



Generation Victoria - an interim structure comprising five groups of power stations trading as independent producers;

Five Distribution Businesses - regionally based companies were formed from the SECV and the former eleven Municipal Electricity Undertakings (MEUs). It is proposed that these five Distribution Businesses will be progressively privatised.

**TABLE 17.6 POWER STATIONS: LOCATIONS, RATING, AND PRODUCTION, VICTORIA**

Station	Maximum generation (MW) (a)		Energy generation (GWh) (b)	
	1993-94	1992-93	1993-94	1992-93
Brown coal thermal stations -				
Loy Yang A	2 043	2 074	12 848	15 430
Yallourn W	1 485	1 521	9 805	9 852
Hazelwood	1 456	1 195	8 819	4 664
Morwell	93	95	422	116
<b>Sub Total</b>	..	..	<b>31 894</b>	<b>30 062</b>
Other thermal stations -				
Newport D	529	517	2 339	1 979
Jeeralang	492	493	496	251
<b>Sub Total</b>	..	..	<b>2 835</b>	<b>2 230</b>
Hydro stations -				
Kiewa	194	188	397	438
Eildon-Rubicon (incl. Cairn Curran)	149	133	316	372
Dartmouth	0	173	0	307
<b>Sub Total</b>	..	..	<b>713</b>	<b>1 117</b>
<b>Total generation</b>	..	..	<b>35 442</b>	<b>33 409</b>

Source: Generation Victoria: *Annual Report 1994*.

(a) MW: Megawatts

(b) GWh: Gigawatt hours

## REFERENCES

### ABS publications

*Australian National Accounts, State Accounts* (5220.0)

*The Australian Mining Industry* (8414.0)

### Non-ABS sources

*Australian Institute of Petroleum Ltd: Oil and Australia, Statistical Review*

*Department of Energy and Minerals, Victoria, Annual Report*

*Generation Victoria, Annual Report*

*Office of State Owned Enterprises, Department of the Treasury*

*Gas and Fuel, Annual Report*

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## **Introduction**

*This chapter presents an overview of Victoria's agricultural performance as compared with that of Australia, including details of commodities produced and value of production.*

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### **The 1994 Season**

The 1993-94 Victorian Agricultural Census covered over 37,000 establishments with agricultural activity. Compared with the previous year, census results showed increases in both livestock numbers and the production of livestock products, with the exception of wool.

Although wool production fell by 6.4% to 110,000 tonnes, the gross value increased by nearly \$27 million to \$440 million. The number of sheep shorn decreased by 1.6%, while the average yield for sheep and lambs decreased from 4.4 kilogram to 4.2 kilogram per head.

The 1994 season saw a general decrease in the production of fruit, fodder crops and vegetable production. Despite this decrease in production, the gross value of all crops increased by 2.8% to \$2.17 billion.

The area sown for cereal grains increased by less than 1%, although production increased by 7%. The gross value of cereals for grain decreased to \$593 million, a fall of 1.3%.

The total gross value of agricultural commodities produced increased to \$5.5 billion, a 6.3% increase compared with the previous season.

Readers should be aware that the ABS excludes from the Census each time establishments of less than a certain Estimated Value of Agricultural Operations (EVAO), and that this EVAO cut-off changes over time. Therefore care should be taken when comparing 1993-94 Census results with previous censuses. Please refer to the References at the end of the chapter for more detail.

### **Victoria compared with Australia**

In terms of farm income, as measured in the Australian National Accounts, Victoria's share for the latest 6 year period (1988-89 to 1993-94) fluctuated markedly. The latest Victorian figure was \$1,282 million, which represented 35% of the total Australian farm income of \$3,659 million.

The Gross Value of Agricultural Commodities Produced (GVACP) provides a measure of the output from farming. In 1993-94, the GVACP for Victoria was \$5,537 million, or 23.6% of the Australian total of \$23,479 million. In terms of value, Victoria produced 18% of Australia's crops, 22% of livestock slaughtered, and 36% of livestock products (wool, milk, eggs, and honey).

TABLE 18.1 AUSTRALIAN NATIONAL ACCOUNTS: FARM INCOME

Year	Gross Farm Product at factor cost		
	Victoria	Australia	Victoria as a percentage of Australia
	\$m	\$m	%
1988-89	1 365	5 030	27.1
1989-90	1 199	4 429	27.1
1990-91	697	1 462	47.7
1991-92	1 016	1 948	52.2
1992-93	1 215	3 182	38.2
1993-94	1 282	3 659	35.0

Source: Australian National Accounts: State Accounts (5220.0)

