1999–2000 7113.0

Australian Bureau of Statistics

AGRICULTURE

AUSTRALIA

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- For more information about these and related statistics, contact Debbie Thomas on Hobart 03 6222 5948 or the National Information and Referral Service on 1300 135 070.

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ABOUT THIS PUBLICATION

This compendium presents a picture of Australian agriculture in the late 1990s. It contains detailed statistics on crops, livestock and livestock products and characteristics of farms. Also included are detailed statistics on the financial performance of agricultural industries, the value of agricultural commodities produced (VACP) and summary trade data.

A special article about the wool industry in Australia has been included in this issue. It provides details of the history of the industry, a financial overview and an industry outlook.

CHANGES IN THIS ISSUE

Unless otherwise indicated, estimates relating to area, production of crops, numbers of livestock and land use practices contained in this publication are based on information obtained from the Agricultural Commodity Survey (ACS) conducted at 30 June 2000.

Prior to 2000 information was obtained for the period ending 31 March.

The ABS has changed the collection period to 30 June to better align with other ABS surveys. A study of respondent data indicated that there should be no significant difference in estimates collected because of the different reference period.

Dennis Trewin
Australian Statistician

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CHAPTER 1 AGRICULTURE AND THE AUSTRALIAN ECONOMY

OVERVIEW

Agriculture has historically played an important role in the development of Australia's economy. The contribution of agriculture to the Australian economy can be measured in a number of ways. The most direct measurement available is the gross value of agricultural production, which is the value placed on recorded production at wholesale prices realised in the market place. In 1999–2000 the gross value of agricultural production was $30.2 billion.

Other measures of the contribution of agriculture to the economy include:

- gross farm product (GFP), which is a measure of the value added in production contributed by businesses classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC) Subdivision 01 (Agriculture). In 1999–2000 GFP was calculated to be $17.6 billion, or just under 3% of gross domestic product;
- aggregate turnover of all businesses classified to ANZSIC Subdivision 01 with an EVAO of $22,500 or more, as collected in the annual Agricultural Finance Survey. In 1999–2000 aggregate turnover was estimated to be $28.5 billion. This figure includes some turnover attributable to non-agricultural sales conducted by these businesses, but similarly, excludes turnover from agricultural activities conducted by businesses classified to other industries;
- the number of persons employed by businesses classified to ANZSIC Subdivision 01 with an EVAO of $22,500 or more, which for 1999–2000 was 319,000 persons;
- the value of exports of agricultural commodities (export products classified to ANZSIC Subdivision 01 as their industry of origin), which amounted to $8.1 billion in 1999–2000.

GROSS VALUE OF AGRICULTURAL PRODUCTION

The gross value of agricultural commodities produced for 1999–2000 was $30.2 billion, a 5% increase on the 1998–99 value of $28.9 billion. Strong increases in the gross value of crops and in the gross value of livestock slaughterings and other disposals were only partially offset by a small decrease in the gross value of livestock products.

The increase in the gross value of crops was predominantly due to increases in the gross value of a number of major broadacre crops, which more than offset declines in the gross values of both fruit and vegetable production for 1999–2000. Wheat was the major contributor, with an $820 million increase in the gross value of wheat for the year. This was the result of an increased harvest, up by 15% to 24.8 million tonnes in 1999–2000, combined with a 4% increase in the average price per tonne received by farmers. Cotton and canola also contributed to the increase in gross value of crops for the year, with increases in quantity harvested outweighing declines in price per tonne.

GROSS VALUE OF AGRICULTURAL PRODUCTION *continued*

The gross value of fruit production declined for the year due to falls in both production and unit value for three of the major fruit crops: grapes, oranges and apples. Similarly the gross value of vegetable production decreased as a result of declines in production and unit value for the four major vegetable crops: potatoes, tomatoes, carrots and onions.

The gross value of livestock slaughterings and other disposals rose by 10% to $7.9 billion mainly as a result of increases in the gross values of cattle and calves and pigs. The gross values of all other livestock including sheep and lambs and poultry fell.

The gross value of livestock products fell by 1% to $5.4 billion in 1999–2000. A slight increase in the gross values of wool and honey was offset by minor falls in the gross values of milk, eggs and beeswax.

1.1 GROSS AND LOCAL VALUE OF AGRICULTURAL PRODUCTION(a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
GROSS VALUE											
Crops (incl. pastures and grasses)	15 308.2	r16 226.3	16 923.0	4 609.8	2 997.2	3 557.1	2 057.2	3 324.8	320.4	53.2	3.3
Livestock slaughterings and other disposals	6 991.9	r7 255.8	7 944.2	1 897.9	1 747.6	2 667.9	504.3	778.6	153.6	191.6	2.7
Livestock products	5 957.8	r5 411.8	5 353.7	1 428.7	2 068.5	545.7	438.2	638.1	217.2	8.1	9.1
Total agriculture	**28 258.0**	**r28 893.9**	**30 220.9**	**7 936.3**	**6 813.4**	**6 770.7**	**2 999.7**	**4 741.5**	**691.2**	**252.9**	**15.1**
MARKETING COSTS											
Crops (incl. pastures and grasses)	1 833.2	r2 046.5	2 155.5	648.2	417.3	428.5	208.3	430.6	20.3	2.4	0.1
Livestock slaughterings and other disposals	637.0	r671.9	728.1	161.5	165.6	240.9	43.1	81.0	16.0	19.6	0.3
Livestock products	200.6	r189.3	183.7	67.9	31.5	19.3	18.6	40.0	5.2	0.3	0.9
Total agriculture	**2 670.9**	**r2 907.7**	**3 067.3**	**877.6**	**614.3**	**688.6**	**270.0**	**551.6**	**41.6**	**22.4**	**1.3**
LOCAL VALUE											
Crops (incl. pastures and grasses)	13 475.0	r14 179.8	14 767.5	3 961.6	2 579.9	3 128.6	1 848.9	2 894.2	300.1	50.8	3.2
Livestock slaughterings and other disposals	6 354.9	r6 583.9	7 216.1	1 736.3	1 582.0	2 426.9	461.3	697.6	137.6	171.9	2.5
Livestock products	5 757.2	r5 222.5	5 170.0	1 360.8	2 037.1	526.5	419.6	598.1	212.0	7.8	8.2
Total agriculture	**25 587.1**	**r25 986.2**	**27 153.5**	**7 058.7**	**6 199.0**	**6 082.0**	**2 729.8**	**4 189.9**	**649.7**	**230.6**	**13.8**

(a) In 1999–2000, the reference period for crops, pastures and grasses changed from year ended 31 March to year ended 30 June. Reference period for livestock slaughterings and other disposals and livestock products is 30 June.

GROSS FARM PRODUCT

In 1999–2000 GFP increased in basic price terms. The increase in the chain volume measure reflects the increase in the level of production of wheat, a major contributor to GFP.

The farm sector's direct contribution to gross domestic product (GDP) in 1999–2000 remained steady at just under 3%.

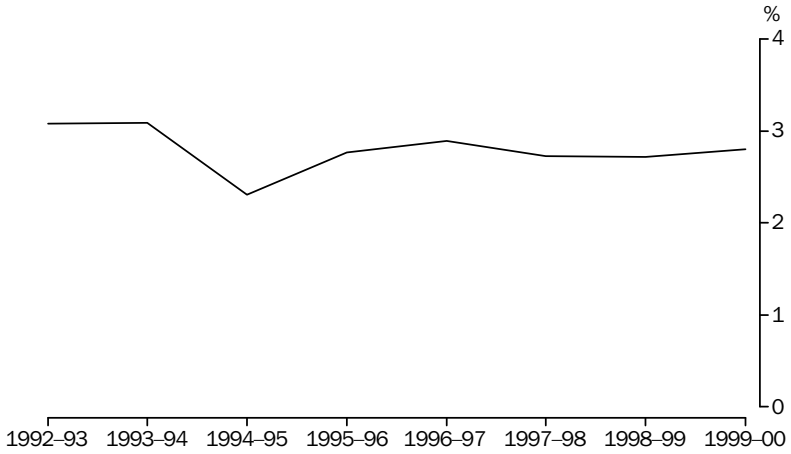
1.2 GROSS FARM PRODUCT—Years ended 30 June

	1998	*1999*	*2000*
Price	$m	$m	$m
At basic prices	16 038	16 810	17 646
Chain volume measurement(a)	15 655	16 437	17 646

(a) Reference year of chain volume measurement is 1999–2000.

The graph below shows GFP as a proportion of GDP for the last eight years. This proportion has remained stable at just under 3% for the last five years, after falling to a level slightly over 2% in 1994–95, when agricultural production was adversely affected by drought conditions in much of Australia.

1.3 GROSS FARM PRODUCT AS A PROPORTION OF GDP



EMPLOYMENT IN AGRICULTURE

During the last pay period in June 2000, the number of people working on farm businesses with an EVAO of $22,500 or more was estimated to be 319,000, a 3% increase on the previous year. These comprised 198,000 working proprietors and partners (up by 6% on the previous year) and 121,000 paid employees (down by 3% on the previous year).

The largest employing industries were the mixed grain-sheep/beef industry (with 42,700 people), the grain industry (with 40,400 people) and the fruit industry (with 40,100 people), these industries each accounting for around 13% of total agricultural employment.

EMPLOYMENT IN AGRICULTURE *continued*

Over the period June 1996 to June 2000, employment in the cotton industry increased by 71% to 7,250 people, with 1,930 working proprietors and partners, and 5,310 paid employees.

Employment in the sheep-beef cattle farming industry decreased by 23% over the same period, falling to a low of 14,900 people in 1997–98. However, by 1999–2000 employment in the sheep-beef cattle farming industry had increased to 19,100 people, up by 16% on the previous year.

1.4 AGRICULTURE INDUSTRY, Employment—Years ended 30 June(a)

ANZSIC code	Description	*1996*	*1997*	*1998*	*1999*	*2000*
		no.	no.	no.	no.	no.
	PROPRIETORS AND PARTNERS					
0114–0119	Fruit	13 329	17 258	17 852	18 154	20 260
0113	Vegetables	7 430	7 286	6 110	6 141	6 162
0121	Grain growing	26 240	28 435	23 765	29 083	30 044
0122	Grain-sheep/beef cattle farming	28 024	37 310	35 300	33 521	32 404
0123	Sheep-beef cattle farming	16 772	12 008	10 757	12 182	13 582
0124	Sheep farming	18 664	19 603	20 931	21 581	22 923
0125	Beef cattle farming	28 960	24 210	23 391	22 304	23 159
0130	Dairy cattle farming	23 806	24 702	25 276	26 379	28 812
0142	Poultry farming (eggs)	(b)	(b)	589	566	785
0151	Pig farming	2 052	1 725	1 901	1 768	1 587
0161	Sugar cane growing	6 350	6 183	7 057	5 912	7 842
0162	Cotton growing	1 259	1 103	1 610	1 643	1 934
0111–0112, 0141, 0152–0159, 0169	Other agriculture	12 064	9 275	8 874	8 006	8 991
01	**All agriculture**	**184 950**	**189 098**	**183 413**	**187 240**	**198 484**
	EMPLOYEES(c)					
0114–0119	Fruit	*16 121	17 312	15 615	18 715	19 853
0113	Vegetables	13 982	12 659	16 280	17 870	17 387
0121	Grain growing	9 120	10 999	10 067	9 687	10 315
0122	Grain-sheep/beef cattle farming	9 434	11 481	12 041	14 265	10 261
0123	Sheep-beef cattle farming	8 167	4 896	4 182	4 337	5 529
0124	Sheep farming	*8 835	9 231	7 518	8 088	6 837
0125	Beef cattle farming	12 288	12 008	10 929	11 108	11 957
0130	Dairy cattle farming	7 040	8 327	9 744	8 292	6 923
0142	Poultry farming (eggs)	(b)	(b)	2 462	2 072	2 546
0151	Pig farming	2 251	3 139	*3 550	2 478	2 691
0161	Sugar cane growing	4 510	5 620	5 612	6 031	3 199
0162	Cotton growing	2 980	4 296	4 283	4 483	5 310
0111–0112, 0141, 0152–0159, 0169	Other agriculture	19 709	16 585	15 157	16 485	17 782
01	**All agriculture**	**114 437**	**116 553**	**117 440**	**123 908**	**120 590**
	TOTAL EMPLOYMENT					
0114–0119	Fruit	29 450	34 570	33 467	36 869	40 113
0113	Vegetables	21 412	19 945	22 390	24 011	23 549
0121	Grain growing	35 360	39 434	33 832	38 770	40 359
0122	Grain-sheep/beef cattle farming	37 458	48 791	47 341	47 786	42 665
0123	Sheep-beef cattle farming	24 939	16 904	14 939	16 519	19 110
0124	Sheep farming	27 499	28 834	28 449	29 669	29 760
0125	Beef cattle farming	41 248	36 218	34 320	33 412	35 116
0130	Dairy cattle farming	30 846	33 029	35 020	34 671	35 735
0142	Poultry farming (eggs)	(b)	(b)	3 051	2 638	3 331
0151	Pig farming	4 303	4 864	5 451	4 246	4 278
0161	Sugar cane growing	10 860	11 803	12 669	11 943	11 041
0162	Cotton growing	4 239	5 399	5 893	6 126	7 245
0111–0112, 0141, 0152–0159, 0169	Other agriculture	31 773	25 860	24 031	24 491	26 773
01	**All agriculture**	**299 387**	**305 651**	**300 853**	**311 148**	**319 074**

(a) Includes persons working on farm businesses with an EVAO over $22,500 during the last pay period in June.

(b) Data not collected.

(c) Includes employees absent on paid or unpaid leave, but excludes non-salaried directors, consultants, contractors and unpaid labour.

CHAPTER 2 STRUCTURE OF AGRICULTURAL INDUSTRY ..

OVERVIEW

The number of establishments having an estimated value of agricultural operations (EVAO) of $5,000 or more increased slightly, to 146,000 in the 12 months to June 2000. This was the result of an increase in farm numbers in Victoria, which was up by 600 or 2%, while the numbers in the other States were either down slightly or were little changed.

The pattern of rapidly declining numbers of establishments in the early 1990s has slowed, with the number of establishments remaining steady at around 145,000 between 1995 and 2000.

2.1 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY(a)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1990(b)	37 539	33 306	26 619	14 636	13 410	3 699	257	73	129 539
1991(b)	36 812	32 620	25 364	14 482	13 202	3 563	270	79	126 392
1992	44 443	39 170	33 181	17 511	14 790	4 884	302	99	154 380
1993	43 227	37 773	33 531	17 386	14 910	4 719	322	98	151 966
1994	42 817	37 330	34 268	16 345	14 555	4 663	316	95	150 389
1995	42 287	37 070	32 849	15 952	13 973	4 554	337	93	147 115
1996	42 497	36 905	32 186	15 939	13 987	4 640	355	103	146 612
1997	42 758	36 656	30 987	15 817	13 872	4 536	354	103	145 083
1998	42 496	36 687	30 951	15 774	13 990	4 482	377	105	144 863
1999	43 302	36 701	30 753	15 738	13 822	4 446	363	101	145 226
2000	43 654	37 304	30 698	15 905	13 917	4 430	367	96	146 371

(a) Establishments having an EVAO of $5,000 or more.

(b) Establishments having an EVAO of $20,000 or more, see Explanatory Notes, paragraph 3.

INDUSTRY COMPOSITION

The composition of agricultural industries in Australia in 2000 was little changed from the previous year.

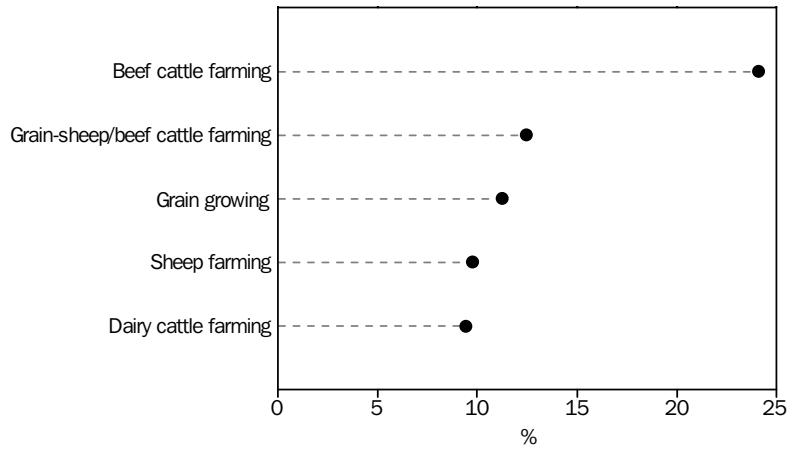
The estimated number of establishments with agricultural activity and an estimated value of agricultural operations (EVAO) of $5,000 or more increased slightly from 145,000 in 1998–99 to 146,000 in 1999–2000, mainly as a result of increased numbers in the grape growing industry and the beef cattle farming industry.

The beef cattle farming industry remained the largest in terms of farm numbers, up from 33,200 in 1998–99 to 35,200 in 1999–2000, and accounted for 24% of all establishments with farming activity.

Despite another fall in numbers, the mixed farming sector (grain–sheep/beef cattle) remained the second largest industry with 12% (18,200) of total establishments being classified to this industry. The grain growing industry remained the third largest in terms of numbers, accounting for 11% (16,500) of total establishments.

INDUSTRY COMPOSITION *continued*

2.2 NUMBER OF AGRICULTURAL ESTABLISHMENTS, Proportion by Industry—As at 30 June 2000



INDUSTRY ANALYSIS

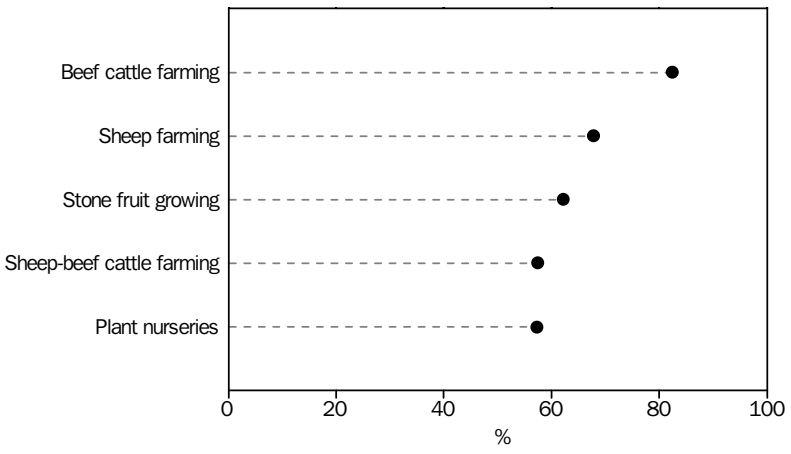
There has been a significant movement of farms involved in the cattle farming industries (both beef and dairy) from the lowest category of EVAO (less than $22,500) to higher categories, reflecting improved livestock prices received in these industries during the period.

The estimated number of farm establishments with an EVAO below $22,500 fell by 16% to 28,400 in 1999–2000. Despite this, just over half of all farm establishments (76,000 farms or 52%) had an EVAO below $100,000. At the other end of the scale, 9% (12,700) of farming establishments had an EVAO above $500,000 in 1999–2000.

Size of operations

In 1999–2000, small producers made up most of the businesses in the beef cattle industry, sheep industry and the fruit industry (i.e. apple and pear, stone, kiwi and other fruit industries combined) with 82%, 68% and 57% respectively, of these operations having an EVAO below $100,000.

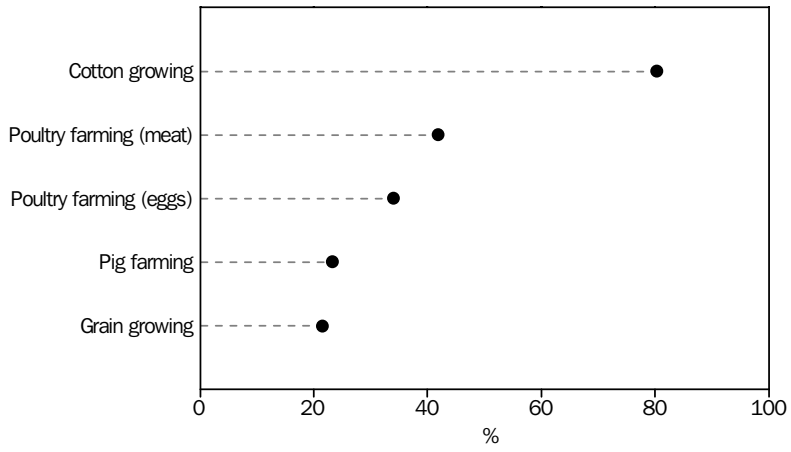
2.3 EVAO LESS THAN $100,000, Proportion of Establishments Within Each Industry—As at 30 June 2000



Size of operations *continued*

Industries consisting of mainly larger producers in 1999–2000 included the cotton industry, the meat poultry industry and the poultry egg industry with 80%, 42% and 34% respectively, of these operations having an EVAO greater than $500,000.

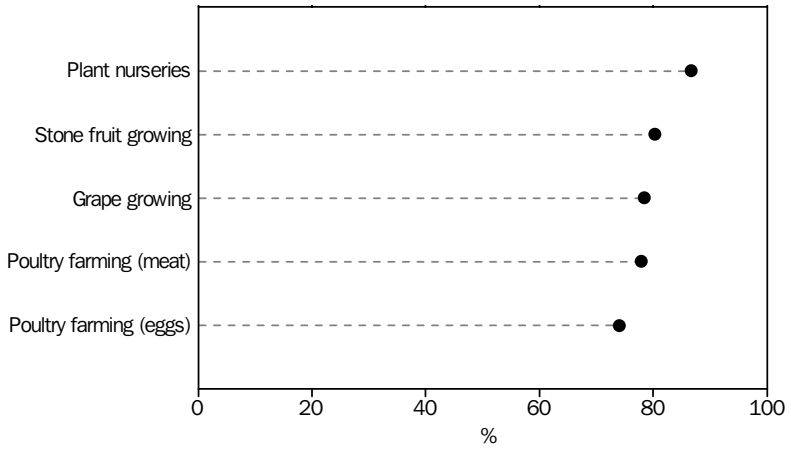
2.4 EVAO GREATER THAN $500,000, Proportion of Establishments Within Each Industry—As at 30 June 2000



Area of operations

The most common size of farm holding in 1999–2000 was between 100 and 499 hectares. These 48,500 holdings accounted for 33% of all farming establishments and consisted of mainly beef cattle, sheep, grain and dairy operations. Farm holdings of 49 hectares or less were next most common, and accounted for 21% (31,200) of all farms. Beef cattle, grape growing, fruit, vegetable and plant nursery operations comprised the majority of these farms.

2.5 AREA OF HOLDING LESS THAN 50ha, Proportion of Establishments Within Each Industry—As at 30 June 2000



Farm holdings of over 2,500 hectares accounted for 10% (14,100) of all farms. These farms were mainly large scale grazing and cropping operations.

2.6 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By State—As at 30 June 2000

ANZSIC code	*Description*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
0111	Plant nurseries	974	395	754	131	163	56	16	6	2 496
0112	Cut flower and flower seed growing	295	260	206	131	177	59	6	—	1 134
0113	Vegetable growing	986	1 099	1 455	573	584	602	13	2	5 313
0114	Grape growing	1 175	2 233	*143	2 406	474	85	3	3	6 522
0115	Apple and pear growing	233	374	117	118	246	140	—	1	1 229
0116	Stone fruit growing	465	250	104	252	165	*20	—	—	1 257
0117	Kiwi fruit growing	1	**	*3	—	**	—	—	—	*20
0119	Fruit growing n.e.c.	2 001	498	2 267	571	309	57	90	—	5 794
0121	Grain growing	4 206	3 181	2 112	3 653	3 282	24	3	1	16 463
0122	Grain–sheep/beef cattle farming	7 205	3 380	1 730	2 757	3 113	46	—	1	18 232
0123	Sheep–beef cattle farming	4 036	2 471	804	939	618	363	—	22	9 253
0124	Sheep farming	5 457	4 521	576	1 567	1 438	719	—	24	14 302
0125	Beef cattle farming	10 806	8 528	11 458	990	2 131	1 088	211	24	35 236
0130	Dairy cattle farming	1 943	8 133	1 842	770	386	743	1	2	13 820
0141	Poultry farming (meat)	351	197	145	78	64	10	1	—	845
0142	Poultry farming (eggs)	131	108	128	47	73	13	5	2	508
0151	Pig farming	328	193	340	147	111	24	1	—	1 145
0152	Horse farming	770	452	499	109	126	59	2	4	2 021
0153	Deer farming	*56	*75	**	*29	**	*16	—	—	196
0159	Livestock farming n.e.c.	415	*262	*202	*118	107	*54	1	—	1 158
0161	Sugar cane growing	489	—	4 534	—	*5	—	—	—	5 029
0162	Cotton growing	490	—	484	—	1	—	—	—	974
0169	Crop and plant growing n.e.c.	248	369	455	326	61	146	8	1	1 614
Agriculture		*43 063*	*36 988*	*30 367*	*15 712*	*13 653*	*4 324*	*361*	*93*	*144 560*
All other industries		*591*	*316*	*331*	*193*	*265*	*106*	*6*	*3*	*1 811*
Total all industries		**43 654**	**37 304**	**30 698**	**15 905**	**13 917**	**4 430**	**367**	**96**	**146 371**

2.7 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By EVAO—As at 30 June 2000

ESTIMATED VALUE OF AGRICULTURAL OPERATIONS($'000)

ANZSIC code	Description	Less than 22.5(a)	22.5–49.9	50.0–99.9	100.0–149.9	150.0–199.9	200.0–349.9	350.0–499.0	500.0–999.9	1,000.0–1,999.9	2,000.0 or more	Total establish-ments
0111	Plant nurseries	340	435	653	268	250	200	110	137	74	29	2 496
0112	Cut flower and flower seed growing	169	284	315	132	47	100	*31	41	8	7	1 134
0113	Vegetable growing	756	835	758	481	342	759	449	522	253	159	5 313
0114	Grape growing	598	1 042	1 789	1 113	622	603	273	302	103	*78	6 522
0115	Apple and pear growing	*84	138	189	126	114	193	133	145	61	46	1 229
0116	Stone fruit growing	264	295	223	104	82	138	70	53	16	**	1 257
0117	Kiwi fruit growing	1	**	**	*1	*1	**	**	—	—	—	*20
0119	Fruit growing n.e.c.	1 314	1 046	1 162	555	345	582	299	314	111	64	5 794
0121	Grain growing	885	937	1 980	1 755	1 684	3 469	2 200	2 653	754	146	16 463
0122	Grain–sheep/beef cattle farming	740	1 768	3 551	2 907	2 343	3 788	1 548	1 361	183	43	18 232
0123	Sheep–beef cattle farming	1 239	1 552	2 522	1 401	766	1 122	325	284	39	2	9 253
0124	Sheep farming	3 449	2 974	3 283	1 858	1 027	1 111	320	243	26	10	14 302
0125	Beef cattle farming	15 654	8 318	5 087	1 920	1 025	1 603	622	589	281	136	35 236
0130	Dairy cattle farming	254	971	1 496	2 368	2 342	4 164	1 212	900	99	*13	13 820
0141	Poultry farming (meat)	**	*22	38	35	39	175	141	276	48	30	845
0142	Poultry farming (eggs)	54	*40	*45	54	33	68	40	101	40	32	508
0151	Pig farming	105	114	140	133	91	183	112	124	92	50	1 145
0152	Horse farming	877	572	355	102	*47	*53	2	6	*5	1	2 021
0153	Deer farming	111	*39	*36	**	1	—	1	—	—	—	196
0159	Livestock farming n.e.c.	330	*171	*112	*148	*31	*166	*64	*72	*48	*16	1 158
0161	Sugar cane growing	*120	*221	945	1 174	725	1 039	416	322	*57	9	5 029
0162	Cotton growing	—	—	**	—	**	*53	*104	251	281	250	974
0169	Crop and plant growing n.e.c.	344	282	244	171	117	174	76	132	*50	23	1 614
Agriculture		*27 728*	*22 058*	*24 934*	*16 819*	*12 105*	*19 743*	*8 556*	*8 830*	*2 628*	*1 158*	*144 560*
All other industries		*629*	*412*	*267*	*132*	*70*	*129*	*78*	*66*	*10*	*19*	*1 811*
Total all industries		**28 357**	**22 470**	**25 201**	**16 951**	**12 175**	**19 872**	**8 634**	**8 896**	**2 639**	**1 177**	**146 371**

(a) Establishments with EVAO of less than $5,000 on the population frame are not in the scope of the survey, however, some respondents may report activity below this level in the survey.

2.8 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By Area—As at 30 June 2000

ANZSIC code	Description	AREA OF HOLDING (ha) 0–49	50–99	100–499	500–999	1,000–2,499	2,500–24,999	25,000–99,999	100,000–199,999	200,000–499,999	500,000 or more	Total establishments
0111	Plant nurseries	2 165	137	166	*12	**	3	—	—	—	—	2 496
0112	Cut flower and flower seed growing	959	63	91	8	*8	*5	—	—	—	—	1 134
0113	Vegetable growing	3 020	763	1 209	204	90	26	1	—	—	—	5 313
0114	Grape growing	5 117	569	701	68	49	*16	—	—	—	—	6 522
0115	Apple and pear growing	816	214	175	24	—	—	—	—	—	—	1 229
0116	Stone fruit growing	1 010	110	126	7	3	—	—	—	—	—	1 257
0117	Kiwi fruit growing	*17	**	1	—	—	—	—	—	—	—	*20
0119	Fruit growing n.e.c.	4 224	842	576	78	49	23	2	—	—	—	5 794
0121	Grain growing	710	459	4 040	3 488	4 669	3 064	33	—	—	—	16 463
0122	Grain–sheep/beef cattle farming	236	*349	4 958	4 649	5 462	2 498	78	*1	—	—	18 232
0123	Sheep–beef cattle farming	*323	532	3 466	1 822	1 604	1 116	306	*43	34	6	9 253
0124	Sheep farming	897	1 046	5 697	2 779	1 996	1 395	335	103	50	4	14 302
0125	Beef cattle farming	5 287	6 011	13 456	3 417	2 738	3 229	537	185	279	97	35 236
0130	Dairy cattle farming	1 336	2 696	8 893	598	263	30	1	1	1	—	13 820
0141	Poultry farming (meat)	658	72	98	13	3	—	—	—	—	1	845
0142	Poultry farming (eggs)	376	38	74	*8	12	1	—	—	—	—	508
0151	Pig farming	334	199	409	115	62	26	1	—	—	—	1 145
0152	Horse farming	819	517	580	*84	*10	7	*3	—	—	—	2 021
0153	Deer farming	104	*30	*47	*5	**	—	—	—	—	—	196
0159	Livestock farming n.e.c.	349	*166	*338	*85	*79	*66	*55	**	*9	—	1 158
0161	Sugar cane growing	1 141	1 604	2 085	101	*60	**	2	—	—	—	5 029
0162	Cotton growing	*20	**	235	174	246	282	7	—	—	—	974
0169	Crop and plant growing n.e.c.	506	290	566	159	71	20	**	—	—	—	1 614
Agriculture		*30 425*	*16 719*	*47 987*	*17 897*	*17 498*	*11 844*	*1 363*	*346*	*372*	*109*	*144 560*
All other industries		*783*	*230*	*526*	*127*	*86*	**	**	—	**	—	*1 811*
Total all industries		**31 208**	**16 949**	**48 513**	**18 025**	**17 584**	**11 887**	**1 371**	**346**	**378**	**109**	**146 371**

CHAPTER 3 VALUE OF AGRICULTURAL COMMODITIES PRODUCED

OVERVIEW

The gross value of agricultural commodities produced in Australia increased by 5% to $30.2 billion in 1999–2000. Increases in the gross value of crops and in the gross value of livestock slaughterings and other disposals were partially offset by a decrease in the gross value of livestock products.

The largest commodities in terms of gross value of production in 1999–2000 were: cattle and calves slaughterings and other disposals with a value of $5.1 billion (up from $4.5 billion in 1998–99); wheat with $4.8 billion (up from $4.0 billion in 1998–99); milk with $2.8 billion (down from $2.9 billion in 1998–99) and wool with $2.1 billion (the same as in 1998–99).

CROPS

The gross value of crops produced increased by 4% to $16.9 billion in 1999–2000. An increase in the gross value of the principal crops (up 6% to $10.9 billion) was partially offset by a decrease in the gross value of fruit and nuts (down 3% to $2.9 billion). The gross value of vegetables remained steady at $1.9 billion.

A number of the principal crops increased in gross value, including wheat (up 20% to $4.8 billion), cotton (up 5% to $1.4 billion), canola (up 18% to $760 million) and barley (up 4% to $865 million). Decreased production and prices saw a fall in the gross value of sugar cane (down 16% to $882 million). Falls were also recorded in the gross value of rice (down 20% to $289 million) and grain sorghum (down 8% to $260 million).

The decrease in the gross value of fruit and nuts in 1999–2000 was due to falls in many of the major fruit crops. Grapes were the highest value fruit crop in 1999–2000, with an estimated value of production of $1.1 billion. The value of grapes was down by 7% from the previous year due mainly to the fall in the value of wine grapes. Decreases in the gross values of other major fruit crops were reported for apples (down 15% to $274 million) and oranges (down 7% to $276 million). Bananas were the only major fruit crop to record an increase in gross value (up 7% to $284 million).

Potatoes were the highest value vegetable crop in 1999–2000, although the estimated gross value of production was down by 13% to $382 million. The estimated value of production also decreased for carrots (down 8% to $154 million), onions (down 4% to $114 million) and tomatoes (down 1% to $190 million). In contrast, the estimated value of lettuces rose by 19% to $104 million.

LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS

The gross value of total livestock slaughterings and other disposals increased by 9% to $7.9 billion in 1999–2000. All livestock groups reported increases, with cattle and calves slaughterings and other disposals increasing by 13% to $5.0 billion.

LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS *continued*

This increase was due to an 18% increase in the average gross unit value (up from $450 per head in 1998–99 to $531 per head in 1999–2000), and a 25% increase in the gross value of live cattle exports (up to $440 million in 1999–2000). These increases more than offset a 5% reduction in the number of cattle and calves slaughtered.

The value of sheep and lamb slaughterings and other disposals remained steady in 1999–2000 at $1.1 billion. The number of sheep and lambs slaughtered and other disposals increased to 33.4 million head in 1999–2000, while the average gross unit value of sheep and lamb slaughterings and other disposals decreased from $29 per head in 1998–99 to $27 per head in 1999–2000.

Despite a 3% decrease in the number of pigs slaughtered, the gross value of pig slaughterings and other disposals rose by 15% to $792 million in 1999–2000. This was the result of an 18% increase in the average gross unit value, up from $133 per head in 1998–99 to $158 per head in 1999–2000.

The gross value of poultry slaughterings and other disposals remained steady at $1.0 billion in 1999–2000. A 4% increase in the number of birds slaughtered was offset by a 3% fall in the average gross unit value, down from $2.58 per head in 1998–99 to $2.49 per head in 1999–2000.

LIVESTOCK PRODUCTS

The gross value of livestock products fell slightly to $5.4 billion in 1999–2000. Slight increases in the gross values of wool and honey were offset by minor falls in the gross values of milk, eggs and beeswax.

MARKETING COSTS

Marketing costs represent the difference between the estimates of gross and local values. Although there were difficulties in obtaining complete information on marketing costs (which include freight, cost of containers, commission and other marketing charges) the following information provides a perspective on the marketing costs of these commodities.

Significant differences in the marketing costs of individual commodities may occur as a result of different marketing arrangements for different commodities.

Total marketing costs comprised $3.1 billion or 10% of the total gross value of production in 1999–2000.

Marketing costs for crops were $2.2 billion or 13% of the gross value of production for crops. Marketing costs among the more important crops were: 17% ($837 million) of the gross value for wheat; 20% ($172 million) for barley; 21% ($87.0 million) for total citrus fruit; 27% ($76.7 million) for bananas; 20% ($53.4 million) for apples; 17% ($64.6 million) for potatoes; 21% ($39.4 million) for tomatoes and 26% ($40.1 million) for carrots.

Marketing costs for livestock slaughterings and other disposals were $728 million or 9% of the total gross value for these commodities. For cattle and calf slaughterings and other disposals, these costs were estimated at $485 million (10%), and for sheep and lamb slaughterings and other disposals, $146 million (14%).

MARKETING COSTS *continued*

Marketing costs for livestock products amounted to $184 million or 3% of the total gross value for these commodities. For shorn wool these costs were $151 million (7%) and for eggs $31.6 million (10%). As milk is collected at the farm gate by the processor, marketing costs are not calculated for this commodity.

STATE AND TERRITORY COMPARISONS

New South Wales had the highest value of agricultural production with $7.9 billion in 1999–2000. Next highest were Victoria (increasing from $6.3 billion to $6.8 billion) and Queensland (increasing from $6.4 billion to $6.8 billion), followed by Western Australia ($4.7 billion), South Australia ($3.0 billion), Tasmania ($691 million), the Northern Territory ($253 million) and the Australian Capital Territory ($17.8 million).

New South Wales

The estimated gross value of agricultural production in New South Wales increased by 3% to $7.9 billion in 1999–2000. This represented 26% of the total gross value of Australian agricultural production.

The gross value of crops rose by 2% to $4.6 billion, with wheat (up 33% to $1.5 billion) and canola (up 11% to $266 million) the major contributors to the increase. These increases were partially offset by falls in rice (down 19% to $289 million) and grain sorghum (down 24% to $95.8 million). Wheat was the most valuable crop in New South Wales, followed by cotton which had a gross value of $834 million.

The gross value of livestock slaughterings and other disposals in New South Wales increased by 6% to $1.9 billion in 1999–2000. Increases were recorded in cattle and calves (up 12% to $1.1 billion) and pigs (up 24% to $215 million), while falls were recorded in sheep and lambs (down 10% to $231 million) and poultry (down 5% to $389 million).

The estimate of gross value of livestock products remained steady at $1.4 billion. There were slight decreases in the gross values of wool, honey and beeswax which were offset by increases in the gross values of milk and eggs.

Victoria

The estimated gross value of agricultural production in Victoria in 1999–2000 increased by 8% to $6.8 billion.

The gross value of crops increased by 17% or $440 million to $3.0 billion. Significant increases in gross value were recorded for wheat, up by 99% to $543 million; barley, up by 68% to $212 million; and canola, up by 41% to $132 million. Major falls in gross value were recorded for potatoes, down by 7% to $102 million, and apples, down by 26% to $82.6 million.

The estimate of gross value of livestock slaughterings and other disposals in Victoria remained steady at $1.7 billion. While the gross value of cattle and calves slaughterings and other disposals fell slightly to $863 million, sheep and lambs, pigs and poultry all recorded increases.

The estimate of gross value of livestock products also remained steady at $2.1 billion, with decreases in milk and eggs being offset by increases in the gross values of wool and honey.

Queensland

The gross value of agricultural production in Queensland in 1999–2000 increased by 6% to $6.8 billion.

The estimate of the gross value of crops in 1999–2000 increased slightly to $3.6 billion. Increases in production resulted in the gross values of both cotton and bananas increasing, up by 10% (to $581 million) and 9% (to $216 million), respectively. Partially offsetting these increases was a fall in the gross value of sugar cane cut for crushing, Queensland's most valuable crop, which dropped by 15% to $813 million as a result of lower sugar yields and lower world sugar prices.

The estimate of the gross value of livestock slaughterings and other disposals in Queensland increased by 17% to $2.7 billion. Cattle and calf slaughterings and other disposals were the major contributors to this increase, with higher average prices leading to a 19% increase in gross value to $2.3 billion. Increases were also recorded in the values of slaughterings and other disposals for sheep and lambs, and pigs.

The estimate of the gross value of livestock products fell by 4% to $546 million largely due to decreases in the gross values of milk and wool.

South Australia

The gross value of agricultural production in South Australia in 1999–2000 fell by 8% to $3.0 billion.

The estimate of the gross value of crops fell by 13% to $2.1 billion. This was mainly due to falls in the gross values of the major crops such as wheat, barley and grapes. Decreased production saw the gross values of wheat fall by 17% to $535 million, and barley by 20% to $244 million. The gross value of grapes decreased by 13% to $472 million, mainly due to lower production levels and prices for wine grapes.

The estimated gross value of livestock slaughterings and other disposals in South Australia rose by 17% to $504 million. Increases were recorded in the value of cattle and calf slaughterings (up 45% to $188 million), pigs (up 6% to $66.6 million) and poultry (up 25% to $112 million). These were partially offset by a decrease in the value of sheep and lambs slaughtered, down by 7% to $138 million.

The estimate of the gross value of livestock products decreased by 4% to $438 million. This was due to a 12% fall in the gross value of wool to $204 million but was partially offset by a 4% increase in the gross value of milk production up to $206 million.

Western Australia

The gross value of agricultural production in Western Australia in 1999–2000 rose by 11% to $4.7 billion. This was attributed to an increase in the gross value of crops.

The estimate of the gross value of crops rose by 16% to $3.3 billion. Increased production and prices saw the gross value of wheat increase by 19% to $1.9 billion, while increased production saw canola increase by 25% to $289 million. The gross value of lupins for grain increased by 18% to $214 million, making it Western Australia's third most valuable crop, just ahead of barley.

Western Australia *continued*

The estimated gross value of livestock slaughterings and other disposals in Western Australia rose slightly to $779 million. This was due to a 2% increase (to $358 million) in the gross value of cattle and calf slaughterings and other disposals, and a 2% increase (to $251 million) for sheep and lambs.

The estimate of the gross value of livestock products remained stable at $638 million. An increase in the value of wool, up by 4% to $459 million, was offset by a decrease in the value of milk, down by 8% to $145 million.

