# **AGRICULTURE**

**AUSTRALIA** 

EMBARGO: 11:30AM (CANBERRA TIME) MON 25 MAY 1998

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 For further information about these and related statistics, contact David Ketley on Canberra 02 6252 6213, or any ABS office shown on the back cover of this publication.

# NOTES

L

# SYMBOLS AND OTHER USAGES

alcohol al ha hectares kg kilograms km kilometres litres n.a. not available not elsewhere classified n.e.c. not elsewhere included n.e.i.

not available for publication but included in totals where applicable n.p.

not yet available n.y.a. preliminary figures

figure or series revised since previous issue

SE% standard error percent

tonnes t

not applicable

subject to sampling variability too high for most practical purposes

dollar billion \$b

nil or rounded to zero

ABBREVIATIONS

**ABARE** Australian Bureau of Agricultural and Resource Economics

ABS Australian Bureau of Statistics AFS Agricultural Finance Survey

ANZSIC Australian and New Zealand Standard Industrial Classificaton

ASIC Australian Standard Industrial Classification **EVAO** Estimated Value of Agricultural Operations

f.o.b. free on board

**GDP** Gross Domestic Product GFP Gross Farm Product IPD Implicit Price Deflator

VACP Value of Agricultural Commodities Produced

W. McLennan

Australian Statistician

# SECTION AGRICULTURE AND THE AUSTRALIAN ECONOMY ......

#### OVERVIEW

Agriculture contributes substantially to Australia's economic prosperity and provides the population with the bulk of its food requirements.

Australian agriculture occupies an important place in global rural trade with wool, beef, wheat, and sugar being particularly important in both volume and value terms. Australia is also a significant source of dairy produce, fruit, cotton, rice and flowers.

A significant increase in crop production, together with strong crop commodity prices, led to the agricultural sector recording strong growth in 1995–96. Highlights included:

- the gross value of agricultural production was \$27,230.9 million, 14.6% higher than the previous year;
- Gross farm product (GFP) was 3.4% of gross domestic product (GDP) in constant price terms;
- the agricultural sector employed almost 373,000 persons (1.1% of total employment); and
- rural exports amounted to \$21,300 million, representing 28.3% of the total value of Australia's merchandise exports.

# GROSS VALUE OF AGRICULTURAL PRODUCTION

Improved growing conditions for crops contributed to a 14.6% increase in the gross value of agricultural commodities. The gross value of crops increased by 37.7% to \$15,330.6 million. However, this increase was partly offset by falls in the gross values of livestock slaughterings and livestock products.

The gross value of the majority of crops increased which derived from increases in area sown and above average yields for many commodities. A successful wheat crop was a key contributor to this good overall result. Wheat accounted for 65.2% (\$4,304.7 million) of the total value of cereal grains produced; this was due to increased production and a significant increase in the unit value (10.0% to \$261.00 per tonne).

The gross value of total livestock slaughterings fell by 6.4% to \$6,192.7 million. The number of livestock slaughterings fell in all categories except poultry.

The gross value of livestock products decreased by 5.0% to \$5,696.1 million, due to a decrease in the gross value of wool of 23.2% to \$2,548.6 million. This decrease resulted from the combined effects of the continuing decline of wool production and a drop in the average unit value. Milk increased in gross value by 17.7% to \$2,848.3 million, due to increases in both production and average unit value.

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## GROSS VALUE OF AGRICULTURAL PRODUCTION

	AUSTRALIA			1995–96							
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
	• • • • • • •	• • • • • • •			• • • • • • •	• • • • • •		• • • • • • •	• • • • • •		• •
Crops (incl. pastures and grasses) Livestock slaughterings	11 515.9	11 131.7	r15 330.6	3 840.8	r2 764.2	3 110.3	2 261.6	3 011.7	301 4	35.0	5.5
and other disposals(a)	6 856.6	6 618.8	6 192.7	1 756.2	1 370.6	1 642.8	422.5	684.1	105.3	209.0	2.3
Livestock products(b)	5 167.2	5 995.0	r5 696.1	r1443.0	r2 196.1	r546.7	r501.9	782.8	218.8	n.p.	6.9
Total agriculture(c)	23 551.4	23 754.8	r27 230.9	r7 040.1	r6 330.9	r5 299.8	r3 186.0	r4 478.6	r625.5	255.5	14.6

<sup>(</sup>a) Incomplete; excludes pigs and poultry slaughterings in the Northern Territory.

#### GROSS FARM PRODUCT

GFP in 1995–96 increased in both current and constant price terms, by 33.2% and 25.2% respectively, reflecting the significant increase in the level of production of grains, particularly wheat and barley.

In constant price terms the farm sector's direct contribution to GDP in 1995–96 was 3.4%, compared to an average of 3.5% over the past five years. However, the indirect contribution to the economy can be quite significant when production increases occur. When a good season is experienced in the farming sector, the extra spending power of farmers can impact on GDP in other areas, such as wholesale trade and freight transport. The special article 'Impact of the 1995–96 farm season on Australian production' explains this effect on GDP in greater detail.

#### GROSS FARM PRODUCT

	AUSTRA	LIA		1995	1995–96				
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.
Price	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
	• • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • •	• • • • •	• • • • •	• • • • •	• • • •
Current prices	12 047	10 919	14 545	3 469	3 733	2 593	1 681	2 505	382
Average 1989–90	15 032	11 783	14 750	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

<sup>(</sup>b) Excludes the Northern Territory.

<sup>(</sup>c) Includes pigs, poultry slaughterings and livestock products in the Northern Territory.

#### **EMPLOYMENT**

While there was a small increase in the level of employment in the sector during 1995–96, the overall level of employment has remained relatively stable over many years.

# EMPLOYMENT(a), Agriculture Sector

• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • • • •	• • • • • •	• • • • •		• • • • • •	
	AUSTRALIA								
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.
	'000	'000	'000	'000	'000	'000	'000	'000	'000
	• • • • •			• • • • • • •	• • • • •	• • • • •			
Males	248.2	241.6	255.0	72.5	60.4	52.6	31.6	28.8	7.6
Females	115.1	115.9	117.9	34.0	28.1	25.1	13.2	13.0	3.9
Persons	363.3	357.5	372.9	106.5	88.5	77.7	44.7	41.7	11.5

<sup>(</sup>a) Labour Force, Australia (Cat. no. 6203.0).

#### **RURAL EXPORTS**

The value of rural exports increased by 11.8% to \$21,300 million during 1995–96. Commodities contributing most to the increase were cereal grains and cereal preparations with a combined increase of 95.2% to \$4,926 million. This reflects the large increase in the production of grains during the year. The increase in the value of grain exports was offset by a reduction in the value of wool and sheepskin exports of 13.1% to \$3,664 million.

Since 1990–91 the value of rural exports has increased by 51.6%. The commodities contributing most to this increase were cereals with an increase of 102.2% to \$4,926 million and sugar by 80.3% to \$1,709 million.