TABLE 18.2 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED, VICTORIA

Particulars	Year ended 30 June						Victoria as a percent- age of Australia
	1989	1990	1991	1992	1993	1994	1994
	\$'000						%
<b>Crops -</b>							
Cereals for grain	502 434	578 167	343 967	413 010	600 975	593 056	13.5
Hay	211 254	234 627	287 937	285 127	263 850	228 734	35.6
Industrial crops (a)	44 675	44 228	42 031	41 292	47 598	62 530	26.9
Vegetables	291 792	345 303	320 528	314 933	316 239	413 213	28.6
Grapes	156 215	141 160	158 598	178 620	155 721	175 568	39.0
Fruit	220 127	233 050	244 160	334 263	342 669	344 563	26.2
Other	232 317	234 334	211 270	265 893	384 009	355 231	26.4
<b>Total</b>	<b>1 658 814</b>	<b>1 810 869</b>	<b>1 608 591</b>	<b>1 83 413</b>	<b>2 111 061</b>	<b>2 172 895</b>	<b>18.8</b>
<b>Livestock slaughterings and other disposals</b>							
Cattle and calves	625 307	706 928	794 469	743 455	678 886	830 553	19.1
Sheep and lambs	233 308	180 182	112 914	146 071	203 312	243 602	30.7
Other	318 831	332 799	363 327	392 961	389 325	411 682	25.7
<b>Total</b>	<b>1 177 446</b>	<b>1 219 909</b>	<b>1 270 711</b>	<b>1 282 487</b>	<b>1 271 523</b>	<b>1 485 837</b>	<b>21.9</b>
<b>Livestock products -</b>							
Wool	1 159 326	1 099 775	707 796	552 141	413 178	439 771	18.0
Dairy products	904 065	956 927	1 000 565	1 080 903	1 332 455	1 381 149	56.4
Other	91 815	92 649	95 507	72 468	79 267	56 868	21.1
<b>Total</b>	<b>2 155 206</b>	<b>2 149 351</b>	<b>1 803 870</b>	<b>1 705 510</b>	<b>1 824 900</b>	<b>1 877 788</b>	<b>36.3</b>
<b>Grand total</b>	<b>4 991 466</b>	<b>5 178 442</b>	<b>4 683 172</b>	<b>4 822 131</b>	<b>5 207 484</b>	<b>5 536 522</b>	<b>23.6</b>

(a) Industrial crops in this instance refers to tobacco, hops, linseed, canola, safflower and sunflower.

Source: Value of Agricultural Commodities Produced, Victoria (7503.2)

**TABLE 18.3 NUMBER OF ESTABLISHMENTS, WITH AGRICULTURAL ACTIVITY, AREA, AND LAND UTILISATION, BY STATISTICAL DIVISION, VICTORIA, 1993-94**

	'000 ha					
Melbourne	2 799	23	125	53	38	239
Barwon	1 924	33	271	81	75	459
Western District	5 274	51	1 268	281	242	1 842
Central Highlands	2 111	72	476	148	107	802
Wimmera	3 069	791	822	206	320	2 139
Mallee	4 294	957	705	346	656	2 664
Loddon-Campaspe	3 546	221	647	225	236	1 329
Goulburn	5 756	117	724	282	176	1 298
Ovens-Murray	2 444	32	374	131	193	730
East Gippsland	1 581	8	252	266	345	870
Gippsland	4 532	13	459	105	67	643
<b>Total Victoria</b>	<b>37 330</b>	<b>2 317</b>	<b>6 122</b>	<b>2 124</b>	<b>2 454</b>	<b>13 017</b>

(a) Includes non land-based beekeeping establishments (i.e. beekeeping activity not permanently located at one site).

(b) Excludes area of pasture cut for hay or seed.

(c) Duplicated area included if double-cropping occurred.

Source: *Agricultural Land Use and Selected Inputs, Victoria* (7411.2)

### AGRICULTURAL COMMODITIES

#### Field crops

The cereal crops of wheat, oats, and barley are the principal field crops grown in Victoria. These, together with hay production, green feed, and silage, represent about 75% of the total area sown to field crops, although there is some variation from year to year.

#### Wheat

Wheat is Victoria's largest crop in terms of area and production. The area sown decreased by almost 16.6% in the six-year period 1988-89 to 1993-94; however over the same period production increased by almost 20%. The significance of wheat as a percentage of the total production of cereals for grain has declined from 65% in 1989-90 to 52% in 1993-94. The value of wheat produced in Victoria amounted to \$349 million in 1993-94.

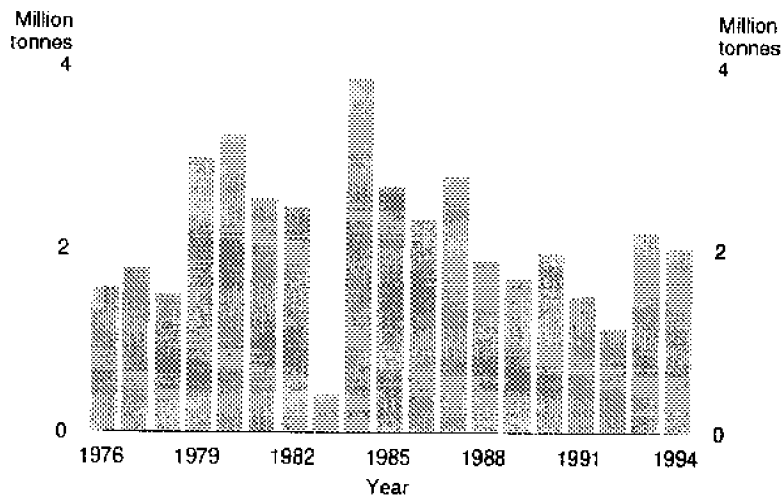
**TABLE 18.4 WHEAT FOR GRAIN, VICTORIA**