Tasmania

The gross value of agricultural production in Tasmania in 1999–2000 decreased slightly to $691 million.

The estimate of the gross value of crops fell by 7% to $320 million, with decreases in the values of apples, potatoes and onions being partially offset by increases in the values of broccoli and grapes.

The estimated gross value of livestock slaughterings and other disposals in Tasmania increased by 25% to $154 million. This was due to a 33% increase to $114 million in the gross value of cattle and calf slaughterings and other disposals.

The estimate of the gross value of livestock products fell by 6% to $217 million. This was mainly due to a fall in the value of milk, down by 13% to $133 million as a result of lower prices, which was partially offset by an increase in the value of wool, up by 14% to $78 million, as a result of increased production and increased prices.

Territories

The gross value of agricultural production in the Northern Territory in 1999–2000 rose by 13% to $253 million. This was largely due to an increase in the value of cattle and calf slaughterings and other disposals, which increased by 11% to $189 million. The total value of crops also increased (up 23% to $53.2 million).

The gross value of agricultural production in the Australian Capital Territory rose by 2% to $15.1 million. Increases in the values of crops, and livestock slaughterings and other disposals were partially offset by a decrease in the value of livestock products.

3.1 GROSS VALUE OF AGRICULTURAL PRODUCTION(a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
Crops (excl. pastures and grasses)											
Cereals for grain	5 758.8	r5 814.0	6 564.8	2 152.2	823.3	593.1	811.1	2 174.2	10.6	0.2	—
Cotton(b)	1 227.8	1 352.8	1 415.8	833.6	(c)	581.3	(c)	*0.9	(c)	(c)	(c)
Crops for hay	213.5	209.7	170.6	18.8	52.8	*14.5	29.7	51.1	3.0	0.8	—
Legumes for grain	543.3	512.0	615.9	98.7	143.1	34.0	84.0	255.9	0.1	(c)	—
Fruit and nuts	1 586.8	r1 763.0	1 761.1	393.5	426.6	533.5	212.1	109.8	52.9	32.6	0.1
Grapes	998.2	r1 200.1	1 118.2	228.5	332.9	16.8	471.8	53.8	7.1	7.3	0.1
Nursery production	695.0	742.9	708.0	160.3	216.7	180.4	45.6	84.6	15.4	2.6	2.4
Oilseeds	391.6	777.5	871.8	321.1	137.9	49.9	73.6	288.8	*0.5	(c)	0.1
Sugar cane cut for crushing	1 247.7	1 044.1	881.9	61.7	(c)	813.3	(c)	6.9	(c)	(c)	(c)
Vegetables	1 812.3	1 864.4	1 861.9	212.8	542.0	540.6	215.7	210.9	135.5	3.8	0.6
All other crops n.e.i.	219.8	239.5	346.4	20.0	69.2	144.9	35.7	12.8	63.5	0.3	—
Total	*14 694.8*	*r15 519.9*	*16 316.4*	*4 501.2*	*2 744.5*	*3 502.3*	*1 979.4*	*3 249.8*	*288.5*	*47.5*	*3.1*
Pastures and grasses											
Cut for hay	540.8	627.9	553.2	102.3	233.7	51.9	61.3	70.0	28.5	5.3	0.2
Harvested for seed	72.6	78.5	53.4	*6.3	19.0	2.8	16.5	5.0	3.3	0.5	—
Total	*613.4*	*706.4*	*606.6*	*108.6*	*252.7*	*54.7*	*77.8*	*75.1*	*31.8*	*5.7*	*0.2*
Total crops (incl. pastures and grasses)	***15 308.2***	***r16 226.3***	***16 923.0***	***4 609.8***	***2 997.2***	***3 557.1***	***2 057.2***	***3 324.8***	***320.4***	***53.2***	***3.3***
Livestock											
Cattle and calves	4 138.2	4 476.6	5 048.7	1 060.5	862.7	2 275.5	187.5	357.7	114.1	188.6	2.1
Sheep and lambs	1 066.2	r1 053.5	1 053.5	230.5	361.7	54.2	137.9	251.2	17.5	—	0.4
Pigs	709.8	689.7	791.7	214.5	244.6	177.0	n.p.	n.p.	n.p.	n.p.	—
Poultry	1 053.6	1 018.5	1 031.0	389.4	272.8	157.1	n.p.	n.p.	n.p.	n.p.	0.2
Other livestock	24.0	17.6	19.5	2.9	5.8	4.1	0.6	5.9	—	0.3	—
Total livestock slaughterings and other disposals	***6 991.9***	***r7 255.8***	***7 944.2***	***1 897.9***	***1 747.6***	***2 667.9***	***504.3***	***778.6***	***153.6***	***191.6***	***2.7***
Livestock products											
Wool(d)	2 753.9	r2 141.0	2 149.2	832.5	409.6	164.6	204.1	459.4	78.1	—	0.9
Total whole milk production	2 817.0	2 899.6	2 845.2	464.4	1 570.8	321.6	205.8	144.9	132.5	n.p.	n.p.
Eggs	347.5	337.1	321.4	116.5	79.6	56.0	23.0	30.8	4.6	n.p.	n.p.
Honey	36.9	32.0	36.0	14.5	8.3	3.4	5.1	2.7	2.0	n.p.	n.p.
Beeswax	2.5	2.0	1.8	0.8	0.3	0.2	0.3	0.2	0.1	n.p.	n.p.
Total livestock products	***5 957.8***	***r5 411.8***	***5 353.7***	***1 428.7***	***2 068.5***	***545.7***	***438.2***	***638.1***	***217.2***	***8.1***	***9.1***
Total agriculture	**28 258.0**	**r28 893.9**	**30 220.9**	**7 936.3**	**6 813.4**	**6 770.7**	**2 999.7**	**4 741.5**	**691.2**	**252.9**	**15.1**

(a) Prior to 1999–2000, the reference period for crops, pastures and grasses was 31 March.

(b) Includes value of cotton seed.

(c) Data not collected.

(d) Includes dead wool and wool on skins.

3.2 PRINCIPAL CROPS, Values (a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Cereal for grain											
Barley											
Gross value ($m)	1 032.0	835.5	864.8	164.6	212.0	28.1	243.7	211.8	4.7	(b)	—
Local value ($m)	860.2	672.0	693.3	125.3	165.2	23.8	189.6	185.5	3.9	(b)	—
GUV ($/t)	159	140	172	158	178	111	173	190	213	. .	—
Grain sorghum											
Gross value ($m)	182.9	282.0	260.0	95.8	**	163.4	(b)	*0.3	(b)	0.2	—
Local value ($m)	151.1	219.8	217.0	80.6	**	135.7	(b)	*0.3	(b)	0.1	—
GUV ($/t)	169	149	123	119	237	125	. .	128	. .	218	—
Maize											
Gross value ($m)	55.2	60.5	62.1	25.9	1.0	35.1	(b)	*0.1	(b)	0.1	—
Local value ($m)	49.7	54.5	54.4	22.5	0.9	30.8	(b)	*0.1	(b)	0.0	—
GUV ($/t)	203	179	153	145	238	157	. .	262	. .	246	—
Oats											
Gross value ($m)	223.3	156.6	118.4	29.3	27.9	1.9	8.2	49.9	1.2	(b)	—
Local value ($m)	200.6	126.3	106.0	24.5	24.8	1.8	7.8	46.0	1.2	(b)	—
GUV ($/t)	137	87	106	103	94	161	106	114	121	. .	105
Rice											
Gross value ($m)	340.6	r360.5	289.2	289.2	(b)	(b)	(b)	**	(b)	—	—
Local value ($m)	298.6	r318.2	255.8	255.8	(b)	(b)	(b)	**	(b)	—	—
GUV ($/t)	257	r264	267	267	. .	. .	. .	267	. .	—	—
Triticale											
Gross value ($m)	107.9	84.7	96.0	43.4	31.6	*0.6	14.6	*4.7	1.1	(b)	—
Local value ($m)	94.6	75.7	82.8	36.3	27.2	*0.5	13.3	*4.4	1.0	(b)	—
GUV ($/t)	171	120	126	116	134	110	134	134	165	. .	—
Wheat											
Gross value ($m)	3 801.5	4 011.0	4 831.2	1 499.1	543.2	349.4	534.7	1 901.2	3.6	(b)	—
Local value ($m)	3 192.7	3 279.0	3 993.7	1 188.5	428.4	282.4	456.8	1 634.2	3.4	(b)	—
GUV ($/t)	198	187	195	174	206	184	207	211	180	. .	—
Legumes											
Lupins for grain											
Gross value ($m)	305.5	242.0	286.1	47.4	11.0	*0.1	13.8	213.7	*0.1	(b)	—
Local value ($m)	266.9	199.8	246.1	42.9	10.2	*0.1	12.4	180.5	*0.1	(b)	—
GUV ($/t)	196	143	145	198	244	206	173	133	230	. .	—
Field peas for grain											
Gross value ($m)	85.8	91.2	106.1	5.9	46.8	*0.1	38.7	14.6	0.1	(b)	—
Local value ($m)	78.3	81.7	97.9	5.4	42.4	*0.1	36.2	13.8	0.1	(b)	—
GUV ($/t)	272	246	214	199	219	199	213	208	222	. .	—
Crops cut for hay											
Cereal crops for hay											
Gross value ($m)	193.6	195.6	145.7	17.7	41.6	6.3	27.5	51.0	1.4	0.1	—
Local value ($m)	193.4	195.5	145.7	17.7	41.6	6.3	27.5	51.0	1.4	0.1	—
GUV ($/t)	124	107	102	97	114	105	97	97	114	105	97
Non-cereal crops for hay											
Gross value ($m)	19.9	14.0	25.0	1.1	11.2	*8.2	*2.2	*0.2	*1.6	0.6	—
Local value ($m)	19.9	14.0	25.0	1.1	11.2	*8.2	*2.2	*0.2	*1.6	0.6	—
GUV ($/t)	117	111	157	108	143	214	121	63	301	94	108
Total											
Gross value ($m)	*213.5*	*209.7*	*170.6*	*18.8*	*52.8*	*14.5*	*29.7*	*51.1*	*3.0*	*0.8*	—
Local value ($m)	*213.3*	*209.5*	*170.6*	*18.8*	*52.8*	*14.5*	*29.7*	*51.1*	*3.0*	*0.8*	—
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

(a) Prior to 1999–2000, the reference period for crops, pastures and grasses was 31 March.

(b) Data not collected.

3.2 PRINCIPAL CROPS, Values (a) *continued*

	AUSTRALIA		2000								
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Oilseeds											
Canola											
Gross value ($m)	329.8	643.3	759.6	266.3	132.2	**	71.6	288.7	*0.5	(b)	0.1
Local value ($m)	302.6	577.8	699.8	250.5	121.2	**	67.2	260.1	*0.4	(b)	0.1
GUV ($/t)	386	381	309	322	312	229	294	300	325	. .	325
Total oilseeds											
Gross value ($m)	*391.6*	*777.5*	*871.8*	*321.1*	*137.9*	*49.9*	*73.6*	*288.8*	**0.5*	*(b)*	*0.1*
Local value ($m)	*360.4*	*696.2*	*806.1*	*302.7*	*126.6*	*47.0*	*69.0*	*260.1*	**0.4*	*(b)*	*0.1*
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Other crops											
Sugar cane cut for crushing											
Gross value ($m)	1 247.7	1 044.1	881.9	61.7	(b)	813.3	(b)	6.9	(b)	(b)	(b)
Local value ($m)	1 224.1	1 030.2	861.3	52.3	(b)	803.1	(b)	5.9	(b)	(b)	(b)
GUV ($/t)	32	27	23	25	. .	23	. .	19	. .	. .	. .
Cotton(c)											
Gross value ($m)	1 227.8	1 352.8	1 415.8	833.6	(b)	581.3	(b)	*0.9	(b)	(b)	(b)
Local value ($m)	1 213.5	1 336.0	1 386.1	815.3	(b)	569.8	(b)	*0.9	(b)	(b)	(b)
GUV ($/kg)(d)	2.18	2.13	2.03	2.00	. .	2.06	. .	2.06	. .	. .	. .
Peanuts (in shell)											
Gross value ($m)	21.5	31.0	27.2	**	(b)	26.1	(b)	(b)	(b)	0.3	(b)
Local value ($m)	21.2	30.5	26.3	**	(b)	25.2	(b)	(b)	(b)	0.3	(b)
GUV ($/kg)	0.67	0.66	0.67	0.67	. .	0.67	. .	. .	. .	0.72	. .
Tobacco											
Gross value ($m)	45.9	40.1	48.6	(b)	26.1	*22.5	(b)	(b)	(b)	(b)	(b)
Local value ($m)	44.1	38.6	46.9	(b)	25.2	*21.7	(b)	(b)	(b)	(b)	(b)
GUV ($/kg)	5.84	5.96	6.26	. .	6.26	6.26	. .	. .	. .	. .	. .
Pastures and grasses											
Cut for hay											
Lucerne											
Gross value ($m)	150.9	170.2	152.4	60.0	31.0	39.2	10.9	*5.0	2.2	3.9	0.1
Local value ($m)	150.6	169.9	152.0	60.0	30.8	39.2	10.9	*5.0	2.2	3.9	0.1
GUV ($/t)	175	182	171	158	176	205	141	147	172	207	157
Other											
Gross value ($m)	389.8	457.6	400.8	42.2	202.7	12.7	50.4	65.0	26.3	1.3	0.1
Local value ($m)	381.9	447.5	388.9	41.5	200.8	12.6	46.3	60.0	26.3	1.3	0.1
GUV ($/t)	145	136	141	108	131	163	208	175	126	134	95
Total											
Gross value ($m)	*540.8*	*627.9*	*553.2*	*102.3*	*233.7*	*51.9*	*61.3*	*70.0*	*28.5*	*5.3*	*0.2*
Local value ($m)	*532.5*	*617.4*	*541.0*	*101.4*	*231.7*	*51.7*	*57.2*	*65.0*	*28.5*	*5.2*	*0.2*
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Harvested for seed											
Pasture seed											
Gross value ($m)	72.6	78.5	53.4	*6.3	19.0	2.8	16.5	5.0	3.3	0.5	—
Local value ($m)	63.9	68.9	46.7	*5.7	16.4	2.5	14.5	4.3	2.9	0.4	—
GUV ($/kg)	2.65	2.64	2.55	3.50	2.31	3.50	2.63	2.15	2.31	5.35	—
Total pastures and grasses											
Gross value ($m)	*613.4*	*706.4*	*606.6*	**108.6*	*252.7*	*54.7*	*77.8*	*75.1*	*31.8*	*5.7*	*0.2*
Local value ($m)	*596.4*	*686.4*	*587.6*	**107.2*	*248.0*	*54.3*	*71.7*	*69.2*	*31.4*	*5.7*	*0.2*
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total principal crops											
Gross value ($m)	**9 896.0**	**r10 285.5**	**10 936.6**	**3 545.3**	**1 343.3**	**2 141.0**	**1 034.7**	**2 819.1**	**46.0**	**7.0**	**0.3**
Local value ($m)	**8 865.7**	**r9 054.3**	**9 632.0**	**3 078.9**	**1 152.0**	**2 010.7**	**886.7**	**2 452.1**	**44.4**	**6.9**	**0.3**
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

(a) Prior to 1999–2000, the reference period for crops, pastures and grasses was 31 March.

(b) Data not collected.

(c) Includes value of cotton seed.

(d) Expressed on a per kilogram of cotton lint and cotton seed basis.

3.3 FRUIT AND NUTS, Values (a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Citrus											
Oranges											
Gross value ($m)	257.9	296.2	276.4	119.6	59.7	13.7	80.7	2.7	(b)	—	—
Local value ($m)	196.9	237.9	214.8	77.6	53.4	10.4	71.2	2.3	(b)	—	—
GUV ($/kg)	0.52	0.66	0.54	0.50	0.71	0.83	0.49	0.50	. .	—	—
Lemons and limes											
Gross value ($m)	22.8	22.6	23.1	4.3	5.6	7.1	4.7	*1.3	(b)	0.1	—
Local value ($m)	18.9	18.9	19.1	3.3	5.0	5.3	4.3	*1.1	(b)	—	—
GUV ($/kg)	0.79	0.77	0.71	0.82	0.80	0.86	0.46	0.90	. .	1.50	—
Mandarins											
Gross value ($m)	76.4	81.9	89.0	8.2	7.2	59.9	11.8	*1.9	(b)	—	—
Local value ($m)	58.9	64.2	70.7	6.0	6.4	46.0	10.6	*1.7	(b)	—	—
GUV ($/kg)	1.22	1.05	1.04	1.03	1.15	1.01	1.15	1.24	. .	—	—
Pome											
Apples											
Gross value ($m)	272.7	r321.1	273.7	57.2	82.6	25.8	31.2	31.8	45.2	(b)	0.1
Local value ($m)	221.7	r266.7	220.3	42.8	72.2	20.2	28.0	20.7	36.3	(b)	—
GUV ($/kg)	0.88	0.96	0.86	0.85	0.84	0.78	1.33	0.78	0.78	. .	1.15
Pears (excl. Nashi)											
Gross value ($m)	107.8	112.4	72.1	1.2	54.6	1.3	7.0	7.0	1.0	(b)	—
Local value ($m)	94.1	102.1	63.7	0.9	48.8	1.0	6.4	5.8	0.9	(b)	—
GUV ($/kg)	0.71	0.72	0.46	0.68	0.40	1.03	1.26	0.64	1.42	. .	0.68
Stone											
Apricots											
Gross value ($m)	31.0	27.9	31.8	**	*11.9	*0.1	17.0	*0.8	**	(b)	—
Local value ($m)	29.0	26.3	30.0	**	*11.3	*0.1	16.2	*0.7	**	(b)	—
GUV ($/kg)	1.56	1.30	1.60	2.61	1.17	1.37	2.01	1.92	2.61	. .	—
Cherries											
Gross value ($m)	28.4	35.0	39.8	16.4	*12.9	—	6.4	*1.0	3.0	(b)	—
Local value ($m)	25.8	32.0	36.7	14.0	*12.5	—	6.2	*1.0	3.0	(b)	—
GUV ($/kg)	4.06	5.82	6.82	5.62	7.26	—	8.48	16.36	9.51	. .	—
Nectarines											
Gross value ($m)	44.1	58.8	71.2	24.5	28.5	6.0	2.6	9.5	*—	(b)	—
Local value ($m)	38.1	50.9	61.9	19.9	25.9	4.8	2.4	8.9	*—	(b)	—
GUV ($/kg)	1.94	2.15	1.96	1.98	1.77	1.99	1.94	2.74	1.42	. .	—
Olives											
Gross value ($m)	2.1	*6.2	3.5	*0.1	1.3	**	*2.0	**	—	—	—
Local value ($m)	2.0	*5.8	3.3	*—	1.2	**	*1.9	**	—	—	—
GUV ($/kg)	2.73	2.56	2.50	2.95	2.28	2.95	2.61	3.05	—	—	—
Peaches											
Gross value ($m)	53.4	65.5	74.3	22.9	39.2	5.1	3.9	3.3	*—	(b)	—
Local value ($m)	48.1	58.7	67.1	18.7	37.6	4.0	3.7	3.0	*—	(b)	—
GUV ($/kg)	0.82	0.99	0.86	1.24	0.69	1.27	0.72	2.20	2.27	. .	—
Plums and prunes											
Gross value ($m)	44.1	42.4	43.4	14.8	13.3	2.9	4.4	8.0	—	—	—
Local value ($m)	38.1	37.5	38.1	12.3	12.4	2.3	4.0	7.1	—	—	—
GUV ($/kg)	1.67	1.87	1.80	1.84	1.87	1.57	1.90	1.65	2.11	—	1.89
Other orchard fruit											
Avocados											
Gross value ($m)	45.8	51.7	55.1	11.4	*1.8	32.9	1.4	7.5	(b)	—	—
Local value ($m)	35.8	41.3	43.9	8.9	*1.6	25.4	1.2	6.8	(b)	—	—
GUV ($/kg)	2.27	2.13	2.30	2.33	2.79	2.22	1.75	2.68	. .	—	—
Mangoes											
Gross value ($m)	80.7	66.4	80.0	**	(b)	56.1	(b)	7.1	(b)	16.3	—
Local value ($m)	64.3	59.8	71.5	**	(b)	48.1	(b)	6.9	(b)	16.0	—
GUV ($/kg)	2.21	2.52	2.10	4.38	. .	1.82	. .	3.68	. .	3.10	—

(a) Prior to 1999–2000, the reference period for crops (including fruit and nuts), pastures and grasses was 31 March.

(b) Data not collected.

3.3 FRUIT AND NUTS, Values (a) *continued*

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Nuts											
Almonds											
Gross value ($m)	43.3	46.4	39.5	**	23.5	—	15.5	(b)	(b)	(b)	—
Local value ($m)	42.9	46.1	39.3	**	23.3	—	15.5	(b)	(b)	(b)	—
GUV ($/kg)	6.29	5.17	4.54	3.86	5.10	—	3.91	. .	. .	. .	—
Macadamias											
Gross value ($m)	52.5	44.3	49.3	33.2	(b)	16.0	(b)	(b)	(b)	(b)	—
Local value ($m)	50.9	42.6	47.2	31.9	(b)	15.3	(b)	(b)	(b)	(b)	—
GUV ($/kg)	2.58	2.34	2.10	2.14	. .	2.02	. .	. .	. .	. .	—
Blueberries											
Gross value ($m)	17.1	20.3	27.4	18.3	**	(b)	(b)	(b)	**	(b)	—
Local value ($m)	15.6	18.4	25.0	16.0	**	(b)	(b)	(b)	**	(b)	—
GUV ($/kg)	13.40	13.27	14.15	12.76	18.66	. .	. .	. .	8.90	. .	—
Strawberries											
Gross value ($m)	67.4	86.2	92.4	*0.7	38.5	25.9	12.2	13.9	1.1	—	—
Local value ($m)	58.1	79.2	85.0	*0.6	36.7	21.9	11.8	12.9	1.0	—	—
GUV ($/kg)	5.02	6.07	6.25	6.30	7.13	6.28	8.11	4.10	4.80	—	—
Tropical											
Bananas											
Gross value ($m)	230.3	266.3	283.8	42.6	(b)	216.0	(b)	10.0	(b)	15.3	—
Local value ($m)	169.2	198.3	207.1	36.7	(b)	148.1	(b)	8.3	(b)	13.9	—
GUV ($/t)	1 033	1 183	1 105	1 244	. .	1 041	. .	1 298	. .	2 019	—
Pawpaws											
Gross value ($m)	4.5	6.1	*5.2	*—	(b)	*5.1	(b)	**	(b)	—	(b)
Local value ($m)	2.5	4.2	*3.9	*—	(b)	*3.8	(b)	**	(b)	—	(b)
GUV ($/kg)	0.84	0.86	1.20	1.22	. .	1.20	. .	2.19	. .	—	. .
Pineapples											
Gross value ($m)	37.3	39.4	43.7	*—	(b)	43.7	(b)	(b)	(b)	—	—
Local value ($m)	33.1	34.5	38.4	*—	(b)	38.4	(b)	(b)	(b)	—	—
GUV ($/t)	303	300	313	461	. .	313	. .	. .	. .	—	—
Grapes											
Gross value ($m)	998.2	r1 200.1	1 118.2	228.5	332.9	16.8	471.8	53.8	7.1	7.3	0.1
Local value ($m)	936.6	r1 141.1	1 065.0	216.0	297.9	13.9	470.3	52.8	7.1	7.0	0.1
GUV ($/kg)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Other fruit n.e.c.											
Gross value ($m)	61.1	62.4	74.1	14.5	26.3	16.1	11.2	3.7	1.4	1.0	—
Local value ($m)	52.9	54.0	65.8	12.4	23.6	14.2	10.0	3.3	1.4	0.9	—
GUV ($/t)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total fruit and nuts											
Gross value ($m)	**2 585.0**	**r2 963.1**	**2 879.2**	**622.0**	**759.5**	**550.3**	**683.9**	**163.6**	**60.0**	**39.9**	**0.1**
Local value ($m)	**2 239.6**	**r2 626.7**	**2 530.0**	**521.0**	**689.3**	**423.5**	**663.7**	**143.6**	**50.9**	**37.9**	**0.1**
GUV ($/t)	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**	**. .**

(a) Prior to 1999–2000, the reference period for crops (including fruit and nuts), pastures and grasses was 31 March.

(b) Data not collected.

3.4 VEGETABLES, Values (a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Asparagus											
Gross value ($m)	39.0	52.9	95.8	*5.5	78.0	*9.3	*0.8	**	**	—	—
Local value ($m)	37.0	48.0	87.9	*4.6	72.8	*7.6	*0.7	**	**	—	—
GUV ($/t)	5 131	5 958	5 842	5 796	5 756	6 258	6 430	7 739	6 576	5 937	—
Beans, french and runner											
Gross value ($m)	47.1	42.8	44.1	2.4	3.8	30.1	*0.2	*2.5	5.0	0.1	—
Local value ($m)	44.0	38.5	39.0	1.8	3.4	26.2	*0.2	*2.3	5.0	0.1	—
GUV ($/kg)	1.32	1.41	1.28	1.85	2.09	1.83	3.56	2.23	0.37	2.51	—
Beetroot											
Gross value ($m)	6.9	5.6	8.6	*0.4	0.2	7.9	**	*0.1	**	—	—
Local value ($m)	6.0	2.2	6.8	*0.3	0.2	6.2	**	*0.1	**	—	—
GUV ($/t)	211	188	229	367	202	223	565	1 101	658	—	—
Broccoli											
Gross value ($m)	61.8	61.6	55.1	3.4	30.3	8.4	1.7	2.3	9.1	—	—
Local value ($m)	47.7	47.2	41.2	2.3	23.3	5.2	1.3	1.4	7.7	—	—
GUV ($/kg)	1.55	1.56	1.41	1.59	1.44	1.32	1.45	0.94	1.49	—	—
Cabbages											
Gross value ($m)	24.1	21.6	24.3	3.5	9.6	6.1	*2.3	1.6	1.0	0.1	—
Local value ($m)	15.6	13.1	13.4	1.8	5.4	2.6	*1.6	1.0	0.9	0.1	—
GUV ($/t)	414	407	353	313	338	322	504	395	707	1 158	—
Capsicum, chillies and peppers											
Gross value ($m)	48.9	62.1	60.2	1.2	*4.8	49.0	*2.1	*2.9	*—	0.1	—
Local value ($m)	38.5	47.1	44.9	0.9	*4.1	35.4	*1.8	*2.5	*—	0.1	—
GUV ($/kg)	1.60	1.50	1.38	1.36	1.34	1.36	1.90	1.59	1.94	3.71	—
Carrots											
Gross value ($m)	150.7	167.1	154.4	4.8	65.8	15.2	16.5	29.9	22.1	—	—
Local value ($m)	112.8	128.8	114.3	3.2	48.5	9.5	12.3	21.6	19.2	—	—
GUV ($/t)	565	651	545	309	540	497	604	567	630	—	—
Cauliflowers											
Gross value ($m)	47.7	55.6	56.0	*6.5	13.2	7.6	3.5	22.7	2.6	—	—
Local value ($m)	36.8	40.3	40.2	*3.8	9.4	3.7	2.4	18.9	2.1	—	—
GUV ($/t)	736	757	733	575	606	490	622	1 251	624	—	—
Celery											
Gross value ($m)	28.0	26.1	21.7	—	7.5	6.5	1.5	**	0.3	—	—
Local value ($m)	20.3	19.4	14.9	—	5.5	3.6	1.1	**	0.2	—	—
GUV ($/kg)	0.63	0.60	0.53	—	0.55	0.44	0.58	0.64	0.70	—	—
Cucumbers											
Gross value ($m)	16.4	19.7	16.6	8.6	0.1	2.7	*2.5	2.4	*0.1	—	—
Local value ($m)	12.7	15.6	13.5	7.2	0.1	1.7	*2.2	2.1	*0.1	—	—
GUV ($/kg)	1.03	1.10	0.99	0.90	0.76	0.75	1.86	1.31	1.70	1.96	—
Green peas (pod wt)											
Gross value ($m)	14.1	13.2	13.9	*0.7	*0.9	*1.0	*0.1	**	11.2	—	—
Local value ($m)	13.9	13.0	13.7	*0.6	*0.8	*0.9	*0.1	**	11.2	—	—
GUV ($/kg)	0.40	0.44	0.45	1.30	2.72	0.90	3.03	0.45	0.39	—	—
Lettuces											
Gross value ($m)	93.1	87.9	104.3	10.1	36.9	36.3	5.9	*14.1	*1.0	0.1	—
Local value ($m)	46.7	55.4	67.4	6.6	26.9	22.0	4.5	*6.4	*0.8	0.1	—
GUV ($/t)	721	672	687	851	760	755	906	394	908	1 227	—

(a) Prior to 1999–2000, the reference period for crops (including vegetables), pastures and grasses was 31 March.

3.4 VEGETABLES, Values (a) *continued*

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Marrow, squash and zucchini											
Gross value ($m)	25.5	*32.4	21.9	**	*3.3	*12.8	**	*2.5	1.4	—	—
Local value ($m)	21.6	*27.4	18.6	**	*2.9	*10.6	**	*2.3	1.4	—	—
GUV ($/kg)	1.36	1.63	1.48	1.20	1.57	1.34	1.52	2.34	2.70	1.37	—
Melons											
Water											
Gross value ($m)	29.8	32.7	34.5	2.8	1.3	19.5	*0.1	10.3	—	0.6	—
Local value ($m)	21.9	25.6	26.4	1.9	1.1	14.1	*0.1	8.6	—	0.6	—
GUV ($/t)	369	493	405	360	411	381	500	465	—	660	—
Rock and cantaloupe											
Gross value ($m)	63.3	84.9	68.1	11.3	4.2	37.6	2.2	11.4	—	1.4	—
Local value ($m)	44.5	61.3	48.4	7.1	3.4	25.7	1.8	9.1	—	1.3	—
GUV ($/t)	744	840	782	690	768	767	821	915	—	1 356	—
Onions, white and brown											
Gross value ($m)	124.8	118.5	114.1	13.3	8.3	11.8	53.2	7.6	19.9	—	—
Local value ($m)	106.2	100.3	97.2	9.3	7.1	9.0	46.6	6.2	18.9	—	—
GUV ($/t)	570	529	462	383	405	532	579	505	317	—	—
Parsnips											
Gross value ($m)	11.5	13.6	10.1	*0.2	8.0	—	*0.6	*0.9	0.5	—	—
Local value ($m)	10.4	11.2	8.4	*0.1	6.6	—	*0.5	*0.7	0.4	—	—
GUV ($/t)	1 326	1 338	1 306	1 053	1 294	—	1 291	1 558	1 282	—	—
Potatoes											
Gross value ($m)	493.1	437.7	382.1	59.7	102.3	43.0	86.9	38.8	51.5	—	—
Local value ($m)	424.1	368.5	317.5	41.2	85.7	32.6	73.3	33.6	51.1	—	—
GUV ($/t)	360	330	319	382	347	362	310	472	193	—	—
Pumpkins											
Gross value ($m)	33.7	39.4	50.6	10.6	3.8	22.6	2.7	9.6	1.0	0.3	—
Local value ($m)	25.6	30.6	39.2	8.1	3.6	15.5	2.3	8.4	1.0	0.3	—
GUV ($/t)	397	450	465	512	545	402	453	569	602	664	—
Sweet corn											
Gross value ($m)	34.5	29.3	28.6	3.6	5.5	12.1	*1.9	5.2	0.3	—	—
Local value ($m)	28.5	23.3	21.6	2.3	4.7	8.4	*1.5	4.4	0.2	—	—
GUV ($/t)	445	513	632	252	1 203	596	1 088	1 325	743	—	—
Tomatoes											
Gross value ($m)	166.8	191.6	189.8	8.5	59.1	109.8	3.1	7.2	1.0	0.7	0.5
Local value ($m)	128.3	r150.7	150.5	7.6	53.3	79.5	2.6	5.6	0.9	0.6	0.5
GUV ($/t)	439	486	459	141	237	1 249	1 280	600	1 080	2 180	1 254
Other vegetables											
Gross value ($m)	251.3	r268.1	307.0	54.2	95.1	91.3	27.7	30.9	7.5	0.2	—
Local value ($m)	218.3	r231.2	267.0	43.8	87.5	75.5	25.3	27.8	7.0	0.2	—
GUV ($/t)	..	..	..	..	..	..	..	..	..	..	..
Total vegetables											
Gross value ($m)	**1 812.3**	**1 864.4**	**1 861.9**	**212.8**	**542.0**	**540.6**	**215.7**	**210.9**	**135.5**	**3.8**	**0.6**
Local value ($m)	**1 461.6**	**r1 501.1**	**1 491.7**	**155.7**	**456.2**	**395.6**	**182.4**	**169.7**	**128.2**	**3.5**	**0.5**
GUV ($/t)	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

(a) Prior to 1999–2000, the reference period for crops (including vegetables), pastures and grasses was 31 March.

3.5 LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS, Values—Years ended 30 June

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Cattle and calves											
Gross value ($m)	4 138.2	4 476.6	5 048.7	1 060.5	862.7	2 275.5	187.5	357.7	114.1	188.6	2.1
Local value ($m)	3 706.9	4 029.3	4 563.5	961.5	770.2	2 065.8	169.9	322.4	102.7	169.1	1.9
GUV ($)	408.60	450.35	531.05	547.55	383.62	632.65	564.12	533.68	399.40	436.11	544.00
Sheep and lambs											
Gross value ($m)	1 066.2	r1 053.5	1 053.5	230.5	361.7	54.2	137.9	251.2	17.5	—	0.4
Local value ($m)	944.9	r918.8	907.9	194.8	315.1	45.6	122.1	215.8	14.2	—	0.3
GUV ($)	29.30	r29.08	27.46	24.44	31.39	23.15	31.41	26.13	16.73	—	27.00
Pigs											
Gross value ($m)	709.8	689.7	791.7	214.5	244.6	177.0	n.p.	n.p.	n.p.	n.p.	—
Local value ($m)	648.0	622.0	718.4	195.6	224.4	159.0	n.p.	n.p.	n.p.	n.p.	—
GUV ($)	139.34	133.21	157.52	152.28	169.43	159.25	n.p.	n.p.	n.p.	n.p.	—
Poultry											
Gross value ($m)	1 053.6	1 018.5	1 030.8	389.4	272.8	157.1	n.p.	n.p.	n.p.	n.p.	0.2
Local value ($m)	1 034.2	998.7	1 009.9	381.9	267.3	153.5	n.p.	n.p.	n.p.	n.p.	0.2
GUV ($)	2.72	2.58	2.49	2.62	2.51	2.21	n.p.	n.p.	n.p.	n.p.	1.00
Other											
Gross value ($m)	24.0	17.6	19.5	2.9	5.8	4.1	0.6	5.9	—	0.3	—
Local value ($m)	20.9	15.1	16.5	2.6	5.1	3.1	0.5	4.9	—	0.3	—
GUV ($)	..	..	..	..	..	..	..	..	..	..	..
Total slaughterings and other disposals											
Gross value ($m)	**6 991.9**	**r7 255.8**	**7 944.2**	**1 897.9**	**1 747.6**	**2 667.9**	**504.3**	**778.6**	**153.6**	**191.6**	**2.7**
Local value ($m)	**6 354.9**	**r6 583.9**	**7 216.1**	**1 736.3**	**1 582.0**	**2 426.9**	**461.3**	**697.6**	**137.6**	**171.9**	**2.5**
GUV ($)	..	..	..	..	..	..	..	..	..	..	..

3.6 LIVESTOCK PRODUCTS, Values—Years ended 30 June

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Wool											
Shorn											
Gross value ($m)	2 652.4	2 066.1	2 069.3	807.0	386.4	159.4	195.7	444.8	75.1	—	0.8
Local value ($m)	2 485.5	1 910.5	1 917.9	750.2	362.8	146.5	179.4	407.5	70.6	—	0.8
GUV ($/kg)	4.14	3.23	3.22	3.56	3.28	3.04	2.51	2.97	4.17	—	3.50
Other(a)											
Gross value ($m)	101.5	r75.0	79.8	25.5	23.1	5.1	8.4	14.6	3.1	—	—
Local value ($m)	101.5	r75.0	79.8	25.5	23.1	5.1	8.4	14.6	3.1	—	—
GUV ($/kg)	2.08	r1.54	1.53	1.80	1.39	1.45	1.39	1.44	1.95	—	1.80
Total wool											
Gross value ($m)	*2 753.9*	*r2 141.0*	*2 149.2*	*832.5*	*409.6*	*164.6*	*204.1*	*459.4*	*78.1*	—	*0.9*
Local value ($m)	*2 587.0*	*r1 985.4*	*1 997.7*	*775.7*	*386.0*	*151.6*	*187.8*	*422.2*	*73.7*	—	*0.8*
GUV ($/kg)	*3.99*	*3.11*	*3.09*	*3.46*	*3.05*	*2.94*	*2.43*	*2.88*	*3.99*	—	*3.40*
Liquid whole milk used for											
Manufacturing											
Gross value ($m)	1 838.4	1 946.5	1 940.6	180.1	1 375.7	101.2	119.5	54.0	110.1	—	—
Local value ($m)	1 838.4	1 946.5	1 940.6	180.1	1 375.7	101.2	119.5	54.0	110.1	—	—
GUV ($/KL)	244.50	235.94	216.84	225.32	214.52	226.65	229.82	253.89	197.28	—	—
Human consumption											
Gross value ($m)	978.5	953.1	904.7	284.3	195.1	220.4	86.2	91.0	22.3	n.p.	n.p.
Local value ($m)	978.5	953.1	904.7	284.3	195.1	220.4	86.2	91.0	22.3	n.p.	n.p.
GUV ($/KL)	508.94	492.99	475.43	477.28	427.00	548.49	446.06	456.28	442.90	n.p.	n.p.
Total whole milk production											
Gross value ($m)	*2 817.0*	*2 899.6*	*2 845.2*	*464.4*	*1 570.8*	*321.6*	*205.8*	*144.9*	*132.5*	*n.p.*	*n.p.*
Local value ($m)	*2 817.0*	*2 899.6*	*2 845.2*	*464.4*	*1 570.8*	*321.6*	*205.8*	*144.9*	*132.5*	*n.p.*	*n.p.*
GUV ($/KL)	*298.35*	*284.75*	*262.18*	*332.93*	*228.65*	*379.08*	*288.41*	*351.85*	*217.64*	*n.p.*	*n.p.*
Eggs											
Gross value ($m)	347.5	337.1	321.4	116.5	79.6	56.0	23.0	30.8	4.6	n.p.	n.p.
Local value ($m)	314.6	304.0	289.8	105.4	71.7	49.7	20.9	28.1	4.2	n.p.	n.p.
GUV ($/doz)	1.83	1.78	1.76	1.82	1.75	1.55	1.92	1.96	2.19	n.p.	n.p.
Honey											
Gross value ($m)	36.9	32.0	36.0	14.5	8.3	3.4	5.1	2.7	2.0	n.p.	n.p.
Local value ($m)	36.1	31.4	35.3	14.5	8.3	3.4	4.9	2.7	1.6	n.p.	n.p.
GUV ($/kg)	1.68	1.70	1.68	1.65	1.67	1.64	1.71	1.70	2.10	n.p.	n.p.
Beeswax											
Gross value ($m)	2.5	2.0	1.8	0.8	0.3	0.2	0.3	0.2	0.1	n.p.	n.p.
Local value ($m)	2.5	2.0	1.8	0.8	0.3	0.2	0.3	0.2	0.1	n.p.	n.p.
GUV ($/kg)	5.26	5.37	4.76	4.74	4.43	4.81	5.32	4.47	5.30	n.p.	n.p.
Total livestock products											
Gross value ($m)	**5 957.8**	**r5 411.8**	**5 353.7**	**1 428.7**	**2 068.5**	**545.7**	**438.2**	**638.1**	**217.2**	**8.1**	**9.1**
Local value ($m)	**5 757.2**	**r5 222.5**	**5 170.0**	**1 360.8**	**2 037.1**	**526.5**	**419.6**	**598.1**	**212.0**	**7.8**	**8.2**
GUV ($/t)	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

(a) Includes dead wool and wool on skins.

CHAPTER 4 FINANCE

OVERVIEW

The estimates in this chapter are based on data collected in the annual Agricultural Finance Survey (AFS). The scope of the 1999–2000 AFS was businesses (or management units) with a predominant activity in the agriculture industry and an estimated value of agricultural operations (EVAO) of $22,500 or more. (These are referred to as 'farm businesses'.)

There were a number of improvements in the financial performance of the Australian farm business sector during 1999–2000. Total turnover was up, following increased sales of livestock and livestock products, and when combined with reductions in purchases and selected expenses, saw cash operating surplus increase by 25% ($1.4 billion). The total value of farm business assets at 30 June 2000 rose due to increases in value of land and buildings and value of financial assets. Net capital expenditure in 1999–2000 was again down on the previous year. The level of net farm business debt increased slightly with an increase in gross debt being mostly offset by an increase in the value of financial assets.

TURNOVER

Aggregate turnover for all agricultural industries in 1999–2000 was $28.5 billion, $919 million higher than the 1998–99 figure of $27.6 billion. Turnover was boosted by increases in sales of livestock, sales of livestock products and other miscellaneous revenue but was offset by a decrease in sales of crops.

In 1999–2000, an estimated 12,300 farm businesses (12%) had a turnover of $500,000 or more. These farm businesses accounted for 50% of total turnover, 45% of gross farm indebtedness and 57% of total cash operating surplus made by all farm businesses.

In comparison, an estimated 19,200 farm businesses (18%) had a turnover of less than $50,000. These farm businesses accounted for 2% of total turnover, 4% of gross farm debt and less than 0.3% of total cash operating surplus. It should be noted that in aggregate these businesses had operated at a cash deficit for the previous two years.