RURAL MERCHANDISE(a),	Exports	f.o.b.
-----------------------	---------	--------

	1990-91	1991–92	1992-93	1993–94	1994–95	1995–96
Commodity	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • • • • • • • • •						
Rural exports f.o.b.  Meat and meat						
preparations	3 173	3 434	3 750	4 043	3 654	3292
Cereal grains and cereal preparations	2 436	2 352	2 954	3 205	2 523	4 926
Sugar, sugar preparation	S					
and honey	948	747	1 072	1 315	1 730	1 712
Wool and sheepskins	2 887	3 829	3 367	3 369	4 216	3 664
Other rural	4 578	5 241	5 937	6 513	6 922	7 706
Total rural	14 022	15 603	17 080	18 445	19 045	21 300
Non-rural	38 133	39 271	42 942	45 377	47 401	54 006
Total exports f.o.b.	52 155	54 874	60 022	63 822	66 446	75 306

<sup>(</sup>a) Data are for merchandise on a balance of payments basis.

# SPECIAL ARTICLE — IMPACT OF THE 1995-96 FARM SEASON ON AUSTRALIAN PRODUCTION ......

This is a condensed version of a paper written by Charles Aspden, Director, Constant Price Estimates Section, Australian Bureau of Statistics (ABS). A full copy of this paper is available on request or can be seen in the *Year Book Australia*, 1998 (Cat. no. 1301.0).

#### INTRODUCTION

From time to time the changing fortunes of the farm sector have a significant impact on the growth of GDP. While the farm sector's direct contribution to GDP is only about 3.0%, the indirect effects on other industries also need to be taken into account. For instance, on those occasions when a farm season is better than its predecessor there is an impact on the downstream industries, such as wholesale trade and freight transport. The increased output of agriculture and the downstream industries requires increased inputs, requiring the supplying industries to increase their output, which requires their supplying industries to increase their output, and so on. This extra output also leads to extra income; some of which will be spent and will generate further output, which will lead to a further increase in income, and so on. In this way, the so-called multiplier effect magnifies the effect of good and bad farm seasons. If there is a poor season then the multiplier effect is negative. Thus, there are three effects: the primary effect on farm production, the secondary effect on downstream industries and the tertiary effect of the multiplier.

Farm incomes grew substantially in 1995–96, with growers of wheat and barley being the major beneficiaries. If farmers spent a substantial amount of the extra income they received in 1995–96, then they would have boosted GDP growth considerably.

Unless otherwise stated, the data appearing in this article are taken from *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0) or underlie those data.

#### TOTAL IMPACT OF THE GOOD FARM SEASON IN 1995-96

To get some idea of the impact of good and bad farm seasons we need only compare 1995–96 with 1994–95. The good season in 1995–96 added \$2,773 million to constant price GFP, about \$60 million to wholesale trade and about \$80 million to transport. Thus, the primary effect was \$2,773 million and the secondary effect was about \$140 million <sup>1</sup>.

For annual estimates of GFP at average 1989–90 prices see Australian National Accounts: National Income, Expenditure and Product (Cat. no. 5206.0). Estimates of the increases in the constant price estimates of gross product for wholesale trade and transport attributable to the better farm season in 1995–96 have been made using sales data from the Australian Wheat Board and the Australian Barley Board, and margins and value added data from the 1989–90 and 1992–93 issues of Australian National Accounts: Input-Output Tables (Cat. no. 5209.0).

#### TOTAL IMPACT OF THE GOOD FARM SEASON IN 1995-96 continued

The ABS does not have a firm figure for the tertiary effect, but it is possible to get some idea of its size by using 'total multipliers' derived from the national accounts input-output tables<sup>1</sup>.

The total (value added) multipliers used indicate the increase in Australia's GDP arising from an increase in output of \$1.00 in a particular industry. The total multiplier captures the total effect of the increase in the intermediate inputs an industry requires to produce the additional \$1.00 of output and the total effect arising from the increase in income generated by all the increased production. It assumes that no change in the capital stock is required.

The multipliers are determined by the relationships between the total outputs and total inputs of an industry. Such a relationship need not provide a good indicator of the relationship between outputs and inputs at the margin, and so multipliers have to be used judiciously. While the constant price estimates of farm output increased by 14.1% (\$3,131 million) between 1994–95 and 1995–96, farm inputs only increased by 3.5% (\$358 million); most of the increase in farm output was simply due to better weather. Therefore, the multiplier effect arising from the increase in farm inputs was relatively small, and so the total multiplier for agriculture cannot be used in these circumstances. A way round the problem is to consider the effects from the increases in farm intermediate inputs and farm incomes separately.

The tertiary effect arising from the increase in farm intermediate inputs can be estimated by multiplying the increase by a total multiplier representative of the industries that produced them. A weighted average of the total multipliers for the principal supplying industries is about  $1.2^2$ . (It is relatively low because a significant proportion of the petroleum used in Australia is imported.) With a multiplier of this size, the increase in farm intermediate inputs would have led to an increase in GDP of about \$430 million.

See Information Paper: Australian National Accounts: Introduction to Input-Output Multipliers

(Cat. no. 5246.0) for a comprehensive description. The multipliers used in this analysis are gross value added multipliers derived from data presented in the 1992–93 issue of Australian National Accounts: Input-Output Tables (Cat. no. 5209.0). They are not published, but are available on request from Dr Annette Barbetti on Canberra 02 6252 6908. The multipliers have been derived following a direct allocation of competing imports. This means that the multipliers take account of an increase in imports arising from an increase in expenditure in determining the impact on GDP.

The total multiplier for farm intermediate inputs has been derived by taking a weighted average of the total multipliers for the following industries (total multipliers followed by the weights are shown in brackets): Agriculture (1.219, 0.2), Petroleum and coal products (0.815, 0.2), Chemicals (1.141, 0.2), Repairs (1.308, 0.1), Transport and storage (1.336, 0.15) and Wholesale trade (1.537, 0.15).

#### TOTAL IMPACT OF THE GOOD FARM SEASON IN 1995-96 continued

Once an estimate has been made of the amount of extra final expenditures farmers made on household consumption and capital goods, the same approach can be used to estimate the tertiary effect from this source. Given the high level of indebtedness of farmers, there would be a considerable incentive, if not imperative, to use much of the extra income to reduce debt. On the other hand, there would be a need to replace run-down capital stock and a desire to make much wanted household purchases. There is some evidence for an increase in capital expenditure by farmers. For example, the number of tractor sales recorded by the Tractor and Machinery Association of Australia shows an increase of 14.8% between the year starting December quarter 1994 and the year starting December quarter 1995.

The following table presents estimates of the tertiary effect arising from greater expenditure on private consumption and capital formation by farmers due to increased farm production in 1995–96 given a number of different assumptions. In the first column it is assumed that farmers spent 20% of the extra income earned in 1995–96. It is assumed the remainder was used to retire debt, pay taxes or put into savings. In the second and third columns it is assumed that they spent 40% and 60% respectively. It is further assumed that the total multiplier for these expenditures was 1.35¹.