Season	Area	Production	Average yield per hectare	A.S.W. (a) wheat standard
	'000 ha	'000 tonnes	tonnes	kg/hl
1988-89	931	1 691	1.82	82.5
1989-90	952	1 961	2.06	83.5
1990-91	911	1 493	1.64	82.5
1991-92	664	1 150	1.73	83.0
1992-93	821	2 015	2.5	79.5
1993-94	780	2 022	2.6	80.0

(a) Australian Standard White, quoted in kilograms per hectolitre.

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

## WHEAT PRODUCTION, VICTORIA, YEAR ENDED 31 MARCH



Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

## Oats

Oats are sown for grain production, winter grazing, and hay production. Of the total area sown, about 65% was harvested for grain, some of it having been grazed during the winter. Approximately 50% of all oats produced during 1993-94 was held on farms at 31 March 1994. The balance is used for compound/urban feed markets, for milling, and for export. Within the feed market, the horse racing industry takes around 25,000 tonnes each year of the higher quality oats available for feed.

TABLE 18.5 OATS FOR GRAIN, VICTORIA

	Area sown '000 ha	Production '000 tonnes	Average yield per hectare tonnes
1988-89	189	276	1.46
1989-90	189	330	1.75
1990-91	177	301	1.70
1991-92	183	300	1.64
1992-93	223	404	1.81
1993-94	186	362	1.95

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

## Barley

The area sown to barley (for all purposes) has increased each year since 1988-89. While barley is grown in all Statistical Divisions, production has been traditionally centered in two distinct areas where high quality grain is produced. The highest production is in the south-west of the Mallee Statistical Division and the adjacent north-western Wimmera Statistical Division. The second source of high quality barley grain is in an area between Melbourne, Geelong, and Bacchus Marsh in southern Victoria.

**TABLE 18.6 BARLEY FOR GRAIN, VICTORIA**

Season	Area		Production	Average yield per hectare
	'000 ha	'000 tonnes		tonnes
1988-89	350	544		1.55
1989-90	389	696		1.79
1990-91	463	651		1.41
1991-92	534	898		1.68
1992-93	551	1 116		2.03
1993-94	639	1 386		2.17

Source: *Crops, Pastures and Fruit, Victoria (7330.2)*

**TABLE 18.7 OTHER CEREAL CROPS FOR GRAIN, VICTORIA**

Season	Rye		Maize		Millet		Triticale	
	Area Production		Area Production		Area Production		Area Production	
	'000 ha	'000 tonnes	'000 ha	'000 tonnes	'000 ha	'000 tonnes	'000 ha	'000 tonnes
1988-89	8.1	4.8	0.3	1.4	1.0	1.6	16.0	25.8
1989-90	8.3	4.7	0.3	1.0	1.8	3.0	14.8	25.9
1990-91	11.0	7.1	0.3	2.0	1.3	2.1	18.3	32.7
1991-92	19.0	17.1	0.3	3.0	0.9	1.7	18.9	34.6
1992-93	18.7	16.3	0.4	2.8	0.8	1.6	22.6	50.0
1993-94	12.5	14.2	0.2	1.7	1.4	2.1	32.4	70.7

Source: *Crops, Pastures and Fruit, Victoria (7330.2)*

**TABLE 18.8 SILAGE MADE, AND FARM STOCKS OF SILAGE AND HAY, BY STATISTICAL DIVISION, VICTORIA**

Statistical Division	Silage made, season 1993-94	Stocks at 31 March 1994	
		Silage	Hay
		tonnes	
Melbourne	12 322	23 770	93 137
Barwon	26 513	36 253	168 627
Western District	108 732	108 290	579 922
Central Highlands	9 044	17 608	202 122
Wimmera	3 271	19 662	185 505
Mallee	1 556	2 668	106 168
Loddon-Campaspe	29 098	27 605	317 396
Goulburn	30 504	33 070	437 977
Ovens-Murray	32 184	52 984	143 252
East Gippsland	13 035	17 835	107 655
Gippsland	105 812	149 811	398 059
<b>Total Victoria</b>	<b>372 070</b>	<b>489 554</b>	<b>2 739 821</b>

Source: *Crops, Pastures and Fruit, Victoria (7330.2)*

TABLE 18.9 HAY PRODUCTION, VICTORIA, SEASON 1993-94

Variety	Area	Production	Average yield per hectare
	hectares	tonnes	tonnes
Meadow grass and clover	395 989	1 561 011	3.94
Oaten	46 075	189 539	4.11
Lucerne	35 248	190 613	5.40
Cereals (excluding oats)	5 439	16 400	3.02
<b>Total</b>	<b>482 751</b>	<b>1 957 563</b>	<b>4.06</b>

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

**Oil seeds**

There was considerable variability in the production of oil seeds over the 6 year period commencing 1988-89. The production of rapeseed, of which 'canola' is a cultivar, has continued to increase, from 24,000 tonnes in 1992-93 to 47,000 tonnes in 1993-94. Production of safflower in 1993-94 also doubled over the previous year.