TURNOVER *continued*

4.1 AGGREGATE TURNOVER OF AGRICULTURAL INDUSTRIES

Average turnover was $275,000 per farm business in 1999–2000 compared with $269,000 the year before.

4.2 FARM BUSINESS TURNOVER—Year ended 30 June 2000

	Aggregate	*Average*
	$m	$'000
New South Wales(a)	8 460.7	280.6
Victoria	5 929.7	219.6
Queensland	6 899.8	332.6
South Australia	2 765.2	225.1
Western Australia	3 557.4	333.2
Tasmania	675.1	252.5
Australia(b)	**28 525.6**	**274.8**

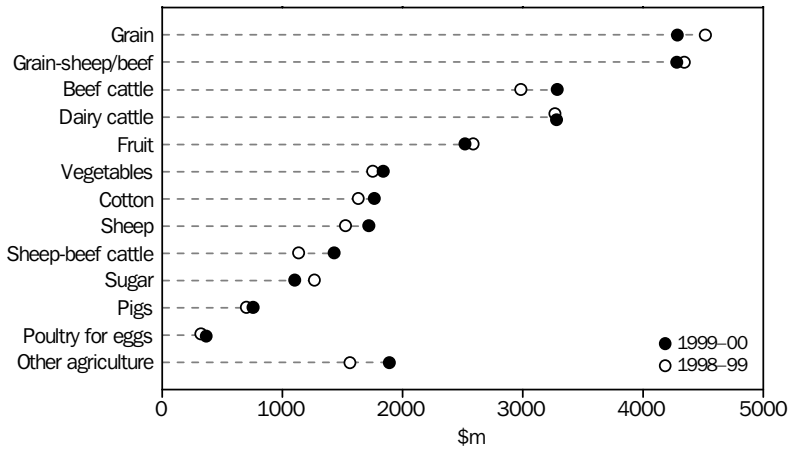
(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

Notable movements in industry aggregate turnover included a 26% increase in the sheep-beef industry, a 10% increase in the beef cattle industry and a 13% increase in the sheep industry, but a 13% decrease in the sugar industry. The increase in turnover for the beef cattle industry during 1999–2000 was a result of farmers receiving better prices for cattle for domestic slaughter (although total slaughter numbers were down) and for export (where numbers were up). The increased turnover in the sheep industry was due to increases in the values of sales from livestock (due to increased slaughter levels since prices per head decreased) and wool (as a result of increases in quantity of wool sold since prices were relatively stable). The fall in turnover for the sugar industry was a result of falling world prices and lower sugar yields, with the main sugar cane varieties in Queensland being affected by disease outbreaks.

TURNOVER *continued*

4.3 TURNOVER OF AGRICULTURAL INDUSTRIES



VALUE ADDED

Farm businesses with an EVAO of $22,500 or more contributed $14.1 billion in value added to the Australian economy during 1999–2000, an increase of 16% on 1998–99. The main industries contributing to value added were the grain industry ($2.0 billion), the mixed grain-sheep/beef industry ($2.0 billion), the beef industry ($1.6 billion), the fruit industry ($1.5 billion) and the dairy industry ($1.4 billion).

CASH OPERATING SURPLUS

At the national level there was a $1.4 billion or 25% increase in cash operating surplus (COS), up from $5.5 billion in 1998–99 to $6.9 billion in 1999–2000. This increase was attributed to an increase in turnover and a decrease in purchases and selected expenses.

The grain industry had the biggest COS in 1999–2000, with an estimated value of $1.2 billion. While remaining the biggest contributor to COS, the percentage of total COS accounted for by the grain industry has fallen in recent years. In 1999–2000 it represented only 17% of the total COS compared with 26% in 1997–98 and 29% in 1996–97. The next biggest contributors to COS in 1999–2000 after the grain industry were the grain-sheep/beef industry with COS of $1.0 billion (up 53% from $661 million in 1998–99) and the dairy industry with COS of $942 million (up 10% from $857 million in 1998–99).

The average COS in 1999–2000 of $67,000 was up by 24% on the previous year and was higher than any value recorded in the 1990s. The cotton industry reported the highest average COS with an estimate of $505,000 per farm business in 1999–2000.

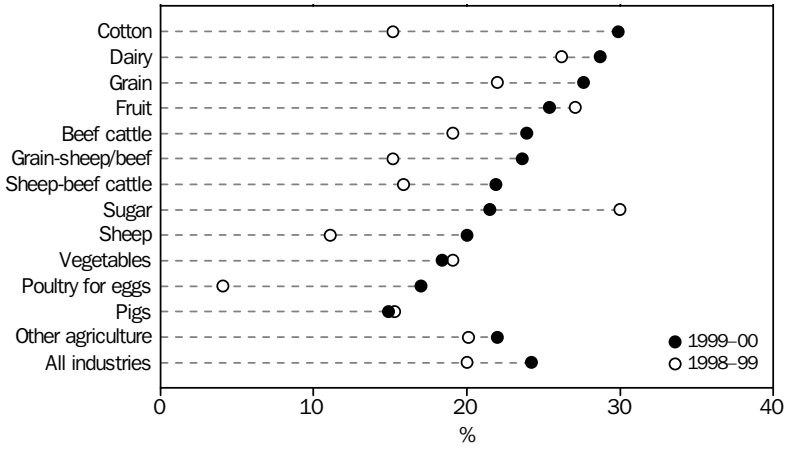
CASH OPERATING SURPLUS *continued*

4.4 AVERAGE CASH OPERATING SURPLUS

PROFIT MARGIN

The national profit margin for farm businesses in 1999–2000 was 24% (that is, for every $100 of turnover, farm businesses generated $24 of COS) compared with 20% in the previous year. Increased turnover and decreased purchases and selected expenses were the main contributors to this increase. It should be noted that profit margin is derived before allowing for any drawings taken by directors of unincorporated businesses.

4.5 INDUSTRY PROFIT MARGINS



Most industries recorded increased profit margins (that is, COS as a percentage of turnover) during 1999–2000 after a fall in the previous year. Increased beef prices and firm grain prices were responsible for improved profit margins in their relevant industries. The main decrease was recorded in the sugar industry which fell from 30% in 1998–99 to 21% in 1999–2000 as sugar yields and prices fell.

PROFIT MARGIN *continued*

4.6 PROFIT MARGIN

	1998–99	*1999–2000*
	%	%
New South Wales(a)	16.9	23.5
Victoria	19.9	24.9
Queensland	21.9	25.6
South Australia	26.5	24.7
Western Australia	18.4	22.0
Tasmania	20.0	23.1
Australia(b)	**20.0**	**24.2**

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

RATE OF RETURN

The rate of return on farm operating costs by farm businesses in 1999–2000 was 31% (that is, for every $100 of farm operating costs, farm businesses generated $31 of COS), compared with 24% the previous year. This was the highest rate of return achieved since 1989–90. The rates of return on farm business assets and net worth increased in 1999–2000 after three successive falls, and were estimated at 5% and 6% respectively.

4.7 RATE OF RETURN ON ASSETS AND NET WORTH

NET CAPITAL EXPENDITURE

Net capital expenditure by farm businesses in 1999–2000 was estimated at $2.2 billion, down by 15% from the previous year. Average net capital expenditure per farm business in 1999–2000 was $21,200 compared with $25,100 the previous year. This was the first significant drop in average net capital expenditure since 1990–91.

4.8 AVERAGE NET CAPITAL EXPENDITURE

DEBT AND INTEREST PAYMENTS

The level of gross debt of Australian farm businesses increased by 8% during 1999–2000, up from $24.3 billion at 30 June 1999 to $26.2 billion at 30 June 2000. Net indebtedness (which is gross indebtedness less the value of financial assets) was $15.0 billion at 30 June 2000, up from $14.4 billion at 30 June 1999.

The average gross indebtedness per farm business at 30 June 2000 was $252,000, an increase of 6% over the previous year's value of $237,000. The average level of net indebtedness of Australian farm businesses also increased from $141,000 at 30 June 1999 to $144,000 at 30 June 2000.

Western Australian farm businesses, with an average gross indebtedness of $377,000, had the highest level of average State debt. This was 6% above the level in 1998–99 ($357,000). Victoria had the lowest average gross indebtedness of $161,000 at 30 June 2000.

It should be noted that while average, or mean, gross farm business debt was $252,000, the median level of gross debt (i.e. the level at which half the population had more debt and half had less) was $87,000 with around 20% of businesses reporting they were debt free.

DEBT AND INTEREST PAYMENTS *continued*

4.9 AVERAGE GROSS AND NET INDEBTEDNESS—Year ended 30 June 2000

	Average gross indebtedness	*Average net indebtedness*
	$'000	$'000
New South Wales(a)	248.8	146.4
Victoria	160.8	91.5
Queensland	309.6	142.7
South Australia	251.8	158.9
Western Australia	377.3	251.0
Tasmania	228.1	158.1
Australia(b)	**252.3**	**144.3**

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

Total interest payments by farm businesses in 1999–2000 increased by 13% to $1.9 billion with estimated average annual interest payments per farm business up from $16,100 in 1998–99 to $18,000 in 1999–2000.

ASSET VALUE

The estimated value of farm business assets at 30 June 2000 was $149 billion, up by 4% from the figure recorded at 30 June 1999 ($142 billion). The value of land, buildings and other structures ($103 billion), represented 69% of the total value of farm business assets and was 5% higher than the previous year's figure of $98.9 billion. The average asset value for farm businesses at 30 June 2000 was $1.4 million, up by 3% from the 30 June 1999 figure. It should be noted that the total value of assets does not include the value of on-farm stocks of hay and grain.

4.10 AVERAGE FARM BUSINESS ASSET VALUE—Year ended 30 June 2000

	$'000
New South Wales(a)	1 348.5
Victoria	1 117.1
Queensland	1 788.2
South Australia	1 326.5
Western Australia	1 935.1
Tasmania	1 138.2
Australia(b)	**1 432.7**

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

ASSET VALUE *continued*

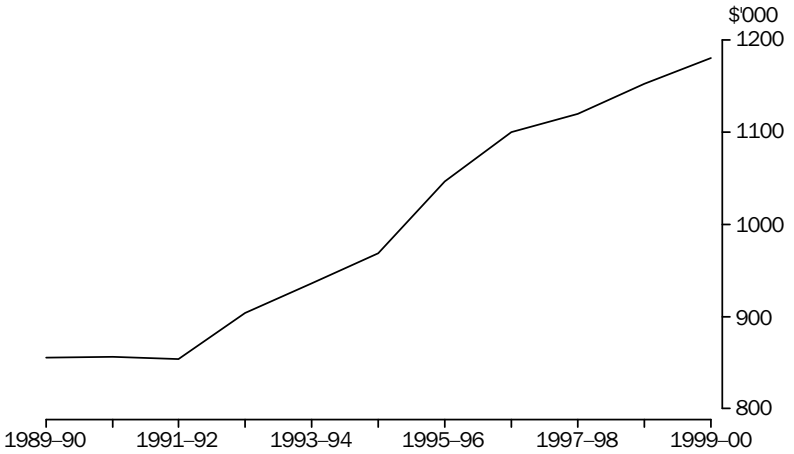
The debt to asset ratio (value of assets divided by gross indebtedness) was 1:5.7 at 30 June 2000. That is, for every dollar of debt there was $5.70 of asset backing. The debt to asset ratio has, in general, been steadily falling since 1989.

4.11 DEBT TO ASSET RATIO

NET WORTH

Aggregate net worth (value of assets less gross indebtedness) of all farm businesses at 30 June 2000 was $123 billion and was up by 4% on the previous year's value of $118 billion. The average net worth per farm business was $1.2 million at 30 June 2000.

4.12 AVERAGE NET WORTH



FARM BUSINESSES

The estimated number of farm businesses with EVAO of $22,500 or more increased for the first time in three years. There were an estimated 104,000 farm businesses at 30 June 2000 compared with 103,000 farm businesses at 30 June 1999.

4.13 FARM BUSINESSES—Years ended 30 June

State	*1998*	*1999*	*2000*
New South Wales(a)	29 170	28 998	30 149
Victoria	27 105	26 979	27 000
Queensland	21 560	20 548	20 745
South Australia	12 487	12 185	12 286
Western Australia	10 932	10 844	10 678
Tasmania	2 798	2 768	2 674
Australia(b)	**104 267**	**102 510**	**103 815**

(a) Includes the Australian Capital Territory.

(b) Includes the Northern Territory.

4.14 NUMBER OF FARM BUSINESSES

4.15 FARM BUSINESS FINANCES, Aggregates—Years ended 30 June

Items	1998 $m	1999 $m	2000 $m
Sales from crops	13 493.1	13 564.3	13 110.9
Sales from livestock	5 922.0	6 373.4	7 300.9
Sales from livestock products	5 556.5	4 986.5	5 143.7
Rent and leasing revenue	262.0	258.7	277.9
Other miscellaneous revenue	2 066.6	2 423.7	2 692.2
Turnover	**27 300.1**	**27 606.6**	**28 525.6**
Less			
Marketing expenses	1 959.4	1 933.8	2 092.5
Purchases of livestock	1 254.4	1 354.1	1 566.4
Payments for seed	395.4	470.6	453.8
Payments for fodder	1 508.7	1 313.9	1 387.8
Payments for fertiliser	1 816.5	1 814.0	1 729.0
Payments for crop and pasture chemicals	1 140.9	1 317.0	1 328.6
Payments for veterinary supplies and services	355.7	358.1	411.7
Payments for electricity	323.0	300.3	300.2
Payments for fuel	1 337.2	1 288.2	1 439.0
Water and drainage charges	210.5	200.9	193.7
Payments to contractors	1 395.8	1 498.0	1 576.2
Repairs and maintenance	2 029.9	2 087.1	2 148.3
Rent and leasing expenses	451.9	603.9	649.2
Other selected expenses	1 293.1	1 368.6	1 366.0
Purchases and selected expenses	*15 472.4*	*15 908.7*	*15 313.7*
Value added(a)	**12 034.4**	**12 181.4**	**14 145.8**
Industry value added(a)(b)	10 433.7	10 795.2	12 143.0
Less			
Rates and taxes	460.4	474.5	510.1
Insurance payments	659.9	667.4	698.3
Other expenses	769.2	848.6	877.5
Adjusted value added(a)	*10 145.0*	*10 191.0*	*12 059.8*
Less			
Wages, salaries and supplements	2 536.9	2 831.9	2 769.7
Gross operating surplus(a)	*7 608.1*	*7 359.1*	*9 290.1*
Less			
Interest paid	1 595.1	1 645.3	1 866.3
Plus			
Interest, land rent received	310.2	338.7	443.2
Cash operating surplus(c)	**6 091.7**	**5 529.1**	**6 915.8**
Net capital expenditure on vehicles, machinery and equipment	2 058.2	2 138.1	1 779.7
Net capital expenditure on buildings, structures and other developments	566.5	435.0	417.3
Total net capital expenditure	**2 624.7**	**2 573.1**	**2 197.1**
Value of land, buildings and other structures	96 679.4	98 867.6	103 367.6
Value of motor vehicles, machinery and equipment	17 031.1	16 515.1	16 201.8
Value of financial assets	9 254.8	9 889.3	11 211.8
Value of livestock	15 406.1	15 655.2	15 974.7
Total value of assets	**138 371.3**	**142 422.4**	**148 733.6**
Less			
Amounts owing to banks (including off-shore borrowings)	14 072.6	16 288.5	16 962.2
Amounts owing to pastoral and insurance companies etc.	1 205.1	1 124.6	1 483.7
Finance leasing	1 090.8	1 130.5	1 029.7
Loans under hire-purchase and other instalment credit	1 190.6	1 488.7	2 239.2
Other amounts owing	4 030.2	3 357.1	4 423.0
Gross indebtedness	*21 630.8*	*24 295.4*	*26 195.4*
Net indebtedness	*12 376.0*	*14 406.0*	*14 983.6*
Net worth	**116 740.5**	**118 127.0**	**122 538.2**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.15 FARM BUSINESS FINANCES, Aggregates—Years ended 30 June *continued*

	NEW SOUTH WALES(a)			VICTORIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$m	$m	$m
Sales from crops	3 681.5	3 819.1	4 041.2	1 800.2	1 978.5	2 149.8
Sales from livestock	1 660.6	1 869.2	2 171.9	936.3	962.8	1 131.0
Sales from livestock products	1 629.9	1 208.8	1 441.5	2 010.6	2 006.8	1 975.7
Rent and leasing revenue	60.6	72.9	73.9	51.5	56.4	45.8
Other miscellaneous revenue	526.7	568.7	732.3	327.6	458.7	627.4
Turnover	**7 559.3**	**7 538.8**	**8 460.7**	**5 126.2**	**5 463.2**	**5 929.7**
Less						
Marketing expenses	531.7	498.8	546.6	358.7	403.2	500.6
Purchases of livestock	366.8	446.3	591.5	146.6	197.2	206.7
Payments for seed	105.3	120.0	138.8	79.6	112.2	95.1
Payments for fodder	424.9	335.3	348.1	444.1	400.9	422.9
Payments for fertiliser	414.0	424.6	485.6	341.4	344.7	337.2
Payments for crop and pasture chemicals	337.3	422.9	436.8	129.7	147.9	164.9
Payments for veterinary supplies and services	100.7	93.7	127.8	99.5	118.6	120.8
Payments for electricity	90.3	79.2	82.6	73.0	72.0	75.2
Payments for fuel	388.5	372.1	446.6	238.9	224.2	252.6
Water and drainage charges	59.2	57.1	61.6	80.8	70.5	70.7
Payments to contractors	434.0	531.4	502.5	204.1	210.2	213.2
Repairs and maintenance	568.5	594.9	625.0	384.3	387.2	394.7
Rent and leasing expenses	122.8	154.6	229.5	118.8	133.8	141.4
Other selected expenses	375.1	347.0	390.6	218.7	277.3	282.3
Purchases and selected expenses	*4 319.0*	*4 477.9*	*4 577.2*	*2 918.4*	*3 099.8*	*3 113.6*
Value added(b)	**3 099.7**	**3 342.8**	**4 285.8**	**1 946.6**	**2 492.5**	**2 955.9**
Industry value added(b)(c)	2 635.3	2 965.4	3 767.5	1 690.4	2 267.3	2 540.3
Less						
Rates and taxes	152.1	161.0	169.3	83.6	90.9	104.7
Insurance payments	220.7	222.8	236.4	111.2	121.4	127.5
Other expenses	216.7	244.5	272.3	133.9	165.4	169.0
Adjusted value added(b)	*2 510.2*	*2 714.5*	*3 607.8*	*1 618.0*	*2 114.8*	*2 554.7*
Less						
Wages, salaries and supplements	651.6	764.9	787.3	480.0	659.7	652.8
Gross operating surplus(b)	*1 858.6*	*1 949.6*	*2 820.5*	*1 137.9*	*1 455.0*	*1 901.9*
Less						
Interest paid	437.2	463.9	553.0	282.2	297.5	336.4
Plus						
Interest, land rent received	95.9	93.1	132.3	45.4	68.8	52.3
Cash operating surplus(d)	**1 648.6**	**1 276.9**	**1 985.1**	**1 159.4**	**1 088.4**	**1 474.0**
Net capital expenditure on vehicles, machinery and equipment	479.9	557.5	454.5	295.5	384.0	327.5
Net capital expenditure on buildings, structures and other developments	101.5	142.5	128.2	114.1	*97.9	*68.9
Total net capital expenditure	**581.5**	**700.0**	**582.7**	**409.7**	**481.9**	**396.5**
Value of land, buildings and other structures	27 864.9	27 971.5	28 829.3	18 180.7	20 678.2	21 963.6
Value of motor vehicles, machinery and equipment	4 524.8	4 375.4	4 299.5	3 027.1	3 081.2	3 018.4
Value of financial assets	2 677.6	2 650.6	3 085.2	1 260.7	1 726.9	1 872.2
Value of livestock	3 474.1	3 641.2	3 700.9	2 833.7	2 919.0	3 102.9
Total value of assets	**38 541.4**	**39 449.4**	**40 655.1**	**25 302.1**	**28 557.5**	**30 160.8**
Less						
Amounts owing to banks (including off-shore borrowings)	4 035.4	4 840.0	5 187.0	2 171.9	2 434.1	2 582.8
Amounts owing to pastoral and insurance companies etc.	159.8	220.2	237.7	407.5	355.3	573.4
Finance leasing	313.3	309.3	318.9	131.7	149.1	165.0
Loans under hire-purchase and other instalment credit	299.4	349.2	579.5	184.5	369.2	289.3
Other amounts owing	867.1	679.7	1 148.0	679.8	539.4	719.8
Gross indebtedness	*5 696.1*	*6 758.3*	*7 499.7*	*3 581.6*	*3 966.2*	*4 341.8*
Net indebtedness	*3 018.5*	*4 107.7*	*4 414.4*	*2 321.0*	*2 239.2*	*2 469.7*
Net worth	**32 845.2**	**32 691.1**	**33 155.4**	**21 720.5**	**24 591.4**	**25 818.9**

(a) New South Wales data includes Australian Capital Territory.

(b) Includes an estimate for the change in value of livestock.

(c) Refer to Explanatory Notes paragraph 15.

(d) Excludes any estimate for the change in value of livestock.

4.15 FARM BUSINESS FINANCES, Aggregates—Years ended 30 June *continued*

	QUEENSLAND			SOUTH AUSTRALIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$m	$m	$m
Sales from crops	3 463.1	3 190.8	3 270.5	1 655.7	1 840.2	1 432.4
Sales from livestock	1 823.6	2 144.9	2 449.6	562.1	482.8	595.0
Sales from livestock products	567.0	577.2	517.0	440.1	385.7	386.3
Rent and leasing revenue	73.1	60.7	80.2	22.6	20.9	*27.7
Other miscellaneous revenue	462.8	661.1	582.6	201.5	209.2	323.9
Turnover	**6 389.5**	**6 634.7**	**6 899.8**	**2 881.9**	**2 938.9**	**2 765.2**
Less						
Marketing expenses	420.5	366.0	452.7	186.2	216.2	153.1
Purchases of livestock	410.6	466.3	493.8	98.3	82.8	100.1
Payments for seed	99.6	132.4	112.1	40.2	43.2	44.4
Payments for fodder	396.8	377.7	407.6	109.7	87.6	93.6
Payments for fertiliser	286.3	290.6	269.4	211.6	202.7	197.9
Payments for crop and pasture chemicals	237.6	247.8	257.4	137.5	150.7	171.7
Payments for veterinary supplies and services	62.4	62.5	70.0	33.9	27.6	31.4
Payments for electricity	74.4	63.6	64.4	35.7	32.6	33.4
Payments for fuel	302.8	304.3	333.2	152.5	151.5	175.3
Water and drainage charges	32.1	27.5	26.1	27.9	33.9	23.0
Payments to contractors	390.8	430.1	500.1	118.1	93.9	101.9
Repairs and maintenance	469.1	519.6	553.4	214.9	220.6	233.8
Rent and leasing expenses	74.3	117.0	103.7	52.1	71.7	84.3
Other selected expenses	287.5	318.4	323.4	124.6	116.4	135.6
Purchases and selected expenses	*3 544.8*	*3 723.8*	*3 709.9*	*1 543.3*	*1 531.3*	*1 407.7*
Value added(a)	**3 350.5**	**2 898.4**	**3 367.8**	**1 403.1**	**1 488.4**	**1 502.1**
Industry value added(a)(b)	3 053.7	2 618.7	2 745.9	1 227.4	1 370.5	1 327.7
Less						
Rates and taxes	96.8	104.5	113.6	48.1	42.9	53.3
Insurance payments	124.8	128.1	135.0	74.6	72.4	77.0
Other expenses	175.0	173.5	184.8	89.3	94.9	102.1
Adjusted value added(a)	*2 954.0*	*2 492.2*	*2 934.4*	*1 191.1*	*1 278.2*	*1 269.7*
Less						
Wages, salaries and supplements	722.9	719.0	723.2	249.6	281.4	250.4
Gross operating surplus(a)	*2 231.1*	*1 773.2*	*2 211.1*	*941.5*	*996.7*	*1 019.3*
Less						
Interest paid	384.7	403.5	431.1	186.9	173.9	225.0
Plus						
Interest, land rent received	63.7	73.8	*164.6	37.0	39.2	35.1
Cash operating surplus(c)	**1 399.1**	**1 453.0**	**1 766.5**	**720.2**	**779.3**	**684.3**
Net capital expenditure on vehicles, machinery and equipment	463.0	478.4	411.2	283.4	298.9	220.2
Net capital expenditure on buildings, structures and other developments	172.1	132.5	128.7	60.2	25.2	*35.4
Total net capital expenditure	**635.2**	**610.8**	**539.9**	**343.6**	**324.1**	**255.6**
Value of land, buildings and other structures	22 623.1	22 473.3	23 586.9	10 038.0	9 482.0	11 598.1
Value of motor vehicles, machinery and equipment	3 915.6	3 833.0	4 119.0	1 962.6	2 025.7	2 069.4
Value of financial assets	2 207.5	2 429.1	3 462.9	1 095.7	900.9	1 141.4
Value of livestock	5 610.7	5 771.5	5 677.8	1 182.6	1 111.1	1 215.0
Total value of assets	**34 356.9**	**34 801.6**	**37 095.5**	**14 278.9**	**13 576.4**	**16 296.5**
Less						
Amounts owing to banks (including off-shore borrowings)	3 780.7	4 674.7	4 519.6	1 497.4	1 779.7	2 072.4
Amounts owing to pastoral and insurance companies etc.	292.1	215.2	181.8	90.4	*49.8	*172.4
Finance leasing	411.0	376.5	327.4	77.5	*158.1	88.0
Loans under hire-purchase and other instalment credit	185.4	223.1	238.5	144.1	139.6	385.9
Other amounts owing	1 191.3	960.7	1 149.4	334.2	*134.7	*368.8
Gross indebtedness	*5 864.6*	*6 658.7*	*6 422.9*	*2 148.0*	*2 332.1*	*3 093.2*
Net indebtedness	*3 657.1*	*4 229.6*	*2 960.0*	*1 052.3*	*1 431.2*	*1 951.7*
Net worth	**28 492.2**	**28 142.9**	**30 672.6**	**12 130.8**	**11 244.3**	**13 203.4**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.15 FARM BUSINESS FINANCES, Aggregates—Years ended 30 June *continued*

	WESTERN AUSTRALIA			TASMANIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$m	$m	$m
Sales from crops	2 649.8	2 471.2	1 960.8	231.8	236.1	191.7
Sales from livestock	642.2	659.8	627.8	148.3	154.8	180.6
Sales from livestock products	698.2	616.9	619.9	207.9	189.6	201.7
Rent and leasing revenue	38.6	36.0	40.1	14.9	*11.0	*9.9
Other miscellaneous revenue	407.4	398.8	308.7	123.3	84.8	91.2
Turnover	**4 436.2**	**4 182.7**	**3 557.4**	**726.3**	**676.4**	**675.1**
Less						
Marketing expenses	404.8	394.9	380.7	43.6	44.6	42.7
Purchases of livestock	157.6	119.4	115.9	38.9	34.9	36.9
Payments for seed	55.8	50.0	54.0	14.5	11.9	8.9
Payments for fodder	98.9	85.8	80.7	21.8	17.2	22.5
Payments for fertiliser	508.7	499.0	388.8	53.1	51.4	44.2
Payments for crop and pasture chemicals	281.7	333.6	277.9	16.7	13.2	15.5
Payments for veterinary supplies and services	43.1	40.1	43.6	12.8	13.3	13.8
Payments for electricity	33.4	39.2	31.4	15.3	12.9	12.2
Payments for fuel	212.3	199.8	192.6	32.4	26.6	24.8
Water and drainage charges	9.5	11.2	11.3	0.6	*0.7	*0.7
Payments to contractors	208.2	190.5	210.1	37.8	40.3	41.0
Repairs and maintenance	329.3	303.9	275.6	53.3	49.5	48.1
Rent and leasing expenses	71.2	106.5	78.0	10.9	15.1	10.4
Other selected expenses	202.8	229.5	165.4	57.8	46.7	50.3
Purchases and selected expenses	*2 617.2*	*2 603.5*	*2 027.9*	*409.7*	*378.2*	*356.5*
Value added(a)	**1 862.0**	**1 557.9**	**1 586.6**	**304.2**	**321.6**	**348.9**
Industry value added(a)(b)	1 540.4	1 246.7	1 380.3	230.9	290.6	303.5
Less						
Rates and taxes	61.2	62.0	56.5	14.9	10.9	10.6
Insurance payments	107.3	103.9	102.6	18.0	15.2	15.3
Other expenses	126.8	140.8	120.0	21.2	18.7	20.3
Adjusted value added(a)	*1 566.7*	*1 251.1*	*1 307.4*	*250.1*	*276.9*	*302.7*
Less						
Wages, salaries and supplements	287.8	295.4	243.7	109.3	84.5	83.7
Gross operating surplus(a)	*1 278.9*	*955.7*	*1 063.8*	*140.8*	*192.4*	*219.0*
Less						
Interest paid	244.9	256.5	274.1	53.2	41.9	39.3
Plus						
Interest, land rent received	58.8	53.0	50.9	8.8	9.7	6.3
Cash operating surplus(c)	**1 049.3**	**769.2**	**783.4**	**108.5**	**135.1**	**155.7**
Net capital expenditure on vehicles, machinery and equipment	477.8	386.6	304.2	53.4	35.8	46.0
Net capital expenditure on buildings, structures and other developments	93.7	*38.5	**	14.4	*3.1	6.0
Total net capital expenditure	**571.5**	**425.1**	**353.2**	**67.8**	**38.9**	**52.0**
Value of land, buildings and other structures	14 974.9	15 827.8	14 869.9	2 496.2	2 108.3	2 166.6
Value of motor vehicles, machinery and equipment	3 125.5	2 796.5	2 333.7	409.6	357.2	299.5
Value of financial assets	1 707.7	1 856.6	1 349.1	212.4	231.3	187.4
Value of livestock	1 626.3	1 615.7	1 644.4	364.8	360.3	358.6
Total value of assets	**21 434.4**	**22 214.3**	**20 662.1**	**3 482.9**	**3 079.7**	**3 043.6**
Less						
Amounts owing to banks (including off-shore borrowings)	2 198.8	2 155.9	2 135.6	340.3	302.1	348.1
Amounts owing to pastoral and insurance companies etc.	154.5	*209.6	230.6	93.0	74.5	*66.9
Finance leasing	137.9	111.6	*98.5	18.7	22.7	*27.3
Loans under hire-purchase and other instalment credit	357.6	393.4	730.0	19.6	*14.1	6.5
Other amounts owing	785.3	910.6	831.5	129.8	103.2	159.4
Gross indebtedness	*3 637.8*	*3 870.0*	*4 029.0*	*602.7*	*569.0*	*610.0*
Net indebtedness	*1 930.1*	*2 013.4*	*2 679.9*	*390.3*	*337.7*	*422.6*
Net worth	**17 796.6**	**18 344.2**	**16 633.1**	**2 880.2**	**2 510.7**	**2 433.6**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.16 FARM BUSINESS FINANCES, Averages—Years ended 30 June

	AUSTRALIA		
	1998	*1999*	*2000*
Items	$'000	$'000	$'000
Sales from livestock	56.8	62.2	70.3
Sales from livestock products	53.3	48.6	49.5
Rent and leasing revenue	2.5	2.5	2.7
Other miscellaneous revenue	19.8	23.6	25.9
Turnover	**261.8**	**269.3**	**274.8**
Less			
Marketing expenses	18.8	18.9	20.2
Purchases of livestock	12.0	13.2	15.1
Payments for seed	3.8	4.6	4.4
Payments for fodder	14.5	12.8	13.4
Payments for fertiliser	17.4	17.7	16.7
Payments for crop and pasture chemicals	10.9	12.8	12.8
Payments for veterinary supplies and services	3.4	3.5	4.0
Payments for electricity	3.1	2.9	2.9
Payments for fuel	12.8	12.6	13.9
Water and drainage charges	2.0	2.0	1.9
Payments to contractors	13.4	14.6	15.2
Repairs and maintenance	19.5	20.4	20.7
Rent and leasing expenses	4.3	5.9	6.3
Other selected expenses	12.4	13.4	13.2
Purchases and selected expenses	*148.4*	*155.2*	*147.5*
Value added(a)	**115.4**	**118.8**	**136.3**
Industry value added(a)(b)	100.1	105.3	117.0
Less			
Rates and taxes	4.4	4.6	4.9
Insurance payments	6.3	6.5	6.7
Other expenses	7.4	8.3	8.5
Adjusted value added(a)	*97.3*	*99.4*	*116.2*
Less			
Wages salaries and supplements	24.3	27.6	26.7
Gross operating surplus(a)	*73.0*	*71.8*	*89.5*
Less			
Interest paid	15.3	16.1	18.0
Plus			
Interest, land rent received	3.0	3.3	4.3
Cash operating surplus(c)	**58.4**	**53.9**	**66.6**
Net capital expenditure on vehicles, machinery and equipment	19.7	20.9	17.1
Net capital expenditure on buildings, structures and other developments	5.4	4.2	4.0
Total net capital expenditure	**25.2**	**25.1**	**21.2**
Value of land, buildings and other structures	927.2	964.5	995.7
Value of motor vehicles, machinery and equipment	163.3	161.1	156.1
Value of financial assets	88.8	96.5	108.0
Value of livestock	147.8	152.7	153.9
Total value of assets	**1 327.1**	**1 389.4**	**1 432.7**
Less			
Amounts owing to banks (including off-shore borrowings)	135.0	158.9	163.4
Amounts owing to pastoral and insurance companies etc.	11.6	11.0	14.3
Finance leasing	10.5	11.0	9.9
Loans under hire-purchase and other instalment credit	11.4	14.5	21.6
Other amounts owing	38.7	32.7	42.6
Gross indebtedness	*207.5*	*237.0*	*252.3*
Net indebtedness	*118.7*	*140.5*	*144.3*
Net worth	**1 119.6**	**1 152.4**	**1 180.3**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.16 FARM BUSINESS FINANCES, Averages—Years ended 30 June *continued*

	NEW SOUTH WALES(a)			VICTORIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$'000	$'000	$'000	$'000	$'000	$'000
Sales from crops	126.2	131.7	134.0	66.4	73.3	79.6
Sales from livestock	56.9	64.5	72.0	34.5	35.7	41.9
Sales from livestock products	55.9	41.7	47.8	74.2	74.4	73.2
Rent and leasing revenue	2.1	2.5	2.5	1.9	2.1	1.7
Other miscellaneous revenue	18.1	19.6	24.3	12.1	17.0	23.2
Turnover	**259.1**	**260.0**	**280.6**	**189.1**	**202.5**	**219.6**
Less						
Marketing expenses	18.2	17.2	18.1	13.2	14.9	18.5
Purchases of livestock	12.6	15.4	19.6	5.4	7.3	7.7
Payments for seed	3.6	4.1	4.6	2.9	4.2	3.5
Payments for fodder	14.6	11.6	11.5	16.4	14.9	15.7
Payments for fertiliser	14.2	14.6	16.1	12.6	12.8	12.5
Payments for crop and pasture chemicals	11.6	14.6	14.5	4.8	5.5	6.1
Payments for veterinary supplies and services	3.5	3.2	4.2	3.7	4.4	4.5
Payments for electricity	3.1	2.7	2.7	2.7	2.7	2.8
Payments for fuel	13.3	12.8	14.8	8.8	8.3	9.4
Water and drainage charges	2.0	2.0	2.0	3.0	2.6	2.6
Payments to contractors	14.9	18.3	16.7	7.5	7.8	7.9
Repairs and maintenance	19.5	20.5	20.7	14.2	14.4	14.6
Rent and leasing expenses	4.2	5.3	7.6	4.4	5.0	5.2
Other selected expenses	12.9	12.0	13.0	8.1	10.3	10.5
Purchases and selected expenses	*148.1*	*154.4*	*151.8*	*107.7*	*114.9*	*115.3*
Value added(b)	**106.3**	**115.3**	**142.2**	**71.8**	**92.4**	**109.5**
Industry value added(b)(c)	90.3	102.3	125.0	62.4	84.0	94.1
Less						
Rates and taxes	5.2	5.6	5.6	3.1	3.4	3.9
Insurance payments	7.6	7.7	7.8	4.1	4.5	4.7
Other expenses	7.4	8.4	9.0	4.9	6.1	6.3
Adjusted value added(b)	*86.1*	*93.6*	*119.7*	*59.7*	*78.4*	*94.6*
Less						
Wages salaries and supplements	22.3	26.4	26.1	17.7	24.5	24.2
Gross operating surplus(b)	*63.7*	*67.2*	*93.6*	*42.0*	*53.9*	*70.4*
Less						
Interest paid	15.0	16.0	18.3	10.4	11.0	12.5
Plus						
Interest, land rent received	3.3	3.2	4.4	1.7	2.6	1.9
Cash operating surplus(d)	**56.5**	**44.0**	**65.8**	**42.8**	**40.3**	**54.6**
Net capital expenditure on vehicles, machinery and equipment	16.5	19.2	15.1	10.9	14.2	12.1
Net capital expenditure on buildings, structures and other developments	3.5	4.9	4.3	4.2	*3.6	*2.6
Total net capital expenditure	**19.9**	**24.1**	**19.3**	**15.1**	**17.9**	**14.7**
Value of land, buildings and other structures	955.3	964.7	956.2	670.8	766.5	813.5
Value of motor vehicles, machinery and equipment	155.1	150.9	142.6	111.7	114.2	111.8
Value of financial assets	91.8	91.4	102.3	46.5	64.0	69.3
Value of livestock	119.1	125.6	122.8	104.6	108.2	114.9
Total value of assets	**1 321.3**	**1 360.5**	**1 348.5**	**933.5**	**1 058.5**	**1 117.1**
Less						
Amounts owing to banks (including off-shore borrowings)	138.3	166.9	172.0	80.1	90.2	95.7
Amounts owing to pastoral and insurance companies etc.	5.5	7.6	7.9	15.0	13.2	21.2
Finance leasing	10.7	10.7	10.6	4.9	5.5	6.1
Loans under hire-purchase and other instalment credit	10.3	12.0	19.2	6.8	13.7	10.7
Other amounts owing	29.7	23.4	38.1	25.1	20.0	26.7
Gross indebtedness	*195.3*	*233.1*	*248.8*	*132.1*	*147.0*	*160.8*
Net indebtedness	*103.5*	*141.7*	*146.4*	*85.6*	*83.0*	*91.5*
Net worth	**1 126.0**	**1 127.4**	**1 099.7**	**801.4**	**911.5**	**956.3**

(a) New South Wales data includes Australian Capital Territory.

(b) Includes an estimate for the change in value of livestock.

(c) Refer to Explanatory Notes paragraph 15.

(d) Excludes any estimate for the change in value of livestock.