# TERTIARY EFFECT DUE TO INCREASED FARM INCOME IN 1995-96(a)

	EXTRA INCOME SPENT BY FARMERS				
	000/	400/	600/		
	20%	40%	60%		
	\$m	\$m	\$m		
	• • • • • • • • •	• • • • • • • • •			
Extra expenditure by farmers	558	1 117	1 675		
Tertiary effect	754	1 508	2 262		

(a) At average 1989–90 prices.

The increase in farm income has to be expressed in a form suitable for deriving the tertiary effect at average 1989–90 prices. This has been achieved by deflating the current price estimates of GFP in 1994–95 and 1995–96 with the GDP implicit price deflator (IPD) and then subtracting the measure of real income for 1994–95 from the measure of real income for 1995–96. The increase in real income is \$2,792 million.

The total multiplier for farmers' final expenditures has been derived by taking a weighted average of the total multipliers for the following industries (total multipliers followed by the weights are shown in brackets): Clothing and footwear (1.224, 0.1), Transport equipment (1.212, 0.2), Other machinery and equipment (1.250, 0.3), Construction (1.402, 0.1), Wholesale trade (1.537, 0.1) and Retail trade (1.589, 0.2).

#### TOTAL IMPACT OF THE GOOD FARM SEASON IN 1995-96 continued

An important feature of the 1995–96 farm season was that prices were considerably higher than they had been in the previous five years. The values of the IPD of GFP for the six years from 1990–91 (1989–90 = 100.0) are 75.9, 75.1, 77.7, 80.1, 92.4 and 98.5. The growth of the GFP IPD were much stronger than the GDP IPD over 1994–95 and 1995–96, and so the strong recovery in prices gave an additional boost to real farm incomes. This almost certainly led to a larger tertiary effect than would otherwise have been the case.

In addition to the tertiary effects arising from the increased expenditures by farmers on intermediate inputs, private consumption and capital expenditure, there is the tertiary effect arising from the increased production of the wholesale trade and transport industries. Total multipliers, which are used to calculate the other tertiary effects, are inappropriate in this case, because the initial multiplier effect is in terms of an increase in value added rather than output. The appropriate multipliers are derived as the ratio of the total multiplier to the initial effect multiplier. These are known as type 2A multipliers. Using type 2A multipliers of 2.225 and 2.281, respectively, the combined secondary and tertiary effects are estimated to be \$134 million for wholesale trade and \$182 million for transport. Therefore, the tertiary effects are \$74 million (\$134 million – \$60 million) and \$102 million (\$182 million – \$80 million), respectively.

If the secondary and tertiary effects associated with the increase in production of wholesale trade and transport are added to the tertiary effect arising from the increase in farm intermediate inputs and the primary effect of the increase in farm production, we obtain a figure of \$3,519 million (i.e. 134 + 182 + 430 + 2,773). If \$754 million and \$2,262 million (see table on previous page) are taken as the lower and upper bounds of the tertiary effect arising from the increase in farmers' final expenditures, then the total effect (primary, secondary and tertiary combined) arising from the improvement in farm production between 1994–95 and 1995–96 is somewhere in the range of \$4,300 million to \$5,800 million at average 1989–90 prices. This represents between 1.0% and 1.3% of GDP in 1995–96. But not all of the effect took place in 1995–96; some part of the increase impacted on GDP in later periods.

# SECTION 2 STRUCTURE OF AGRICULTURAL INDUSTRY.

**OVERVIEW** 

The number of establishments with agricultural activity fell by 0.3% to 146,612 between 1 April 1995 and 31 March 1996. This fall continued the downward trend although the fall was less than for the previous year when it was 2.2%. The State with the largest decrease was Queensland, down 2.0%.

Note: A fall in the total number of establishments does not necessarily mean that all those establishments have ceased operations or have been taken over by other establishments; some of these farms may have moved out of scope of the Census due to changes in their operations and less favourable economic performance and they may become in scope of the collection in following years.

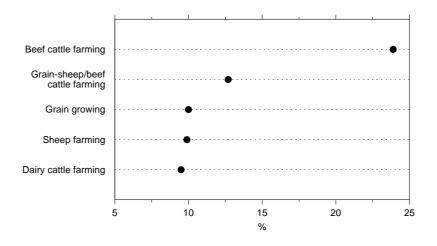
#### **INDUSTRY ANALYSIS**

As a consequence of excellent seasonal conditions in several States, the number of establishments classified to the grain growing and grain-sheep/beef industries rose in 1995–96. Industries in which numbers declined included the sheep, beef and sheep-beef industries reflecting increased grain growing activity by many farms previously predominantly livestock producers.

In the year ended 31 March 1996, the beef cattle farming industry remained the largest industry in terms of numbers, accounting for 23.9% (34,988) of total establishments with agricultural activity. Queensland had the largest number of establishments classified to the beef cattle farming industry with 11,751 (33.6%), followed by New South Wales with 10,574 (30.2%).

Several of the major intensive livestock industries, dairy, poultry for eggs and pigs, were characterised by falls in the number of participants. The exception was poultry for meat, which experienced an increase of 1.8%. The number of establishments classified to the pig industry fell by 13.5% to 1,325, the second consecutive decrease for this industry.

Establishments with agricultural activity: Industry breakup



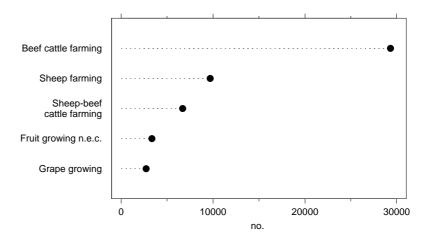
#### INDUSTRY ANALYSIS continued

The grain-sheep/beef cattle farming industry, with 18,561 (12.7%) establishments, remained the second largest industry. New South Wales had the largest number of establishments in this industry with 7,254 (39.1%) followed by Western Australia with 3,688 (19.9%) and Victoria with 2,860 (15.4%).

#### SIZE OF OPERATIONS ANALYSIS

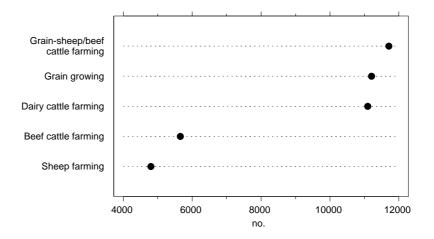
Over half (54.3% or 79,631) of agricultural establishments had an Estimated Value of Agricultural Operations (EVAO) of less than \$100,000 in 1995–96. Major industries dominated by these smaller producers included beef cattle farming (83.8%), sheep farming (66.9%) and sheep-beef cattle farming (60.7%). Small farms also dominated the grape growing industry, with 58.3% (2,751) below the \$100,000 level, although this has decreased from 70.5% for 1994–95.