TABLE 18.10 SELECTED OILSEEDS PRODUCTION, VICTORIA

Season	Area (hectares)	Production (tonnes)	Average yield per hectare (tonnes)
LINSEED			
1988-89	1 981	2 539	1.28
1989-90	709	681	1.00
1990-91	2 187	2 129	0.97
1991-92	1 287	1 251	0.97
1992-93	1 073	1 045	0.97
1993-94	3 004	3 258	1.08
RAPESEED (a)			
1988-89	13 345	16 327	1.22
1989-90	12 392	16 609	1.30
1990-91	10 235	9 544	0.93
1991-92	22 957	26 481	1.15
1992-93	18 459	23 543	1.28
1993-94	29 151	46 835	1.61
SAFFLOWER			
1988-89	25 824	20 126	0.78
1989-90	21 842	13 580	0.60
1990-91	7 891	4 398	0.56
1991-92	19 707	12 116	0.61
1992-93	15 376	12 347	0.80
1993-94	29 358	24 404	0.83
SUNFLOWER			
1988-89	3 943	6 117	1.55
1989-90	3 187	5 331	1.70
1990-91	1 742	3 041	1.75
1991-92	1 396	2 222	1.59
1992-93	1 157	1 828	1.58
1993-94	2 425	3 720	1.53

(a) Includes canola.

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)



**Grain legumes**

The area of lupins sown has risen from about 100 hectares in 1973 to 55,100 hectares in 1993-94. However the 1993-94 production of lupins decreased 27% from the previous years record of 82,500 tonnes. The production of field peas increased by 19% in 1993-94.

**TABLE 18.11 LEGUMES FOR GRAIN, VICTORIA**

Season	Lupins		Field peas		Total (a)	
	Area	Production	Area	Production	Area	Production
	'000 ha	'000 tonnes	'000 ha	'000 tonnes	'000 ha	'000 tonnes
1988-89	34.9	37.0	221.1	263.7	280.7	335.6
1989-90	35.9	41.2	154.4	198.2	237.7	314.9
1990-91	33.2	29.6	165.2	131.7	291.4	224.4
1991-92	36.7	40.5	193.6	211.7	382.3	437.8
1992-93	52.6	82.5	174.2	246.2	411.7	558.3
1993-94	55.1	59.5	199.9	292.5	421.2	575.0

(a) Includes chick peas, dried edible beans, etc.

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

**Fruit**

In Victoria during 1993-94, the area planted with fruit, nuts, and berries was 23,916 hectares, while the area of vineyards was 21,047 hectares. Although the total is only about 2% of the total area under crops, fruit and grapes contributed 25% to the gross value of crops produced.

**Tree fruit**

In Victoria, the main fruit growing areas are in the Goulburn, Mallee, and Melbourne Statistical Divisions. There are other important, but smaller areas throughout the State, including areas in the Ovens-Murray, Wimmera and Loddon-Campaspe Statistical Divisions.

**TABLE 18.12 NUMBER OF SELECTED BEARING AND NON BEARING POME, STONE FRUIT AND CITRUS TREES BY STATISTICAL DIVISION, VICTORIA, AT 31 MARCH 1994**

Statistical Division	Apples		Pears					
	'000	'000	'000	'000	'000	'000	'000	'000
Melbourne	680	56	108	1	40	1	15	-
Barwon	2	1	-	1	-	-	-	-
Western District	13	-	-	-	-	-	-	-
Central Highlands	93	16	5	4	5	-	-	-
Wimmera	2	-	2	1	1	-	-	-
Mallee	1	-	111	62	198	1 275	45	121
Loddon-Campaspe	290	19	-	-	-	-	-	-
Goulburn	693	1 484	845	229	84	107	22	-
Ovens-Murray	179	17	7	1	3	16	6	-
East Gippsland	9	-	2	-	1	-	-	-
Gippsland	61	4	4	-	4	-	1	-
<b>Total Victoria</b>	<b>2 023</b>	<b>1 597</b>	<b>1 084</b>	<b>299</b>	<b>336</b>	<b>1 399</b>	<b>89</b>	<b>121</b>

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

TABLE 18.13 ORCHARD FRUIT PRODUCTION, VICTORIA

	Year ended 31 March					
	1989	1990	1991	1992	1993	1994
	tonnes					
Pears	119 012	142 419	140 184	158 394	146 145	138 967
Apples	99 554	94 098	91 269	105 725	109 488	94 657
Peaches	28 351	32 456	32 271	35 758	36 787	33 875
Apricots	8 384	9 279	8 227	10 421	10 203	5 976
Cherries	971	1 291	1 495	1 736	1 525	1 943
Plums and prunes	3 311	3 411	3 553	4 414	4 235	4 500
Olives	121	183	157	352	356	410
Nectarines	2 425	3 393	3 935	4 537	5 618	6 126
Quinces	26	14	14	19	122	132
Figs	6	6	3	3	10	9
Oranges -						
Valencias	35 461	47 733	41 888	46 038	65 882	63 341
Navels	21 620	22 319	20 323	22 147	31 227	28 495
Other	331	305	291	322	638	533
Lemons and limes	7 265	7 468	6 425	5 846	6 206	5 913
Grapefruit	6 079	7 123	5 872	6 647	5 932	5 570
Mandarins	3 259	4 078	3 411	3 781	4 211	4 643