4.16 FARM BUSINESS FINANCES, Averages—Years ended 30 June *continued*

	QUEENSLAND			SOUTH AUSTRALIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$'000	$'000	$'000	$'000	$'000	$'000
Sales from crops	160.6	155.3	157.7	132.6	151.0	116.6
Sales from livestock	84.6	104.4	118.1	45.0	39.6	48.4
Sales from livestock products	26.3	28.1	24.9	35.2	31.7	31.4
Rent and leasing revenue	3.4	3.0	3.9	1.8	1.7	*2.3
Other miscellaneous revenue	21.5	32.2	28.1	16.1	17.2	26.4
Turnover	**296.4**	**322.9**	**332.6**	**230.8**	**241.2**	**225.1**
Less						
Marketing expenses	19.5	17.8	21.8	14.9	17.7	12.5
Purchases of livestock	19.0	22.7	23.8	7.9	6.8	8.1
Payments for seed	4.6	6.4	5.4	3.2	3.5	3.6
Payments for fodder	18.4	18.4	19.7	8.8	7.2	7.6
Payments for fertiliser	13.3	14.1	13.0	16.9	16.6	16.1
Payments for crop and pasture chemicals	11.0	12.1	12.4	11.0	12.4	14.0
Payments for veterinary supplies and services	2.9	3.0	3.4	2.7	2.3	2.6
Payments for electricity	3.5	3.1	3.1	2.9	2.7	2.7
Payments for fuel	14.0	14.8	16.1	12.2	12.4	14.3
Water and drainage charges	1.5	1.3	1.3	2.2	2.8	1.9
Payments to contractors	18.1	20.9	24.1	9.5	7.7	8.3
Repairs and maintenance	21.8	25.3	26.7	17.2	18.1	19.0
Rent and leasing expenses	3.4	5.7	5.0	4.2	5.9	6.9
Other selected expenses	13.3	15.5	15.6	10.0	9.6	11.0
Purchases and selected expenses	*164.4*	*181.2*	*178.8*	*123.6*	*125.7*	*114.6*
Value added(a)	**155.4**	**141.1**	**162.3**	**112.4**	**122.2**	**122.3**
Industry value added(a)(b)	141.6	127.4	132.4	98.3	112.5	108.1
Less						
Rates and taxes	4.5	5.1	5.5	3.8	3.5	4.3
Insurance payments	5.8	6.2	6.5	6.0	5.9	6.3
Other expenses	8.1	8.4	8.9	7.2	7.8	8.3
Adjusted value added(a)	*137.0*	*121.3*	*141.5*	*95.4*	*104.9*	*103.3*
Less						
Wages salaries and supplements	33.5	35.0	34.9	20.0	23.1	20.4
Gross operating surplus(a)	*103.5*	*86.3*	*106.6*	*75.4*	*81.8*	*83.0*
Less						
Interest paid	17.8	19.6	20.8	15.0	14.3	18.3
Plus						
Interest, land rent received	3.0	3.6	*7.9	3.0	3.2	2.9
Cash operating surplus(c)	**64.9**	**70.7**	**85.2**	**57.7**	**64.0**	**55.7**
Net capital expenditure on vehicles, machinery and equipment	21.5	23.3	19.8	22.7	24.5	17.9
Net capital expenditure on buildings, structures and other developments	8.0	6.4	6.2	4.8	2.1	*2.9
Total net capital expenditure	**29.5**	**29.7**	**26.0**	**27.5**	**26.6**	**20.8**
Value of land, buildings and other structures	1 049.3	1 093.7	1 137.0	803.9	778.2	944.0
Value of motor vehicles, machinery and equipment	181.6	186.5	198.6	157.2	166.2	168.4
Value of financial assets	102.4	118.2	166.9	87.7	73.9	92.9
Value of livestock	260.2	280.9	273.7	94.7	91.2	98.9
Total value of assets	**1 593.5**	**1 693.7**	**1 788.2**	**1 143.5**	**1 114.2**	**1 326.5**
Less						
Amounts owing to banks (including off-shore borrowings)	175.4	227.5	217.9	119.9	146.1	168.7
Amounts owing to pastoral and insurance companies etc.	13.6	10.5	8.8	7.2	*4.1	*14.0
Finance leasing	19.1	18.3	15.8	6.2	*13.0	7.2
Loans under hire-purchase and other instalment credit	8.6	10.9	11.5	11.5	11.5	31.4
Other amounts owing	55.3	46.8	55.4	26.8	*11.1	*30.0
Gross indebtedness	*272.0*	*324.1*	*309.6*	*172.0*	*191.4*	*251.8*
Net indebtedness	*169.6*	*205.8*	*142.7*	*84.3*	*117.5*	*158.9*
Net worth	**1 321.5**	**1 369.6**	**1 478.6**	**971.5**	**922.8**	**1 074.7**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.16 FARM BUSINESS FINANCES, Averages—Years ended 30 June *continued*

	WESTERN AUSTRALIA			TASMANIA		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$'000	$'000	$'000	$'000	$'000	$'000
Sales from crops	242.4	227.9	183.6	82.8	85.3	71.7
Sales from livestock	58.7	60.8	58.8	53.0	55.9	67.5
Sales from livestock products	63.9	56.9	58.1	74.3	68.5	75.4
Rent and leasing revenue	3.5	3.3	3.8	5.3	*4.0	*3.7
Other miscellaneous revenue	37.3	36.8	28.9	44.1	30.6	34.1
Turnover	**405.8**	**385.7**	**333.2**	**259.6**	**244.4**	**252.5**
Less						
Marketing expenses	37.0	36.4	35.7	15.6	16.1	16.0
Purchases of livestock	14.4	11.0	10.9	13.9	12.6	13.8
Payments for seed	5.1	4.6	5.1	5.2	4.3	3.3
Payments for fodder	9.0	7.9	7.6	7.8	6.2	8.4
Payments for fertiliser	46.5	46.0	36.4	19.0	18.6	16.5
Payments for crop and pasture chemicals	25.8	30.8	26.0	6.0	4.8	5.8
Payments for veterinary supplies and services	3.9	3.7	4.1	4.6	4.8	5.2
Payments for electricity	3.1	3.6	2.9	5.5	4.7	4.5
Payments for fuel	19.4	18.4	18.0	11.6	9.6	9.3
Water and drainage charges	0.9	1.0	1.1	0.2	*0.2	*0.3
Payments to contractors	19.0	17.6	19.7	13.5	14.5	15.3
Repairs and maintenance	30.1	28.0	25.8	19.1	17.9	18.0
Rent and leasing expenses	6.5	9.8	7.3	3.9	5.4	3.9
Other selected expenses	18.5	21.2	15.5	20.7	16.9	18.8
Purchases and selected expenses	*239.4*	*240.1*	*189.9*	*146.4*	*136.6*	*133.3*
Value added(a)	**170.3**	**143.7**	**148.6**	**108.7**	**116.2**	**130.5**
Industry value added(a)(b)	140.9	115.0	129.3	82.5	105.0	113.5
Less						
Rates and taxes	5.6	5.7	5.3	5.3	3.9	4.0
Insurance payments	9.8	9.6	9.6	6.4	5.5	5.7
Other expenses	11.6	13.0	11.2	7.6	6.8	7.6
Adjusted value added(a)	*143.3*	*115.4*	*122.4*	*89.4*	*100.0*	*113.2*
Less						
Wages salaries and supplements	26.3	27.2	22.8	39.1	30.5	31.3
Gross operating surplus(a)	*117.0*	*88.1*	*99.6*	*50.3*	*69.5*	*81.9*
Less						
Interest paid	22.4	23.6	25.7	19.0	15.1	14.7
Plus						
Interest, land rent received	5.4	4.9	4.8	3.1	3.5	2.4
Cash operating surplus(c)	**96.0**	**70.9**	**73.4**	**38.8**	**48.8**	**58.2**
Net capital expenditure on vehicles, machinery and equipment	43.7	35.7	28.5	19.1	12.9	17.2
Net capital expenditure on buildings, structures and other developments	8.6	*3.5	**	5.1	*1.1	2.2
Total net capital expenditure	**52.3**	**39.2**	**33.1**	**24.2**	**14.1**	**19.4**
Value of land, buildings and other structures	1 369.8	1 459.6	1 392.6	892.1	761.7	810.2
Value of motor vehicles, machinery and equipment	285.9	257.9	218.6	146.4	129.1	112.0
Value of financial assets	156.2	171.2	126.4	75.9	83.5	70.1
Value of livestock	148.8	149.0	154.0	130.4	130.2	134.1
Total value of assets	**1 960.7**	**2 048.5**	**1 935.1**	**1 244.8**	**1 112.6**	**1 138.2**
Less						
Amounts owing to banks (including off-shore borrowings)	201.1	198.8	200.0	121.6	109.1	130.2
Amounts owing to pastoral and insurance companies etc.	14.1	*19.3	21.6	33.2	26.9	*25.0
Finance leasing	12.6	10.3	*9.2	6.7	8.2	*10.2
Loans under hire-purchase and other instalment credit	32.7	36.3	68.4	7.0	*5.1	2.4
Other amounts owing	71.8	84.0	77.9	46.4	37.3	59.6
Gross indebtedness	*332.8*	*356.9*	*377.3*	*215.4*	*205.5*	*228.1*
Net indebtedness	*176.6*	*185.7*	*251.0*	*139.5*	*122.0*	*158.1*
Net worth	**1 627.9**	**1 691.6**	**1 557.8**	**1 029.4**	**907.1**	**910.1**

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.17 FARM BUSINESS FINANCES, By Industry—Years ended 30 June

	AGGREGATES			AVERAGES		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$'000	$'000	$'000
FRUIT (0114–0119)						
Sales from crops	1 942.9	2 307.4	2 070.3	190.6	229.0	197.0
Sales from livestock	29.4	*43.4	*59.5	2.9	*4.3	*5.7
Sales from livestock products	7.8	*5.2	**	0.8	*0.5	**
Turnover	2 144.6	2 588.5	2 520.0	210.3	256.8	239.8
Purchases and selected expenses	952.3	1 109.4	1 032.9	93.4	110.1	98.3
Value added(a)	1 190.6	1 473.7	1 510.8	116.8	146.2	143.8
Industry value added(a)(b)	1 083.3	1 442.9	1 371.8	106.3	143.2	130.5
Adjusted value added(a)	1 039.4	1 295.9	1 307.8	101.9	128.6	124.5
Gross operating surplus	606.2	784.6	785.3	59.4	77.9	74.7
Interest paid	108.1	113.9	148.4	10.6	11.3	14.1
Cash operating surplus(c)	518.0	701.6	640.1	50.8	69.6	60.9
Total net capital expenditure	194.1	297.1	213.6	19.0	29.5	20.3
Total value of assets	8 307.5	9 026.7	10 220.0	814.8	895.7	972.5
Gross indebtedness	1 371.7	1 976.0	2 098.6	134.5	196.1	199.7
Net indebtedness	557.2	**	**	54.6	**	**
Net worth	6 935.8	7 050.7	8 121.4	680.2	699.6	772.8
VEGETABLES (0113)						
Sales from crops	1 317.2	1 497.1	1 627.2	335.2	396.9	431.9
Sales from livestock	118.2	69.3	60.9	30.1	18.4	16.2
Sales from livestock products	46.0	*21.1	*7.2	11.7	*5.6	*1.9
Turnover	1 613.4	1 749.2	1 837.8	410.6	463.7	487.8
Purchases and selected expenses	930.3	996.9	1 001.7	236.8	264.3	265.9
Value added(a)	681.6	752.0	842.0	173.5	199.4	223.5
Industry value added(a)(b)	586.2	656.5	688.0	149.2	174.0	182.6
Adjusted value added(a)	599.3	674.4	748.6	152.5	178.8	198.7
Gross operating surplus	302.0	367.4	381.0	76.9	97.4	101.1
Interest paid	68.5	45.2	48.5	17.4	12.0	12.9
Cash operating surplus(c)	242.3	334.0	338.8	61.7	88.6	89.9
Total net capital expenditure	108.4	147.7	143.0	27.6	39.2	38.0
Total value of assets	4 880.5	4 152.3	4 150.6	1 242.2	1 100.8	1 101.7
Gross indebtedness	854.0	702.1	780.1	217.4	186.1	207.1
Net indebtedness	545.6	*282.2	415.6	138.9	*74.8	110.3
Net worth	4 026.5	3 450.2	3 370.5	1 024.8	914.7	894.6
GRAIN (0121)						
Sales from crops	4 174.0	3 488.8	3 214.6	343.8	252.0	236.4
Sales from livestock	413.8	429.4	459.8	34.1	31.0	33.8
Sales from livestock products	204.8	203.5	226.0	16.9	14.7	16.6
Turnover	5 171.5	4 517.7	4 282.9	426.0	326.4	315.0
Purchases and selected expenses	2 837.7	2 726.8	2 311.9	233.7	197.0	170.0
Value added(a)	2 279.9	1 861.3	2 032.8	187.8	134.5	149.5
Industry value added(a)(b)	2 024.9	1 633.6	1 807.5	166.8	118.0	133.0
Adjusted value added(a)	1 960.8	1 533.0	1 719.2	161.5	110.7	126.5
Gross operating surplus	1 748.6	1 304.5	1 501.2	144.0	94.2	110.4
Interest paid	269.2	251.1	307.2	22.2	18.1	22.6
Cash operating surplus(c)	1 574.1	992.9	1 183.3	129.7	71.7	87.0
Total net capital expenditure	666.4	635.2	346.9	54.9	45.9	25.5
Total value of assets	20 838.5	21 163.2	21 581.5	1 716.4	1 528.9	1 587.4
Gross indebtedness	3 667.6	3 874.8	4 532.9	302.1	279.9	333.4
Net indebtedness	2 363.7	2 780.6	3 383.6	194.7	200.9	248.9
Net worth	17 171.0	17 288.4	17 048.7	1 414.3	1 249.0	1 254.0

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.17 FARM BUSINESS FINANCES, By Industry—Years ended 30 June *continued*

	AGGREGATES			AVERAGES		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$'000	$'000	$'000
GRAIN–SHEEP/BEEF (0122)						
Sales from crops	2 241.3	2 275.8	2 114.5	121.1	123.9	119.2
Sales from livestock	947.1	1 071.2	1 033.2	51.2	58.3	58.3
Sales from livestock products	789.4	639.3	719.7	42.7	34.8	40.6
Turnover	4 390.0	4 340.7	4 277.0	237.2	236.4	241.2
Purchases and selected expenses	2 607.2	2 716.3	2 391.6	140.9	147.9	134.9
Value added(a)	1 689.7	1 703.3	2 025.4	91.3	92.8	114.2
Industry value added(a)(b)	1 375.5	1 460.5	1 757.5	74.3	79.5	99.1
Adjusted value added(a)	1 338.4	1 333.7	1 664.8	72.3	72.6	93.9
Gross operating surplus	1 072.4	1 010.5	1 463.1	57.9	55.0	82.5
Interest paid	281.7	327.0	363.3	15.2	17.8	20.5
Cash operating surplus(c)	923.3	661.0	1 011.1	49.9	36.0	57.0
Total net capital expenditure	481.2	416.4	327.1	26.0	22.7	18.4
Total value of assets	24 087.2	25 893.0	26 290.9	1 301.4	1 410.0	1 482.5
Gross indebtedness	3 518.8	4 531.5	4 706.1	190.1	246.8	265.4
Net indebtedness	2 341.9	3 233.6	2 916.7	126.5	176.1	164.5
Net worth	20 568.5	21 361.5	21 584.8	1 111.3	1 163.2	1 217.2
SHEEP–BEEF CATTLE (0123)						
Sales from crops	24.6	**	*65.7	3.7	**	*8.8
Sales from livestock	633.4	663.7	921.8	96.3	97.5	123.9
Sales from livestock products	393.4	298.6	336.3	59.8	43.9	45.2
Turnover	1 135.9	1 134.9	1 434.6	172.7	166.7	192.8
Purchases and selected expenses	663.7	664.1	798.7	100.9	97.5	107.3
Value added(a)	400.7	636.9	834.2	60.9	93.6	112.1
Industry value added(a)(b)	317.8	547.8	741.2	48.3	80.5	99.6
Adjusted value added(a)	288.5	517.7	689.7	43.9	76.0	92.7
Gross operating surplus	179.9	402.7	581.3	27.4	59.2	78.1
Interest paid	83.7	84.2	109.2	12.7	12.4	14.7
Cash operating surplus(c)	188.7	180.2	313.9	28.7	26.5	42.2
Total net capital expenditure	88.6	77.9	139.6	13.5	11.4	18.8
Total value of assets	10 321.6	11 306.0	12 940.6	1 569.6	1 660.7	1 739.1
Gross indebtedness	1 217.8	1 259.6	1 496.4	185.2	185.0	201.1
Net indebtedness	577.0	*643.1	**	87.7	*94.5	**
Net worth	9 103.8	10 046.4	11 444.2	1 384.4	1 475.7	1 538.0
SHEEP (0124)						
Sales from crops	113.3	252.4	193.5	9.6	22.5	17.2
Sales from livestock	432.3	477.0	528.1	36.6	42.5	47.0
Sales from livestock products	879.5	676.3	822.9	74.4	60.3	73.3
Turnover	1 563.8	1 526.6	1 722.0	132.4	136.1	153.4
Purchases and selected expenses	898.4	914.5	946.6	76.0	81.6	84.3
Value added(a)	532.7	649.5	898.1	45.1	57.9	80.0
Industry value added(a)(b)	423.5	538.3	747.1	35.8	48.0	66.6
Adjusted value added(a)	378.3	480.4	741.1	32.0	42.8	66.0
Gross operating surplus	244.5	328.8	619.8	20.7	29.3	55.2
Interest paid	111.9	139.8	176.4	9.5	12.5	15.7
Cash operating surplus(c)	291.7	*169.8	344.7	24.7	*15.1	30.7
Total net capital expenditure	119.0	74.1	96.0	10.1	6.6	8.5
Total value of assets	12 219.7	12 991.7	13 007.0	1 034.3	1 158.6	1 158.6
Gross indebtedness	1 535.4	1 643.3	1 937.6	130.0	146.6	172.6
Net indebtedness	942.6	1 010.3	1 362.2	79.8	90.1	121.3
Net worth	10 684.3	11 348.4	11 069.3	904.4	1 012.1	986.0

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.17 FARM BUSINESS FINANCES, By Industry—Years ended 30 June *continued*

	AGGREGATES			AVERAGES		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$'000	$'000	$'000
BEEF CATTLE (0125)						
Sales from crops	81.6	86.1	*100.6	5.5	6.3	*7.1
Sales from livestock	2 191.2	2 472.6	2 750.2	148.7	181.2	195.0
Sales from livestock products	19.1	**	30.7	1.3	**	2.2
Turnover	2 573.4	2 980.9	3 285.1	174.7	218.5	232.9
Purchases and selected expenses	1 664.0	1 782.2	1 966.9	113.0	130.6	139.4
Value added(a)	1 548.2	1 289.7	1 644.8	105.1	94.5	116.6
Industry value added(a)(b)	1 339.3	*1 078.1	1 387.2	90.9	*79.0	98.3
Adjusted value added(a)	1 337.3	*1 066.1	1 397.0	90.8	*78.1	99.0
Gross operating surplus	1 095.0	*808.9	1 161.3	74.3	*59.3	82.3
Interest paid	214.5	208.9	193.4	14.6	15.3	13.7
Cash operating surplus(c)	289.4	568.9	786.5	19.6	41.7	55.8
Total net capital expenditure	219.4	250.3	246.5	14.9	18.3	17.5
Total value of assets	23 768.7	23 083.3	24 143.5	1 613.4	1 691.7	1 711.6
Gross indebtedness	3 164.0	3 010.5	2 837.5	214.8	220.6	*201.2
Net indebtedness	1 521.2	1 378.8	*1 024.4	103.3	101.0	72.6
Net worth	20 604.7	20 072.8	21 306.0	1 398.6	1 471.1	1 510.5
DAIRY CATTLE (0130)						
Sales from crops	58.7	*71.9	*50.5	4.5	*5.7	*4.0
Sales from livestock	294.0	295.0	432.4	22.4	23.5	34.0
Sales from livestock products	2 647.0	2 742.6	2 658.2	201.4	218.1	209.1
Turnover	3 136.8	3 268.1	3 278.7	238.7	259.9	257.9
Purchases and selected expenses	1 856.4	1 881.9	1 868.5	141.3	149.6	147.0
Value added(a)	1 228.3	1 418.7	1 375.1	93.5	112.8	108.1
Industry value added(a)(b)	1 109.9	1 283.3	1 299.7	84.5	102.0	102.2
Adjusted value added(a)	1 075.2	1 251.7	1 206.2	81.8	99.5	94.9
Gross operating surplus	905.2	1 069.0	1 085.8	68.9	85.0	85.4
Interest paid	213.7	214.8	211.7	16.3	17.1	16.6
Cash operating surplus(c)	793.0	856.6	941.7	60.3	68.1	74.1
Total net capital expenditure	235.9	222.6	226.0	18.0	17.7	17.8
Total value of assets	16 714.9	16 513.7	16 386.3	1 271.9	1 313.1	1 288.8
Gross indebtedness	2 537.2	2 449.2	2 919.7	193.1	194.8	229.6
Net indebtedness	1 412.5	1 627.3	2 075.6	107.5	129.4	163.2
Net worth	14 177.7	14 064.5	13 466.6	1 078.8	1 118.4	1 059.2
POULTRY FOR EGGS (0142)						
Sales from crops	8.2	9.7	11.1	18.8	23.8	30.7
Sales from livestock	45.0	50.2	*77.6	102.7	123.6	*214.5
Sales from livestock products	395.8	253.0	222.1	903.7	623.2	613.8
Turnover	476.8	328.3	370.1	1 088.7	808.6	1 022.9
Purchases and selected expenses	331.0	249.0	236.0	755.6	613.4	652.2
Value added(a)	145.0	87.9	136.1	331.1	216.5	376.1
Industry value added(a)(b)	130.2	72.4	109.9	297.3	178.4	303.6
Adjusted value added(a)	124.9	70.0	121.5	285.2	172.5	335.7
Gross operating surplus	71.0	*31.4	*75.5	162.1	*77.3	*208.7
Interest paid	12.8	10.8	11.9	29.3	26.5	32.8
Cash operating surplus(c)	60.6	**	*62.8	138.3	**	*173.4
Total net capital expenditure	20.3	*17.7	24.5	46.3	*43.6	67.7
Total value of assets	607.1	607.8	682.2	1 386.1	1 497.1	1 885.4
Gross indebtedness	199.0	193.9	205.6	454.4	477.5	568.2
Net indebtedness	117.0	86.8	*84.2	267.1	213.8	*232.8
Net worth	408.1	414.0	476.6	931.7	1 019.6	1 317.1

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.17 FARM BUSINESS FINANCES, By Industry—Years ended 30 June *continued*

	AGGREGATES			AVERAGES		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$'000	$'000	$'000
PIGS (0151)						
Sales from crops	33.3	*32.9	*42.1	31.7	*34.8	*44.5
Sales from livestock	549.4	601.3	650.9	522.3	637.0	688.2
Sales from livestock products	6.5	*12.3	*17.6	6.2	*13.0	*18.6
Turnover	624.0	705.2	759.1	593.1	747.0	802.6
Purchases and selected expenses	464.3	470.6	505.7	441.3	498.5	534.7
Value added(a)	144.9	233.8	257.8	137.8	247.6	272.5
Industry value added(a)(b)	119.5	202.2	200.3	113.6	214.2	211.8
Adjusted value added(a)	114.6	202.0	220.9	108.9	214.0	233.6
Gross operating surplus	45.6	128.6	136.7	43.4	136.2	144.5
Interest paid	20.3	23.3	20.7	19.3	24.7	21.9
Cash operating surplus(c)	42.5	*107.6	113.0	40.4	*114.0	119.5
Total net capital expenditure	35.4	27.8	30.9	33.6	29.5	32.7
Total value of assets	1 379.8	1 344.2	1 352.7	1 311.6	1 423.9	1 430.2
Gross indebtedness	284.3	279.5	301.5	270.2	296.0	318.8
Net indebtedness	190.4	213.8	219.5	181.0	226.5	232.1
Net worth	1 095.6	1 064.7	1 051.2	1 041.4	1 127.9	1 111.4
SUGAR (0161)						
Sales from crops	1 124.4	1 023.5	858.5	231.8	224.7	182.5
Sales from livestock	17.3	*13.5	**	3.6	*3.0	**
Sales from livestock products	—	—	—	—	—	—
Turnover	1 262.2	1 267.9	1 104.7	260.3	278.4	234.9
Purchases and selected expenses	603.7	628.9	600.4	124.5	138.1	127.7
Value added(a)	672.2	637.4	507.5	138.6	140.0	107.9
Industry value added(a)(b)	612.4	575.4	424.5	126.3	126.3	90.3
Adjusted value added(a)	601.2	547.7	414.6	124.0	120.3	88.2
Gross operating surplus	484.0	425.2	306.1	99.8	93.4	65.1
Interest paid	48.4	73.8	82.5	10.0	16.2	17.5
Cash operating surplus(c)	430.4	380.9	237.1	88.7	83.6	50.4
Total net capital expenditure	129.6	*133.4	90.3	26.7	*29.3	19.2
Total value of assets	5 848.1	6 250.9	7 244.1	1 205.8	1 372.6	1 540.2
Gross indebtedness	824.1	1 443.1	1 287.1	169.9	316.9	273.7
Net indebtedness	489.2	*899.4	**	100.9	*197.5	**
Net worth	5 023.9	4 807.7	5 957.0	1 035.9	1 055.7	1 266.6
COTTON (0162)						
Sales from crops	1 481.3	1 394.4	1 487.1	1 479.8	1 398.6	1 424.0
Sales from livestock	76.7	64.8	*110.6	76.6	65.0	*105.9
Sales from livestock products	19.2	*13.7	*7.8	19.2	*13.7	*7.5
Turnover	1 658.7	1 633.4	1 766.1	1 657.0	1 638.3	1 691.1
Purchases and selected expenses	944.0	1 061.4	882.5	943.0	1 064.6	845.0
Value added(a)	701.6	581.3	901.8	700.9	583.0	863.5
Industry value added(a)(b)	634.1	521.4	542.9	633.5	523.0	519.9
Adjusted value added(a)	611.3	486.2	794.2	610.7	487.6	760.5
Gross operating surplus	485.2	329.6	646.3	484.7	330.6	618.9
Interest paid	90.0	85.6	117.6	89.9	85.9	112.6
Cash operating surplus(c)	423.6	248.1	527.2	423.2	248.9	504.8
Total net capital expenditure	179.3	174.9	176.6	179.2	175.5	169.1
Total value of assets	4 690.8	5 311.0	5 681.5	4 686.1	5 327.0	5 440.5
Gross indebtedness	1 455.0	1 935.9	1 955.6	1 453.5	1 941.7	1 872.6
Net indebtedness	741.7	1 374.4	1 366.7	741.0	1 378.6	1 308.7
Net worth	3 235.8	3 375.1	3 725.9	3 232.6	3 385.2	3 567.9

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.17 FARM BUSINESS FINANCES, By Industry—Years ended 30 June *continued*

	AGGREGATES			AVERAGES		
	1998	*1999*	*2000*	*1998*	*1999*	*2000*
Items	$m	$m	$m	$'000	$'000	$'000
OTHER AGRICULTURE (0111–0112, 0141, 0152–0159, 0169)						
Sales from crops	892.4	1 054.6	1 275.2	151.8	198.6	225.0
Sales from livestock	174.2	122.0	210.5	29.6	23.0	37.1
Sales from livestock products	147.9	*57.9	*78.2	25.2	*10.9	*13.8
Turnover	1 549.0	1 565.4	1 887.5	263.5	294.8	333.0
Purchases and selected expenses	719.3	706.7	770.5	122.4	133.1	136.0
Value added(a)	819.1	855.9	1 179.5	139.3	161.2	208.1
Industry value added(a)(b)	677.2	782.9	1 065.4	115.2	147.4	188.0
Adjusted value added(a)	675.8	732.3	1 034.3	115.0	137.9	182.5
Gross operating surplus	368.5	367.9	546.6	62.7	69.3	96.4
Interest paid	72.1	*66.8	75.5	12.3	*12.6	13.3
Cash operating surplus(c)	314.1	314.1	415.7	53.4	59.2	73.4
Total net capital expenditure	147.1	*97.8	*136.1	25.0	*18.4	*24.0
Total value of assets	4 706.8	4 778.6	5 052.8	800.6	899.9	891.6
Gross indebtedness	1 001.9	995.8	1 136.7	170.4	187.5	200.6
Net indebtedness	576.1	*346.7	*568.9	98.0	*65.3	*100.4
Net worth	3 704.9	3 782.8	3 916.1	630.2	712.4	691.0
AGRICULTURE ALL INDUSTRIES						
Sales from crops	13 493.1	13 564.3	13 110.9	129.4	132.3	126.3
Sales from livestock	5 922.0	6 373.4	7 300.9	56.8	62.2	70.3
Sales from livestock products	5 556.5	4 986.5	5 143.8	53.3	48.6	49.5
Turnover	27 300.1	27 606.6	28 525.6	261.8	269.3	274.8
Purchases and selected expenses	15 472.4	15 908.7	15 313.7	148.4	155.2	147.5
Value added(a)	12 034.4	12 181.4	14 145.8	115.4	118.8	136.3
Industry value added(a)(b)	10 433.7	10 795.2	12 143.0	100.1	105.3	117.0
Adjusted value added(a)	10 145.0	10 191.0	12 059.8	97.3	99.4	116.2
Gross operating surplus	7 608.1	7 359.1	9 290.1	73.0	71.8	89.5
Interest paid	1 595.1	1 645.3	1 866.3	15.3	16.1	18.0
Cash operating surplus(c)	6 091.7	5 529.1	6 915.8	58.4	53.9	66.6
Total net capital expenditure	2 624.7	2 573.1	2 197.1	25.2	25.1	21.2
Total value of assets	138 371.3	142 422.4	148 733.6	1 327.1	1 389.4	1 432.7
Gross indebtedness	21 630.8	24 295.4	26 195.4	207.5	237.0	252.3
Net indebtedness	12 376.0	14 406.0	14 983.6	118.7	140.5	144.3
Net worth	116 740.5	118 127.0	122 538.2	1 119.6	1 152.4	1 180.3

(a) Includes an estimate for the change in value of livestock.

(b) Refer to Explanatory Notes paragraph 15.

(c) Excludes any estimate for the change in value of livestock.

4.18 FARM BUSINESSES, By Size of Turnover—Years ended 30 June

Size of turnover	*1998*	*1999*	*2000*
	NUMBER OF FARM BUSINESSES		
	no.	no.	no.
<$50,000	22 463	20 029	19 171
$50,000–$99,999	20 232	18 718	18 689
$100,000–$149,999	13 254	15 047	16 120
$150,000–$199,999	11 550	11 159	11 717
$200,000–$249,999	6 695	8 036	8 311
$250,000–$299,999	5 031	5 308	5 529
$300,000–$499,999	13 399	12 563	11 956
$500,000–$999,999	8 192	8 164	9 135
$1,000,000–$1,999,999	2 533	2 651	2 257
$2 million and over	917	833	931
All ranges	**104 267**	**102 510**	**103 815**
	TOTAL TURNOVER		
	$m	$m	$m
<$50,000	620.9	607.2	625.1
$50,000–$99,999	1 562.6	1 440.5	1 488.4
$100,000–$149,999	1 666.2	1 887.2	1 944.4
$150,000–$199,999	2 064.9	1 993.9	2 138.9
$200,000–$249,999	1 514.8	1 830.6	1 886.5
$250,000–$299,999	1 398.2	1 470.9	1 528.5
$300,000–$499,999	5 077.0	4 862.9	4 704.5
$500,000–$999,999	5 638.4	5 542.7	6 178.3
$1,000,000–$1,999,999	3 269.8	3 504.9	2 886.9
$2 million and over	4 487.2	4 465.8	5 144.1
All ranges	**27 300.1**	**27 606.6**	**28 525.6**
	TOTAL CASH OPERATING SURPLUS(a)		
	$m	$m	$m
<$50,000	–51.8	**	19.4
$50,000–$99,999	343.3	235.1	269.2
$100,000–$149,999	411.3	*255.6	472.3
$150,000–$199,999	458.2	448.5	500.2
$200,000–$249,999	350.4	439.6	578.9
$250,000–$299,999	448.9	301.2	369.5
$300,000–$499,999	1 291.2	1 118.9	755.2
$500,000–$999,999	1 309.5	1 235.9	1 549.2
$1,000,000–$1,999,999	697.3	784.3	1 235.9
$2 million and over	833.5	737.3	1 164.2
All ranges	**6 091.7**	**5 529.1**	**6 915.8**

(a) Excludes any estimate for the change in value of livestock.

4.18 FARM BUSINESSES, By Size of Turnover—Years ended 30 June *continued*

Size of turnover	*1998*	*1999*	*2000*
	TOTAL GROSS INDEBTEDNESS		
	$m	$m	$m
<$50,000	860.9	755.2	1 013.4
$50,000–$99,999	1 366.5	1 488.6	1 462.7
$100,000–$149,999	1 277.1	1 815.7	1 794.9
$150,000–$199,999	1 581.8	1 727.0	2 273.3
$200,000–$249,999	1 340.8	1 606.2	1 585.3
$250,000–$299,999	1 135.1	1 088.5	1 549.0
$300,000–$499,999	3 925.3	4 351.9	4 853.1
$500,000–$999,999	4 858.6	4 506.3	5 762.3
$1,000,000–$1,999,999	2 178.7	3 411.0	2 362.8
$2 million and over	3 106.1	3 544.9	3 538.7
All ranges	**21 630.8**	**24 295.4**	**26 195.4**
	PROFIT MARGIN(a)		
	%	%	%
<$50,000	–8.3	–4.5	3.1
$50,000–$99,999	22.0	16.3	18.1
$100,000–$149,999	24.7	13.5	24.3
$150,000–$199,999	22.2	22.5	23.4
$200,000–$249,999	23.1	24.0	30.7
$250,000–$299,999	32.1	20.5	24.2
$300,000–$499,999	25.4	23.0	16.1
$500,000–$999,999	23.2	22.3	25.1
$1,000,000–$1,999,999	21.3	22.4	42.8
$2 million and over	18.6	16.5	22.6
All ranges	**22.3**	**20.0**	**24.2**

(a) Excludes any estimate for the change in value of livestock.

4.19 FARM BUSINESS PERFORMANCE MEASUREMENT RATIOS(a)

	NSW(b)	Vic.	Qld	SA	WA	Tas.	Aust.(c)
Profit margin (%)							
1989–90	21.0	23.7	23.1	33.3	27.3	23.1	24.4
1990–91	14.2	17.1	21.8	17.1	19.7	16.7	17.8
1991–92	13.0	19.6	16.6	24.0	13.8	14.4	16.7
1992–93	15.7	24.3	21.5	22.3	21.5	14.7	20.3
1993–94	18.8	21.8	19.8	24.0	22.6	16.1	20.4
1994–95	14.4	21.6	22.5	24.2	24.8	17.1	20.6
1995–96	18.9	23.3	24.3	33.4	29.0	15.8	24.1
1996–97	20.4	22.1	20.9	27.0	23.4	16.2	21.8
1997–98	21.8	22.6	21.9	25.0	23.7	14.9	22.3
1998–99	16.9	19.9	21.9	26.5	18.4	20.0	20.0
1999–2000	23.5	24.9	25.6	24.7	22.0	23.1	24.2
Return on assets (%)							
1989–90	3.8	4.2	4.2	6.8	5.8	4.5	4.6
1990–91	2.4	2.7	3.9	2.7	3.9	2.9	3.1
1991–92	2.0	3.2	2.8	4.7	2.7	2.7	2.9
1992–93	2.5	4.6	3.9	4.1	4.5	2.9	3.7
1993–94	3.4	4.1	3.8	4.5	4.9	3.3	3.9
1994–95	2.5	4.2	4.6	5.2	5.6	3.7	4.1
1995–96	3.8	5.0	4.5	8.0	7.1	3.9	5.0
1996–97	4.0	4.6	3.9	5.8	4.9	3.6	4.4
1997–98	4.2	4.6	4.0	5.4	5.1	3.3	4.4
1998–99	3.3	4.0	4.2	5.6	3.5	4.1	3.9
1999–2000	5.0	5.0	4.9	4.6	3.7	5.1	4.8
Return on net worth (%)							
1989–90	4.4	4.7	4.8	7.6	6.7	5.1	5.2
1990–91	2.8	3.0	4.5	3.1	4.6	3.4	3.6
1991–92	2.4	3.6	3.2	5.4	3.2	3.3	3.3
1992–93	2.9	5.2	4.5	4.8	5.2	3.5	4.3
1993–94	4.0	4.6	4.4	5.3	5.8	4.0	4.5
1994–95	2.9	4.8	5.4	6.0	6.7	4.5	4.7
1995–96	4.4	5.7	5.3	9.4	8.7	4.8	5.9
1996–97	4.7	5.2	4.6	6.9	5.8	4.3	5.1
1997–98	4.9	5.3	4.8	6.4	6.1	4.0	5.2
1998–99	3.9	4.7	5.1	6.7	4.3	5.0	4.7
1999–2000	6.0	5.8	6.0	5.6	4.5	6.3	5.7
Return on farm operating costs (%)							
1989–90	25.7	29.9	28.9	47.1	35.7	28.8	31.0
1990–91	16.1	19.9	26.8	19.7	23.7	19.1	20.9
1991–92	14.6	23.8	19.4	30.4	15.7	16.3	19.5
1992–93	18.3	31.4	26.8	27.7	26.7	16.9	25.0
1993–94	22.8	27.3	24.2	30.9	28.6	18.8	25.2
1994–95	16.5	27.0	28.5	31.5	32.3	20.3	25.4
1995–96	22.7	29.4	31.3	48.3	39.7	18.3	30.7
1996–97	24.7	27.2	25.9	35.7	29.5	18.6	26.9
1997–98	27.2	28.4	27.4	32.4	30.0	17.2	28.0
1998–99	19.9	24.0	27.4	34.7	21.8	24.2	24.3
1999–2000	29.7	32.0	33.0	31.6	27.2	29.3	30.9
Debt to asset ratio							
1989–90	7.3	8.8	8.1	8.6	6.7	7.3	7.8
1990–91	7.6	8.8	7.7	7.2	6.2	6.5	7.6
1991–92	7.1	9.0	7.0	7.2	7.1	5.3	7.3
1992–93	7.1	8.5	7.2	7.3	6.4	6.1	7.2
1993–94	7.9	8.9	6.6	6.9	6.2	6.0	7.3
1994–95	7.2	7.6	6.4	7.0	5.4	5.2	6.7
1995–96	6.7	8.6	6.6	6.8	5.6	6.0	6.8
1996–97	7.1	7.3	6.3	6.0	6.6	5.5	6.7
1997–98	6.8	7.1	5.9	6.6	5.9	5.8	6.4
1998–99	5.8	7.2	5.2	5.8	5.7	5.4	5.9
1999–2000	5.4	6.9	5.8	5.3	5.1	5.0	5.7

(a) Refer to paragraphs 5–7 and 14 of the Explanatory Notes. (b) Includes the Australian Capital Territory. (c) Includes the Northern Territory.

4.19 FARM BUSINESS PERFORMANCE MEASUREMENT RATIOS(a) *continued*

	NSW(b)	Vic.	Qld	SA	WA	Tas.	Aust.(c)
Turnover to debt ratio							
1989–90	0.69	0.56	0.66	0.56	0.61	0.62	0.63
1990–91	0.78	0.72	0.71	0.81	0.78	0.83	0.75
1991–92	0.88	0.69	0.81	0.71	0.76	0.91	0.78
1992–93	0.87	0.61	0.77	0.74	0.71	0.90	0.75
1993–94	0.72	0.61	0.75	0.75	0.73	0.80	0.72
1994–95	0.76	0.62	0.76	0.68	0.77	0.83	0.73
1995–96	0.72	0.58	0.83	0.60	0.74	0.72	0.71
1996–97	0.73	0.61	0.83	0.72	0.80	0.79	0.74
1997–98	0.75	0.68	0.90	0.73	0.75	0.81	0.77
1998–99	0.83	0.69	0.94	0.76	0.90	0.87	0.80
1999–2000	0.84	0.70	0.95	1.00	1.10	0.90	0.90
Interest coverage ratio							
1989–90	3.0	3.4	3.1	4.4	4.0	3.2	3.4
1990–91	2.2	2.6	3.2	2.4	2.9	2.5	2.7
1991–92	2.1	3.3	2.7	3.9	2.6	2.3	2.7
1992–93	2.9	4.3	3.9	3.9	4.2	2.7	3.7
1993–94	3.9	4.9	4.2	5.2	5.0	3.6	4.4
1994–95	3.0	4.4	4.8	4.8	5.0	3.5	4.2
1995–96	3.8	5.2	4.6	6.4	6.4	3.2	4.9
1996–97	4.2	4.8	4.0	5.0	5.1	3.2	4.4
1997–98	4.8	5.1	4.6	4.9	5.3	3.0	4.8
1998–99	3.8	4.7	4.6	5.5	4.0	4.2	4.4
1999–2000	4.6	5.4	5.1	4.0	3.9	5.0	4.7
Interest paid as a proportion of turnover (%)							
1989–90	10.8	10.1	10.8	9.7	9.0	10.6	10.2
1990–91	12.2	10.6	9.8	11.9	10.2	11.2	10.8
1991–92	12.2	8.7	9.5	8.1	8.4	11.1	9.8
1992–93	8.2	7.4	7.4	7.7	6.6	8.7	7.5
1993–94	6.4	5.6	6.3	5.7	5.6	6.2	6.0
1994–95	7.1	6.3	6.0	6.4	6.3	6.7	6.4
1995–96	6.7	5.5	6.8	6.2	5.4	7.1	6.2
1996–97	6.4	5.8	6.9	6.8	5.7	7.3	6.3
1997–98	5.8	5.5	6.0	6.5	5.5	7.3	5.8
1998–99	6.2	5.4	6.1	5.9	6.1	6.2	6.0
1999–2000	6.5	5.7	6.2	8.1	7.7	5.8	6.5
Farm operating costs as a proportion of turnover (%)							
1989–90	81.9	79.3	80.0	70.6	76.6	80.0	78.8
1990–91	88.5	85.9	81.2	87.0	83.2	87.2	85.2
1991–92	89.3	82.5	85.7	78.8	88.1	87.9	85.6
1992–93	85.9	77.5	80.0	80.4	80.5	87.0	81.4
1993–94	82.5	79.8	81.7	77.7	79.0	85.3	81.0
1994–95	87.3	79.8	78.9	76.9	76.8	84.4	80.9
1995–96	83.5	79.3	77.7	69.1	73.2	86.4	78.3
1996–97	82.9	81.2	80.9	75.7	79.1	87.1	81.0
1997–98	80.3	79.7	79.8	77.1	78.8	87.1	79.8
1998–99	85.1	82.9	80.0	76.4	84.2	82.7	82.3
1999–2000	78.9	77.7	77.7	78.3	80.8	78.7	78.5

(a) Refer to paragraphs 5–7 and 14 of the Explanatory Notes.

(b) Includes the Australian Capital Territory.

(c) Includes the Northern Territory.

4.20 REAL ESTIMATES(a) (Base Year 1998–99)

	Cash operating surplus	*Real cash operating surplus*	*Net worth*	*Real net worth*
	$m	$m	$m	$m
1999–2000				
New South Wales(b)	1 985.1	1 963.5	33 155.4	32 794.7
Victoria	1 474.0	1 460.8	25 818.9	25 588.6
Queensland	1 766.5	1 759.5	30 672.6	30 550.4
South Australia	684.3	675.5	13 203.4	13 033.9
Western Australia	783.4	772.6	16 633.1	16 403.4
Tasmania	155.7	155.0	2 433.6	2 423.9
Australia(c)				
1989–90	5 330.6	6 271.3	98 239.0	115 575.3
1990–91	3 142.8	3 535.2	92 768.3	104 351.3
1991–92	3 095.0	3 397.4	93 598.4	102 742.5
1992–93	4 083.2	4 381.1	95 868.5	102 863.2
1993–94	4 433.3	4 686.4	100 679.0	106 426.0
1994–95	4 835.7	5 074.2	103 930.7	109 056.3
1995–96	6 429.3	6 614.5	113 494.4	116 763.8
1996–97	5 906.3	6 033.0	116 703.3	119 206.6
1997–98	6 091.7	6 147.0	116 740.5	117 800.7
1998–99	5 529.1	5 529.1	118 127.0	118 127.0
1999–2000	6 915.8	6 854.1	122 538.2	121 445.2

(a) Refer to paragraphs 25–27 of the Explanatory Notes.