#### Agricultural establishments with EVAO less than \$100,000



Since 1975–76 the number of farms with EVAO greater than \$100,000 has increased from 5.4% (9,695) to 45.7% (66,981) of all agricultural establishments in 1995–96. Those industries dominated by these larger farms included cotton growing with 99.0% (962), poultry farming (meat) 92.4% (678), dairy cattle farming 79.4% (11,095), poultry farming (eggs) 79.1% (401), sugar cane growing 77.7% (3,934), grain growing 76.5% (11,206), apple and pear growing 64.9% (824), grain-sheep/beef cattle farming 63.1% (11,706) and vegetable growing 58.6% (2,837).

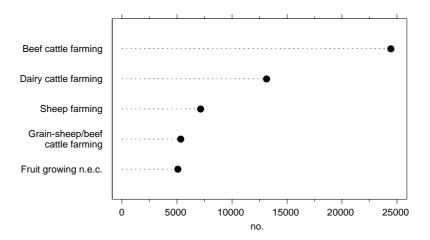
Agricultural establishments with EVAO greater than \$100,000



#### AREA OF OPERATIONS ANALYSIS

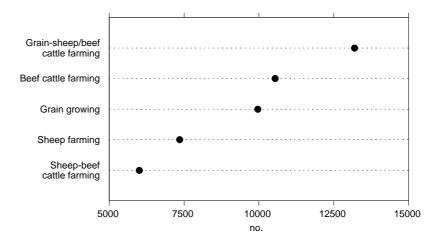
Farms in the agriculture sector with an area of less than 500 hectares represented 65.4% (95,915) of total establishments with agricultural activity. Kiwi fruit growing 100.0% (53), stone fruit growing 99.1% (1,321), plant nurseries industries 98.5% (1,975), apple and pear growing 98.4% (1,250) and dairy cattle farming 94.1% (13,154), were dominated by small farms in terms of area.

Agricultural establishments with area of holding of less than 500 hectares



Farms with an area of 500 hectares or more represented 34.6% (50,697) of total establishments with agricultural activity. Almost three-quarters, 71.1% (13,193), of farms classified to grain-sheep/beef cattle were in this category as were 68.1% (9,969) of farms classified to grain growing, 6.3% (307) of farms classified to vegetable growing and 1.4% (64) of farms classified to grape growing.

Agricultural establishments with area of holding of more than 500 hectares



# ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY—Years ended 31 March

Establishments(a,	) NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • •	• • • • •					• • • • •		• • • •	• • • • • •
1987(b)	37 355	34 383	25 860	15 369	13 852	3 637	290	68	130 814
1988	50 687	41 827	36 272	18 081	15 827	5 250	307	88	168 339
1989	50 791	40 995	36 059	18 258	16 106	5 311	307	107	167 934
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

<sup>(</sup>a) See Explanatory Notes, paragraph 10.

<sup>(</sup>b) Not adjusted, see Explanatory Notes, paragraphs 3 and 4.

# ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By Industry—As at 31 March 1996

• • • • •		• • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •		• • • • • • •		• • • • • • •
ANZSIC										
code	Description	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
0111	Diant nursarias	670	007	000	405	450	20	04	2	0.005
0111	Plant nurseries	679	287	696	125	156	38	21	3	2 005
0112	Cut flower and flower seed	045	000	400	405	420	4.0	0		000
0440	growing	215	209	189	125	130	46	6	_	920
0113	Vegetable growing	701	1 005	1 376	561	567	615	10	3	4 838
0114	Grape growing	788	1 733	88	1 769	268	68	4	1	4 719
0115	Apple and pear growing	205	431	109	130	224	167	_	4	1 270
0116	Stone fruit growing	471	256	89	330	164	23	_	_	1 333
0117	Kiwi fruit growing	30	9	5	_	9	_	_	_	53
0119	Fruit growing n.e.c.	1 651	375	2 127	666	299	35	64	2	5 219
0121	Grain growing	3 346	3 054	1 764	3 732	2 729	22	2	_	14 649
0122	Grain-sheep/beef cattle farming	7 254	2 860	1 900	2 753	3 688	102	4	_	18 561
0123	Sheep-beef cattle farming	4 779	3 084	1 022	1 084	628	443	_	24	11 064
0124	Sheep farming	5 171	4 691	771	1 468	1 759	635	_	26	14 521
0125	Beef cattle farming	10 574	8 155	11 751	1 203	1 898	1 169	214	24	34 988
0130	Dairy cattle farming	2 047	7 933	1 912	825	463	791	_	1	13 972
0141	Poultry farming (meat)	331	161	98	71	57	15	1	_	734
0142	Poultry farming (eggs)	145	110	103	43	85	14	6	1	507
0151	Pig farming	369	196	428	169	127	35	1	_	1 325
0152	Horse farming	558	333	524	106	110	44	_	_	1 675
0153	Deer farming	99	106	55	50	40	38	_	_	388
0159	Livestock farming n.e.c.	973	805	668	216	162	87	7	9	2 927
0161	Sugar cane growing	462	_	4 603	_	_	_	_	_	5 065
0162	Cotton growing	464	_	508	_	_	_	_	_	972
0169	Crop and plant growing n.e.c.	265	353	585	136	77	77	3	1	1 497
	Total (ANZSIC Code 01)	41 577	36 146	31 371	15 562	13 640	4 464	343	99	143 202
00	On the standard by the standard									
02	Services to agriculture; hunting	00		00	40	00	4.4			0.45
00	and trapping	69	53	39	43	30	11	_	_	245
03	Forestry and logging	13	1	8	_	6	14	_	_	42
04	Commercial fishing	2	1	3	7	9	7	_	_	29
	Total (ANZSIC Division A)	41 661	36 201	31 421	15 612	13 685	4 496	343	99	143 518
В	Mining	7	3	4	2	4	4	_	_	24
C	Manufacturing	60	43	14	36	24	5	1	_	183
D	Electricity, gas and water supply	_	2	_	_	_	_	_	_	2
Ē	Construction	54	75	47	29	26	19	_	_	250
F	Wholesale trade	42	39	22	18	12	7	_	_	140
G	Retail trade	47	24	31	11	13	12	1	2	141
H	Accommodation, cafes and	• • •		01				_	-	
• •	restaurants	17	11	8	5	7	6	_	_	54
1	Transport and storage	62	90	43	46	23	23	_	_	287
J	Communication services	1	_	_	_	_	_	_	_	1
K	Finance and insurance	8	2	1	4	_	1	_	_	16
Ĺ	Property and business services	63	16	44	22	21	7	_	_	173
M	Government administration and defence	9	_	_	_	_	_	_	_	9
N	Education	14	1	8	1	15	5	_	1	45
0	Health and community services	6	2	7	1	1	_	_	_	17
P	Cultural and recreational services	14	17	4	7	4	3	_	_	49
Q	Personal and other services	5	2	9	2	7	1	_	_	26
~	Unclassified	427	376	523	144	145	51	10	1	1 677
	Total all industries	42 497	36 905	32 186	15 939	13 987	4 640	355	103	146 612

