689
<b>Total loans outstanding</b>	<b>165,735</b>	<b>186,336</b>	<b>196,756</b>	<b>233,850</b>	<b>236,840</b>	<b>238,334</b>

(a) The Rural Adjustment Scheme superseded the Rural Reconstruction Scheme on 1 January 1977.

(b) Excludes grants and subsidies.



## BIBLIOGRAPHY

**ABS publications**

- Agricultural Industries, Australia, Structure of Operating Units* (7102.0)  
*Principal Agricultural Commodities, Australia, Preliminary* (7111.0)  
*Principal Agricultural Commodities, Victoria, Preliminary* (7111.2)  
*Selected Agricultural Commodities, Australia, Preliminary* (7112.0)  
*Shearing and Wool Production Forecast, Australia, Preliminary* (7210.0)  
*Sheep Numbers, Shearing and Wool Production Forecast, Australia, Preliminary* (7211.0)  
*Livestock Products, Australia* (7215.0)  
*Livestock and Livestock Products, Victoria* (7221.2)  
*Crops and Pastures, Victoria* (7321.2)  
*Fruit, Victoria* (7322.2)  
*Apples and Pears in Cool Stores, Victoria* (7323.2)  
*Agricultural Land Use and Selected Inputs, Victoria* (7411.2)  
*Value of Agricultural Commodities Produced, Victoria* (7501.2)  
*Value of Selected Agricultural Commodities Produced, Australia, Preliminary* (7502.0)  
*Value of Agricultural Commodities Produced, Australia* (7503.0)