(b) Includes the Australian Capital Territory.

(c) Includes the Northern Territory.

CHAPTER 5 LAND MANAGEMENT

LAND USE

An estimated 456 million hectares or 59% of Australia's land mass was used for agricultural activity in 1999–2000. Queensland had the largest estimated land area in agricultural use, with 145 million hectares, or 32% of the national total, followed by Western Australia with 106 million hectares, or 23% of the national total.

The estimated area planted to crops increased by 2% to 23.8 million hectares in 1999–2000. The area devoted to sown pastures and grasses also increased, up by 6% to 23.8 million hectares.

5.1 LAND USE, Area

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
					CROPS(a)				
1998	5 592	2 565	2 684	3 290	7 328	78	4	—	21 541
1999	6 173	2 749	3 014	3 648	7 597	76	7	—	23 264
2000	6 114	3 081	3 130	3 670	7 691	77	6	—	23 769
					PASTURES AND GRASSES				
1998	5 263	4 639	4 298	2 595	5 220	710	41	13	22 778
1999	5 588	4 739	4 004	2 491	4 902	743	41	13	22 523
2000	6 397	4 702	4 455	2 391	4 947	746	163	14	23 814
					AGRICULTURAL LAND(b)				
1998	60 333	12 691	148 186	57 516	115 771	1 914	67 324	50	463 786
1999	59 284	12 790	140 310	59 385	113 099	1 928	66 885	49	453 729
2000	62 093	13 251	145 420	59 901	105 557	1 793	67 453	47	455 516
					NON-AGRICULTURAL LAND(c)(d)				
1998	19 731	10 051	24 879	40 832	137 217	4 926	67 589	186	305 417
1999	20 780	9 952	32 755	38 963	139 889	4 912	68 028	187	315 474
2000	17 971	9 491	27 645	38 447	147 431	5 047	67 460	189	313 687
					TOTAL LAND(d)				
2000	**80 064**	**22 742**	**173 065**	**98 348**	**252 988**	**6 840**	**134 913**	**236**	**769 203**

(a) Excludes crops harvested for hay and seed.

(b) Total area of establishments with EVAO of $5,000 or more.

(c) Comprises conserved land, forestry, urban and unused land such as vacant Crown land, commercially unused land on Aboriginal and other Crown reserves and waste land, ephemeral lakes, mangrove swamps, etc. as well as establishments not included in the scope of the ACS.

(d) Total area for Australia includes Jervis Bay Territory.

NOTE: Agricultural land is generally divided into cropped land, land sown to pastures and grasses and a broad balance comprising grazing land, land lying idle or under fallow, etc.

IRRIGATION

Irrigation has allowed agricultural activities in areas of Australia where they would not otherwise have occurred (ABS 1996). In 1996–97 agriculture accounted for 70% of total water use in Australia (ABS 2000). A similar result was found by the National Land and Water Resources Audit which estimated that irrigation practices accounted for 75% of Australia's water use (NLWRA 2001). In 1996–97 the gross value of irrigated crops and pastures was $7.2 billion, or around one quarter of the gross value of all agriculture production.

In 1999–2000, 2.4 million hectares of land were irrigated, up by 6% on the previous year. The dominant irrigated crop was pastures, comprising 39% of total area irrigated in Australia. There were, however, differences between States and Territories. For example, in New South Wales cereals and cotton made up 31% and 28% respectively of area irrigated, while in Queensland, sugar cane was the dominant irrigated crop accounting for 36% of irrigated land.

The most intensively irrigated crops were rice, cotton and grapes with 97%, 96% and 81%, respectively, of their growing areas recorded as being irrigated.

Most of the irrigated land is located within the confines of the Murray–Darling Basin, which covers parts of New South Wales, Victoria, Queensland and South Australia.

5.2 AREA OF CROPS AND PASTURES IRRIGATED

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
Pastures (native or sown)											
Annual	(a)	534	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Perennial	(a)	452	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total pastures	*1 048*	*986*	*925*	*265*	*505*	*54*	*58*	*10*	*28*	*4*	—
Cereals											
Rice	(a)	148	127	127	(a)	(a)	(a)	—	(a)	—	—
Other cereals	378	218	253	165	(a)	(a)	(a)	—	(a)	—	—
Total cereals	*378*	*366*	*380*	*294*	*24*	*54*	*4*	—	*2*	—	—
Vegetables for human consumption	103	97	99	14	21	28	11	8	17	—	—
Fruit (including nuts)	96	94	97	23	23	23	17	6	3	1	—
Grapes	88	108	114	25	31	2	50	5	—	—	—
Sugar cane for crushing	201	156	202	—	(a)	200	(a)	2	(a)	(a)	(a)
Cotton	(a)	375	417	268	(a)	149	(a)	*1	(a)	(a)	(a)
All other crops	450	77	84	36	9	18	8	1	12	—	—
Total area irrigated	**2 365**	**2 251**	**2 384**	**944**	**626**	**548**	**159**	**39**	**62**	**6**	**—**

(a) Data not separately collected.

IRRIGATION *continued*

The method of irrigation used influences the efficiency of water use and the value of the harvested crop (Smith 1998). A number of factors affect the choice of irrigation method: cost; available technology; soil type; type of crop; climate and topography.

In 1999–2000 furrow or flood irrigation methods were used for nearly 70% of all irrigated land. Flood irrigation, used on the majority of pastures and cereal crops, is popular probably because it is cheaper than the other methods available (Vic SoE 1991). If not managed correctly, furrow and flood irrigation can be highly inefficient and have detrimental effects on the water table and surrounding water bodies. Technological innovations, such as laser levelling, have improved water efficiency in recent years helping to decrease over-irrigation due to uneven ground (Smith 1998).

In 1999–2000, the spray method was used on approximately 22% of irrigated land. Spray irrigation has a higher installation cost and is used for the application of slightly more saline water (generally from groundwater sources). The spray method produces less waterlogging than the flooding method, but is ineffective in high winds and can sometimes wash fertilisers from the crop (Smith 1998).

The drip or micro irrigation method is used on a much smaller scale than other methods, accounting for approximately 8% of irrigated land in 1999–2000. This method is used on high value crops including grapes, citrus and tomatoes. Although the drip method (also known as trickle) is highly efficient, as evaporation losses are substantially reduced, it has higher installation and maintenance costs (Smith 1998).

5.3 IRRIGATION METHODS USED, Percentage reported—Year ended 30 June 2000

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Australia*
	%	%	%	%	%	%	%	%	%
Spray method (excluding micro spray)	11	12	37	44	23	86	26	58	22
Drip or micro spray	3	5	8	33	38	6	68	42	8
Furrow or flood	85	82	54	21	35	8	—	—	70
Other	*1	*—	1	1	4	—	5	—	1
Irrigation methods reported	100	100	100	100	100	100	100	100	100

PROBLEMS ARISING FROM IRRIGATION

Salinity has gained prominence as a national environmental problem in recent years (see the National Action Plan for Salinity and Water Quality). Of particular concern is the problem of salinity in the Murray–Darling Basin brought about by extensive farming and changes in land cover. It is predicted that by 2100, many rivers in the Murray–Darling Basin will have salinity levels exceeding the World Health Organisation minimum acceptable standards for drinking water (MDBC 1999).

PROBLEMS ARISING FROM IRRIGATION *continued*

One factor contributing to salinity is the raising of water tables as a result of accelerated recharge of underground water from irrigated land (ABS 2001), which results in increased salt loads entering river systems. Reduced river flows, brought about by the construction of dams, weirs and water diversions, compound the problem as there is inadequate flow to dilute the saline groundwater inflows (ABS 1996).

Other problems associated with irrigation practices include the decline in soil structure in intensely irrigated areas, and a decline in water quality as a result of the high levels of fertilisers used in conjunction with some irrigation methods. Continued awareness of the need for greater efficiency and technological advancements should help to improve land management practices and reduce the decline in the health of land and water assets.

GROUND PREPARATION METHODS

Information on ground preparation methods was only collected for Victoria in 1999–2000. However, the 2000–2001 Agricultural Census will collect data for all States and Territories.

This data is important for assessing the susceptibility of land to wind and water erosion and estimating the amount of organic matter retained on land. The latter has implications for carbon storage, an important consideration in discussions relating to carbon sinks and the Kyoto Protocol. In general, the fewer the cultivations, the less soil disturbance and erosion.

In 1999–2000, 43% of the land prepared for broadacre crops in Victoria was subjected to more than two cultivations prior to sowing, while 38% of the land was subjected to one or two cultivations immediately prior to sowing, and 18% of the land was subjected to no cultivation (other than the actual sowing operation).

This pattern was similar to that reported in 1997–98. The dramatic uptake of one or two cultivations immediately prior to sowing evident in 1998–99 is believed to reflect the very dry autumn conditions throughout Victoria which shortened the time available for the cultivation and planting of crops.

The treatment of stubble prior to planting in Victoria for the 1999–2000 season was similar to the previous season. Ploughing-in was again the most prevalent method of treatment, although the percentage treated this way fell from 33% in 1998–99 to 32% in 1999–2000. Stubble removal by burning increased from 19% in 1998–99 to 21% in 1999–2000. Baling, heavy grazing or fire harrowing methods increased from 18% to 19%, while the mulching method also increased, up from 15% to 16% of total area of stubble.

The preparation of fallow land for the 1999–2000 season in Victoria continued to see cultivation-based methods dominate, with 61% of total fallow (671,000 hectares) prepared using this method. Complete chemical knockdown methods increased to 22% (up from 17% in 1998–99), while the use of pasture topping declined, down from 18% in 1998–99 to 16% in 1999–2000.

GROUND PREPARATION METHODS *continued*

5.4 GROUND PREPARATION METHODS, VICTORIA

	1998	*1999*	*2000*
	'000 ha	'000 ha	'000 ha
CULTIVATION FOR BROADACRE CROPS			
More than two cultivations using discs, tines, ploughs, etc.	962	473	1 161
One or two cultivations immediately prior to sowing	705	1 577	1 028
No cultivation (apart from actual sowing operation)	350	400	495
Total area prepared for sowing of broadacre crops	**2 017**	**2 450**	**2 684**
TREATMENT OF CROP AND PASTURE STUBBLE			
Removed by burning (excluding fire harrowing)	330	326	403
Removed by baling, heavy grazing or fire harrowing	287	311	359
Ploughed into the soil	442	555	605
Mulched	258	249	311
Left intact	232	242	235
METHOD OF PREPARATION OF FALLOW LAND			
Pasture topping	186	173	179
Complete chemical fallow using knockdown herbicide	178	162	245
Cultivation (with or without herbicide)	558	633	671

FENCING

In 1999–2000 the total length of new fencing constructed to protect areas from grazing was 48,900 km. This was 41% more than in the previous year, but only fractionally up on the 1996–97 data. In all years, the protection of planted trees and shrubs was the predominant reason reported for fence construction, with 32% of all new fencing constructed for this purpose in 1999–2000. Fencing of saline areas represented approximately 10% of total new fencing constructed in each of the survey years.

5.5 FENCING BUILT FOR PROTECTION FROM GRAZING (a)

	AUSTRALIA			2000							
	1997	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	km	km	km	km	km	km	km	km	km	km	km
Remnant native vegetation	9 152	6 269	8 592	2 593	1 244	590	*1 496	2 098	564	1	6
Planted trees and shrubs	22 362	12 275	15 476	4 587	4 986	324	1 401	3 924	220	13	22
Creeks and rivers	6 842	7 388	8 849	1 978	2 547	*1 322	419	1 973	542	54	15
Saline areas	4 799	3 570	5 499	1 290	885	—	752	1 972	*44	0	0
Other degraded areas	4 401	*3 494	2 833	*278	*537	—	*296	434	29	2	0
All other areas	(b)	1 593	7 686	1 296	2 629	*2 331	390	719	200	111	10
Total fencing length	**47 555**	**34 590**	**48 933**	**12 020**	**12 827**	**6 381**	**4 753**	**11 120**	**1 598**	**181**	**53**

(a) For 1997–98 data were only collected for WA and are not included in this table.

(b) Data not collected.

TREES AND SHRUBS PLANTED

In 1999–2000 an estimated 43.4 million trees and shrubs were planted as seedlings on 153,000 hectares. While this represents the best estimate from the data available, the result should be interpreted with caution owing to high variability in responses, which may be due to difficulties in attributing tree plantings to specific purposes.

One third (or 15.0 million) of the seedlings planted were for timber and pulp production but accounted for only 10% (14,700 hectares) of the total area planted. The remaining 28.3 million trees were planted for other purposes, which included nature conservation, enhanced production (e.g. shade, windbreaks, shelter belts), fodder and plant products (e.g. bush food, oil plants) and protection of land and water, and accounted for 138,000 hectares.

Tree planting data were also collected in 1996–97 and 1998–99. In 1996–97, 31.7 million trees and shrubs were reported to have been planted. This figure increased to 50.8 million trees and shrubs in 1998–99.

5.6 TREES AND SHRUBS PLANTED AS SEEDLINGS (a)

	1997		1999		2000	
	No.	*Area*	*No.*	*Area*	*No.*	*Area*
	'000	ha	'000	ha	'000	ha
Seedlings planted for						
Timber or pulp production	10 952	9 681	17 271	(b)	15 020	14 695
Other purposes						
Nature conservation	(b)	(b)	1 656	7 234	3 551	34 697
Enhanced production (e.g. shade, windbreaks, etc.)	(b)	(b)	5 928	23 526	5 967	46 219
Fodder and plant products (e.g. bush food, oils, etc.)	(b)	(b)	14 708	7 720	6 808	8 520
Protection of land and water	(b)	(b)	10 485	32 676	11 382	47 361
Other plantings	(b)	(b)	738	1 654	*632	1 353
Total other purposes	20 726	*71 862*	*33 515*	*72 809*	*28 341*	*138 150*
Total seedlings planted	**31 678**	**81 543**	**50 786**	**(b)**	**43 361**	**152 844**

(a) For 1997–98 data were only collected for WA and are not included in this table.

(b) Data not collected.

ENVIRONMENT PROTECTION EXPENDITURE

The ABS has collected environment protection expenditure data from Australian governments, businesses and households since 1990–91 and for the agricultural industry (i.e. businesses classified to ANZSIC Subdivision 01) since 1991–92 (see ABS 1999). These data provide decision-makers and researchers in both the public and private sectors with information that allows for the assessment of policies, legislation, market forces and related economic instruments, designed to increase environmental protection. It can also be used for providing an indication of the demand for goods and services supplied by the 'environment management' industry.

ENVIRONMENT PROTECTION EXPENDITURE *continued*

Information on environment protection expenditure by the agriculture industry for 1999–2000 is found in Table 5.7. The total expenditure of $221 million represents 1% of total turnover in the agricultural industry. Government subsidies to the industry provided an additional $27.1 million for environmental protection. The largest expenditure by the industry was $49.5 million (22%) on earthworks for sustainable land management, including the construction of contour banks and alteration of slopes/creek banks to reduce erosion. Weed prevention and control (17%) and the construction and maintenance of fences (17%) were the next largest areas of expenditure.

Data was last published for the year 1996–97 (ABS 1999). In 1996–97 total environment protection expenditure was $192 million. The 1999–2000 estimate represents a 15% increase from 1996–97 in actual dollar terms. Comparisons between years must be made with caution owing to the continuing evolution of the collection and presentation of data.

5.7 ENVIRONMENT PROTECTION EXPENDITURE, AGRICULTURE—Year ended 30 June 2000

	$million
Environmental taxes, levies, fines and licences paid to government	1.8
Construction and maintenance of fences	37.2
Weed prevention and control	38.4
Control of non-native feral animals	12.0
Establishing and maintaining vegetation for land management	26.3
Earthworks for sustainable land management purposes	49.5
Disposal, treatment and transportation of liquid waste and waste water	11.7
Converting from open to reticulated irrigation to manage salinity and/or to reduce evaporation	22.0
Handling, storage, transport or disposal of non-hazardous solid waste	5.6
Preventing accidental soil contamination by agricultural chemicals and other hazardous waste	2.4
Controlling unpleasant smells, smoke and other emissions	0.7
Measures to protect cultural heritage places	11.4
Self-education costs for environmental/sustainable management	2.2
Total	**221.3**
Government subsidies for environmental protection/management	27.1

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CHAPTER 6 CROPS AND PASTURES

OVERVIEW

Within the cropping sector the production of wheat, canola and grain sorghum increased while the production of barley and oats fell. This increase in wheat production largely reflects the improved outlook for wheat prices at the time of planting the 1999–2000 crop. The increase in area sown to canola, despite poor price prospects at the time of sowing, reflects the benefits of rotational planting of canola, and the introduction of improved varieties which have allowed the utilisation of more marginal land for production. Reductions in sowings of barley and oats are blamed in part on poor price prospects and cutbacks in water allocations at planting time.

WHEAT

The total area of wheat planted increased by 5% to a near record 12.2 million hectares in 1999–2000, largely as a result of significant increases in Victoria and New South Wales (up by 286,000 hectares and 251,000 hectares, respectively). All other States, except Queensland which fell slightly, recorded increased plantings. Western Australia had the largest area planted with 4.6 million hectares, followed by New South Wales with 3.4 million hectares.

Production of wheat increased by 15% to a record 24.8 million tonnes in 1999–2000. Improved average yields in New South Wales, Victoria and Western Australia combined with increased plantings in New South Wales and Victoria resulted in significant increases in production in these States. New South Wales recorded the biggest increase in production, up by 2.0 million tonnes (or 31%) to 8.6 million tonnes, followed by Victoria which was up by 1.2 million tonnes (or 81%) to 2.6 million tonnes. Dry conditions in South Australia resulted in lower than average yields, which more than offset increased plantings, and saw total production fall by 22% to 2.6 million tonnes. Western Australia remained the biggest producer of wheat with an 834,000 tonne (or 10%) increase in production giving a record State harvest of 9.0 million tonnes.

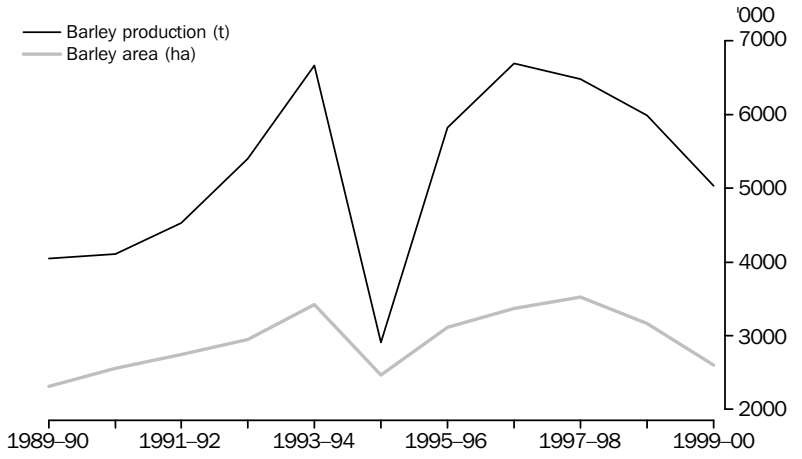
6.1 WHEAT PRODUCTION AND AREA

BARLEY

The total area of barley planted fell by 18% to 2.6 million hectares in 1999–2000. Significant falls in plantings were recorded in all States except Victoria, which was up slightly. The biggest decrease in area planted was in Western Australia, which was down by 32% (or 261,000 hectares) to 550,000 hectares. South Australia continued to have the largest plantings with 845,000 hectares (down 13% or 130,000 hectares) and was followed by Victoria with 585,000 hectares (having overtaken Western Australia as the second largest barley grower).

Barley production continued to fall, decreasing by 16% to 5.0 million tonnes in 1999–2000. Falls in barley production were recorded in all States except Victoria. The Victorian crop showed a significant increase in production following a return to better yields after a poor season in 1998–99. Improved yields were also reported in New South Wales and Western Australia but these were not enough to compensate for the reduction in the area planted in these States. South Australia was the main barley producing State but reduced plantings and lower than average yields (due to poor seasonal conditions) resulted in a 31% fall in production, to 1.4 million tonnes.

6.2 BARLEY PRODUCTION AND AREA



GRAIN SORGHUM

The total area of sorghum planted for grain increased by 6% or 35,000 hectares to 622,000 hectares in 1999–2000 with increased plantings in Queensland being partially offset by decreases in New South Wales.

Production of grain sorghum increased by 12% or 225,000 tonnes to 2.1 million tonnes in 1999–2000 as a result of increased production in Queensland. This made grain sorghum the third biggest cereal crop (in terms of production) in Australia despite it only being grown in significant quantities in Queensland and New South Wales.

GRAIN SORGHUM *continued*

6.3 GRAIN SORGHUM PRODUCTION AND AREA

OATS

The total area sown to oats fell by 36% to 584,000 hectares in 1999–2000 with decreased plantings recorded in all States.

Production of oats fell by 38% to 1.1 million tonnes in 1999–2000 with falls recorded in all States. The largest falls in production were recorded in New South Wales (down by 385,000 tonnes or 58% to 284,000 tonnes) and Victoria (down by 162,000 tonnes or 35% to 296,000 tonnes), leaving Western Australia as the main producing State with a harvest of 439,000 tonnes.

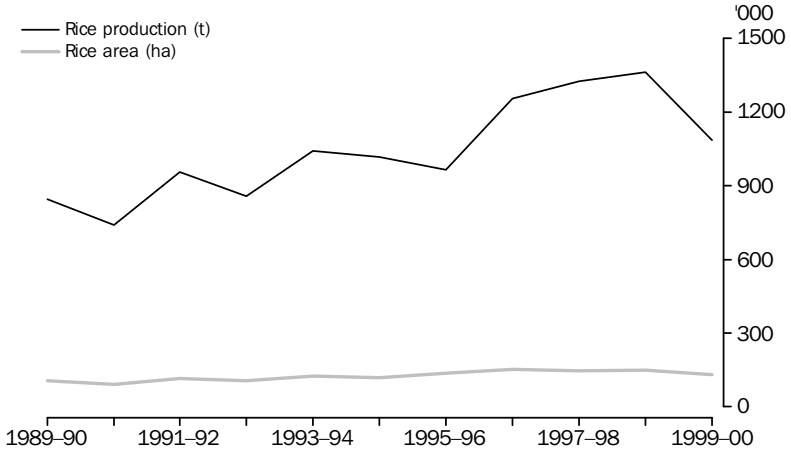
6.4 OATS PRODUCTION AND AREA

RICE

The total area of rice planted fell by 12% to 131,000 hectares in 1999–2000, with rice growers reporting that reduced water allocations had kept the area planted down.

Poor growing conditions saw a decrease in average yield to 8.3 tonnes per hectare in 1999–2000 (down from 9.2 tonnes per hectare in the previous season). The fall in average yields pushed total rice production down by 20% to 1.1 million tonnes in 1999–2000. New South Wales was the main rice producing State with virtually all of the Australian production.

6.5 RICE PRODUCTION AND AREA

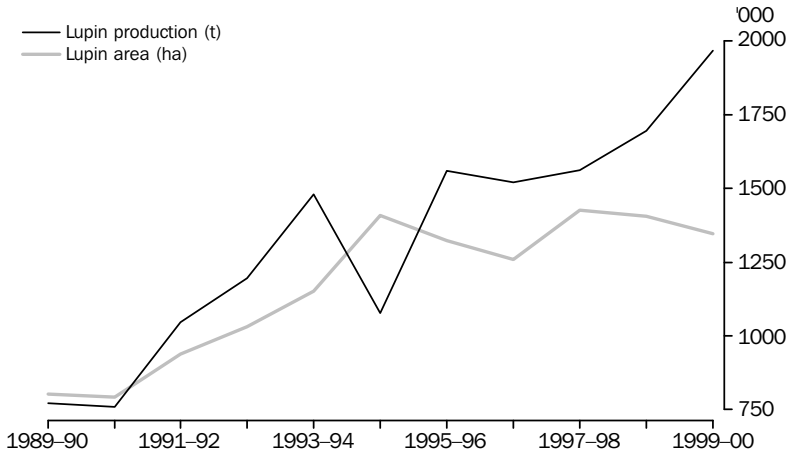


LUPINS

The total area of lupins planted for grain fell by 4% to 1.3 million hectares in 1999–2000 as farmers reacted to poor price prospects at time of planting. Western Australia was again the main growing State with 82% of the total area planted.

The production of lupins for grain increased by 16% to 2.0 million tonnes in 1999–2000. A very good growing season in Western Australia pushed the average overall yield from 1.2 tonnes per hectare in 1998–1999 up to 1.5 tonnes per hectare in 1999–2000.

6.6 LUPINS PRODUCTION AND AREA



CROPS AND PASTURES CUT FOR HAY

The total area of crops and pastures cut for hay fell by 12% to 1.4 million hectares in 1999–2000 after an equivalent rise the year before. The area of pastures cut for hay fell by 12% to 1.0 million hectares and the area of crops cut for hay decreased by 14% to 404,000 hectares.

The total production of hay from crops and pastures fell by 15% to 5.3 million tonnes in 1999–2000. The production of hay from pastures fell by 13% to 3.7 million tonnes and the production of hay from crops fell by 19% to 1.6 million tonnes.

6.7 CROPS AND PASTURES CUT FOR HAY, PRODUCTION AND AREA(a)

(a) Data not collected in 1994–95.

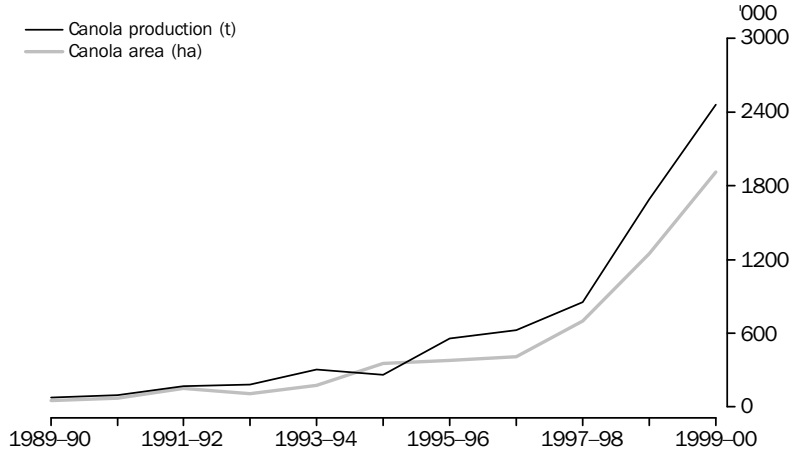
CANOLA

The area planted to canola in Australia increased by 53%, up from 1.2 million hectares in 1998–99 to a record 1.9 million hectares in 1999–2000, with increases recorded in all States. The biggest increase in plantings was in Western Australia, with the area sown up by 64% to 879,000 hectares.

Canola production increased by 46% to a record 2.5 million tonnes in 1999–2000. The greatest increases were in Western Australia (with production up by 57% to 963,000 tonnes) and New South Wales (with production up by 33% to 827,000 tonnes).

CANOLA *continued*

6.8 CANOLA PRODUCTION AND AREA



SUGAR CANE

The total area of sugar planted increased by 6% to 428,000 hectares in 1999–2000 after a fall in the previous season. This movement reflected the increase in Queensland, which was the main sugar growing State, with area planted up by 7% to 405,000 hectares.

The production of sugar cane for crushing fell by 1% to 38.2 million tonnes in 1999–2000. This fall reflected lower production in Queensland (down by 1% to 35.3 million tonnes) where disease outbreaks resulted in reduced average yields. Production of sugar cane for crushing also fell in New South Wales (down by 2% to 2.5 million tonnes) and Western Australia (down by 9% to 355,000 tonnes).

6.9 SUGAR CANE PRODUCTION

COTTON LINT

The total area of cotton planted fell by 3% to 435,000 hectares in 1999–2000. New South Wales was the main cotton growing State with area planted down by 10% to 263,000 hectares in 1999–2000, after a large increase in the previous year. Queensland was the other main cotton growing State and reported a continued increase in area planted with a rise of 12% to 172,000 hectares.

The production of cotton lint increased by 10% to 698,000 tonnes in 1999–2000 as a result of improved average yields in New South Wales and increased plantings in Queensland. Cotton lint production in New South Wales was up by 6% to 416,000 tonnes, as a result of better growing conditions in most areas, pushing average yields up from 1.4 tonnes per hectare in 1998–99 to 1.6 tonnes per hectare in 1999–2000. Cotton lint production in Queensland was up by 17% to 282,000 tonnes mainly as a result of an increase in area planted.

6.10 COTTON LINT PRODUCTION AND AREA

6.11 PRINCIPAL CROPS, Production

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Cereal for grain											
Barley											
Production ('000 t)	6 482	5 987	5 032	1 040	1 189	254	1 409	1 117	22	(a)	—
Area ('000 ha)	3 521	3 167	2 596	476	585	130	845	550	9	(a)	—
Yield (t/ha)	1.8	1.9	1.9	2.2	2.0	2.0	1.7	2.0	2.4	. .	—
Grain sorghum											
Production ('000 t)	1 081	1 891	2 116	804	**	1 308	(a)	*2	(a)	1	—
Area ('000 ha)	507	587	622	200	*1	419	(a)	*2	(a)	—	—
Yield (t/ha)	2.1	3.2	3.4	4.0	*2.2	3.1	. .	1.2	. .	1.5	—
Maize											
Production ('000 t)	272	338	406	178	4	224	(a)	*—	(a)	—	—
Area ('000 ha)	57	64	82	22	1	59	(a)	*—	(a)	—	—
Yield (t/ha)	4.7	5.2	4.9	8.1	6.0	3.8	. .	9.9	. .	2.2	—
Oats											
Production ('000 t)	1 634	1 798	1 118	284	296	12	78	439	10	(a)	—
Area ('000 ha)	937	909	584	160	138	10	70	199	6	(a)	—
Yield (t/ha)	1.7	2.0	1.9	1.8	2.1	1.2	1.1	2.2	1.6	. .	1.7
Rice											
Production ('000 t)	1 324	1 362	1 084	1 084	(a)	(a)	(a)	**	(a)	—	—
Area ('000 ha)	147	148	131	131	(a)	(a)	(a)	**	(a)	—	—
Yield (t/ha)	9.0	9.2	8.3	8.3	. .	. .	. .	**	. .	—	—
Triticale											
Production ('000 t)	633	707	764	373	235	*5	109	*35	6	(a)	—
Area ('000 ha)	366	386	361	129	114	**	88	25	2	(a)	—
Yield (t/ha)	1.7	1.8	2.1	2.9	2.1	**	1.2	1.4	2.9	. .	—
Wheat											
Production ('000 t)	19 227	21 465	24 757	8 602	2 642	1 904	2 586	9 004	20	(a)	—
Area ('000 ha)	10 441	11 543	12 168	3 425	1 235	1 096	1 850	4 556	6	(a)	—
Yield (t/ha)	1.8	1.9	2.0	2.5	2.1	1.7	1.4	2.0	3.1	. .	—
Legumes											
Lupins for grain											
Production ('000 t)	1 561	1 696	1 968	240	45	*—	80	1 603	*—	(a)	—
Area ('000 ha)	1 425	1 406	1 347	135	35	**	73	1 104	*—	(a)	—
Yield (t/ha)	1.1	1.2	1.5	1.8	1.3	2.2	1.1	1.5	2.8	. .	—
Field peas for grain											
Production ('000 t)	316	370	496	30	214	*1	181	70	—	(a)	—
Area ('000 ha)	366	369	424	25	174	**	161	62	—	(a)	—
Yield (t/ha)	0.9	1.0	1.2	1.2	1.2	**	1.1	1.1	1.5	. .	—
Crops cut for hay											
Cereal crops for hay											
Production ('000 t)	1 567	1 827	1 429	183	364	60	284	525	12	1	—
Area ('000 ha)	401	425	357	50	89	20	82	113	2	—	—
Yield (t/ha)	3.9	4.3	4.0	3.7	4.1	2.9	3.5	4.6	5.3	3.8	2.1
Non-cereal crops for hay											
Production ('000 t)	170	126	159	10	78	*38	*18	*3	*5	7	—
Area ('000 ha)	59	45	47	3	22	*13	*6	*1	*1	1	—
Yield (t/ha)	2.9	2.8	3.4	3.2	3.6	*3.0	2.9	*2.4	*4.0	6.2	0.1

(a) Data not collected.

6.11 PRINCIPAL CROPS, Production *continued*

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Oilseeds											
Canola											
Production ('000 t)	855	1 690	2 460	827	423	**	244	963	*2	(a)	—
Area ('000 ha)	698	1 247	1 911	515	304	*1	210	879	*1	(a)	—
Yield (t/ha)	1.2	1.4	1.3	1.6	1.4	1.1	1.2	1.1	1.7	. .	1.1
Total oilseeds											
Production ('000 t)	*1 005*	*2 039*	*2 770*	*968*	*438*	*151*	*249*	*963*	*2*	*(a)*	—
Area ('000 ha)	*839*	*1 538*	*2 172*	*613*	*319*	*143*	*216*	*879*	*1*	*(a)*	—
Yield (t/ha)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Other crops											
Sugar cane cut for crushing											
Production ('000 t)	39 531	38 534	38 165	2 493	(a)	35 316	(a)	355	(a)	(a)	(a)
Area ('000 ha)	415	402	428	20	(a)	405	(a)	3	(a)	(a)	(a)
Yield (t/ha)	95.2	95.9	89.2	123.8	. .	87.2	. .	123.2	. .	. .	. .
Cotton lint											
Production ('000 t)	564	634	698	416	(a)	282	(a)	—	(a)	(a)	(a)
Area ('000 ha)	381	446	435	263	(a)	172	(a)	—	(a)	(a)	(a)
Yield (t/ha)	1.5	1.4	1.6	1.6	. .	1.6	. .	1.2	. .	. .	. .
Peanuts (in shell)											
Production ('000 t)	32	47	40	**	(a)	39	(a)	(a)	(a)	—	(a)
Area ('000 ha)	19	21	20	**	(a)	20	(a)	(a)	(a)	—	(a)
Yield (t/ha)	1.7	2.2	2.0	**	. .	2.0	. .	. .	. .	1.8	. .
Tobacco											
Production ('000 t)	8	7	8	(a)	4	*4	(a)	(a)	(a)	(a)	(a)
Area ('000 ha)	3	3	3	(a)	r2	*2	(a)	(a)	(a)	(a)	(a)
Yield (t/ha)	2.6	2.2	2.4	. .	2.7	2.2	. .	. .	. .	. .	. .
Pastures and grasses cut for hay											
Lucerne											
Production ('000 t)	863	933	893	381	177	192	77	*34	13	19	1
Area ('000 ha)	179	192	181	86	35	23	25	6	3	4	—
Yield (t/ha)	4.8	4.9	4.9	4.4	5.0	8.5	3.1	6.0	5.0	4.7	3.8
Other											
Production ('000 t)	2 695	3 358	2 850	390	1 547	78	243	373	209	10	1
Area ('000 ha)	789	906	788	110	444	19	73	90	48	4	—
Yield (t/ha)	3.4	3.7	3.6	3.6	3.5	4.0	3.3	4.1	4.4	2.3	3.8
Total cut for hay											
Production ('000 t)	*3 558*	*4 291*	*3 743*	*771*	*1 723*	*270*	*320*	*407*	*222*	*29*	*1*
Area ('000 ha)	*967*	*1 098*	*969*	*196*	*479*	*42*	*98*	*96*	*51*	*8*	—
Yield (t/ha)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pasture seed											
Production ('000 t)	27	30	21	*2	8	1	6	2	1	—	—
Area ('000 ha)	112	113	80	*12	17	14	28	7	1	—	—
Yield (t/ha)	0.2	0.3	0.3	0.1	0.5	—	0.2	0.3	1.0	0.2	—

(a) Data not collected.

CHAPTER 7 HORTICULTURE

OVERVIEW

The 1999–2000 season saw increased production for most major fruit and vegetable crops.

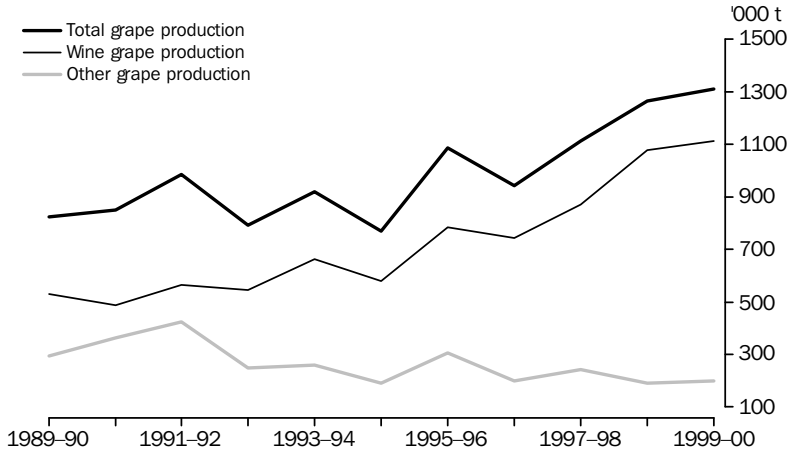
FRUIT

Grapes

The total area of vines reported increased by 14% to a record 140,000 hectares in 1999–2000. Increases were reported in all States with the biggest increases in South Australia (up 14% to 59,800 hectares), Victoria (up 12% to 36,300 hectares) and New South Wales (up 12% to 32,300 hectares).

The total production of grapes increased by 4% to a record 1.3 million tonnes in 1999–2000. A decrease in the total grape harvest in South Australia (down 3% to 483,000 tonnes) was offset by increases in Victoria (up 8% to 449,000 tonnes) and New South Wales (up 8% to 327,000 tonnes).

7.1 GRAPE PRODUCTION



Apples

The number of apple trees six years and over, increased by 2% to 6.1 million trees with increases reported in all States except New South Wales.

Total apple production fell by 4% to 320,000 tonnes in 1999–2000 after an increase the previous year. There was decreased production in all States except Queensland. The largest falls in production were reported in Victoria, the main growing State (down 9% to 98,200 tonnes) and in Tasmania (down 8% to 57,500 tonnes).

Apples *continued*

7.2 APPLE PRODUCTION

Oranges

The total number of orange trees increased by 9% to 6.9 million trees. This was due to increases in New South Wales and Victoria, partly offset by decreases in the other orange growing States.

Total production of oranges increased by 14% to 510,000 tonnes in 1999–2000. This was a result of increased production in New South Wales (up 31% to 238,000 tonnes) and Victoria (up 17% to 84,200 tonnes), partly offset by decreases in Western Australia (down 21% to 5,400 tonnes) and Queensland (down 18% to 16,600 tonnes).

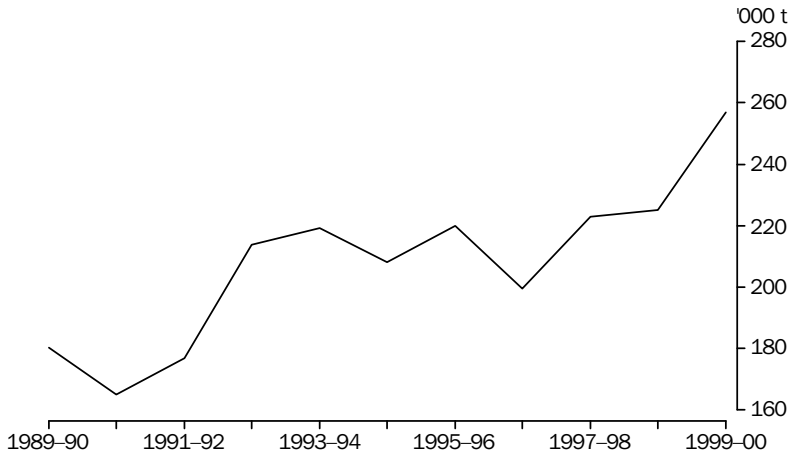
7.3 ORANGE PRODUCTION

Bananas

The area of bananas harvested increased slightly to 11,700 hectares in 1999–2000. This was due to an increase in the area of bananas harvested in Queensland (up 9% to 8,600 hectares) while the areas harvested in all other banana growing States were down.

Australian banana production rose by 14% to 257,000 tonnes in 1999–2000. Production increases were recorded in Queensland (up 19% to 207,000 tonnes) and the Northern Territory (up 31% to 7,600 tonnes) while production fell in Western Australia (down 26% to 7,700 tonnes).

7.4 BANANA PRODUCTION



Pears

The estimated number of pear trees was unchanged at 1.4 million trees in 1999–2000. There was little change in tree numbers in any of the States with Victoria having the largest number of trees at 1.1 million.

Australian pear production fell slightly to 156,000 tonnes in 1999–2000. Victoria was the main producing State with 87% of total production and was followed by Western Australia with 7%.

7.5 PEAR PRODUCTION

Mangoes

The number of mango trees continued to increase with the estimate up by 14% to 971,000 trees in 1999–2000. This was mainly due to an increase in Queensland, which was the main growing State with 779,000 trees.

Australian mango production in 1999–2000 showed a turnaround from the previous season, which had been adversely affected by heavy rains and flooding in Queensland, with the total harvest up by 44% to 38,100 tonnes. Queensland was the main producing State with 30,800 tonnes or 81% of the national harvest.