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# ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By EVAO—As at 31 March 1996

ABS • AGRICULTURE • 7113.0 • 1995-96 15

# ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By Area—As at 31 March 1996

		AREA (h	nectares)	)					
ANZSIC code	Description	0- 49	50- 99	100- 499	500- 999	1 000- 2 499	2 500- 4 999		10 000– 24 999
		• • • • •	• • • • • •	• • • • • •	• • • • •	• • • • • •		• • • • •	• • • • •
0111	Plant nurseries	1 728	125	122	16	10	1	3	_
0112	Cut flower and flower seed growing	740	77	76	17	8	2	_	_
0113	Vegetable growing	2 383	852	1 296	184	98	18	4	1
0114	Grape growing	4 003	318	334	38	21	1	1	2
0115	Apple and pear growing	815	228	207	19	1	_	_	_
0116	Stone fruit growing	1 094	121	106	6	6	_	_	_
0117 0119	Kiwi fruit growing	38	10	5 540	- 62	 24	_	_	1
0119	Fruit growing n.e.c. Grain growing	3 890 193	669 435	549 4 052	63 3 370	34 4 092	6 1 808	5 569	101
0121	Grain-sheep/beef cattle farming	106	323	4 939	4 952	5 614	1 777	582	222
0123	Sheep-beef cattle farming	269	603	4 189	2 331	1 902	547	322	470
0124	Sheep farming	456	832	5 878	3 066	2 075	545	357	600
0125	Beef cattle farming	4 671	5 831	13 942	3 549	2 873	1 279	884	858
0130	Dairy cattle farming	1 339	3 146	8 669	631	155	23	6	2
0141	Poultry farming (meat)	573	66	78	13	4	_	_	_
0142	Poultry farming (eggs)	370	38	67	20	11	1	_	_
0151	Pig farming	401	205	510	116	72	10	7	4
0152	Horse farming	762	366	454	48	28	11	5	_
0153	Deer farming	147	67	136	20	13	1	4	_
0159	Livestock farming n.e.c.	1 802	307	468	177	114	24	12	9
0161	Sugar cane growing	1 119	1 680	2 046	141	51	14	9	5
0162	Cotton growing	8	13	317	211	248	101	45	22
0169	Crop and plant growing n.e.c.	518	331	497	99	42	6	3	1
	Total (ANZSIC Code 01)	27 425	16 643	48 937	19 087	17 472	6 175	2 818	2 298
02	Services to agriculture; hunting and trapping	70	55	87	17	0	2	1	1
03	Forestry and logging	6	6	22	1	9 2	4	1	1
04	Commercial fishing	9	1	11	0	6	1	1	
04	G								
	Total (ANZSIC Division A)	27 510	16 705	49 057	19 105	17 489	6 182	2 821	2 299
В	Mining	3	5	10	2	2	2	_	_
С	Manufacturing	88	33	43	9	7	2	_	1
D	Electricity, gas and water supply	_	_	_	_	_	_	1	1
E	Construction	95	48	84	16	5	1	_	1
F	Wholesale trade	85	15	31	5	3	_	_	1
G	Retail trade	119	6	9	2	2	2	_	1
H	Accommodation, cafes and restaurants	21	6	20	3	1	_	1	_
1	Transport and storage	78	51	123	19	11	3	2	_
J	Communication services Finance and insurance	_	_	_	1	_	_	_	_
K L	Property and business services	6 53	3 28	5 47	2 16	 16	7	4	1
M	Government administration and defence		1	4	3	_	1	_	
N	Education	4	5	17	4	9	2	2	1
0	Health and community services	6	2	4	2	2	_	_	1
P	Cultural and recreational services	20	12	14	2	_	1	_	_
Q	Personal and other services	4	2	7	4	4	1	_	1
-	Unclassified	719	241	466	91	77	27	16	17
	Total all industries	28 811	17 163	49 941	19 286	17 628	6 231	2 847	2 325

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# ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, By Area—As at 31 March 1996 continued

AREA (hectares).....

ANZSIC		25 000-		100 000-		500 000	Total
code	Description	49 999	99 999	199 999	499 999	or more	establishments
		• • • • • •	• • • • • •			• • • • • •	• • • • • • • • • • • •
	Plant nurseries	_	_	_	_	_	2 005
0112	Cut flower and flower seed growing	_	_	_	_	_	920
0113	6 6 6	1	_	_	1	_	4 838
0114	Grape growing	_	_	1	_	_	4 719
0115	Apple and pear growing	_	_	_	_	_	1 270
0116 0117	Stone fruit growing	_	_	_	_	_	1 333 53
0117	Kiwi fruit growing Fruit growing n.e.c.	_	_	_	_	_	5 219
0113	Grain growing	25	4				14 649
0121	Grain-sheep/beef cattle farming	30	10	6			18 561
0123	Sheep-beef cattle farming	260	91	40	36	4	11 064
0124	Sheep farming	315	191	121	81	4	14 521
0125	Beef cattle farming	365	198	160	287	91	34 988
0130	Dairy cattle farming	_	_	1	_	_	13 972
0141	Poultry farming (meat)	_	_	_	_	_	734
0142	Poultry farming (eggs)	_	_	_	_	_	507
0151	Pig farming	_	_	_	_	_	1 325
0152		_	1	_	_	_	1 675
0153	Deer farming	_	_	_	_	_	388
0159	Livestock farming n.e.c.	6	3	2	2	1	2 927
0161	Sugar cane growing	_	_	_	_	_	5 065
0162	Cotton growing	3	4	_	_	_	972
0169	Crop and plant growing n.e.c.	_	_	_	_	_	1 497
	Total (ANZSIC Code 01)	1 007	502	331	407	100	143 202
00	Canada a a a social de la continua d						
02	Services to agriculture; hunting and		2		1		0.45
03	trapping Forestry and logging	_	2	_	1	_	245 42
03	Commercial fishing						29
04	Commercial listing	_	_	_	_	_	29
	Total (ANZSIC Division A)	1 007	504	331	408	100	143 518
В	Mining	_	_	_	_	_	24
C	Manufacturing	_	_	_	_	_	183
D	Electricity, gas and water supply	_	_	_	_	_	2
Е	Construction	_	_	_	_	_	250
F	Wholesale trade	_	_	_	_	_	140
G	Retail trade	_	_	_	_	_	141
Н	Accommodation, cafes and restaurants	_	1	_	1	_	54
1	Transport and storage	_	_	_	_	_	287
J	Communication services	_	_	_	_	_	1
K	Finance and insurance	_	_	_	_	_	16
L	Property and business services	1	_	_	_	_	173
М	Government administration and defence	_	_	_	_	_	9
N	Education	1	_	_	_	_	45
0	Health and community services	_	_	_	_	_	17
P	Cultural and recreational services	_	_	_		_	49
Q	Personal and other services	_ 	2	_	1	_	26 1 677
	Unclassified	4	7	5	7	_	1 677
	Total all industries	1 013	514	336	417	100	146 612

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## EXPORTS BY AGRICULTURAL ESTABLISHMENTS

The following table shows value of exports, of selected industries classified by the Australian and New Zealand Standard Industrial Classification (ANZSIC).