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

### 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; consequently most of this fruit is grown in the Dandenong Ranges and the Mornington Peninsula areas, which are relatively close to the Melbourne market. During the last few years fruit growers in other parts of the State have diversified by taking up the production of strawberries, raspberries and kiwi fruit, particularly for the fresh fruit market.

TABLE 18.14 SMALL FRUIT PRODUCTION, VICTORIA

	Year ended 31 March					
	1989	1990	1991	1992	1993	1994
	tonnes					
Strawberries	1 621	1 665	1 725	1 976	2 333	3 145
Raspberries	330	376	275	279	341	267
Kiwi Fruit	1 657	2 239	2 271	2 380	2 317	2 593
Blueberries	32	50	73	107	131	131
Loganberries	4	3	2	1	5	3
Other berries	95	102	75	67	90	64

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

### Nuts

A wide range of nuts can be grown in Victoria. Examples are almonds, walnuts, chestnuts, hazelnuts, and pistachios. In the past, only a few of these trees have been grown in commercial plantings. Almonds were mainly planted in the northern area; 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.

Chestnuts, in particular, have shown significant growth in production over the past five years.

**TABLE 18.15 NUT PRODUCTION, VICTORIA**

Type of nut	Year ended 31 March					
	1989	1990	1991	1992	1993	1994
	tonnes					
Walnuts	43	74	47	47	52	65
Chestnuts	53	103	148	231	208	345
Almonds	1 479	1 896	2 077	2 454	2 411	2 898

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

**Grapes**

In Victoria, most wine grapes are grown under irrigation in the Mallee, Ovens-Murray and Goulburn Statistical Divisions. Wine grape varieties are also being grown in the traditional non-irrigated areas in the north-east (Rutherglen and Milawa) and in the west (Avoca) 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.

**TABLE 18.16 VITICULTURE, AREA AND PRODUCTION, VICTORIA**

	Area (hectares)		Production (tonnes) for	
	Bearing	Non-bearing	Wine making	Drying and table (a)
1988-89	17 590	1 267	104 275	221 921
1989-90	17 648	1 265	85 225	215 284
1990-91	18 112	1 138	78 674	276 747
1991-92	18 490	981	104 398	294 514
1992-93	19 049	1 014	118 452	192 448
1993-94	19 535	1 511	167 083	192 150

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

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

**Other intensive crops**

**Vegetables**

Most of the fresh vegetable production in Victoria is located in the Melbourne, Central Highlands, Gippsland, East Gippsland and Goulburn Statistical Divisions.

Potatoes, the main vegetable produced (322,147 tonnes in 1993-94) are grown mainly in the Central Highlands Statistical Division around Ballarat, and at Thorpdale and Koo-wee-rup in the Gippsland Statistical Division, with additional areas around Warrnambool, the Bellarine Peninsula, Colac, the Otway Ranges, and Melbourne metropolitan market gardens. In 1993-94, the gross value of potato production was \$104 million, which was 5% of the total value of production of crops.

The tomato industry in Victoria is predominantly processing-oriented with most of the crop produced in the irrigated areas between Shepparton and Rochester in northern Victoria. Total production of tomatoes in 1993-94 was 120,396 tonnes, valued at \$27.3 million. Tomatoes used in processing were valued at \$11.3 million while fresh tomatoes were valued at \$16 million.

TABLE 18.17 VEGETABLES FOR HUMAN CONSUMPTION, VICTORIA

Type of vegetable	Area sown (hectares)			Production (tonnes)		
	1991-92	1992-93	1993-94	1991-92	1992-93	1993-94
Potatoes	13 602	11 955	12 005	368 777	309 192	322 147
Onions	414	342	545	10 386	9 590	16 200
Carrots	1 393	1 537	1 938	54 299	49 148	66 460
Parsnips	144	175	197	2 099	3 159	3 388
Beetroot	25	42	72	251	575	803
Tomatoes	2 922	2 580	2 740	139 048	94 390	120 396
French beans	819	592	504	5 115	2 769	2 188
Green peas -						
Market (a)	101	139	235	159	209	385
Factory (b)	852	162	46	3 688	527	228
Cabbages	785	737	726	32 118	27 616	26 548
Cauliflowers	1 182	1 300	1 280	26 155	28 620	28 573
Lettuce	1 286	1 432	1 632	34 640	33 912	35 041
Pumpkins	398	386	379	6 770	5 414	5 975

(a) Sold in pod.

(b) Shelled weight.