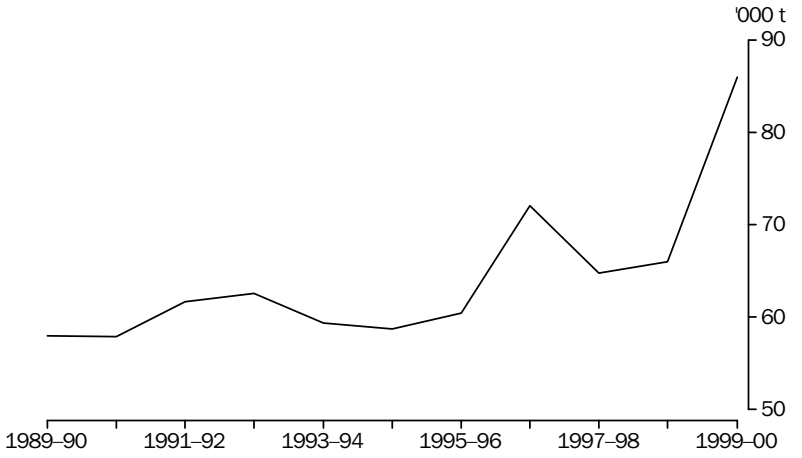
7.6 MANGO PRODUCTION

Peaches

The estimated number of peach trees was up by 31% to 2.0 million trees in 1999–2000. This was due to an increase in Victoria which was the main peach growing State with numbers up by 68% to 891,000 trees.

Australian peach production was up by 30% to 86,000 tonnes in 1999–2000. This was largely a result of increased production levels in Victoria which saw that State's output up by 42% to 56,800 tonnes.

7.7 PEACH PRODUCTION



Apricots

The estimated number of apricot trees fell by 8% to 520,000 trees in 1999–2000. This was largely the result of a fall in tree numbers in South Australia, the main growing State (down by 16% to 246,000 trees) but was partially offset by increases in Victoria, which was the second largest growing State (up by 20% to 218,000 trees).

Australian apricot production fell by 7% to 19,900 tonnes in 1999–2000. Decreased production in South Australia (down by 18% to 8,500 tonnes) was partially offset by increased production in Victoria (up by 6% to 10,200 tonnes) and saw Victoria overtake South Australia as the main apricot producing State.

7.8 APRICOT PRODUCTION

VEGETABLES

Potatoes

The total area planted to potatoes fell by 11% to 36,800 hectares in 1999–2000. Decreased plantings were reported in all States except Queensland. The biggest decreases were recorded in the main growing States of Tasmania (down 25% to 5,700 hectares), South Australia (down 10% to 8,000 hectares) and Victoria (down 8% to 9,600 hectares).

Australian potato production fell by 10%, or 127,000 tonnes, to 1.2 million tonnes during 1999–2000 with smaller harvests reported in all States except Queensland. There were slight improvements in crop yields across most States and these partially offset the falls in plantings. The biggest falls in production were recorded in Western Australia (down 25% to 82,100 tonnes), Tasmania (down 18% to 267,000 tonnes), and Victoria (down 8% to 295,000 tonnes).

Potatoes *continued*

7.9 POTATO PRODUCTION

Onions

The area planted to onions in Australia fell slightly to an estimated 5,300 hectares in 1999–2000 with decreased plantings in New South Wales being partially offset by an increase in South Australia.

Onion production rose by 10%, or 23,000 tonnes, to an estimated 247,000 tonnes in 1999–2000. This was largely due to an increase in the estimated production in South Australia which was the main producing State with 91,900 tonnes.

7.10 ONION PRODUCTION

Tomatoes

The area planted to tomatoes in Australia fell slightly to an estimated 8,300 hectares in 1999–2000. This occurred mainly as a result of decreased plantings in New South Wales, while the areas planted in the main growing States of Victoria and Queensland were up slightly.

Tomatoes *continued*

Australia's tomato harvest of 414,000 tonnes in 1999–2000 was an increase of 5% over the previous year. Victoria was the main producing State accounting for 60% (249,000 tonnes) of the national harvest.

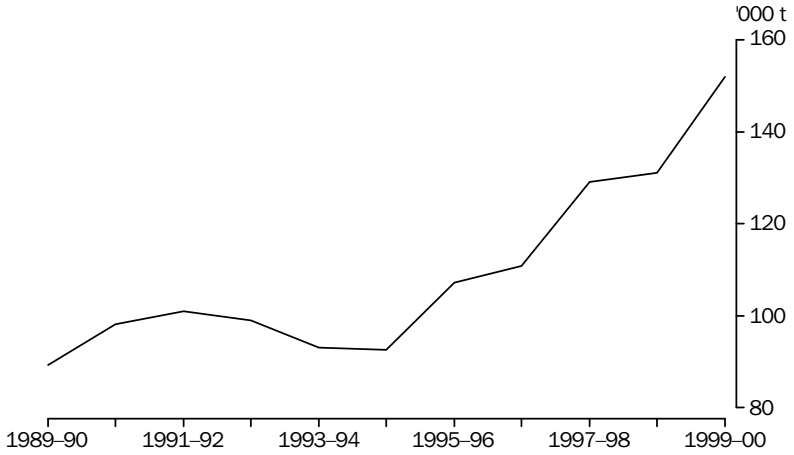
7.11 TOMATO PRODUCTION

Lettuces

The area planted to lettuces fell by 16% to 5,200 hectares in 1999–2000. This was a result of large falls in plantings in Victoria, the main growing State, (down 23% to 2,200 hectares) and New South Wales (down 50% to 600 hectares). These were partially offset by increases in Queensland (up 10% to 1,500 hectares) and Western Australia (up 35% to 500 hectares).

Lettuce production increased by 16% to 152,000 tonnes as a result of an improvement in average yields in 1999–2000. Victoria and Queensland were the main producing States with production estimated at 48,600 tonnes and 48,100 tonnes respectively.

7.12 LETTUCE PRODUCTION



Pumpkins

The area planted to pumpkins increased by 19% to 9,000 hectares in 1999–2000. This occurred as a result of increased plantings in Queensland, the main growing State, (up by 48% to 5,700 hectares) and all other States apart from New South Wales (which was down by 33% to 1,400 hectares).

Pumpkin production increased by 24% over the previous year to 109,000 tonnes in 1999–2000. This was largely the result of an increase in Queensland (up 49% to 56,100 tonnes) while all other States were little different from the previous year.

7.13 PUMPKIN PRODUCTION

7.14 FRUIT AND NUTS, Production(a)

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Citrus											
Oranges											
Production (t)	499 784	445 840	509 973	237 698	84 222	16 623	166 041	5 389	(b)	—	—
Trees ('000)	6 667	6 400	6 945	3 750	1 128	188	1 732	147	(b)	—	—
Yield (kg/tree)	75.0	69.7	73.4	63.4	74.7	88.5	95.8	36.6	. .	—	—
Lemons and limes											
Production (t)	28 709	29 294	32 384	5 266	7 015	8 207	10 395	*1 467	(b)	34	—
Trees ('000)	407	389	373	92	80	103	79	*18	(b)	2	—
Yield (kg/tree)	70.5	75.2	86.8	57.3	88.2	80.0	131.9	79.5	. .	19.0	—
Mandarins											
Production (t)	62 568	78 258	85 397	7 946	6 273	59 417	10 203	*1 558	(b)	—	—
Trees ('000)	1 090	1 175	1 187	160	108	704	167	48	(b)	—	—
Yield (kg/tree)	57.4	66.6	71.9	49.6	58.1	84.3	61.3	32.7	. .	—	—
Pome											
Apples											
Production (t)	308 856	334 353	319 652	66 992	98 150	32 831	23 431	40 665	57 537	(b)	46
Trees ('000)	5 845	5 969	6 115	1 406	1 642	635	626	761	1 043	(b)	1
Yield (kg/tree)	52.8	56.0	52.3	47.7	59.8	51.7	37.4	53.4	55.1	. .	31.6
Pears (excl. Nashi)											
Production (t)	152 877	156 714	156 369	1 759	136 084	1 256	5 593	10 985	692	(b)	—
Trees ('000)	1 381	1 401	1 401	54	1 083	21	97	129	17	(b)	—
Yield (kg/tree)	110.7	111.9	111.6	32.7	125.7	59.2	57.6	85.4	40.6	. .	90.0
Stone											
Apricots											
Production (t)	19 881	21 483	19 875	**	*10 158	*79	8 456	*427	**	(b)	—
Trees ('000)	569	565	520	**	218	**	246	*12	*12	(b)	—
Yield (kg/tree)	35.0	38.0	38.2	25.0	46.5	**	34.3	34.6	**	. .	—
Cherries											
Production (t)	6 985	6 020	5 835	2 923	*1 772	—	758	*64	318	(b)	—
Trees ('000)	645	735	838	495	143	—	107	*22	72	(b)	—
Yield (kg/tree)	10.8	8.2	7.0	5.9	12.4	—	7.1	*3.0	4.4	. .	—
Nectarines											
Production (t)	22 757	27 423	36 366	12 411	16 130	3 002	1 348	3 472	*3	(b)	—
Trees ('000)	915	963	1 202	411	373	217	40	159	*1	(b)	—
Yield (kg/tree)	24.9	28.5	30.3	30.2	43.2	13.8	33.5	21.8	5.0	. .	—
Olives											
Production (t)	763	*2 404	1 397	*17	561	**	*761	**	—	—	—
Trees ('000)	112	117	119	**	61	**	*49	**	—	—	—
Yield (kg/tree)	6.8	*20.6	11.7	*12.7	9.3	**	*15.6	**	—	—	—
Peaches											
Production (t)	64 807	66 036	86 000	18 364	56 752	3 983	5 420	1 477	*4	(b)	—
Trees ('000)	1 498	1 509	1 972	634	891	273	92	*81	*1	(b)	—
Yield (kg/tree)	43.3	43.8	43.6	29.0	63.7	*14.6	59.1	18.1	4.6	. .	—
Plums and prunes											
Production (t)	26 355	22 665	24 155	8 031	7 130	1 854	2 317	4 815	7	—	—
Trees ('000)	1 015	1 024	1 420	538	307	220	75	280	1	—	—
Yield (kg/tree)	26.0	22.1	17.0	14.9	23.2	**	31.0	17.2	9.5	—	12.5

(a) Number of trees and yield based on trees six years and over. Information on the total number of trees is available on request.

(b) Data not collected.

7.14 FRUIT AND NUTS, Production(a) *continued*

	AUSTRALIA		2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Other orchard fruit											
Avocados											
Production (t)	20 174	24 311	23 976	4 908	*640	14 803	820	2 805	(b)	—	—
Trees ('000)	458	522	431	108	18	234	26	44	(b)	—	—
Yield (kg/tree)	44.1	46.6	55.6	45.5	35.0	63.3	31.2	63.2	. .	—	—
Mangoes											
Production (t)	36 567	26 372	38 071	**	(b)	30 770	(b)	1 922	(b)	5 244	—
Trees ('000)	815	850	971	*23	(b)	779	(b)	67	(b)	102	—
Yield (kg/tree)	44.9	31.0	39.2	**	. .	39.5	. .	28.8	. .	51.3	—
Nuts											
Almonds (kernel)											
Production (t)	6 880	8 971	8 711	**	4 597	—	3 973	(b)	(b)	(b)	—
Trees ('000)	937	1 069	832	**	395	—	426	(b)	(b)	(b)	—
Yield (kg/tree)	7.3	8.4	10.5	**	11.6	—	9.3	. .	. .	. .	—
Macadamias											
Production (t)	20 336	18 949	23 459	15 504	(b)	7 954	(b)	(b)	(b)	(b)	—
Trees ('000)	2 441	2 455	2 444	1 534	(b)	909	(b)	(b)	(b)	(b)	—
Yield (kg/tree)	8.3	7.7	9.6	10.1	. .	8.8	. .	. .	. .	. .	—
Blueberries											
Production (t)	1 276	1 526	1 938	1 434	**	(b)	(b)	(b)	**	(b)	—
Area (ha)	400	*371	452	338	*87	(b)	(b)	(b)	**	(b)	—
Yield (t/ha)	3.2	4.1	4.3	4.2	*5.5	. .	. .	. .	*1.1	. .	—
Strawberries											
Production (t)	13 434	14 201	14 772	*118	5 400	4 123	1 506	3 398	228	—	—
Area (ha)	720	701	777	*10	295	294	53	96	28	—	2
Yield (t/ha)	18.7	20.3	19.0	*12.1	18.3	14.0	28.2	35.4	*8.0	—	—
Tropical											
Bananas											
Production (t)	222 957	225 167	256 867	34 213	(b)	207 403	(b)	7 673	(b)	7 578	—
Area (ha)	10 478	11 405	11 730	2 494	(b)	8 638	(b)	342	(b)	256	—
Yield (t/ha)	21.3	19.7	21.9	13.7	. .	24.0	. .	22.4	. .	29.6	—
Papaws											
Production (t)	5 394	7 058	*4 350	*38	(b)	4 289	(b)	**	(b)	—	—
Area (ha)	325	298	355	6	(b)	345	(b)	**	(b)	—	—
Yield (t/ha)	16.6	23.7	12.3	*6.2	. .	12.4	. .	**	. .	—	—
Pineapples											
Production (t)	123 004	131 383	139 284	*1	(b)	139 283	(b)	(b)	(b)	—	—
Area (ha)	2 762	2 821	2 817	*6	(b)	2 811	(b)	(b)	(b)	—	—
Yield (t/ha)	44.5	46.6	49.4	*0.2	. .	49.5	. .	. .	. .	—	—

(a) Number of trees and yield based on trees six years and over. Information on the total number of trees is available on request.

(b) Data not collected.

7.15 GRAPES(a)(b), Production

	AUSTRALIA	2000								
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
AREA OF VINES AT HARVEST (ha)											
Bearing	78 090	95 301	110 623	26 058	28 871	1 669	47 015	6 276	524	195	15
Not yet bearing: planted or grafted prior to collection year	9 532	11 566	18 130	4 158	4 446	346	7 855	1 145	115	55	10
Not yet bearing: planted or grafted during collection year	10 989	16 048	11 108	2 053	2 940	156	4 937	860	122	30	10
Total area of vines	**98 612**	**122 915**	**139 861**	**32 269**	**36 257**	**2 171**	**59 807**	**8 281**	**761**	**280**	**35**
GRAPE PRODUCTION (fresh weight)(t)											
Winemaking	870 627	1 076 207	1 111 145	287 968	301 908	1 919	478 349	37 547	3 367	11	76
Drying	176 570	119 438	133 454	24 509	105 377	8	2 910	640	—	1	9
Table and other	64 972	69 891	66 791	14 155	41 748	4 782	2 049	2 852	—	1 206	—
Total production	**1 112 170**	**1 265 536**	**1 311 389**	**326 632**	**449 033**	**6 709**	**483 307**	**41 039**	**3 367**	**1 217**	**85**
Yield (t/ha)(c)	14.2	13.3	11.9	12.5	15.6	4.0	10.3	6.5	6.4	6.2	5.7

(a) Improvements to the ABS register of businesses resulted in a better coverage of grape growing establishments for the 1998–99 survey. The difference between the 1997–98 estimates and the 1998–99 estimates includes a change associated with the increased coverage and a change associated with the units previously surveyed.

(b) Varietal information is available in *Australian Wine and Grape Industry* (Cat. no. 1329.0).

(c) Yield represents the quantity of grapes produced per hectare of bearing vines.

7.16 VEGETABLES, Production

	AUSTRALIA		2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Asparagus											
Production (t)	7 595	8 878	16 404	*953	13 557	*1 479	*120	**	**	1	—
Area (ha)	2 005	2 143	2 998	*216	2 084	*570	*24	**	**	—	—
Yield (t/ha)	3.8	4.1	5.5	4.4	6.5	2.6	5.0	*2.8	**	5.0	—
Beans, french and runner											
Production (t)	35 562	30 380	34 495	1 273	1 813	16 459	*46	*1 129	13 720	54	—
Area (ha)	6 623	5 917	6 649	351	708	3 705	*13	*346	1 516	10	—
Yield (t/ha)	5.4	5.1	5.2	3.6	2.6	4.4	3.6	3.3	9.1	5.4	—
Beetroot											
Production (t)	32 502	29 682	37 700	*1 176	806	35 584	**	*105	**	—	—
Area (ha)	879	908	1 221	**	58	1 097	**	*7	**	—	—
Yield (t/ha)	37.0	32.7	30.9	**	14.0	32.4	**	15.9	**	—	—
Broccoli											
Production (t)	39 847	39 389	39 184	2 106	21 007	6 368	1 157	2 465	6 080	—	—
Area (ha)	7 334	6 353	6 491	414	3 508	1 214	228	362	765	—	—
Yield (t/ha)	5.4	6.2	6.0	5.1	6.0	5.2	5.1	6.8	7.9	—	—
Cabbages											
Production (t)	58 076	53 171	68 809	11 189	28 374	19 088	*4 646	3 982	1 467	62	—
Area (ha)	1 798	1 671	1 799	315	648	428	*174	*168	62	3	—
Yield (t/ha)	32.3	31.8	38.3	35.5	43.8	44.6	26.8	23.8	23.6	20.7	—
Capsicum, chillies and peppers											
Production (t)	30 518	41 262	43 530	901	*3 573	36 061	*1 125	*1 826	*4	40	—
Area (ha)	1 800	2 281	2 459	130	*180	1 862	*137	*140	*1	8	—
Yield (t/ha)	17.0	18.1	17.7	7.0	19.8	19.4	*8.2	13.0	**	5.0	—
Carrots											
Production (t)	266 531	256 608	283 304	15 536	122 015	30 555	27 335	52 794	35 068	—	—
Area (ha)	7 152	6 514	7 029	441	3 010	1 054	635	1 273	616	—	—
Yield (t/ha)	37.3	39.4	40.3	35.2	40.5	29.0	43.1	41.5	56.9	—	—
Cauliflowers											
Production (t)	64 779	73 432	76 437	*11 256	21 767	15 591	5 599	18 119	4 105	—	—
Area (ha)	4 065	4 202	4 094	*443	1 277	691	233	1 173	277	—	—
Yield (t/ha)	15.9	17.5	18.7	25.4	17.0	22.6	24.1	15.4	14.8	—	—
Celery											
Production (t)	44 746	43 208	40 738	—	13 661	14 808	2 625	**	383	—	—
Area (ha)	1 139	920	915	—	423	282	28	**	10	—	—
Yield (t/ha)	39.3	47.0	44.5	—	32.3	52.5	93.7	*54.0	38.0	—	—
Cucumbers											
Production (t)	16 025	17 920	16 723	9 635	191	3 607	*1 336	1 855	*77	21	—
Area (ha)	1 037	1 138	1 116	541	9	427	*62	73	*4	2	—
Yield (t/ha)	15.5	15.7	15.0	17.8	21.7	8.5	*21.5	25.4	*20.5	14.0	—
Green peas											
Processing											
Production (t)	34 191	29 578	30 050	*368	—	*838	*5	**	28 536	—	—
Area (ha)	6 643	5 510	5 027	*115	—	196	*1	**	4 514	—	—
Yield (t/ha)	5.1	5.4	6.0	3.2	—	4.3	**	**	6.3	—	—
Sold in pod											
Production (t)	810	654	*747	*133	*314	**	*29	**	*28	—	—
Area (ha)	371	*651	430	135	*190	*38	**	*9	**	—	—
Yield (t/ha)	2.2	*1.0	1.7	*1.0	*1.7	*6.2	**	**	**	—	—

7.16 VEGETABLES, Production *continued*

	AUSTRALIA		2000								
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Lettuces											
Production (t)	129 149	131 140	151 947	11 820	48 603	48 117	6 456	*35 792	*1 066	92	—
Area (ha)	5 714	6 176	5 170	611	2 160	1 520	209	548	110	11	—
Yield (t/ha)	22.6	21.2	29.4	19.3	22.5	31.7	30.9	*65.3	9.7	8.4	—
Marrow, squash and zucchini											
Production (t)	18 722	19 882	14 816	1 329	*2 069	9 566	*254	1 048	533	16	—
Area (ha)	2 683	2 891	2 601	231	*190	1 925	*24	177	51	2	—
Yield (t/ha)	7.0	6.9	5.7	5.7	10.9	5.0	*10.6	5.9	10.4	8.1	—
Melons											
Water											
Production (t)	80 857	66 346	85 153	7 667	3 083	51 304	*143	22 053	—	902	—
Area (ha)	3 984	4 175	4 846	613	74	3 248	16	843	—	53	—
Yield (t/ha)	20.3	15.9	17.6	12.5	41.9	15.8	9.1	26.2	—	17.0	—
Rock and cantaloupe											
Production (t)	85 115	101 045	87 064	16 382	5 429	49 012	2 726	12 470	—	1 046	—
Area (ha)	3 500	5 353	4 035	771	236	2 079	109	769	—	70	—
Yield (t/ha)	24.3	18.9	21.6	21.2	23.0	23.6	25.0	16.2	—	14.9	—
Onions, white and brown											
Production (t)	218 895	223 989	247 068	34 732	20 536	22 192	91 920	14 972	62 716	—	—
Area (ha)	5 634	5 351	5 285	855	573	723	1 683	297	1 153	—	—
Yield (t/ha)	38.8	41.9	46.7	40.6	35.8	30.7	54.6	50.4	54.4	—	—
Parsnips											
Production (t)	8 684	10 170	7 770	*200	6 215	—	*454	*550	352	—	—
Area (ha)	400	450	409	*10	317	—	*25	*37	20	—	—
Yield (t/ha)	21.7	22.6	19.0	20.0	19.6	—	18.4	14.8	17.2	—	—
Potatoes											
Production (t)	1 371 606	1 326 765	1 199 622	156 391	294 656	118 759	280 561	82 082	267 172	—	—
Area (ha)	42 558	41 298	36 829	6 342	9 618	5 161	7 960	2 059	5 690	—	—
Yield (t/ha)	32.2	32.1	32.6	24.7	30.6	23.0	35.2	39.9	47.0	—	—
Pumpkins											
Production (t)	84 848	87 589	108 761	20 751	6 971	56 117	6 017	16 784	1 629	493	—
Area (ha)	5 929	7 543	8 997	1 373	525	5 686	316	925	121	52	—
Yield (t/ha)	14.3	11.6	12.1	15.1	13.3	9.9	19.0	18.1	13.5	9.5	—
Sweet corn											
Production (t)	77 670	57 172	45 215	14 258	4 584	20 380	*1 708	3 927	359	—	—
Area (ha)	5 579	4 505	4 234	1 371	566	1 880	*117	281	19	—	—
Yield (t/ha)	13.9	12.7	10.7	10.4	8.1	10.8	14.6	14.0	19.1	—	—
Tomatoes											
Production (t)	380 130	394 371	413 617	60 344	249 274	87 904	2 402	12 020	929	310	435
Area (ha)	8 023	8 549	8 323	1 168	3 376	3 345	136	277	*15	2	4
Yield (t/ha)	47.4	46.1	49.7	51.7	73.8	26.3	17.6	43.3	*63.2	206.7	111.5
Total area of vegetables (ha)	**130 601**	**130 220**	**127 443**	**17 361**	**31 690**	**39 508**	**12 702**	**10 697**	**15 247**	**234**	**5**

CHAPTER 8 LIVESTOCK AND LIVESTOCK PRODUCTS .....

OVERVIEW

The number of meat cattle, sheep and lambs increased while the number of milk cattle, pigs and chickens decreased. It should be noted that these estimates are based on information obtained from the ACS conducted at 30 June 2000. Prior to 2000 information was obtained for the period ending 31 March. A study of respondent data indicated that there should be no significant difference in estimates collected because of the different reference period.

There were increases in the production levels of milk, wool, mutton and lamb and decreases in the production of beef and veal and pig meat.

8.1 LIVESTOCK

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
Meat cattle	23 776	23 358	24 448	5 531	2 371	11 503	995	2 059	411	1 570	10
Milk cattle(a)	3 076	3 220	3 140	440	1 893	305	189	106	206	1	—
Sheep and lambs	117 491	115 456	118 552	43 405	22 664	9 195	13 759	26 109	3 341	—	80
Pigs	2 768	2 626	2 511	710	523	544	438	276	18	2	—
Deer	166	127	151	*33	*63	**	16	*10	9	—	—
Chickens											
For meat production(b)	75 504	77 863	72 912	35 192	15 096	10 672	6 503	5 363	n.p.	86	—
For egg production	14 036	13 912	12 016	3 564	3 201	2 593	824	1 302	266	148	120

(a) Excluding house cows.

(b) Tasmanian data are excluded from the Australian total.

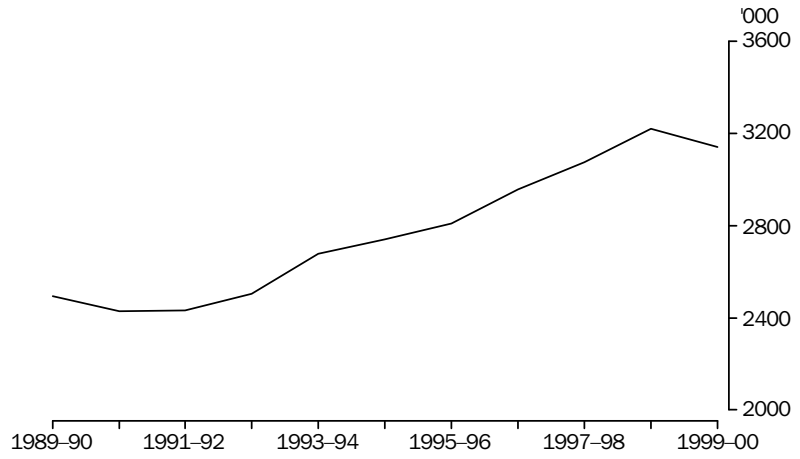
MILK CATTLE

Milk cattle numbers fell by 3% to 3.1 million at 30 June 2000, reversing the upward trend experienced in recent years. The most significant fall in estimated herd sizes was recorded in Tasmania where the estimate fell by 12% to 206,000 head. The Victorian dairy herd fell by 3% to 1.9 million head at 30 June 2000, and represented 60% of the total Australian herd.

The number of establishments reporting milk cattle fell by 3% to 14,800 at 30 June 2000. Numbers were down in all States except Victoria which was little changed. These structural changes probably reflect the uncertainties felt by producers prior to deregulation of the industry, where smaller farms are expected to be less competitive.

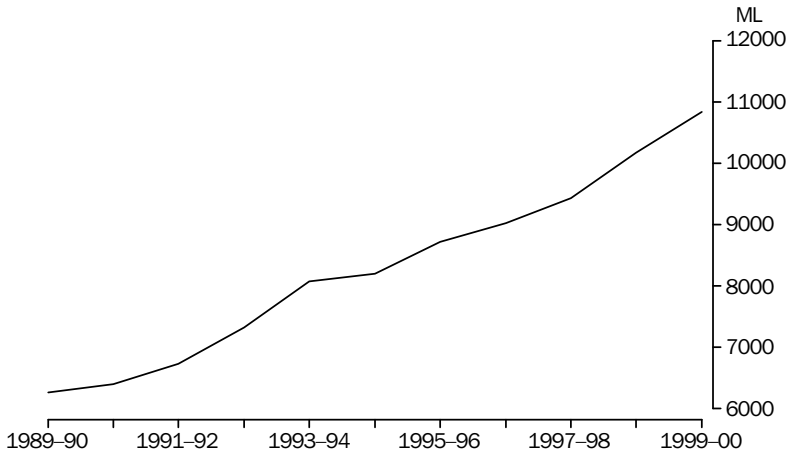
MILK CATTLE *continued*

8.2 MILK CATTLE ON HOLDING



Milk production was up on the previous year's record with an increase of 7% in 1999–2000 taking total output to 10.8 billion litres. Victoria was again the main producing State with production up 7% to 6.9 billion litres.

8.3 MILK PRODUCTION



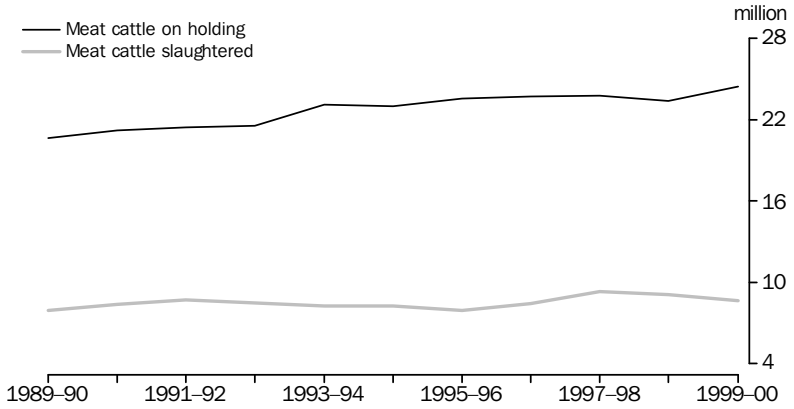
MEAT CATTLE

At 30 June 2000 there were 24.4 million meat cattle and calves in Australia which was 5% (1.1 million head) more than the previous year. There were significant increases reported in herd sizes in Queensland, Western Australia and Victoria but these were partially offset by falls in New South Wales and Tasmania.

The number of establishments reporting meat cattle increased by 1% to 76,700 at 30 June 2000. This was mainly due to increased numbers of establishments with meat cattle in Queensland and New South Wales.

MEAT CATTLE *continued*

8.4 MEAT CATTLE ON HOLDING AND SLAUGHTERINGS(a)



(a) Includes calves.

The number of cattle and calves slaughtered in the year ended 30 June 2000 fell by 5% to 8.6 million head. The total production of beef and veal was down by only 1% to 2.0 million tonnes in the year ended 30 June 2000, as higher average slaughter weights for cattle and calves partially offset the fall in numbers slaughtered.

8.5 LIVE CATTLE EXPORTS(a)—Years ended 30 June

	1998	*1999*	*2000*
Number ('000)	694.0	713.0	845.7
Gross weight ('000 t)	255.4	264.7	317.1
Gross value ($'000)	334 058	342 667	432 645
Unit value ($)(b)	481.34	480.57	511.60

(a) Excludes cattle for breeding.

(b) Obtained by dividing the gross value by the number of cattle exported.

SHEEP AND LAMBS

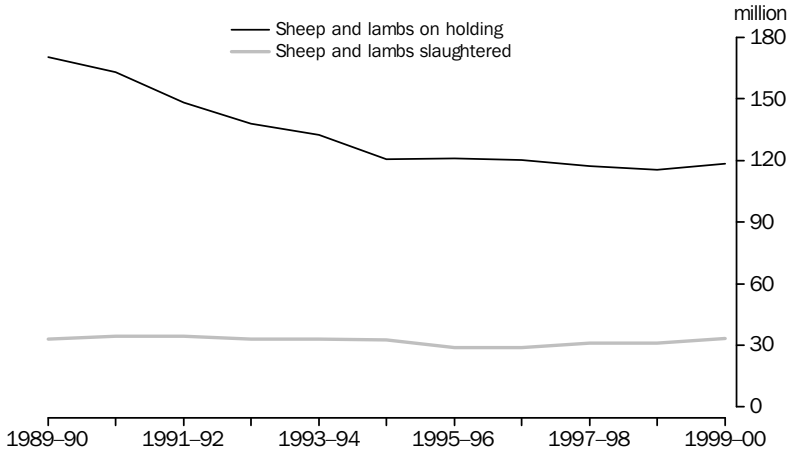
Sheep and lamb numbers increased by 3%, (3.1 million head) to 119 million head at 30 June 2000. Flock sizes were again down in Queensland and Western Australia but these falls were offset by increases in New South Wales and Victoria. The Tasmanian flock decreased with many farmers losing stock during a sustained period of drought in the main sheep growing regions.

The number of ewes mated during 1999–2000 remained steady at 49.4 million head with increases in New South Wales and Victoria being offset by decreases in all other States. Improved lambing ratios in most States, and especially in New South Wales, saw numbers of lambs marked increase by 4% to 41.7 million.

The number of establishments reporting sheep and lambs remained steady at 53,200 at 30 June 2000. Numbers were either steady or up slightly in all States except South Australia, which fell for the fourth consecutive year.

SHEEP AND LAMBS *continued*

8.6 SHEEP AND LAMBS ON HOLDING AND SLAUGHTERINGS



The number of sheep and lambs slaughtered in the year ended 30 June 2000 was up by 7% to 33.4 million head with increases reported in both the number of sheep slaughtered and the number of lambs slaughtered. The total production of mutton and lamb was up by 8% to 681,000 tonnes in the year ended 30 June 2000 with the production of lamb (347,000 tonnes) again exceeding the production of mutton (333,000 tonnes).

8.7 LIVE SHEEP EXPORTS(a)—Years ended 30 June

	1998	*1999*	*2000*
Number ('000)	4 961.1	4 958.7	4 858.6
Gross weight ('000 t)	256.0	254.9	243.3
Gross value ($'000)	193 266	181 671	180 345
Unit value ($)(b)	38.96	36.64	37.12

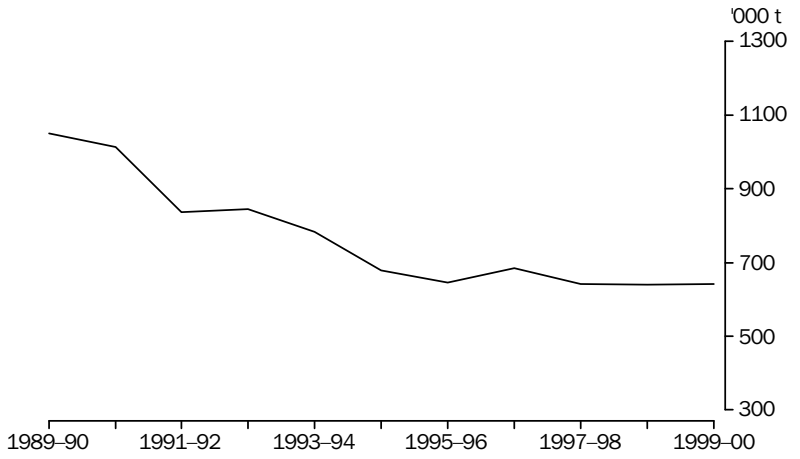
(a) Excludes sheep for breeding.

(b) Obtained by dividing the gross value by the number of sheep exported.

Total shorn wool production, as recorded by brokers and dealers receivals of taxable wool, for the year ended 30 June 2000 was up by 1% to 642,000 tonnes and exceeded the amounts reported for the previous two years. This growth was mainly due to an increase in New South Wales (up by 5%, or 9,500 tonnes, to 191,000 tonnes) combined with smaller increases in South Australia (up by 3%, or 2,300 tonnes, to 92,000 tonnes) and Tasmania (up by 9%, or 1,500 tonnes, to 18,000 tonnes) but was partially offset by falls in the other States.

SHEEP AND LAMBS *continued*

8.8 SHORN WOOL PRODUCTION



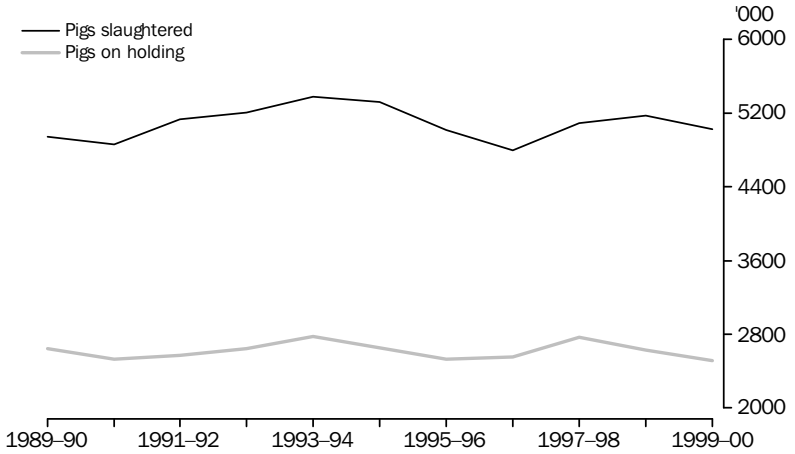
PIGS

Pig numbers fell by 4% to 2.5 million at 30 June 2000 with significant falls being recorded in the main pig growing States of New South Wales (down 9% to 710,000 head) and Queensland (down 12% to 544,000 head).

The number of establishments reporting pigs remained steady at around 3,400 at 30 June 2000. There were falls in the number of establishments reporting pigs in all States except New South Wales and Queensland.

The number of pigs slaughtered in the year ended 30 June 2000 fell by 3% to 5.0 million head and more than offset the rise in the level of slaughtering from the previous year. The production of pig meat was also down with total output falling by 2% to 363,000 tonnes.

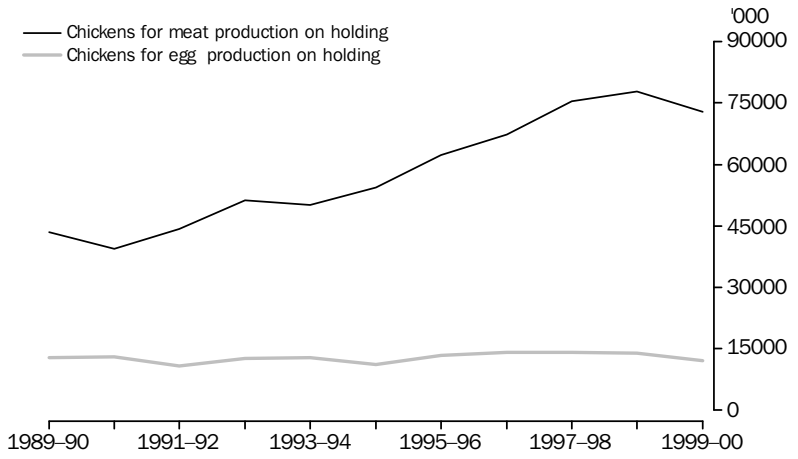
8.9 PIG NUMBERS AND SLAUGHTERINGS



CHICKENS

There were falls in the estimated numbers of both chickens for meat production and chickens for egg production. The number of chickens for meat production fell by 6% to 72.9 million birds at 30 June 2000 and the number of chickens for egg production fell by 14% to 12.0 million birds at 30 June 2000.

8.10 CHICKEN NUMBERS(a)



(a) Data prior to 1995–96 excludes breeding stock.

Egg production was estimated to have fallen for a second consecutive year with a drop of 4% reducing total output to 182 million dozen. This fall was due to a large decrease in Victorian egg production (down 16% to 45.5 million dozen) but was partially offset by an increase in Queensland (up 22% to 36.1 million dozen). New South Wales remained the largest producing State with 63.9 million dozen, or 35% of total Australian egg production.

BEEKEEPING

The production of honey and beeswax increased as a result of improved average production levels per hive while the number of productive hives fell.

The total number of hives fell by 8% to 340,000 for the year ended 30 June 2000 with reduced numbers of both productive hives and unproductive hives. This was the lowest number of hives in the previous 10 years and was 36% less than the recent high of 534,000 hives in 1994. The number of productive hives fell by 7% to 267,000 with decreases reported in all States except Victoria and Tasmania. The number of unproductive hives fell by 9% to 72,900, with a large fall in unproductive hives in Victoria (which reported an improved season over the previous year) being partially offset by a rise in unproductive hives in New South Wales.

The production of honey for the year ended 30 June 2000 was up 13% to 21,400 tonnes from the low of the previous year. This was mainly due to an increase in honey production in Victoria, where producers reported a recovery from the previous drought-affected season.

BEEKEEPING *continued*

The number of beekeepers fell by 8% to 900 for the year ended 30 June 2000. This follows the pattern of declining numbers from the high of 1994 when there was estimated to be close to 1,700 beekeepers.

8.11 HONEY PRODUCTION

8.12 LIVESTOCK SLAUGHTERINGS AND PRODUCTS—Years ended 30 June

	AUSTRALIA		2000								
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Livestock slaughterings(a)(b)											
Cattle ('000)	8 052	7 939	7 520	1 725	1 524	3 312	315	394	218	32	—
Calves ('000)	1 269	1 157	1 122	211	678	142	18	11	62	1	—
Sheep ('000)	16 299	15 127	15 857	5 386	3 816	1 424	1 224	3 418	590	—	—
Lambs ('000)	14 992	16 079	17 557	4 059	7 144	918	2 635	2 345	456	—	—
Pigs ('000)	5 091	5 176	5 025	1 408	1 444	1 111	469	514	70	8	—
Chickens ('000)(c)(d)	364 234	374 979	391 773	139 967	104 942	68 961	n.p.	n.p.	n.p.	n.p.	n.p.
Livestock products											
Meat(a)(e)											
Beef ('000 t)	1 911	1 973	1 952	432	351	932	78	95	58	6	—
Veal ('000 t)	44	38	36	13	13	7	—	1	1	—	—
Mutton ('000 t)	333	316	333	119	77	28	29	69	12	—	—
Lamb ('000 t)	284	312	347	80	140	17	57	44	9	—	—
Pig meat ('000 t)	358	370	363	103	107	82	32	34	4	—	—
Chicken meat ('000 t)(d)(f)	544	564	593	221	168	95	n.p.	n.p.	n.p.	n.p.	n.p.
Wool											
Shorn wool (incl. crutchings) (t)	640 717	638 763	642 310	191 258	152 893	45 661	91 795	142 994	17 708	—	—
Other wool (t)(g)	48 884	r48 800	52 146	14 148	16 668	3 554	6 000	10 186	1 569	—	20
Total wool produced(t)	*689 601*	*r687 563*	*694 456*	*205 406*	*169 561*	*49 215*	*97 795*	*153 180*	*19 277*	—	*20*
Whole milk (ML)(h)(i)	9 438	10 175	10 847	1 395	6 870	848	714	412	609	n.p.	n.p.
Eggs ('000 doz.)	190 135	189 432	182 179	63 915	45 491	36 078	11 989	15 701	2 084	1 975	4 947
Beekeeping											
Honey produced (t)	22 021	18 852	21 381	8 775	4 971	2 069	3 008	1 596	944	n.p.	n.p.
Beeswax produced (t)	470	376	389	176	76	37	51	35	13	n.p.	n.p.