# EXPORTS BY INDUSTRY

		1993–94	1994–95	1995–96
ANZSIC	5	***	***	*10.00
code	Description	\$'000	\$'000	\$'000
0111	Plant nurseries	6 916.7	7 215.9	6 705.4
0112	Cut flower and flower seed growing	23 885.2	24 762.5	28 482.3
0113	Vegetable growing	196 274.1	217 154.0	213 380.1
0114	Grape growing	101 954.8	61 961.8	80 937.1
0115	Apple and pear growing	64 469.8	61 855.1	57 713.9
0116	Stone fruit growing	15 040.6	14 526.1	15 667.0
0117	Kiwi fruit growing	1 137.1	1 757.1	2 002.6
0119	Fruit growing n.e.c.	114 818.3	134 509.4	140 359.8
0121	Grain growing	2 421 117.8	1 719 716.3	3 644 574.4
0124	Sheep farming	2 281 400.1	2 743 819.0	2 189 472.1
0125	Beef cattle farming	124 522.6	214 407.8	368 388.0
0141	Poultry farming (meat)	1 175.3	527.8	1 093.5
0142	Poultry farming (eggs)	1 072.0	3 119.3	5 489.6
0151	Pig farming	1 378.9	1 986.9	943.7
0152	Horse farming	33 301.5	36 016.1	42 211.4
0159	Livestock farming n.e.c.	25 992.3	21 739.5	27 096.4
0161	Sugar cane growing	61.2	150.8	217.9
0169	Crop and plant growing n.e.c.	69 069.1	74 281.3	81 510.3
	Total (ANZSIC Code 01)	5 483 587.6	5 339 506.7	6 906 245.5
	Total (ANZSIC Code O1)	5 465 567.0	5 559 500.7	0 900 245.5
02	Services to agriculture; hunting and trapping	779 486.3	724 788.0	820 240.9
03	Forestry and logging	46 202.2	35 054.1	44 635.5
04	Commercial fishing	333 266.1	401 880.2	452 513.5
	Total (ANZSIC Division A)	6 6/2 5/2 1	6 501 229.0	0 222 625 4
	Iotai (AI12310 DIVISIUII A)	0 042 542.1	0 301 229.0	0 223 035.4

#### SPECIAL ARTICLE—CHANGING STRUCTURE OF FARMING

This is a condensed version of an article published by the Australian Bureau of Agricultural Resource Economics (ABARE), written by Dr Ray Lindsay and Trish Gleeson. The publication is ABARE Current Issues, June 1997, no. 4.

#### INTRODUCTION

Rural adjustment is often portrayed to be the result of catastrophic events, as may be the case when severe drought or sudden and unexpected market collapses force farmers from their properties. However, most structural adjustment in the rural sector occurs progressively as farmers continually adjust the size and nature of their operations in response to changes inherent in an open market economy.

Over the years, farm numbers in Australia have been declining and farms have been getting larger. These structural changes and how they occur - incrementally or catastrophically — have implications for the future of rural communities, the need for local services and social infrastructure. While changes in business ownership are also important, especially in the short term, such changes are not discussed here.

Using population lists from the ABS for the ten-year period 1985-86 to 1994-95, the proportion of farms which either ceased operations, stayed in the same size category or moved to another size category are calculated.

# STRUCTURAL CHANGE IN AGRICULTURE

Falling real agricultural prices mean that some farms can no longer provide sufficient returns to sustain production or, ultimately, provide adequate family incomes.

Consolidating with adjoining holdings or buying additional land not necessarily adjoining the existing property provides a larger earning base for the farms remaining. An obvious consequence of the amalgamation of farms and increasing farm sizes is declining farm numbers.

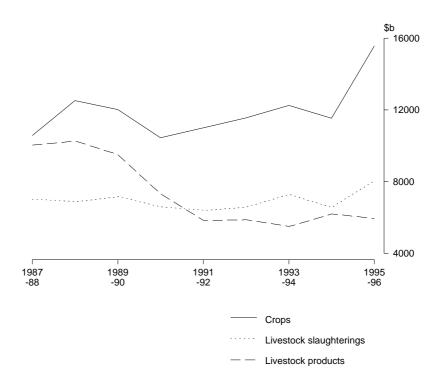
#### CHANGES IN FARM OUTPUT

The gross value of production for cropping industries has trended upwards slightly in real terms over the ten years to 1995–96. The significant rise in the value of crop production in 1995–96 was the result of a record wheat harvest and high grain prices.

The value of livestock slaughterings remained fairly constant over the ten-year period at around \$6-\$7 billion a year in real terms.

#### CHANGES IN FARM OUTPUT continued

The gross value of production of livestock products — a category including wool, milk and eggs — fell significantly during the early 1990s with the fall in wool prices. However, in real terms, the value of production has remained fairly constant since 1991–92.



# **DECLINE IN FARM NUMBERS**

The average rate of decline in the number of farms over the ten years to 1994–95 for all agricultural industries was 1.3% a year.

The rate of change in farm numbers varies between States and industries.

The dairy industry had the highest rate of adjustment with, on average, 2.2% of farms nationally dropping out of the industry each year over the period.

In contrast, the horticultural industry maintained its number of participants over the period, with falls in some States being offset by rises in others.

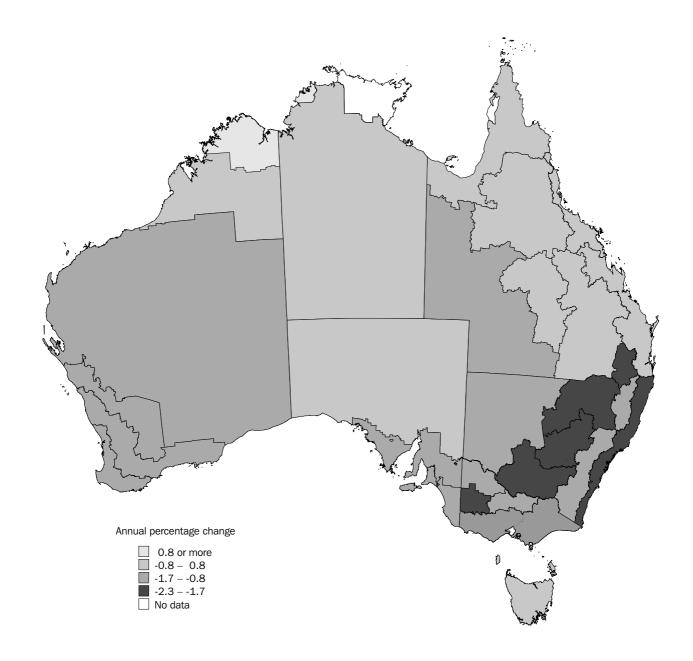
# REGIONAL RATES OF DECLINE IN FARM NUMBERS

The annual rate of change in farm numbers is shown at the ABARE broadacre region level in the map on the following page.