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

### Tobacco

The tobacco industry in Victoria is centered at Myrtleford in the Ovens-Murray Statistical Division, with production areas in the adjacent valleys of the Buffalo, Ovens, King, and Kiewa Rivers. In 1993-94 there were 137 tobacco growers in Victoria. The value of tobacco produced in Victoria during 1993-94 was estimated to be \$24.8 million.

TABLE 18.18 TOBACCO PRODUCTION, VICTORIA

Season	Area	Production	Average yield per hectare
	hectares	tonnes (dry)	tonnes (dry)
1988-89	1 737	4 089	2.35
1989-90	2 116	5 001	2.36
1990-91	1 937	5 233	2.70
1991-92	1 845	4 219	2.29
1992-93	1 983	4 738	2.39
1993-94	1 357	4 128	3.04

Source: *Crops, Pastures and Fruit, Victoria* (7330.2)

### Hops

In Victoria, production of hops 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. In 1993-94, the 18 hop gardens in Victoria produced 643 tonnes (dried weight) of hops for both domestic brewers and the export market.

**TABLE 18.19 HOP PRODUCTION, VICTORIA**

Season	Area	Production (dried weight)	Average yield per hectare
	hectares	tonnes	tonnes
1988-89	371	680	1.84
1989-90	348	577	1.66
1990-91	341	661	1.94
1991-92	352	764	2.17
1992-93	335	566	1.69
1993-94	358	643	1.81

Source: *Crops, Pastures and Fruit, Victoria (7330.2)*

**Plant nurseries** In 1993-94, there were 695 nurseries in Victoria with a total production area of 3,719 hectares (including establishments growing cultivated turf and cut flowers).

**Livestock and livestock products** Sheep remain the predominant livestock. In 1993-94 their number remained fairly static; however there was a 6.8% increase in the number of sheep slaughtered, whilst the number of lambs slaughtered fell by almost 11% over the previous year. Cattle numbers increased by 13.5% and pig numbers by 8.7% in 1993-94. The number of cattle slaughtered remained steady, while the number of pigs slaughtered increased by 11%.

**TABLE 18.20 SELECTED LIVESTOCK NUMBERS, VICTORIA**

Season	Cattle			Sheep	Pigs
	Dairy	Beef	Total		
	'000				
1988-89	1 438	2 071	3 509	28 067	423
1989-90	1 445	2 200	3 646	29 268	428
1990-91	1 423	2 208	3 631	27 494	403
1991-92	1 422	2 152	3 574	24 782	431
1992-93	1 463	2 226	3 689	23 552	423
1993-94	1 585	2 604	4 189	23 439	460

Source: *Livestock and Livestock Products, Victoria (7221.2)*

**TABLE 18.21 LIVESTOCK SLAUGHTERED, VICTORIA**

	'000					
Sheep	3 053	3 326	4 054	4 154	3 723	3 976
Lambs	6 264	6 200	6 246	6 321	6 288	5 601
Cattle and calves	1 875	1 995	2 229	2 226	1 974	1 977
Pigs	917	971	1 013	1 211	1 071	1 189

Source: *Livestock and Livestock Products, Victoria (7221.2)*

**Sheep and Wool** At 31 March 1994, the Victorian sheep population was 23.4 million head, well below the 1971 peak of 34 million head. Nearly 60% of the State's sheep flock is located in the Western District, Central Highlands, and Wimmera Statistical Divisions. Clipped wool production decreased by 6% to 110,000 tonnes, with a gross value of \$440 million. The number of sheep and lambs shorn decreased by almost 2% while the average wool yield (for sheep and lambs) decreased from 4.4 kilograms to 4.2 kilograms per head.

**TABLE 18.22 SHEEP AND LAMBS BY STATISTICAL DIVISION, VICTORIA,  
AT 31 MARCH 1994**

	'000				
Melbourne	2	78	58	37	175
Barwon	16	653	367	290	1 326
Western District	70	3 357	1 893	1 466	6 785
Central Highlands	30	1 547	1 327	776	3 680
Wimmera	33	1 657	1 093	782	3 565
Mallee	15	807	219	384	1 424
Loddon-Campaspe	23	1 192	745	560	2 521
Goulburn	24	1 071	557	424	2 076
Ovens-Murray	6	260	116	100	483
East Gippsland	7	362	241	164	773
Gippsland	9	333	139	148	629
<b>Total Victoria</b>	<b>235</b>	<b>11 318</b>	<b>6 755</b>	<b>5 131</b>	<b>23 439</b>

Source: *Livestock and Livestock Products, Victoria* (7221.2)**TABLE 18.23 SHEEP SHORN AND WOOL CLIPPED, VICTORIA**

Season	Number shorn		Wool clipped (including crutchings)		Average	
	Sheep	Lambs	Sheep	Lambs	Per sheep	Per lamb
	'000	'000	tonnes	tonnes	kg	kg
1988-89	24 357	6 225	122 566	9 927	5.0	1.6
1989-90	25 773	6 308	132 710	10 028	5.1	1.6
1990-91	25 939	5 716	124 881	8 292	4.7	1.5
1991-92	23 467	4 662	109 835	6 739	4.5	1.4
1992-93	21 817	4 694	110 347	7 173	5.1	1.5
1993-94	21 238	4 843	102 935	7 100	4.7	1.4