(a) Source: *Livestock Products, Australia* (Cat. no. 7215.0).

(b) Includes estimates of animals slaughtered on farms and by country butchers.

(c) Comprises broilers, fryers and roasters.

(d) Australian total excludes Tasmania, the Northern Territory and the Australian Capital Territory.

(e) Dressed carcass weight, excluding offal.

(f) Dressed weight of whole birds, pieces and giblets.

(g) Comprises dead wool and wool on skins.

(h) Source: Australian Dairy Corporation.

(i) Australian total includes the Northern Territory and the Australian Capital Territory. New South Wales total includes the Australian Capital Territory.

8.13 CATTLE(a), By Type, and Number of Establishments

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
CATTLE											
Milk cattle											
Cows in milk and dry ('000)	2 060	2 155	2 171	276	1 358	200	126	62	147	1	—
Other milk cattle ('000)	1 015	1 065	969	163	535	105	63	43	59	—	—
Total milk cattle and calves ('000)	*3 076*	*3 220*	*3 140*	*440*	*1 893*	*305*	*189*	*106*	*206*	*1*	—
Meat cattle											
Bulls used or intended for service ('000)	547	528	r518	116	63	210	24	49	10	r46	—
Calves under one year ('000)	6 026	5 740	r5 872	1 542	716	2 354	302	515	125	r318	2
Cows and heifers one year and over ('000)	11 783	11 621	12 282	2 801	1 134	5 667	480	1 086	194	913	6
Other cattle one year and over ('000)	5 420	5 469	5 774	1 071	457	3 272	188	409	81	293	2
Total meat cattle and calves ('000)	*23 776*	*23 358*	*24 448*	*5 531*	*2 371*	*11 503*	*995*	*2 059*	*411*	*1 570*	*10*
Total cattle and calves ('000)	**26 851**	**26 578**	**27 588**	**5 970**	**4 264**	**11 808**	**1 184**	**2 165**	**617**	**1 571**	**10**
Proportion of total herd											
Milk cattle (%)	11.5	12.1	11.4	7.4	44.4	2.6	16.0	4.9	33.4	0.1	4.3
Meat cattle (%)	88.5	87.9	88.6	92.6	55.6	97.4	84.0	95.1	66.6	99.9	95.7
NUMBER OF ESTABLISHMENTS WITH CATTLE											
Milk cattle											
Cows in milk and dry	14 126	14 002	13 632	2 115	7 670	1 862	769	412	801	1	2
Other milk cattle	13 875	13 758	12 794	1 910	7 291	1 728	737	378	748	1	1
Total milk cattle and calves	*15 531*	*15 271*	*14 775*	*2 262*	*8 347*	*2 039*	*822*	*426*	*877*	*1*	*2*
Meat cattle											
Bulls used or intended for service	60 054	58 448	56 193	20 394	12 228	14 368	3 577	3 605	1 773	200	47
Calves under one year	62 574	60 469	58 964	21 149	12 997	14 717	4 056	3 868	1 937	189	50
Cows and heifers one year and over	67 556	65 694	64 630	23 516	13 719	16 723	4 171	4 130	2 107	209	55
Other cattle one year and over	50 012	49 251	45 916	14 469	9 949	14 154	2 487	2 967	1 680	180	32
Total meat cattle and calves	*77 252*	*75 905*	*76 662*	*26 815*	*17 759*	*19 266*	*4 883*	*4 855*	*2 807*	*215*	*62*
Total establishments	**84 469**	**83 173**	**84 014**	**27 929**	**22 338**	**20 096**	**5 276**	**4 953**	**3 144**	**216**	**62**

(a) Excluding house cows.

8.14 SHEEP, By Type, Lambing and Number of Establishments

	AUSTRALIA	2000								
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
SHEEP											
Sheep and lambs											
Sheep ('000)	87 534	85 960	87 852	31 742	17 013	7 521	9 806	19 214	2 493	(a)	63
Lambs under one year ('000)	29 957	29 496	30 699	11 663	5 651	1 674	3 953	6 895	847	(a)	16
Total sheep and lambs ('000)	**117 491**	**115 456**	**118 552**	**43 405**	**22 664**	**9 195**	**13 759**	**26 109**	**3 341**	**—**	**80**
LAMBING											
Ewes actually mated ('000)(b)	51 350	49 882	49 386	18 412	9 192	2 888	6 188	11 276	1 404	(a)	26
Lambs marked ('000)	40 124	40 081	41 689	16 049	8 216	1 878	5 325	8 903	1 298	(a)	20
Proportion of lambs marked to ewes mated (%)	78.1	80.4	84.4	87.2	89.4	65.0	86.0	79.0	92.5	(a)	77.9
Ewes intended to be mated ('000)(c)	52 004	52 062	50 162	18 843	9 261	3 217	6 121	11 335	1 355	(a)	30
NUMBER OF ESTABLISHMENTS WITH SHEEP											
Sheep and lambs											
Sheep	53 392	51 802	52 254	18 649	13 212	2 163	8 113	8 191	1 871	(a)	55
Lambs under one year	45 182	43 252	42 725	15 583	10 520	1 550	6 941	6 628	1 458	(a)	45
Total establishments	**54 717**	**52 934**	**53 150**	**19 027**	**13 442**	**2 234**	**8 242**	**8 225**	**1 925**	**—**	**55**

(a) Data not collected.

(b) Ewes mated to produce lambs marked in the season shown.

(c) Forecast made at the beginning of each season.

8.15 PIGS, By Type, and Number of Establishments

	AUSTRALIA		2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
	PIGS										
Pigs											
Boars ('000)	20	17	15	4	3	3	3	2	—	—	—
Breeding sows and gilts ('000)	320	309	293	86	63	59	49	34	2	—	—
Other pigs ('000)	2 429	2 301	2 202	620	457	482	386	240	15	2	—
Total pigs ('000)	**2 768**	**2 626**	**2 511**	**710**	**523**	**544**	**438**	**276**	**18**	**2**	**—**
	NUMBER OF ESTABLISHMENTS WITH PIGS										
Pigs											
Boars	3 193	2 806	2 727	808	328	591	603	341	53	3	—
Breeding sows and gilts	3 318	2 993	2 863	849	346	617	632	359	57	3	—
Other pigs	3 675	3 254	3 274	893	382	845	667	410	73	3	—
Total establishments	**3 859**	**3 461**	**3 446**	**968**	**407**	**870**	**690**	**426**	**83**	**3**	**—**

8.16 CHICKENS

	AUSTRALIA		2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Chickens											
For meat production ('000)(a)	75 504	77 863	72 912	35 192	15 096	10 672	6 503	5 363	n.p.	86	—
For egg production ('000)	14 036	13 912	12 016	3 564	3 201	2 593	824	1 302	266	148	120

(a) Tasmanian data are excluded from the Australian total.

8.17 BEEKEEPING

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Beekeepers (no.)	**968**	**980**	**902**	**375**	**165**	**180**	**95**	**59**	**27**	**n.p.**	**n.p.**
Beehives											
Productive ('000)(a)	297	288	267	113	54	37	36	16	12	n.p.	n.p.
Unproductive ('000)	65	80	73	32	7	24	2	6	2	n.p.	n.p.
Total ('000)	*362*	*368*	*r340*	*r144*	*61*	*r61*	*r38*	*22*	*14*	*n.p.*	*n.p.*
Honey											
Quantity produced (t)	22 021	18 852	21 381	8 775	4 971	2 069	3 008	1 596	944	n.p.	n.p.
Average production per productive beehive (kg)	74.0	65.5	80.0	77.9	91.6	56.6	83.7	99.6	80.3	n.p.	n.p.
Beeswax (t)	**470**	**376**	**389**	**176**	**76**	**37**	**51**	**35**	**13**	**n.p.**	**n.p.**

(a) Beehives from which honey is taken.

SPECIAL ARTICLE **THE AUSTRALIAN WOOL INDUSTRY**

INTRODUCTION

There is no doubt that Australia produces the world's best quality woollen fibre: Australian merino wool. The reasons behind Australia's high quality wool can be attributed to many factors, but are predominantly the experience and expertise of Australian farmers in selecting superior animals for breeding purposes, and in utilising the harsh Australian climate to produce clean, fine wool of high strength.

Sheep have been part of the Australian scene almost since the first fleet arrived at Botany Bay in 1788. In 1800, the colony's number of livestock was recorded as 203 horses, 1,044 cattle, 6,124 sheep and 4,017 pigs. However, it wasn't until the 1820s, when Australia imported around 5,000 merino sheep from Saxony, France and England, that the foundations of the Australian wool industry were laid.

Today Australia has approximately 119 million sheep and accounts for around 9% of world sheep numbers. However, this modest contribution to world sheep numbers understates Australia's dominance in the world's top quality woollen fibre market; Australia produces over 50% of the world's merino wool. In terms of total wool production, Australia produces approximately 694,000 tonnes of greasy wool, or over 29% of the world's yearly greasy wool output. Historically Australia has exported over 90% of its wool clip.

Of the 146,000 establishments with agricultural activity[1] operating in Australia at 30 June 2000, approximately 53,000 produced wool, from an average flock size of 2,200 sheep. According to ABARE, specialist wool producers number around 14,000 and account for 34% of Australian wool production. Total wool production in 1999–2000 was valued at $2.2 billion or around 7% of total agricultural output.

S1 WOOL INDUSTRY, Number of Sheep, Number of Establishments and Wool Produced

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Number of sheep (a) ('000)	117 491	115 456	118 552	43 405	22 664	9 195	13 759	26 109	3 341	(c)	80
Number of establishments with sheep	54 717	52 934	53 150	19 027	13 442	2 234	8 242	8 225	1 925	(c)	55
Wool produced (b) (tonnes)	689 601	688 719	694 526	240 664	134 309	55 951	83 954	159 778	19 595	—	275

(a) As at 31 March for years 1998 and 1999. As at 30 June for year 2000.

(b) Year ended 30 June.

(c) Data not collected.

[1] Establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more.

INTRODUCTION *continued*

New South Wales is the main wool producing State, with over 36% of the national flock. The next most important State is Western Australia, which currently accounts for around 22% of the flock. Victoria accounts for approximately 19% of the flock, followed by South Australia with 12%.

Almost all wool produced in Australia is sold through the public auction system, conducted on behalf of growers by wool brokers and held at one of the five major wool selling locations situated around Australia. All wool is tested prior to auction by sending a sample of the wool to the Australian Wool Testing Authority, who provide details of the micron, strength, percent of vegetable matter and other characteristics of the wool. This enables buyers to objectively assess each wool lot offered for sale by the broker prior to the auction to ensure that the wool purchased will meet the buyers' specific requirements.

SHEEP BREEDS

The main sheep breed in Australia is the Australian Merino, accounting for around 75% of all sheep. Another 12% are first cross ewes (predominantly merino x Border Leicester) which are used for producing high quality prime lambs (lambs for meat) by mating the ewes with short wool British meat breed rams. A further 9% are merino-derived dual purpose breeds and Comebacks, developed in high rainfall areas for the production of wool but combined with a more acceptable meat carcass than pure merinos. The balance of the flock are British breed sheep; long wool breeds used to breed prime lamb mothers (mainly Border Leicesters, but also Romney Marsh and Cheviots), and short wool breeds used for producing prime lambs (Poll Dorset, Dorset Horn, Suffolk, Southdown and South Suffolk).

DEVELOPMENT OF THE AUSTRALIAN MERINO

The Australian Merino is recognised world-wide for its ability to produce pure white wool which is soft and fine but strong. No other breed can match the fineness and softness of the fleece produced by the Australian Merino. A number of strains have been developed within the Australian Merino breed, notably the Peppin strain (developed in the 1860s by the Peppin brothers in the Riverina district of New South Wales) and the South Australian strain (developed along similar lines to those used by the Peppin brothers but with an emphasis on larger body size and stronger wool).

The Peppin brothers initially chose the best 200 of 6,000 ewes on their property to commence their breeding program. These were crossed with a Rambouillet ram from America which produced outstanding progeny with high yielding medium fine wool. Merino rams from Germany, Vermonts from America and Lincolns from England were also used by the Peppin brothers in developing their strain of sheep. Similar exercises were repeated around Australia, but were fine tuned to match local environmental conditions. For example, high rainfall areas better suited the use of Lincoln and merino sheep, whilst in South Australia the English longwool sheep were used to produce larger more robust sheep able to withstand hot arid pastoral conditions.

DEVELOPMENT OF THE AUSTRALIAN MERINO *continued*

There are four main types of merino in Australia. These are the super fine merino (18 micron fibre diameter or less), the fine wool merino (19 micron fibre diameter), the medium wool merino (20–22 micron fibre diameter) and the strong wool merino (23–25 micron fibre diameter). Climatic, geographic and management factors determine the distribution of these types throughout Australia. In general, finer woolled sheep grow best in the cooler areas, where feed is consistently scarce and sheep can be managed intensively. Stronger woolled sheep, on the other hand, grow better in the harsh hot low rainfall areas, where properties are large and the level of management is less intensive.

New South Wales has a range of excellent sheep growing areas, from the cooler southern and northern tablelands areas suited to superfine sheep, to the more temperate inland pastoral areas suited to medium woolled sheep, right through to the semi-arid and remote western pastoral areas suited to strong woolled sheep. Western Australia tends to produce wool of medium micron grade, as most of their production is contained in the more temperate pastoral areas of the south west of the State, whilst comparatively harsher conditions in the South Australian and Queensland sheep-growing regions tend towards the production of stronger woolled sheep. Like New South Wales, Victoria produces a wide range of wool types, while Tasmanian production tends toward the finer end of the scale.

HISTORICAL OVERVIEW

By 1820 the number of sheep in Australia had reached approximately 120,000 and consisted mainly of meat sheep from the Cape of Good Hope, India, England and Ireland, and their resultant crosses. At this stage only around 30 merino sheep had been imported into Australia. However, the importation of around 5,000 merino sheep in the 1820s and their eventual crossing with the local sheep flock laid the foundations for the Australian wool industry.

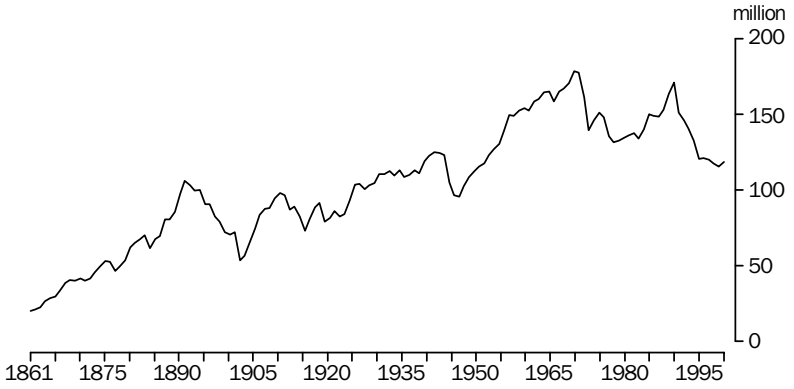
During the next 30 years the pastoral industry expanded into newly opened lands in and around Sydney and beyond the Blue Mountains in New South Wales, as well as districts further afield such as Port Phillip and Portland Bay in present day Victoria. Imports of sheep continued to grow as the demand for sheep meat and wool increased in Australia and Great Britain.

By 1840 imports of sheep into the Colony of New South Wales reached 20,000 and in 1848 exports of sheep had reached almost 90,000. In the same year 5,657 tonnes of wool, valued at £683,623, were exported to Great Britain from New South Wales, which at that time included the areas of Queensland and Victoria. By the end of 1850 sheep numbers across Australia had reached 16 million, or around 39 sheep per head of population, compared with around 6 sheep per head of population today.

Sheep numbers grew a further 25% during the 1850s reaching 20.1 million in 1860. In 1852 the Colony of Victoria boasted 6.5 million sheep and was exporting 9,112 tonnes of wool with an estimated value of £1,062,787. By the latter half of the 19th century the wool industry had taken on a life of its own. Sheep numbers increased rapidly from 20.1 million in 1860, to over 106 million in 1892. Over the same period wool production increased nearly ten-fold, up from 26,753 tonnes to 289,380 tonnes, as fleece weights increased with the development of improved strains of sheep.

HISTORICAL OVERVIEW *continued*

S2 NUMBER OF SHEEP, AUSTRALIA: 1861–2000



Economic and climatic problems, culminating in the depression of the 1890s and the prolonged drought of 1895–1904, seriously affected wool production towards the end of the 19th century. Sheep numbers fell from 106 million in 1892 to 54 million in 1903 — a staggering 49% fall. Droughts continued to affect the pastoral industry in the early part of the twentieth century and caused significant periodic drops in sheep numbers.

Wool producers were given some respite when, during the First World War, all Australian wool was purchased by the British Government at 55% above pre-war values. However, it took approximately two decades for sheep numbers to be restored to the levels of 1892, when in 1926 sheep numbers rose above 100 million once again.

By the mid 1920s the United Kingdom was purchasing about 50% of Australia's total wool exports, up considerably on the pre-war figure of 30%, with wool exports accounting for three quarters of all pastoral export income (which included live cattle and sheep, meat, wool and hides). By the late 1920s Australia's 103 million head of sheep produced 440,000 tonnes of wool and accounted for 17% of the world's sheep numbers. During this time Australia produced just on half of the world's merino wool production.

In the 1930s exports of wool comprised approximately 30% of the total value of Australia's exports of merchandise trade, earning £46.9 million in 1937–38. By the outbreak of the Second World War the demand for wool by Britain had increased substantially. The Australian and British Governments entered into a number of contracts to purchase Australian produce including wool, mutton and lamb at agreed prices. In 1939 the Governments of the United Kingdom and Australia arranged for the British "to acquire the Australian wool clip for the duration of the War and one full wool season after the cessation of hostilities", surplus to requirements of Australian manufacturers (Year Book of Australia, No. 33, 1940: p962).

In fact, during the war years net exports of wool (i.e. exports minus imports) decreased from 386,000 tonnes in 1938–39 to 262,000 tonnes in 1944–45, a drop of 32% in seven years. However, net exports did reach pre-war levels the following year, when the Australian war effort cut back its use of wool.

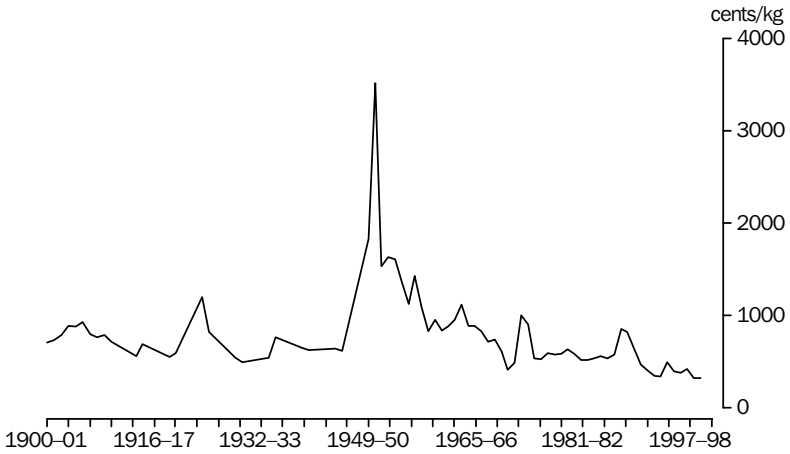
HISTORICAL OVERVIEW *continued*

At the end of the Second World War the stock of Australian, New Zealand and South African grown wool in the ownership of the United Kingdom Government was 10.4 million bales. At a meeting of officials from each country held in London in April - May of 1945, the four governments formed a joint organisation called 'U.K. Dominion Wool Disposals Limited' to market and sell the stockpile, together with future clips, in an orderly fashion to ensure the stability of wool prices. By the end of 1951 all of the stockpile had been sold, as well as the wool bought in by the organisation at the floor price. On 22 January 1952, the Joint Organisation was voluntarily liquidated. Distributions to Australian wool growers of the profits arising from the transactions of the 'Joint Organisation' in Australian wool were £23.6 million in November 1949, £23.6 million in March 1952 and £15.1 million in March 1953.

Prosperity in the wool industry peaked in 1950–51 when the average greasy wool price reached 144.2 pence per lb, (equivalent to around $36 per kg in today's prices, compared with around $3.27 per kg being achieved now). This was nine times greater than the 1945–46 United Kingdom contract price, and almost thirteen times greater than the average for the ten seasons ending in 1938–39 (10.39 pence per lb). This short-lived but extreme increase in price was due to the American demand for wool which was generated by the Korean War.

During this period Australia was said to be 'riding on the sheep's back'. In 1950–51 the gross value of wool production had increased to 56% of the total value of production of all agricultural industries, compared with 17% in 1945–46. The increase in the price of wool during this period led to a sharp increase in sheep numbers, up from 96 million in 1946 to 113 million in 1950.

S3 AVERAGE UNIT VALUE OF GREASY WOOL AT 2000 PRICES



THE WOOL INDUSTRY—AFTER THE GOLDEN PERIOD

The period of high prices did not last, and returns for wool quickly fell away. In 1951–52 returns were half that received for the previous year. While small rises sometimes occurred over the next 20 years, wool prices generally continued to fall until 1970–71, when the price fell to $0.60 per kg (equivalent to $4.16 in 2000 prices).

By 1970–71 wool production contributed only 15% to total gross value of agricultural production. Over most of the 20 year period up to 1970, wool producers made reasonable profits compared with other agricultural industries, and the number of sheep and quantity of wool produced continued to increase. However, there were underlying concerns within the industry about the general decline of wool prices and these resulted in a number of attempts to stabilise wool prices over the period. In 1970 when wool prices bottomed, there were a record 180 million sheep producing approximately 890,000 tonnes of wool.

A Wool Deficiency Payments Scheme operated for two years from 1971, after which the Australian Wool Corporation (AWC) established a minimum reserve price scheme, which operated between 1974 and 1991. The aim of the scheme was to stabilise future large movements in wool prices by purchasing wool which did not achieve the agreed floor price and then selling wool later in times of buoyant demand. However in the early 1990s a combination of sharp falls in demand and high reserve prices (set during a period of high demand in the late 1980s), resulted in the scheme being suspended in February 1991, when the size of the AWC stockpile had reached 4.7 million bales. The Government, with the agreement of the industry, decided that the scheme could no longer be maintained.

The Australian Wool Realisation Commission (AWRC) was initially responsible for the disposal of the wool stockpile. In December 1993 the disposal of the stockpile became the responsibility of Wool International (WI), a statutory corporation of the Commonwealth Government. WI was required to sell the stockpile in accordance with a statutory imposed disposal schedule, with the last bale of stockpile wool to be sold by 30 December 2000.

At 30 June 1998 the stockpile had been reduced to 1.2 million bales. By October 1998 equity in the wool stockpile had reached a level significantly higher than the level of debt in the wool stockpile and, therefore, ongoing government involvement in stockpile management was no longer justified. As a result the Government announced a freeze on sales of wool from the stockpile in mid October 1998 and announced its intention to privatise WI by 1 July 1999. On this date WI became WoolStock Australia Limited, a public company limited by shares allocated to previous holders of unit equity in WI. WoolStock Australia took over the assets and liabilities from WI and was fully accountable to its shareholders for the efficient management and sale of the stockpile.

On 9 August 2001, WoolStock Australia was able to report that the last bales from the stockpile had been sold. This meant that future sales of wool would again be able to operate under free market principles and that the impact of artificially set prices would no longer have an impact on the price of wool received by Australian growers.

THE WOOL INDUSTRY—AFTER THE GOLDEN PERIOD *continued*

It was during the 1990s that the Australian wool industry came to fully realise that wool is merely one of a number of fibres which apparel makers can choose to use in their garments, and that demand for wool depends significantly on the relative prices of substitute fibres, particularly the high quality but cheap synthetic fibres being produced today.

Over the last decade, world consumption of wool has declined 10% from an average annual consumption of 1.76 million tonnes in the 1980s to 1.59 million tonnes in the 1990s. This decline in wool consumption occurred while total consumption of apparel fibres, including synthetics and cotton, was rising. In 1998, total world fibre consumption was around 46 million tonnes, with synthetics comprising 49% of this figure, cotton 42%, cellulosics 5% and wool only 3%. During the 1990s most of the growth in total apparel fibre consumption was in synthetic fibres and cotton which grew at 6% and 1.6% a year respectively.

Wool is a more expensive fibre to both produce and process than cotton or polyester with production and processing (up to the yarn stage) estimated as being around three times more expensive. In addition, the price of wool fluctuates with changes in supply and demand. Nevertheless, most organisations in the textile industry still view wool as one of the most important apparel fibres and one which will always have a future in the textile industry.

FINANCIAL OVERVIEW

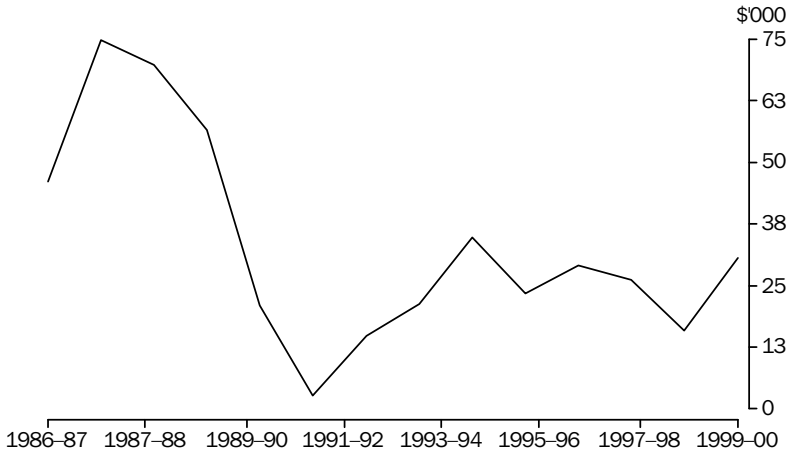
In 1971–72, the year after wool prices bottomed, the estimated turnover of the specialist wool producing industry was $480 million. This had risen to $4.3 billion in 1989–90, but by 1999–2000 it had fallen to $1.7 billion, a decrease of 60% in ten years. By comparison, turnover for the beef industry and grain industry in 1999–2000 was $3.2 billion and $4.2 billion respectively. On average in 1999–2000, the financial turnover of specialist wool growing businesses was $153,400, while specialist beef businesses and grain growing businesses had turnovers of $233,000 and $315,000 respectively, with the average turnover of all farm businesses estimated at $275,000.

Farm profitability in the wool industry has always been cyclical and dependent on fluctuating wool prices, export markets and weather conditions. Cash operating surplus (COS; i.e. the cash surplus before the deduction of depreciation and income tax and before operators of unincorporated businesses have drawn a wage) for the specialist wool producing industry was $345 million in 1999–2000, with the average specialist wool growing business's surplus being $31,000, a decrease of 32% from the average of $46,000 in 1989–90, but double the value achieved in 1998–99. Average cash operating surplus for the specialist beef business and grain growing business in 1999–2000 was substantially higher than that reported for specialist wool businesses, being $56,000 and $87,000 respectively.

FINANCIAL OVERVIEW *continued*

Net worth (assets less gross indebtedness) of the specialist wool producing industry in 1999–2000 was estimated at $11.1 billion, compared with $17.0 billion in the grain industry and $21.3 billion in the beef cattle industry. Return on net worth for wool producers climbed from 1.5% in 1998–99 to 3% in 1999–2000 compared with 5.7% for all Australian farm businesses in 1999–2000. The rate of return on farm business assets for wool producers was 2.7% in 1999–2000 compared with 3.3% for beef producers and 5.5% for grain growers. When looking at return on farm operating cost (COS divided by operating costs) the specialist wool producing industry managed to generate 24%, i.e. for every $100 a wool producer expended on operating costs, $24 of COS was generated, compared with 37% for the grain industries and 29% for beef producers.

S4 AVERAGE CASH OPERATING SURPLUS FOR WOOL BUSINESSES AT 2000 PRICES



MAJOR WOOL MARKETS

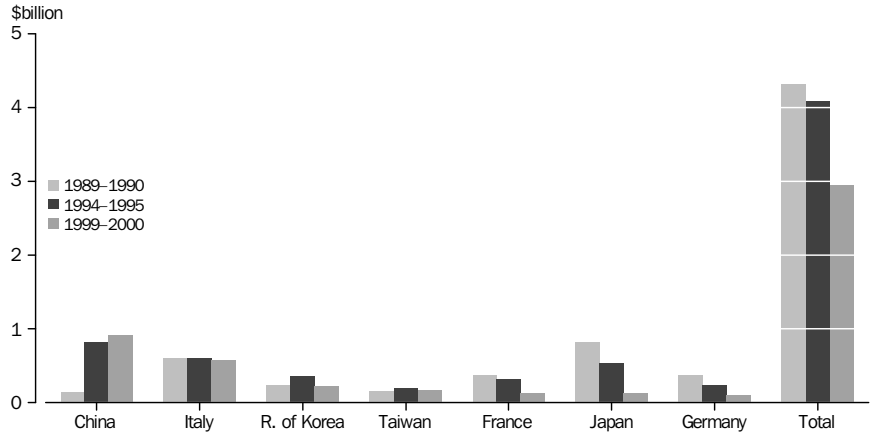
Over the last 10 years, Australian greasy wool production has decreased 35%, from over 1.0 million tonnes in 1989–90 to 694,000 tonnes in 1999–2000. Total exports of wool (which includes raw, semi-processed and wool on skins) on the other hand, have fluctuated around an average of 815,000 tonnes per year (expressed in a greasy wool equivalent) over the ten years from 1990–91, with the figure for 1999–2000 being approximately 800,000 tonnes. The value of wool exports fluctuated at around $3.5 billion over most of the 1990s before dropping sharply from $4.0 billion in 1997–98 to $2.6 billion in 1998–99.

Wool markets in the early to mid 1990s saw an excess of production, steadily declining world prices and strong competition between natural and synthetic fibres. However, in more recent times the consumption of wool has exceeded production, due to a decrease in the size of the sheep flock, and healthy demand as a result of a comparatively low Australian dollar. Australia's wool exports have increased 20% in value terms to $3.0 billion in 1999–2000, as a result of significant rises in prices during 2000.

MAJOR WOOL MARKETS *continued*

Over the last two decades trade between Australia and China has increased substantially with China becoming Australia's single largest wool market. Today China purchases over 30% of Australia's exports of raw and semi-processed wool, importing $925 million of Australian wool in 2000. The European Union also accounts for approximately 30% of Australia's wool exports by value, with Italy being by far the predominant purchaser of Australian wool in that group of countries. The Republic of Korea, Taiwan and France are the next most significant purchasers of wool, accounting for approximately 18% of Australia's wool exports. While there has been growth in wool exports to China and other South East Asian countries over the last decade, the contribution of wool exports to Australia's total merchandise exports fell significantly, from 5.8% in 1991 to 3.0% in 2000.

S5 AUSTRALIAN WOOL EXPORTS, BY DESTINATION, RECORDED TRADE BASIS



Source: *Australian Commodity Statistics*, ABARE.

INDUSTRY OUTLOOK

As at June 2001, the fortunes of the industry are uncertain. Following an improvement in wool prices over the last 18 months, predominantly as a result of large price rises for the finer micron wools, confidence in the industry is returning. Wool producers are responding to these market signals by breeding finer micron wools than ever before. Recent reductions in the supply of wool, in particular the running down of the wool stockpile, is causing a turnaround in the price of wool to profitable levels. It is expected that now the stockpile of wool left over from the late 1980s has been depleted, relative prices for the broader micron wools will increase.

However, the latest predictions available from ABARE suggest that this upturn in wool prices may be short-lived, due mainly to weakening world markets, particularly in the United States and Asian economies. Whilst demand from most of Europe is expected to be stronger, much of the wool purchased by Italy is destined for re-export to Asian countries, and therefore future exports to Italy are forecast to decline over the next 12 months. At the time of writing China is again showing a healthy interest in purchasing Australian wool and it is expected that China will play a significant role in the profitability of the wool industry in the medium term future.

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CHAPTER 9 TRADE

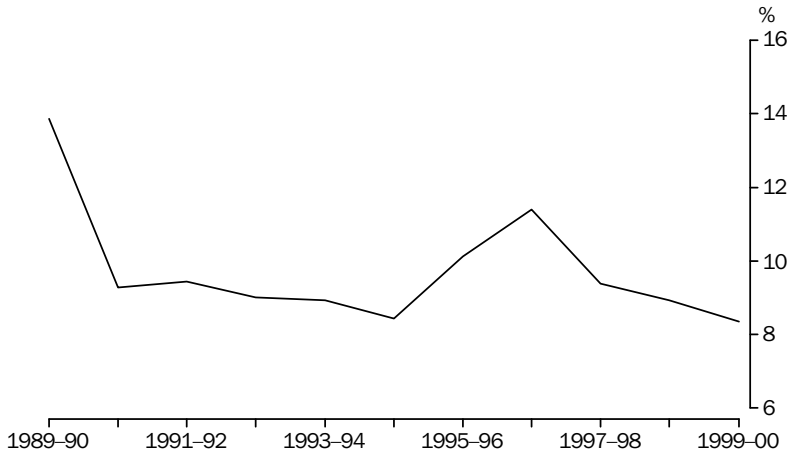
OVERVIEW

In 1999–2000, the total value of exports of agricultural products (exports classified to ANZSIC Subdivision 01, Agriculture, as their industry of origin) increased by 6% to $8.1 billion.

9.1 TOTAL EXPORTS FROM AGRICULTURAL INDUSTRY

Following a decline in the late 1980s, the contribution of agricultural products to total exports remained relatively stable at around 9%, but dropped to 8% in 1999–2000.

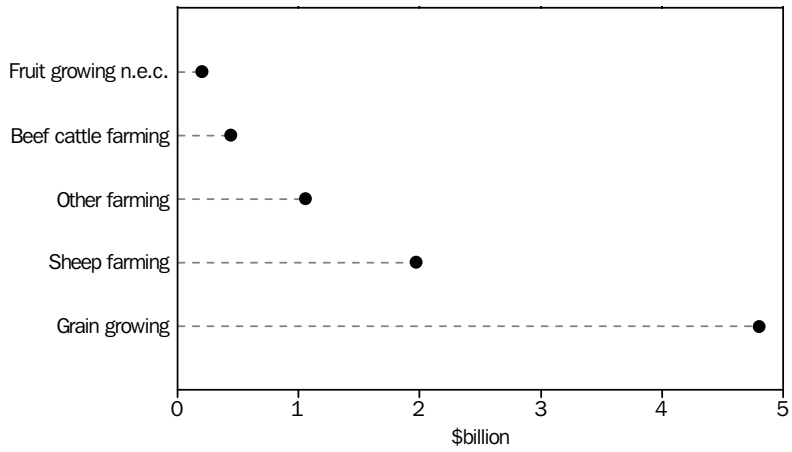
9.2 CONTRIBUTION TO TOTAL EXPORTS BY AGRICULTURAL PRODUCTS



OVERVIEW *continued*

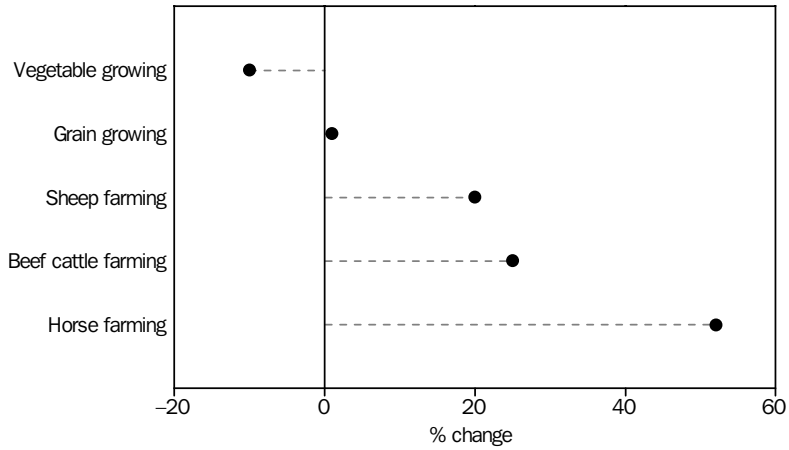
The grain growing sector, which accounted for 59% of total agricultural exports, remained steady at $4.8 billion. Exports from the sheep farming sector increased significantly (from $1.6 billion in 1998–99 to $2.0 billion in 1999–2000).

9.3 VALUE OF EXPORTS FOR SELECTED INDUSTRIES—Year ended 30 June 2000



Increases in exports were recorded for a number of the smaller exporting industries, such as the beef cattle farming and horse farming industries, with increases of 25% to $440 million and 52% to $95.5 million, respectively.

9.4 CHANGE IN VALUE OF EXPORTS FOR SELECTED INDUSTRIES—1998–99 to 1999–2000



CROPS

In 1999–2000, wheat exports rose to 17.1 million tonnes, an increase of 6% over the previous year, although falling prices saw the value of wheat exported remain steady at $3.4 billion. Iraq provided the largest market for wheat, importing 2.3 million tonnes.

Total barley exports fell by 22% in 1999–2000 to 3.3 million tonnes. China was the largest market for barley, importing 1.2 million tonnes, or 35% of total barley exports, with a value of $260 million.

CROPS *continued*

The total quantity of canola exported rose 43% to 1.9 million tonnes, its value increasing to $639 million. China provided the largest market for canola, importing 1.2 million tonnes with a value of $405 million. In 1999–2000, exports of rice fell in quantity and value, by 2% to 644,000 tonnes and 7% to $379 million, respectively.

FRUIT

In 1999–2000, exports of apples increased by 31% to 32,600 tonnes, while their value increased by 18% to $35.8 million. Malaysia continued to be the largest market for apples, importing 9,460 tonnes. The total quantity of fresh and dried grapes exported fell by 10% to 38,400 tonnes in 1999–2000. A 16% decrease in value to $87.6 million was also recorded. Hong Kong provided the largest market, importing 11,900 tonnes with a value of $26.4 million.

VEGETABLES

Exports of onions fell by 28% to 41,500 tonnes in 1999–2000, their value decreasing to $15.3 million. Germany imported 11,300 tonnes of onions valued at $3.7 million.

LIVESTOCK

In 1999–2000, the total number of live cattle exported (including those for breeding purposes) was 854,000, a 17% increase over the previous year. The total value of cattle and calves exported increased by 25% to $440 million as a result of increased numbers and prices. Egypt provided the largest market for live cattle, importing 223,000 head of cattle, with a value of $131 million.

The number of live sheep exported (including those for breeding purposes), decreased by 2% to 4.9 million, although the value remained steady at $186 million. Kuwait was the primary market, accounting for 1.4 million or 29% of total live sheep exports.

WOOL

In 1999–2000, total exports of greasy wool increased by 19% to 449,000 tonnes. The value of wool exports rose by 22% to $1.7 billion, with prices up slightly. China remained the largest market for greasy wool, importing 170,000 tonnes, or 38% of Australia's total greasy wool exports.

9.5 EXPORTS BY INDUSTRY OF ORIGIN(a)(b)—Years ended 30 June

ANZSIC code	Description	1998 $'000	1999 $'000	2000 $'000
0111	Plant nurseries	5 624	5 308	5 549
0112	Cut flower and flower seed growing	24 325	23 772	25 481
0113	Vegetable growing	244 149	254 369	229 768
0114	Grape growing(c)	82 438	104 100	87 507
0115	Apple and pear growing	62 267	49 799	56 098
0116	Stone fruit growing	24 479	38 414	39 046
0117	Kiwi fruit growing	2 892	4 175	4 651
0119	Fruit growing n.e.c.	203 301	200 226	202 604
0121	Grain growing	4 556 510	4 771 661	4 800 603
0124	Sheep farming(d)	2 476 956	1 644 431	1 972 528
0125	Beef cattle farming(d)	352 348	350 975	439 639
0141	Poultry farming (meat)(d)	1 156	1 120	1 691
0142	Poultry farming (eggs)	2 524	4 806	3 017
0151	Pig farming(d)	1 065	768	881
0152	Horse farming	63 813	62 648	95 455
0159	Livestock farming n.e.c.	34 215	30 937	42 709
0161	Sugar cane growing(e)	3	39	1
0169	Crop and plant growing n.e.c.	93 770	122 348	128 687
	Total agriculture (ANZSIC Code 01)(d)	**8 231 835**	**7 669 894**	**8 135 916**

(a) Refer to Explanatory Notes paragraphs 34–43.

(b) Excludes commodity data subject to confidentiality restrictions.

(c) Excludes wine.

(d) Includes exports of live animals but excludes meat exports. Meat exports are classified to ANZSIC Subdivision 21 'Food, Beverage and Tobacco'.

(e) Includes exports of sugar cane only. Excludes exports of raw sugar which is classified to ANZSIC Subdivision 21 'Food, Beverage and Tobacco'.

SOURCE: ABS FASTTRACS Service, July 2001.