The coastal strip and central north of New South Wales and parts of western Victoria have experienced the greatest rates of decline in farm numbers, with the number falling by over 2.0% a year.

Against the trend, two regions have had increasing numbers — the outskirts of Darwin and the East Kimberley–Wyndham region of Western Australia. These are small increases in farm numbers from a small base and are mainly horticultural properties near Darwin and farms irrigated from the Ord River scheme.

# ANNUAL PERCENTAGE CHANGE IN NUMBER OF FARM HOLDINGS-March 1986 to March 1995



## CHANGE IN NUMBER OF FARMS(a)(b)

• • • • • • • • • • • • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • • •			
	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust.(c)
• • • • • • • • • • • • • • • •		• • • • •				• • • • •		
Broadacre								
1985–86	27 751	19 050	12 885	9 960	10 890	1 638	192	82 430
1994–95	23 563	16 025	11 533	8 529	9 482	1 496	198	70 883
Rate of change (%)(d)	-1.8	-1.9	-1.2	-1.7	-1.5	-1.0	-0.3	-1.7
Dairy								
1985–86	2 766	9 195	2 396	1 122	585	927	(e)	16 992
1994–95	2 097	7 824	1 852	831	505	759	(e)	13 869
Rate of change (%)(d)	-3.0	-1.8	-2.8	-3.3	-1.6	-2.2	_	-2.2
Horticulture								
1985–86	4 304	4 087	3 022	2 930	1 361	733	(e)	16 468
1994–95	3 636	3 809	3 621	3 069	1 389	877	(e)	16 485
Rate of change (%)(d)	-1.9	-0.8	2.0	0.5	0.2	2.0	_	_
Other								
1985–86	3 140	1 652	7 844	804	690	238	(e)	14 391
1994–95	2 893	1 815	7 737	757	612	299	(e)	14 131
Rate of change (%)(d)	-0.9	1.1	-0.2	-0.7	-1.3	2.6	_	-0.2
All industries								
1985–86	37 961	33 984	26 147	14 816	13 526	3 533	239	130 281
1994–95	32 189	29 473	24 743	13 186	11 988	3 431	288	115 368
Rate of change (%)(d)	-1.8	-1.6	-0.6	-1.3	-1.3	-0.3	2.1	-1.3

<sup>(</sup>a) For farms with EVAO greater than \$18,000 in 1985–86 and farms with EVAO greater than \$22,500 in 1994-95.

<sup>(</sup>b) The EVAO threshold in 1994–95 for ABARE farm surveys was \$22,500. This EVAO was adjusted by the ABARE prices received index to produce an EVAO threshold of \$18,000 for 1985-86.

<sup>(</sup>c) Australia includes the Australian Capital Territory.

<sup>(</sup>d) Annual compound rate.

<sup>(</sup>e) Not specified.

# SECTION 3 LAND MANAGEMENT ......

LAND USE

The area of land used for agricultural activity in 1995–96 totalled 465.2 million hectares or 60.6% of Australia's land mass. This was 0.4% more than the previous year, and 2.2% more than 1985–86. The largest agricultural States, in terms of land used for agricultural activity, were Queensland, with 149.7 million hectares (86.7%) and Western Australia, with 114.5 million hectares (45.3%).

	• • • • • • • • • •		• • • • • • •		• • • • • • •		• • • • • • •	• • • • • • •	• • • • • • • • • •
	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
	• • • • • • • • • •		• • • • • • •		• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • • •
				CRO	PS(a)				
1994	4 209	2 317	2 394	2 940	6 100	78	5	_	18 043
1995	3 433	2 296	2 056	2 991	6 182	77	4	_	17 040
1996	4 757	2 439	2 495	3 219	6 419	75	4	_	19 410
			SOW	N PASTURE	ES AND GR	ASSES			
1994	6 304	6 122	5 676	3 030	7 313	862	126	23	29 456
1995	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1996	10 802	5 237	22 229	4 663	12 704	928	19	21	56 604
			ı	AGRICULTU	RAL LAND	(c)			
1994	61 165	13 017	152 569	57 267	114 445	1 969	68 571	52	469 054
1995	60 300	12 719	149 688	56 101	113 956	1 933	68 604	48	463 349
1996	61 009	12 768	149 748	56 901	114 521	1 949	68 276	50	465 221
			NO	N-AGRICUL	TURAL LAN	ND(d)			
1994	18 978	9 743	20 131	41 171	138 105	4 861	66 049	191	299 230
1995	19 843	10 041	23 012	42 337	138 594	4 897	66 016	195	304 935
1996	19 134	9 992	22 952	41 537	138 029	4 881	66 344	193	303 063
				TOTA	L LAND				
1996	80 143	22 760	172 700	98 438	252 550	6 830	134 620	243	768 284

<sup>(</sup>a) Excludes pastures and grasses harvested for hay and seed which have been included in 'sown pastures and grasses'.

<sup>(</sup>b) Data not collected.

<sup>(</sup>c) Total area of establishments with an EVAO of \$5,000 or more.

<sup>(</sup>d) 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 Census (i.e. those with EVAO of below \$5,000).

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. While agricultural land use presently occupies about 60.6% of Australia, many other uses have developed.

## TREES PLANTED

In the 1995–96 Agricultural Census, details regarding number of trees planted, seedlings sown and timber harvested were collected. This question was expanded from the 1994–95 Agricultural Census to include types of trees planted and intended uses for the timber.

## TREES PLANTED(a)—Year ended 31 March 1996

• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • •		• • • • • •		• • • • • • •	• • • • • •	• • • • • •	• • • • • • • •
Trees planted	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •					• • • • • • •			• • • • • • • •
Cleared agricultural land planted w trees(b)	ith								
For timber/pulp (ha)	5 333	15 936	1 152	2 696	24 947	5 684	4	_	55 752
For other purposes (ha)	10 656	27 367	4 369	4 063	61 110	2 637	2	25	110 229
Seedlings planted for timber/pulp									
Number planted ('000)	787	1 020	219	820	4 564	668	3	_	8 081
Area planted (ha)	802	1 021	224	900	3 476	560	2	_	6 985
Seedlings planted for other purpos	es								
Number planted ('000)	1 632	1 032	291	795	6 247	113	1	2	10 113
Area planted (ha)	4 156	3 383	788	1 767	15 159	244	1	12	25 510
Tree and shrub seed sown									
Seed sown (kg)	3 714	15 441	12 923	1 125	4 537	225	_	39	38 004
Area sown (ha)	1 038	13 195	2 702	947	3 225	94	_	3	21 204
Timber harvested									
Hardwood (t)	4 176	2 378	1 782	226	5 739	67 354	_	_	81 655
Softwood (t)	2 500	19 268	5 240	13 433	4 211	15 674	_	_	60 326

<sup>(</sup>a) Area of cleared agricultural land planted with trees at 31 March 1996. Includes trees planted during reference and earlier years.