Source: *Livestock and Livestock Products, Victoria* (7221.2)**TABLE 18.24 SHEEP SHORN AND WOOL CLIPPED BY STATISTICAL DIVISION,  
VICTORIA, SEASON 1993-94**

Statistical Division	Number shorn		Wool clipped (including crutchings)		Average	
	Sheep	Lambs	Sheep	Lambs	Per sheep	Per lamb
	'000	'000	tonnes	tonnes	kg	kg
Melbourne	151	32	743	48	4.9	1.5
Barwon	1 215	276	5 517	346	4.5	1.3
Western District	6 354	1 355	28 548	1 954	4.5	1.4
Central Highlands	3 326	575	15 504	899	4.7	1.6
Wimmera	3 250	766	17 367	1 191	5.3	1.6
Mallee	1 126	383	6 068	566	5.4	1.5
Loddon-Campaspe	2 276	598	12 051	860	5.3	1.4
Goulburn	1 856	470	9 266	696	5.0	1.5
Ovens-Murray	429	101	1 948	140	4.5	1.4
East Gippsland	706	130	3 356	173	4.8	1.3
Gippsland	550	156	2 568	226	4.7	1.4
<b>Total Victoria</b>	<b>21 238</b>	<b>4 843</b>	<b>102 935</b>	<b>7 100</b>	<b>4.8</b>	<b>1.5</b>

Source: *Livestock and Livestock Products, Victoria* (7221.2)

**TABLE 18.25 TOTAL WOOL PRODUCTION, VICTORIA**

Season	Clip	Stripped from or exported on skins (greasy)	Total quantity (greasy)
	tonnes	tonnes	tonnes
1988-89	132 493	25 175	157 668
1989-90	142 737	27 974	170 711
1990-91	133 172	28 317	161 489
1991-92	116 574	28 791	145 365
1992-93	117 520	27 554	145 082
1993-94	110 035	14 500	124 535

Source: *Livestock and Livestock Products, Victoria (7221.2)*

**Lambing**

Victoria's largest lambing season occurred in 1970-71, when 12.7 million lambs were marked from 14.8 million ewes mated (86%). The peak in more recent years was in 1984-85 when 10.4 million lambs were marked from 11.7 million ewes mated (89%). The more recent decline in the number of sheep mated and lambs marked now appears to have found a level, with 7.5 million lambs marked from 9.3 million sheep mated (81%) in 1993-94. These figures have been relatively constant over the past three seasons.

**TABLE 18.26 LAMBING, VICTORIA**

	Ewes mated	Lambs marked	Percentage of lambs marked to ewes mated
	'000	'000	%
1988-89	10 447	9 029	86
1989-90	10 923	9 504	87
1990-91	10 632	8 843	83
1991-92	9 466	7 412	78
1992-93	9 352	7 592	81
1993-94	9 325	7 549	81

Source: *Livestock and Livestock Products, Victoria (7221.2)*

**Mutton and lamb  
production**

Mutton, the meat from adult sheep, is mainly produced from sheep which are surplus to the wool industry, so that production patterns correspond closely to expansions and contractions in that industry. In 1993-94, mutton production was 63,000 tonnes, well down on the previous year's figure of 85,000 tonnes.

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 Western District, Central Highlands, Gippsland, and parts of the Ovens-Murray Statistical Divisions of the State. In 1993-94, 109,000 tonnes of lamb were produced.

**Meat cattle**

The Victorian environment is very favourable for beef production with cattle able to graze on pasture throughout the year. Most of the Victorian breeding herds are located in the Western District, Goulburn, Ovens-Murray, East Gippsland, and Gippsland Statistical Divisions.

As at 31 March 1994, there were 2.6 million beef cattle in Victoria, a 17% increase over the previous year and the highest number of beef cattle in the State since 1981 (2.775 million).

**TABLE 18.27 DISTRIBUTION OF MEAT CATTLE BY STATISTICAL DIVISION, VICTORIA, AT 31 MARCH 1994**

Statistical Division	Bull calves for service	Bulls and cows and heifers	Calves under 1 year	Other (a)	Total
					'000
Melbourne	4	82	43	27	156
Barwon	3	65	33	16	117
Western District	16	292	138	94	540
Central Highlands	3	62	32	18	115
Wimmera	1	28	16	9	55
Mallee	2	36	25	12	74
Loddon-Campaspe	5	106	53	31	194
Goulburn	10	175	100	61	345
Ovens-Murray	7	160	93	75	335
East Gippsland	6	116	63	25	210
Gippsland	11	203	116	131	461
<b>Total Victoria</b>	<b>68</b>	<b>1 325</b>	<b>711</b>	<b>500</b>	<b>2 604</b>

(a) Steers and bullocks, 1 year and over.