9.6 EXPORTS OF SELECTED COMMODITIES(a)(b)—Years ended 30 June

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Crops											
Barley											
Quantity ('000 t)	2 513.3	4 212.9	3 283.4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Value ($m)	544.5	698.0	646.4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Canola											
Quantity ('000 t)	590.1	r1 320.1	1 893.2	484.6	360.1	9.7	173.2	864.5	0.6	—	—
Value ($m)	256.2	r557.7	638.8	162.5	119.0	3.3	58.6	293.4	1.6	—	—
Cotton lint											
Quantity ('000 t)	593.4	646.7	703.0	393.6	0.1	309.1	—	0.2	—	—	—
Value ($m)	1 385.6	1 558.9	1 406.3	792.5	0.3	613.1	—	0.4	—	—	—
Grain sorghum											
Quantity ('000 t)	250.9	r12.5	25.5	0.1	1.1	24.1	—	0.2	—	—	—
Value ($m)	49.8	2.6	4.1	—	0.3	3.8	—	—	—	—	—
Rice											
Quantity ('000 t)	r647.3	r655.3	643.6	630.6	12.5	—	—	—	—	0.2	—
Value ($m)	r395.7	r409.0	379.1	371.1	7.5	0.1	—	—	—	0.2	—
Wheat											
Quantity ('000 t)	r15 096.5	r16 189.3	17 083.1	3 647.8	1 687.5	1 310.4	2 357.1	8 080.3	—	—	—
Value ($m)	r3 629.6	r3 398.8	3 412.9	746.6	346.7	278.9	473.1	1 567.6	—	—	—
Fruit											
Apples											
Quantity ('000 t)	35.4	24.8	32.6	1.4	2.2	1.8	0.7	5.5	21.2	—	—
Value ($m)	38.0	r30.4	35.8	1.4	2.6	2.2	1.0	8.1	20.5	—	—
Grapes (fresh or dried)											
Quantity ('000 t)	r39.4	r42.6	38.4	3.0	31.8	0.5	2.2	0.7	—	—	—
Value ($m)	r82.5	104.1	87.5	7.3	71.0	1.2	5.9	1.8	—	—	—
Pears (excluding Nashi)											
Quantity ('000 t)	19.4	14.2	15.9	0.1	13.8	0.1	—	1.7	0.1	—	—
Value ($m)	21.5	17.0	17.5	0.1	15.1	0.1	—	2.0	0.1	—	—
Oranges											
Quantity ('000 t)	117.3	112.2	111.6	18.6	40.4	3.7	48.3	0.5	—	—	—
Value ($m)	110.4	119.2	122.8	21.6	47.7	4.6	48.3	0.4	—	—	—
Vegetables											
Potatoes											
Quantity ('000 t)	20.1	21.5	20.1	0.2	6.1	2.2	1.2	9.7	0.6	—	—
Value ($m)	7.9	9.2	9.0	0.1	2.7	0.8	1.1	4.1	0.2	—	—
Onions											
Quantity ('000 t)	49.9	57.4	41.5	0.5	0.5	0.6	0.7	—	39.1	—	—
Value ($m)	28.9	28.4	15.3	0.2	0.2	0.4	0.5	—	14.0	—	—
Carrots											
Quantity ('000 t)	53.5	60.3	(c)56.4	0.2	0.4	1.7	0.3	50.7	3.1	—	—
Value ($m)	35.4	43.2	(c)36.4	0.1	0.5	1.2	0.2	31.5	2.8	—	—
Cauliflower											
Quantity ('000 t)	17.3	17.0	16.9	0.1	1.4	0.6	—	14.8	—	—	—
Value ($m)	22.5	23.0	22.9	0.1	1.9	0.6	—	20.2	—	—	—

(a) Refer to Explanatory Notes paragraphs 34–43.

(b) Excludes commodity data subject to confidentiality restrictions.

(c) For the year ended 30 June 2000, turnips were included with carrots.

SOURCE: ABS FASTTRACS Service, July 2001.

9.6 EXPORTS OF SELECTED COMMODITIES(a)(b)—Years ended 30 June *continued*

	AUSTRALIA			2000							
	1998	*1999*	*2000*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Livestock											
Live cattle for slaughter											
Quantity ('000)	(c)r694.0	713.0	845.7	10.7	39.7	218.1	16.5	279.3	5.6	275.7	—
Value ($m)	(c)r334.1	342.7	432.6	5.3	24.3	103.2	7.9	143.5	3.5	145.0	—
Live cattle for breeding											
Quantity ('000)	28.8	16.9	8.1	0.1	7.4	—	—	0.6	—	—	—
Value ($m)	18.3	8.3	7.0	0.3	6.0	—	—	0.6	—	0.1	—
Live sheep for slaughter											
Quantity ('000)	4 961.1	4 958.7	4 858.6	0.2	562.0	0.4	532.5	3 762.2	—	1.4	—
Value ($m)	193.3	181.7	180.3	—	16.9	—	17.3	146.0	—	0.1	—
Live sheep for breeding											
Quantity ('000)	148.1	74.1	89.6	—	0.9	—	—	88.7	—	—	—
Value ($m)	6.9	6.4	5.2	—	1.2	—	—	4.0	—	—	—
Wool											
Total greasy wool											
Quantity (t)	(c)r437 787	(c)r377 253	(c)449 207	126 046	160 146	25 641	29 713	103 754	3 856	—	—
Value ($m)	(c)r2 222.4	(c)r1 433.7	(c)1 749.4	557.7	629.2	81.2	92.3	368.7	19.9	—	—

(a) Refer to Explanatory Notes paragraphs 34–43.

(b) Excludes commodity data subject to confidentiality restrictions.

(c) Excludes re-exports.

SOURCE: ABS FASTTRACS Service, July 2001.

9.7 EXPORTS OF SELECTED COMMODITIES BY DESTINATION(a)(b)—Years ended 30 June

	1998		1999		2000	
	quantity (c)	*value* $'000	*quantity* (c)	*value* $'000	*quantity* (c)	*value* $'000
Barley						
China	677 348	173 260.7	1 320 265	253 169.5	1 161 667	260 350.1
Japan	772 636	161 430.3	930 240	174 123.9	961 818	188 592.3
Saudi Arabia	175 750	36 148.9	1 094 477	140 419.7	425 676	74 715.8
Canola						
China	132 659	57 151.3	393 785	163 923.8	1 212 020	405 379.8
Japan	230 329	101 511.3	293 188	126 152.0	369 960	123 263.0
Bangladesh	94 638	41 847.4	126 334	55 470.4	99 363	34 718.4
Wheat						
Iraq	1 274 863	n.p.	1 179 344	n.p.	2 265 125	n.p.
Indonesia	2 355 286	n.p.	1 673 492	n.p.	1 786 218	n.p.
Iran	486 040	n.p.	1 608 255	n.p.	1 519 553	n.p.
Apples						
Malaysia	13 183	11 469.9	7 911	7 581.6	9 455	8 360.1
Singapore	7 504	7 384.6	4 381	4 408.3	5 087	4 903.7
United Kingdom	2 960	7 410.4	2 106	5 689.5	1 688	4 708.6
Grapes						
Hong Kong (SAR of China)	10 639	19 554.7	12 469	28 856.4	11 911	26 382.6
Singapore	5 355	11 194.7	5 578	13 210.2	6 929	14 552.6
Malaysia	4 537	8 539.8	3 250	7 170.4	4 485	9 588.3
Oranges						
United States of America	21 658	32 952.3	22 132	34 813.9	26 364	43 086.1
Hong Kong (SAR of China)	11 973	9 395.8	24 280	24 010.6	22 903	20 683.4
Malaysia	33 664	24 069.6	22 535	18 625.2	23 229	18 104.5
Carrots(d)						
Malaysia	22 181	14 339.7	23 273	15 967.9	23 439	13 923.4
Singapore	11 820	7 836.5	12 347	8 626.7	11 564	7 257.5
Hong Kong (SAR of China)	7 247	5 178.2	8 114	6 200.6	7 225	4 878.2
Onions						
Germany	8 066	4 632.6	9 887	4 633.4	11 263	3 721.2
United Kingdom	6 046	4 140.0	7 436	4 640.1	5 175	2 394.0
Japan	6 714	4 122.9	7 265	3 769.8	4 652	2 319.0
Live cattle						
Egypt	47 055	23 582.8	188 915	100 183.4	223 049	130 585.1
Philippines	238 437	102 211.4	263 662	118 290.1	245 198	122 077.9
Indonesia	159 602	75 632.7	94 617	39 520.1	231 229	106 998.2
Live sheep						
Kuwait	1 259 992	48 605.5	1 299 789	46 642.4	1 396 808	56 572.4
United Arab Emirates	1 531 063	58 611.0	1 081 393	39 719.1	854 815	28 938.0
Jordan	664 126	24 727.6	1 109 019	39 210.7	766 937	24 666.9
Wool (greasy)						
China	103 017	503 753.8	104 327	372 542.3	170 338	628 907.2
Italy	81 850	480 694.1	66 546	296 325.3	82 631	414 294.2
Taiwan	32 695	135 468.9	43 977	127 590.5	48 816	142 029.9

(a) Refer to Explanatory Notes paragraphs 34–43.

(b) Excludes commodity data subject to confidentiality restrictions.

(c) Unit of quantity for crop and horticultural commodities is tonnes. Unit of quantity for livestock is number.

(d) For the year ended 30 June 2000, turnips were included with carrots.

SOURCE: ABS FASTTRACS Service, July 2001.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains detailed statistics on crops, livestock and livestock products and characteristics of farms. Also included are detailed statistics on the financial performance of agricultural businesses, the value of agricultural commodities produced (VACP) and summary data on trade.

SCOPE AND COVERAGE

2 Estimates of farm production are based on information obtained from the Agricultural Commodity Survey (ACS) conducted at 30 June 2000. Prior to 2000 information was obtained for the period ending 31 March. The ABS has changed the collection period to 30 June to better align with other ABS surveys. A study of respondent data indicated that there should be no significant difference in estimates collected between the reference periods. Estimates of financial performance are derived from the 1999–2000 Agricultural Finance Survey (AFS) conducted for the financial year ended 30 June 2000. VACP quantity data are collected from the ACS and other Australian Bureau of Statistics (ABS) collections with some information from external sources (e.g. Australian Dairy Corporation). Most price information is obtained from non-ABS sources such as marketing boards, marketing reports, wholesalers, brokers and auctioneers.

3 The scope of the 1999–2000 ACS is establishments undertaking agricultural activity having an estimated value of agricultural operations (EVAO) of $5,000 or more. This is the same as the scope for Agricultural Censuses from 1993–94 to 1996–97 and the 1997–98 and 1998–99 ACS. Prior to 1993–94 scope has varied. Details are available on request. The scope of the 1999–2000 AFS is management units undertaking agricultural activity having an EVAO of $22,500 or more.

AGRICULTURAL ESTABLISHMENTS

4 For the Agricultural Commodity Survey, the concept of an establishment is the same as that used by the ABS for all industry statistics collections. The establishment is the smallest accounting unit of business within a State or Territory, controlling its productive activities and maintaining a specified range of detailed data enabling value added to be calculated. In general an establishment covers all operations at a physical location, but may consist of a group of locations provided they are within the same State or Territory. The majority of establishments operate at one location only.

MANAGEMENT UNITS

5 The management unit is the highest level accounting unit within a business, having regard for industry homogeneity, for which accounts are maintained; in nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'Division' or 'line of business'. Management units which have a predominant activity in the agricultural sector are called farm businesses. Farm businesses which operate in more than one State are called 'multi-State farm businesses'.

MANAGEMENT UNITS *continued*

6 From 1986–87 to 1992–93 inclusive, multi-State farm businesses contributed to Australian estimates but not to State level estimates. A methodology to apportion estimates for the multi-State management units to those States in which the management unit operated was developed and implemented from 1993–94 onwards.

7 The method of apportioning multi-State management units utilises a combination of size measures available from the agricultural survey and direct collection of additional data from the multi-State management units.

INDUSTRY AND SIZE CLASSIFICATION

8 Since 1991–92, units in the Agricultural Census, ACS and the AFS have been classified according to the methodology described in *Australian and New Zealand Standard Industrial Classification (ANZSIC)* (Cat. no. 1292.0). Prior to 1991–92, establishments were classified according to the methodology described in the 1983 edition of the *Australian Standard Industrial Classification (ASIC), Volume 1 — The Classification* (Cat. no. 1201.0). Therefore, care should be taken when making comparisons between years where different classifications have been used.

9 Industry value estimates, industry financial estimates and trade export estimates in this publication are presented in terms of ANZSIC.

DATA ITEMS

10 The financial data items contained in this publication are comparable with those produced by the ABS for the mining, manufacturing and other industries of the economy. Data for all industries and comparisons between them are published in *Business Operations and Industry Performance*, *Australia* (Cat. no. 8140.0).

SAMPLE ERROR

11 The estimates in this publication are based on information obtained from a sample drawn from the total farm population in scope of the collections, and are subject to sampling variability; that is, they may differ from the figures that would have been produced if all farms or farm businesses had been included in the ACS or AFS respectively. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample was taken. There are about two chances in three that a sample estimate will differ by less than one SE from the figure that would have been obtained if all farms or farm businesses had been included, and about nineteen chances in twenty that the difference will be less than two SEs.

12 In this publication, sampling variability of the estimates is measured by the relative standard error (RSE) which is obtained by expressing the SE as a percentage of the estimate to which it refers. Most published estimates have RSEs less than 5%. For some States with limited production of certain commodities, RSEs are greater than 25%. If an estimate is identified by a single asterisk (e.g. *2) the RSE lies between 25% and 50%. If an estimate is identified by a double asterisk (e.g. **) the RSE is above 50% and is not published. Separate indication of the RSEs of all estimates is available on request.

13 Prior to 1997–98 the ACS was conducted as a census and therefore the estimates for that period are not subject to SEs.

CHANGES TO DEFINITIONS

14 From 1995–96, land rent paid and land rent received were no longer collected as separate items but were included in rent and leasing expenses and rent and leasing revenue. This has slightly affected the estimates of turnover, purchases, value added, adjusted value added and gross operating surplus. The effect on performance measures derived using these items is minimal.

15 Commencing with estimates for 1997–98, under new international standards, contribution to gross domestic product (GDP) by agricultural industries will be measured by the item 'industry value added' (IVA). Previously the corresponding contribution to GDP was measured by the item 'industry gross product (IGP). It should be noted that IVA is not the same item as 'value added'.

The relationship between IVA estimates and IGP estimates is:-

	IVA
less	selected indirect taxes (for agricultural industries, the main types are fringe benefit tax, payroll tax, land rates and land taxes)
equals	IGP

Some further conceptual differences exist between IGP and IVA (particularly in relation to income from and expenditure on royalties for intellectual property and computer software not capitalised by the business). However, taking these items into account would have virtually no effect on the estimates of IVA in this publication and no attempt has been made to measure them for agricultural industries.

COMPARISON WITH AUSTRALIAN NATIONAL ACCOUNTS

16 At present, some differences exist between the income and expenditure estimates incorporated in the National Accounts and those included in this publication.

17 The National Accounts estimates measure the income accruing from production after allowing for related expenditures, while the estimates in this publication have been based on items generally reported on a cash basis. For instance, in the case of a farm business receiving payment in the current year for a previous year's production, the National Accounts would include the value of the transaction in the previous year while the AFS would include it in the current year.

18 The AFS measures the total sales of livestock by farm businesses (i.e. whether for slaughter, fattening or breeding), whereas the National Accounts measure only the value of the stock sold for slaughter. Consequently, purchases of livestock are included in the AFS estimates of expenses but are not reflected in the National Accounts.

19 Marketing costs in the National Accounts are based on expenses incurred in transporting farm produce between the farm and the principal markets, whether they are paid by the farm businesses or the buyer. On the other hand, only marketing costs actually incurred by the farm business are included in the AFS. In addition, the National Accounts estimates of marketing costs include the marketing expenses of various marketing boards which are not included in the AFS.

20 The National Accounts estimates for the agricultural industry exclude financial transactions related to non-agricultural activity, whereas the AFS estimates include financial data relating to all activities which are undertaken by management units, whose predominant activity is agriculture.

COMPARISON WITH AUSTRALIAN NATIONAL ACCOUNTS *continued*

21 The National Accounts estimates of farm income relate to ANZSIC subdivisions 01 and 02 and hence also include estimates of income of management units predominantly involved in providing agricultural services (such as contract harvesting and aerial spraying). The AFS only includes financial data relating to agricultural services activities of management units which had a predominant activity of agriculture (i.e. coded to ANZSIC subdivision 01). A further difference is that in the National Accounts, payments to shearing contractors are regarded as wages, whereas in the AFS such payments are included under the item 'Payments to Contractors'.

22 The National Accounts estimates of farm production include the value of crops and seed produced and consumed on the farm, whereas the AFS includes only the value of proceeds for crops sold. Similarly, the National Accounts estimates for seed and fodder costs include the value of seed and fodder produced and consumed on the holding, whereas the AFS measures only the value of those items purchased.

23 The National Accounts also provide an estimate for the 'equipment' component of gross fixed capital expenditure for Division A of the ANZSIC, which includes expenditure by the forestry, fishing and hunting industries. On the other hand, the AFS provides an estimate for total gross fixed capital expenditure which includes not only expenditure on equipment but also expenditure on both dwellings and non-dwelling construction. This estimate is only for ANZSIC Division A, subdivision 01, Agriculture.

24 In view of these conceptual differences, the different sources of the estimates, and sampling error, caution should be exercised in drawing inferences from a comparison between the AFS estimates and the estimates in the National Accounts.

REAL ESTIMATES

25 Real estimates of two key statistics derived from the AFS are included in this publication. These statistics are cash operating surplus (COS) and net worth. While real estimates are similar to the chain volume estimates published by the ABS (in that they are both designed to allow the calculation of growth rates free of the direct effects of inflation) they are slightly different measures. Chain volume measures can only be compiled for statistics that can be thought of as the aggregate of components, each of which is the product of a unit price and a quantity, such as turnover or expenditure. Chain volume estimates cannot be derived for those current price statistics that cannot be regarded as the product of price and quantity vectors, such as income statistics (e.g. COS), liabilities and financial assets, which can only be thought of as money values.

26 Nevertheless, 'real' estimates can be obtained by revaluing such current price values in terms of a basket of goods and services that the money is, or could be, spent on.

27 Real values of cash operating surplus and net worth have been derived by deflating the current price estimates with the implicit price deflator (IPD) of domestic final demand for the Australian estimates and State final demand for the State estimates. IPDs are themselves a derived measure, obtained by dividing a current price estimate with the corresponding chain volume estimate (they are revised annually). The IPD for Australian domestic final demand is published in table 1.7 of *Australian System of National Accounts* (Cat. no. 5204.0). IPDs for State final demand can be derived from the current prices and chain volume estimates of final demand published in tables 3 and 6–13 of *Australian National Accounts: State Accounts* (Cat. no. 5220.0).

CROPS, PASTURES AND HORTICULTURE

28 Statistics of area and production of crops relate, in the main, to crops sown during the year ended 30 June. Statistics of perennial crops relate to the position as at 30 June and the production during the year ended on that date, or of fruit set by that date. Statistics for apples and pears, which in some States are harvested after 30 June, are collected by supplementary collection forms and are included in this publication.

LIVESTOCK SLAUGHTERING AND LIVESTOCK PRODUCTS

29 The statistics on livestock slaughtering and meat production are based on a monthly collection from abattoirs and other major slaughtering establishments and include estimates of animals slaughtered on farms and by country butchers and other small slaughtering establishments. Care should be taken when using this information as the figures only relate to slaughtering for human consumption and do not include animals condemned or those killed for boiling down. Definitions of livestock categories may differ between States and within States, particularly with regard to calves.

WOOL

30 Wool production statistics contained in this publication are derived from the monthly ABS Wool Brokers and Dealers Receivals Collection.

31 Wool receivals statistics show the amount of taxable wool received by brokers and dealers from wool producers. It excludes wool received by brokers on which wool tax has already been paid by other dealers (private buyers) or brokers.

MILK

32 Milk statistics have been collected and provided to the ABS by the Australian Dairy Corporation.

POULTRY

33 Poultry slaughtering statistics have been compiled from returns supplied by commercial poultry slaughtering establishments. Producers in Tasmania, the Northern Territory and the Australian Capital Territory are not included in the aggregates derived from the Poultry and Game Birds Slaughtered collection. However, the statistics represent a high level of coverage.

TRADE DATA

34 The merchandise export statistics in this publication are compiled in broad agreement with the United Nations' recommendations for the compilation of international trade statistics.

35 International trade statistics are compiled by the ABS from information submitted by exporters and importers or their agents to the Australian Customs Service (Customs).

36 Commodity exports are presented according to the codes and descriptions of the Australian Harmonised Export Commodity Classification (AHECC).

TRADE DATA *continued*

37 Merchandise trade covers all movable goods which add to (imports) or subtract from (exports) the stock of material resources in Australia. Excluded are:

- direct transit trade, i.e. goods being trans-shipped or moved through Australia for purposes of transport only;
- ships and aircraft moving through Australia while engaged in the transport of passengers or goods between Australia and other countries; and
- non-merchandise goods, consisting primarily of goods moving on a temporary basis (e.g. mobile equipment; goods under repair; goods for exhibition; and passengers' effects).

38 The United Nations' recommendations for the compilation of merchandise trade statistics recognise that the basic source used by most compiling countries—the customs record—will not be able to capture certain transactions. In Australia the following types of goods which fall within the scope of merchandise trade, are excluded because customs entries are not required:

- migrants' and passengers' effects exported or imported; and
- parcel post exports for values not exceeding $2,000 and parcel post imports for values not exceeding $1,000.

For exports only:

- fish and other sea products landed abroad directly from the high seas by Australian ships; and
- individual transaction lines (within an export consignment) where the value of the goods is less than $500.

39 The merchandise trade statistics in this publication are recorded on a general trade basis, i.e. exports include both Australian produce and re-exports.

40 Australian produce is defined as goods, materials or articles which have been produced or manufactured in Australia. Processing and assembly operations that leave imported components and products essentially unchanged are not considered as production or manufacture.

41 Re-exports are defined as goods, materials or articles originally imported into Australia which are exported in the same condition or after undergoing minor operations (e.g. blending, packaging, bottling, cleaning, husking and shelling) which leave them essentially unchanged.

42 The value of exports is the free on board (f.o.b.) transactions value of the goods expressed in Australian dollars. Goods shipped on consignment are initially valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods are despatched for sale. Exporters who do not know the value of the goods at shipment, and enter an approximate value, must subsequently submit an entry either confirming or revising the estimated return.

TRADE DATA *continued*

43 Restrictions are placed on the release of statistics for certain commodities for reasons of confidentiality. These restrictions do not affect total export and import figures, but they can affect statistics at all levels, that is, by country and/or by commodity. More information on the treatment of confidential data in international merchandise trade statistics can be obtained from the Information Paper, *International Merchandise Trade Statistics, Australia: Data Confidentiality* (Cat. no. 5487.0), or the Confidentiality Manager on (02) 6252 5409. Copies of the current Confidential Commodities List (CCL), in electronic or paper format, can be obtained from the Confidentiality Manager. The latest version is available on the ABS Website (www.abs.gov.au).

ABS DATA AVAILABLE ON REQUEST

44 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to either Debbie Thomas on Hobart 03 6222 5948 or the National Information and Referral Service on 1300 135 070.

GENERAL ACKNOWLEDGMENT

45 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905.*

RELATED PUBLICATIONS

46 A range of agricultural publications is produced by the ABS, including:

Agricultural Commodities, Australia (Cat. no. 7121.0)

Agricultural Industries, Financial Statistics, Australia, Preliminary (Cat. no. 7506.0)

Australian and New Zealand Standard Industrial Classification (ANZSIC) (Cat. no. 1292.0)

Item Estimates from Agricultural Finance Survey (Cat. no. 7507.0.15.001) (Electronic format)

Livestock and Meat, Australia (Cat. no. 7218.0)

Livestock Products, Australia (Cat. no. 7215.0)

Principal Agricultural Commodities, Australia, Preliminary (Cat. no. 7111.0)

Value of Principal Agricultural Commodities Produced, Australia, Preliminary (Cat. no. 7501.0)

47 For comparisons of the agriculture industry with other industries, users are referred to:

Australian National Accounts: National Income, Expenditure and Product (Cat. no. 5206.0)

Australian National Accounts: State Accounts (Cat. no. 5220.0)

Business Operations and Industry Performance, Australia (Cat. no. 8140.0)

48 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

ABBREVIATIONS AND SYMBOLS

49 The following abbreviations and symbols have been used in this publication:

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACS	Agricultural Commodity Survey
AFS	Agricultural Finance Survey
AHECC	Australian Harmonised Export Commodity Classification
ANZSIC	Australian and New Zealand Standard Industrial Classification
b	billion
COS	Cash operating surplus
EVAO	Estimated value of agricultural operations
f.o.b.	free on board
GDP	Gross domestic product
GFP	Gross farm product
GUV	Gross unit value
ha	hectares
IGP	Industry gross product
IPD	Implicit price deflator
IVA	Industry value added
kg	kilograms
KL	litres, thousands
L	litres
lb	pound avoirdupois (equivalent to 454 grams)
m	million
ML	million litres
n.a.	not available
n.e.c.	not elsewhere classified
n.e.i.	not elsewhere included
n.p.	not available for publication but included in totals where applicable
PIBA	Primary Industry Bank of Australia
r	figure or series revised since previous issue
RSE	relative standard error
SAR	Special Administrative Region
SE	standard error
t	tonnes
VACP	Value of Agricultural Commodities Produced
wt	weight
—	nil or rounded to zero (including null cells)
*	data subject to sampling variability between 25% and 50%
**	data subject to sampling variability greater than 50%
. .	not applicable
'000	thousands
$'000	dollars, thousands
$m	dollars, millions
£	pound (unit of currency)

50 The estimates for earlier years shown in this publication have been revised where necessary.

51 Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

GLOSSARY

Adjusted value added — The estimate of value added less the estimate of rates and taxes, insurance payments and other expenses. Adjusted value added is a close approximation of the concept of gross product at factor cost, as used in the National Accounts, but still subject to the limitations outlined in Explanatory Notes, paragraphs 16–24.

Agricultural establishment — An establishment which is engaged mainly in agricultural activities.

Amounts owing to banks — Amounts owed by farm businesses to banks, including bank bills, bridging finance, credit cards for business purposes, fully drawn advances, overdrafts and seasonal peak loans as current liabilities and farm development and PIBA loans as non-current assets.

Amounts owing to pastoral and insurance companies etc. — Amounts owed by farm businesses to pastoral and insurance companies including amounts owing on building society and credit union loans.

Area of holding — Includes all occupied and maintained land owned, leased or rented, land worked by sharefarmers and all road permits. Excludes land leased or rented to others.

Average gross unit value — Calculated by dividing the gross value of each commodity produced by the total production of each corresponding commodity. It includes any relevant subsidy and bounty payments based on production.

Cash operating surplus (COS) — The estimate of gross operating surplus less an estimate of the change in value of livestock, less an estimate of interest paid, less an estimate of bad and doubtful debts, plus estimates of interest and land rent received. Cash operating surplus is not quite a true measure of the surplus available for profit since depreciation and income tax have not been deducted. While depreciation is not included in this calculation, the data has been collected and is available on request from 1993–94 onwards. Data on bad and doubtful debts has been collected since 1991–92, and is also available on request.

Chain volume measure — An annually re-weighted chain Laspreyres index referenced to the current price values in a chosen reference year. Chain Laspreyres volume measures are compiled by linking together (compounding) movements in volumes, calculated using the average prices of the previous financial year, and applying the compounded movements to the current price estimates of the reference year.

Debt to asset ratio — Calculated by dividing total value of assets by gross indebtedness (both are point in time values). The result is expressed as a ratio. At the end of 1999–2000, the debt to asset ratio was 1:5.7, i.e. for every dollar of debt there was $5.70 of asset backing.

Environment protection expenditure — Expenditure on actions and activities that are aimed at the prevention, reduction and elimination of pollution as well as any other degradation of the environment.

Establishment with agricultural activity — An establishment which is engaged in agricultural activity, regardless of the unit's predominant activity.

Estimated value of agricultural operations (EVAO) An estimation of agricultural activity undertaken by an agricultural establishment. Three-year average weighted prices are applied to livestock turnoff and livestock numbers on the farm, and to area and production data for crops. The resultant aggregation of these commodity values is the EVAO. It is not an indicator of the value of receipts of individual farms but rather an indicator of the extent of agricultural activity.

Farm business See Management unit.

Farm operating costs as a proportion of turnover Calculated by dividing farm operating costs by turnover and expressing the result as a percentage. It is an indicator of cost effectiveness of farm operations. The lower the percentage figure the more cost efficient the farm business. In 1999–2000, farm operating cost as a proportion of turnover was 78.5%, i.e. for every 78.5 cents of farm operating costs incurred, one dollar of turnover was generated.

Finance leasing Refers to a lease under which the lessor effectively transfers to the lessee substantially all the risks and benefits incident to ownership of the leased asset and where legal ownership may or may not eventually be transferred. The risks of asset ownership include those associated with unsatisfactory performance, obsolescence, idle capacity, losses in realisable value, uninsured damage and condemnation of the asset; the benefits include those obtainable from the use of the asset and gains in realisable value. The lessee recognises at the beginning of the lease term, an asset and a liability equal in amount to the present value of the minimum lease payments.

Free on board (f.o.b) The cost of transferring goods destined for a location from the place of production to the 'customer frontier' (i.e. the loaded carrier at port of shipment). This cost is included as part of the cost of production.

Gross domestic product (GDP) The total market value of goods and services produced in Australia after deducting the cost of goods and services used up (intermediate consumption) in the process of production, but before deducting allowances for the consumption of fixed capital (depreciation).

Gross farm product (GFP) The part of gross domestic product arising from production in agriculture and services to agriculture. GFP is equal to the estimated gross value of production (after stock valuation adjustment) less estimated production costs other than wages paid and consumption of fixed capital for all enterprises engaged in agriculture and services to agriculture.

Gross indebtedness Refers to the amounts owed by farm businesses at 30 June:

- to banks, pastoral companies, insurance companies and government agencies;
- under hire-purchase agreements, instalment credit and for finance lease arrangements; and
- to other lenders such as suppliers, solicitors' trust funds and local government authorities, etc.

The term 'gross' has been used to indicate that the amounts owing have not been reduced by the value of any cash deposits by farm businesses with the various lending organisations.

Gross operating surplus The estimate of adjusted value added less the estimate of wages, salaries and supplements.

Gross unit value (GUV) See average gross unit value.

Gross value of commodities produced See Value of Agricultural Commodities Produced (VACP) and Local value of commodities produced.

Industry gross product (IGP) The unduplicated gross product of a business defined as gross output minus intermediate inputs. Commencing with estimates for 1997–98, IGP has been replaced by the variable industry value added (IVA) for the purpose of measuring industry contribution to GDP. See paragraph 15 of the Explanatory Notes for the relationship between IGP and IVA.

Industry value added Represents the value added by an industry to the intermediate inputs used by the industry. From 1997–98, IVA has replaced IGP as the measure of industry contribution to GDP.

Insurance payments Includes payments on dwellings and buildings, crops, livestock, machinery and equipment, public liability and workers' compensation. Personal insurance, life assurance and payments to medical funds are excluded.

Interest paid as a proportion of turnover Calculated by dividing interest paid by turnover and expressing as a percentage. It indicates the proportion of farm business turnover that is accounted for by the farm business interest bill. In 1999–2000, farm business interest as a proportion of turnover was 6.5%.

Interest coverage ratio This is calculated by totalling cash operating surplus and interest paid, then dividing by interest paid and expressing the result as a ratio. The resultant figure shows how many times the farm interest bill could be paid out of cash operating surplus before the deduction of interest. In 1999–2000, this ratio was 4.7.

Interest, land rent received Includes land rent and lease proceeds, bank interest and other interest from business investments, bonds, securities, etc., and royalties received. From 1995–96, land rent is included with rent and leasing revenue.

Interest paid Includes interest paid on loans by banks, pastoral finance companies, insurance companies and government agencies, interest paid on loans under hire-purchase and other instalment credit and interest paid on other amounts owing.

Livestock slaughterings and other disposals Values are published as one figure but include two distinct components:

- value of livestock slaughtered; and
- value of net exports, i.e. the total value of livestock intended for slaughter in adjacent States and Territories where available (at present these can only be identified between the Northern Territory and adjacent States) and livestock exported overseas whether for slaughter or breeding, minus the value of imports of livestock.

Data on value of livestock slaughterings by State and Territory of slaughter are available on request.

Loans under hire-purchase and other instalment credit Refers to amounts owing under hire-purchase agreements from all sources. It excludes operating leases.

Local value of commodities produced The value placed on commodities at the place of production (i.e. farm gate). It is calculated by deducting marketing costs from the gross value of commodities produced. Gross and local value of agricultural commodities produced involve some duplication as they include certain agricultural commodities which are consumed as raw materials to produce other agricultural commodities (e.g. hay consumed by livestock).

Management unit The management unit is the highest level accounting unit within a business, having regard for industry homogeneity, for which accounts are maintained; in nearly all cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'Division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it. Management units whose predominant activity is classified to the agriculture industry are called farm businesses. Farm businesses which operate in more than one State are called 'multi-State farm businesses'.

Market place Generally the metropolitan market in each State and Territory. In cases where commodities are consumed locally, or where they become raw material for a secondary industry, these points are presumed to be the market places.

Marketing expenses Includes all marketing costs incurred (such as commission, packaging, freight and cartage, insurance, handling charges, etc.), whether deducted by a marketing agency or authority prior to payment to the farm business or paid directly by the farm business. Also included are market selling expenses for any non-agricultural activity conducted by the farm business. It excludes tolls (compulsory loans to grain pools, etc.), liens/mortgages, dockages, penalty payments, overseas freight and fruit and vegetable grading charges.

Net capital expenditure See Total net capital expenditure.

Net capital expenditure on buildings, structures and other developments Includes expenditure on dwellings and quarters for employees, buildings and structures, yards, etc. and expenditure on developments such as fences, dams, roads and drains. It includes expenditure on new and second-hand assets less sales of existing assets. Expenditure on repairs and maintenance, being current expenditure, is excluded.

Net capital expenditure on vehicles, machinery and equipment Includes expenditure on new and second-hand motor vehicles, machinery and equipment less trade-in allowances, cash discounts and sales of existing assets. Expenditure on repairs and maintenance, being current expenditure, is excluded.

Net indebtedness The estimate of gross indebtedness less the estimated value of financial assets.

Net worth The estimate for total value of assets less the estimate for gross indebtedness.

Other amounts owing Refers to amounts owing by farm businesses including money owing on trade/charge card accounts and amounts owing to farm suppliers or growers cooperatives in the business name and to local government authorities for arrears of rates.

Other expenses Includes administrative expenses such as postage and telephone charges, accountancy, farm management consultancy fees and legal fees, business travelling expenses, subscriptions to farmers' unions, organisations, papers, journals, etc., bank service charges, office supplies and all other sundry expenses (such as general freight charges) not already included in the above groups of expenditure.

Other miscellaneous revenue Includes both sundry agricultural proceeds (such as proceeds from insurance recoveries, agistment, livestock services, artificial insemination, government relief payments, agricultural services such as contract shearing, harvesting, etc.) and also receipts from any non-agricultural activity of the farm business.

Other selected expenses	Includes expenditure on registration, third-party insurance and comprehensive insurance of motor vehicles, aircraft, etc. Payments for agistment, livestock services and artificial insemination and other expenses associated with non-agricultural activity are also included in this item.
Payments for crop and pasture chemicals	Includes expenditure on fungicides, weedicides, herbicides, insecticides, pickling compounds, etc. and all associated inward freight charges.
Payments for electricity	Includes payments to electricity supply authorities (excluding installation charges).
Payments for fertiliser	Includes expenditure on fertiliser and soil conditioners and all associated inward freight costs.
Payments for fodder	Includes purchases of livestock feed, fodder and supplements. All inward freight costs associated with these purchases are also included.
Payments for fuel	Includes payments for petrol, distillate, liquefied petroleum gas (LPG) and lubricants used by the farm business.
Payments for seed	Includes payments for pasture seed and inoculums, crop seed, vegetable seed and seedlings, young trees for orchards, windbreaks, etc. All inward freight costs associated with the above purchases are also included.
Payments for veterinary supplies and services	Includes expenditure on dips, drenches, vaccines, veterinary fees, etc.
Payments to contractors	Includes payments to contractors for wool classing, shearing, marking, harvesting and contract spreading charges, etc. and also for contract work for non-agricultural activity. Payments to contractors for the construction of fixed assets are included under capital expenditure.
Profit margin	Calculated by dividing the cash operating surplus by turnover and expressing the result as a percentage, i.e. cash operating surplus divided by turnover multiplied by 100 equals profit margin. In 1999–2000, the profit margin was 24.2% which meant that for every dollar of turnover 24.2 cents of cash operating surplus was generated.
Purchases and selected expenses	Refers to cash payments made during the year by farm businesses for goods and services relating to either agricultural or non-agricultural activity. As with turnover, expenditure need not necessarily relate to agricultural production for a particular year but rather to payments made during the year. Livestock purchases have been included under purchases and selected expenses, rather than capital expenditure.
Purchases of livestock	Includes all livestock purchases, whether for addition or replacement of the breeding herd or store stock. Also included are freight, cartage and other charges associated with the transportation of purchased livestock.
Rates and taxes	Includes payments of rates to local government authorities, payments to vermin and weed control authorities, and other rates, taxes and licences (such as road tax, land tax and payroll tax). Income and company taxes paid are excluded from the Agricultural Finance Survey (AFS).
Real estimates	Refer to Explanatory notes, paragraph 25–27.

Rent and leasing expenses Includes rent and leasing expenses for motor vehicles, machinery, equipment and buildings (from 1995–96 land is included). Excluded are rental payments for dwellings for the owner and family.

Rent and leasing revenue Includes proceeds from the renting and leasing of motor vehicles, machinery, equipment and buildings (from 1995–96 land is included). Also included is an imputed value for free accommodation provided to employees other than members of family.

Repairs and maintenance Includes repairs and maintenance to motor vehicles, machinery and equipment, buildings, structures and other developments.

Return on assets Calculated by dividing the cash operating surplus by the average value of farm assets. (The average value of farm assets is calculated by summing the asset value from the current and previous years and dividing by two. This is done because cash operating surplus is a flow, i.e. it accrues throughout the year while assets are valued at a point in time.) The result is expressed as a percentage. In 1999–2000, the return on assets was 5%.

Return on farm operating costs This is calculated by dividing cash operating surplus by operating costs. Farm operating costs are the sum of purchases and selected expenses plus rates and taxes plus insurance payments plus other expenses plus wages and salaries and supplements plus interest paid plus land rent paid. In 1999–2000, the return on farm operating costs was 30.9%, i.e. for every $100 of farm operating costs $30.90 of cash operating surplus was generated.

Return on net worth Calculated by dividing cash operating surplus by average net worth. Average net worth is calculated in the same way as average asset value and the result expressed as a percentage. It represents the return on unencumbered farm assets. In 1999–2000 the return on net worth of Australian farm businesses was 6%.

Sales from crops Includes proceeds from sales of cereal grains and other crops (oilseeds, cotton, sugar cane, tobacco, etc.) and fruit and vegetables. Included also are premiums and amounts received from pools.

Sales from livestock Includes proceeds from sales of sheep, cattle, pigs, poultry, etc. Excluded are proceeds from livestock services and artificial insemination.

Sales from livestock products Includes proceeds from sales of wool, milk, eggs, etc.

Total net capital expenditure The sum of net capital expenditure on vehicles, machinery and equipment and on buildings, structures and other developments.

Total value of assets Comprises the estimates for the value of land, buildings and other structures, motor vehicles and machinery and equipment and the value of livestock. It also includes estimates of the value of the investments of the businesses (such as shareholdings, bonds, securities and cash deposits).

Turnover Includes all proceeds received during the year from the sale of crops, livestock, livestock products and other miscellaneous revenue. Proceeds are the gross receipts obtained by farm businesses prior to deductions by agents or marketing boards. They are those receipts obtained during the financial year and do not necessarily relate to the production of that year. For example, receipts from wheat could include the first advance payment on the current season's crop and pool payments received during the year for previous crops.

Turnover to debt ratio Calculated by dividing gross indebtedness by turnover and expressing the result as a ratio. In 1999–2000, the farm business turnover ratio was 1:0.90, i.e. for each dollar of turnover made there was $0.90 of debt. A one-to-one ratio would mean if debt were to be paid off in a given year all of the turnover would have to be put into debt redemption.

Value added The estimate of turnover plus an estimate of the value of increase in livestock less the estimate of purchases and selected expenses. Value added is a measure of an industry's contribution to total economic activity.

Conceptually, the change in stocks for value added purposes should include data for livestock, hay and stocks of other agricultural commodities. In this publication, only livestock data have been included, because of their relative significance and because of the difficulties associated with collecting and valuing data relating to other farm stocks.

Purchases of livestock such as dairy cattle, sheep for wool, and breeding stock generally should be considered to be capital purchases, and therefore excluded from the calculation of value added. Because of practical considerations, all increases in livestock, whether arising from purchases or natural increase, have been included in the calculation of this item.

The estimate for the value of increase in livestock included in value added has been derived by obtaining opening and closing stock numbers for the financial year for each selected farm business and valuing these by average annual prices.

Value of Agricultural Commodities Produced (VACP) The value placed on recorded production at wholesale prices realised in the market place.

Value of financial assets Includes the value of the investments of the businesses (such as shareholdings, bonds, securities, and cash deposits).

Value of land, buildings and other structures Includes the value of land, buildings and other improvements leased to other parties. Excludes the value of livestock, land, buildings and other improvements leased from other parties. The estimate is based on the total value which respondents considered the assets would have realised had it been necessary to sell them at 30 June.

Value of livestock Derived by obtaining livestock numbers as at 30 June from surveyed farm businesses and valuing them by an average price for the month of June.

Value of motor vehicles, machinery and equipment Excludes the value of personal assets, and is estimated as the respondents' assessment of market value at 30 June.

Wages, salaries and supplements Includes payments by farm businesses to their employees in the nature of wages and salaries, cash payments for work done in the form of a proportion of proceeds from sales, estimated value of produce for payments in kind, superannuation paid by the farm businesses, rations for employees and contractors and the imputed value of free accommodation.

Water and drainage charges Includes water and drainage rates for water used for irrigation and livestock purposes and drainage and flood control.

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