Source: *Livestock and Livestock Products, Victoria (7221.2)*

#### Milk cattle

Dairy farming in Victoria is largely confined to the higher rainfall areas of Gippsland, Western District, and Barwon, and the northern irrigation areas of the Loddon-Campaspe and Goulburn Statistical Divisions. Milk cattle numbers have been gradually increasing in recent years. At 31 March 1994 there were 1.6 million milk cattle in Victoria, an increase of 8% on the previous year.

**TABLE 18.28 DISTRIBUTION OF MILK CATTLE BY STATISTICAL DIVISION, VICTORIA, AT 31 MARCH 1994**

Statistical Division	Bulls and bull calves	Cows in milk and dry	Heifer and heifer calves	Total milk cattle (a)
				'000
Melbourne	1	29	14	44
Barwon	2	75	32	109
Western District	5	240	100	345
Central Highlands	1	5	3	9
Wimmera	-	1	1	2
Mallee	-	28	15	44
Loddon-Campaspe	2	103	46	151
Goulburn	5	234	106	345
Ovens-Murray	1	40	19	59
East Gippsland	1	57	24	81
Gippsland	6	273	118	396
<b>Total Victoria</b>	<b>23</b>	<b>1 085</b>	<b>477</b>	<b>1 585</b>

(a) Excludes house cows.

Source: *Livestock and Livestock Products, Victoria (7221.2)*



**TABLE 18.29 MILK PRODUCTION, VICTORIA**

Year ended 30 June	Million litres	Year ended 30 June	Million litres
1990	3 787	1991	3 908
1989	3 792	1992	4 118
1993	4 456	1994	4 967

Source: Australian Dairy Corporation

**Pigs**

The number of commercial establishments with pigs has stabilised over recent years. At 31 March 1991, there were 848 establishments, with 403,000 pigs; at 31 March 1994, there were 851 establishments with 460,000 pigs, an 6% increase over the previous year. The value of pigs slaughtered in 1993-94 was \$170 million.

**TABLE 18.30 PIGS AND PIG KEEPERS BY STATISTICAL DIVISION AT 31 MARCH 1994**

Statistical Division	'000				no.
Melbourne	-	3	20	23	24
Barwon	-	1	6	7	26
Western District	-	3	14	17	74
Central Highlands	-	3	18	20	28
Wimmera	-	7	46	53	126
Mallee	-	5	37	43	154
Loddon-Campaspe	1	21	175	197	170
Goulburn	1	9	58	67	125
Ovens-Murray	-	2	11	12	56
East Gippsland	-	-	2	2	17
Gippsland	-	2	16	18	51
<b>Total Victoria</b>	<b>3</b>	<b>54</b>	<b>402</b>	<b>460</b>	<b>851</b>

Source: *Livestock and Livestock Products, Victoria* (7221.2)

**Poultry**

In 1993-94 Victorian egg production for human consumption was 39.5 million dozen. The main areas of commercial egg production are centered on the outskirts of the Melbourne Statistical Division; other significant regions are the Goulburn, Barwon, Wimmera and Loddon-Campaspe Statistical Divisions.

Farms consisting of one person or one family usually manage 5,000 to 15,000 layers. There are many larger farms (employing labour) with up to 40,000 layers, and a few establishments which are even bigger.

**TABLE 18.31 POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION, VICTORIA**

Year ended 30 June	'000		
1989	68 943	2 719	633
1990	68 335	2 154	657
1991	72 165	2 321	727
1992	73 921	1 938	735
1993	78 615	1 391	830
1994	85 798	1 782	821

Source: *Livestock and Livestock Products, Victoria* (7221.2)

In 1993-94, there were 88.4 million chickens, hens, stags, and ducks and drakes slaughtered for human consumption. The total dressed weight was 128,246 tonnes.

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 produce from 165,000 to 550,000 broilers a year.

The main broiler production centres are located on the Mornington Peninsula, in areas east and south-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, with very little being exported.

**TABLE 18.32 DRESSED WEIGHT OF POULTRY SLAUGHTERED, FRESH AND FROZEN (a)(b), VICTORIA**

Year ended 31 June		'000 kg	
1989	97 409	4 547	1 206
1990	92 608	3 708	1 222
1991	100 529	4 130	1 377
1992	107 049	3 585	1 399
1993	114 587	2 474	1 567
1994	123 529	3 170	1 547

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

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

Source: *Livestock Products, Australia* (7215.0)

#### Apiculture

Honey production in Victoria was 4,905 tonnes in 1993-94. The bulk of the honey produced is sold to large processors who clarify and pack it. Nearly 50% of the annual production of honey is exported, chiefly to the United Kingdom.

**TABLE 18.33 BEEHIVES, HONEY AND BEESWAX, VICTORIA**

Year ended 31 June	no.	Production	
		Hives no.	Honey tonnes
1989	130	50 561	2 886
1990	131	56 657	3 127
1991	149	60 747	4 129
1992	118	56 540	3 579
1993	129	57 562	3 160
1994	322	88 742	4 905

Source: *Livestock and Livestock Products, Victoria* (7221.2)