<sup>(</sup>b) Data in this table are an aggregation of responding establishments. No imputation has been made for non-responding establishments.

# SECTION 4

FINANCE .....

FINANCE

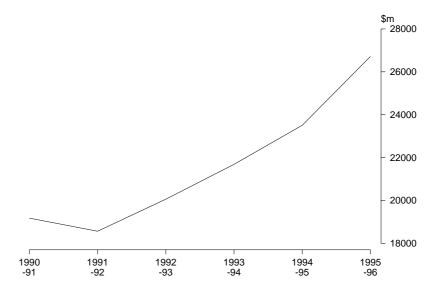
Improved seasonal conditions in substantial areas of Queensland, New South Wales and Victoria provided the impetus for continued financial recovery for many farms during 1995–96. In particular, significantly larger grain crops combined with good prices for wheat and other cereal crops boosted the grain industry. Meat cattle prices slumped towards the end of the financial year, although prices for prime lambs remained buoyant. Wool prices also fell during 1995–96.

**TURNOVER** 

Estimated aggregate turnover for the agricultural industry in 1995–96 was \$26,724.9 million. This was \$3,208.6 million (13.6%) higher than turnover for 1994–95. The average turnover per farm business was \$246,500,12.5% higher than the 1994–95 average of \$219,200. Median farm business turnover in 1995–96 was \$136,800 compared with \$125,100 in 1994–95.

The main contributor to the increase in turnover was sales of crops which rose by 34.2% from \$9,804.2 million to \$13,159.6 million. Gross proceeds from wheat rose by 86.0% to \$3,940.0 million. Sales of livestock remained relatively static at \$6,339.7 million while the sales of livestock products (mainly wool and milk) fell by 11.1% to \$4,975.1 million during 1995–96. Gross proceeds from the sale of wool fell by 27.3% to \$2,121.3 million.

Aggregate turnover



#### TURNOVER continued

Aggregate and average turnover per farm business are shown in the following table for 1995–96 for each State.

#### FARM BUSINESS TURNOVER

	Aggregate	Average
State	\$m	\$
		• • • • • • • •
New South Wales	7 463.9	236 200
Victoria	5 187.0	187 300
Queensland	5 982.9	265 400
South Australia	2 857.6	232 300
Western Australia	4 394.3	404 100
Tasmania	693.4	221 800
Australia	26 724.9	246 500

## VALUE ADDED

During 1995–96, farm businesses contributed \$11,185.3 million in value added to the Australian economy, \$1,417.2 million (14.5%) higher than for 1994–95. Value added in the grain industry increased by \$1,464.8 million to \$2,634.2 million in 1995–96.

#### CASH OPERATING SURPLUS

Aggregate cash operating surplus in 1995–96 was \$6,429.3 million, \$1,593.6 million (33.0%) above the cash operating surplus in 1994–95. Average cash operating surplus per farm business in 1995–96 was \$59,300 compared with \$45,100 in 1994–95.

In constant price terms (1989–90 prices), the cash operating surplus in 1995–96 was \$5,645.1 million, 30.1% above the constant price estimate of cash operating surplus for 1994–95.

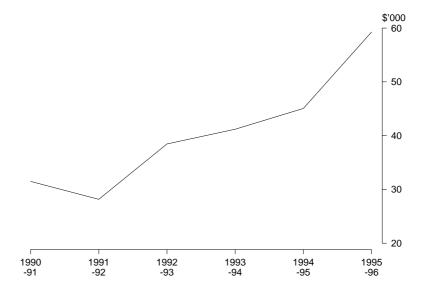
Median cash operating surplus per farm business was \$30,700 in 1995–96, up 18.5% on the previous year.

The grain industry, with a cash operating surplus of \$1,882.1 million, was the major contributor to aggregate cash operating surplus for agriculture during 1995–96. Other main industries in terms of cash operating surplus were grain-sheep/beef cattle (\$1,052.8 million), dairy cattle (\$711.8 million) and fruit (\$549.8 million).

Farm business profit margin in 1995–96 was 24.1%, compared with 20.6% in 1994–95. On an industry basis, the highest profit margin was recorded by the sugar industry (36.4%), closely followed by the grain industry with 35.3%. Industry groups classified to 'other agriculture' had the lowest profit margin (12.6%).

Profit margins declined in the sheep, sheep-beef, beef, sugar and vegetable industries during 1995–96. The remaining agricultural industries all improved their profit margins.

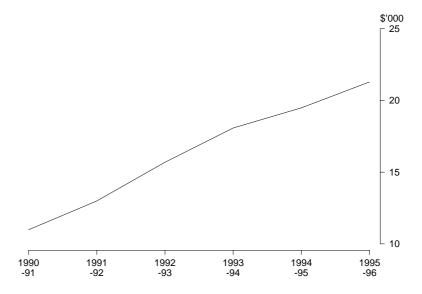
# Average cash operating surplus



## NET CAPITAL EXPENDITURE

Net capital expenditure by farm businesses in 1995–96 was estimated at \$2,307.9 million, a 10.4% increase on the previous year. Average net capital expenditure per farm business in 1995–96 was \$21,300, compared with \$19,500 the previous year.

# Average net capital expenditure



#### FARM OPERATING COSTS

Total farm operating costs in 1995–96 were \$20,919.2 million, an increase of \$1,889.8 million (9.9%) from 1994–95. Farm operating costs rose in all States except Queensland.

#### **DEBT AND INTEREST PAYMENTS**

At the end of 1995–96, Australian farm businesses owed \$19,592.7 million. This was \$1,325.0 million (7.3%) above the level of debt at the end of 1994–95. Net indebtedness (gross indebtedness less the value of financial assets) was \$11,348.9 million, \$963.1 million (9.3%) higher than in 1994–95.

The average gross indebtedness per farm business at the end of 1995–96 was \$180,700. This was \$10,400 (6.1%) higher than the average indebtedness at the end of 1994–95. Western Australian farm businesses, with an average gross indebtedness of \$320,600, had the highest level of debt per farm business of the States. Western Australian farm businesses also had the highest average net indebtedness of any State at \$158,200.

## AVERAGE GROSS AND NET INDEBTEDNESS

Gross Net State \$ \$ New South Wales 176 600 104 700 Victoria 107 200 64 700 Oueensland 224 300 130 800 South Australia 150 400 98 900 Western Australia 320 600 158 200 Tasmania 170 800 115 200 Australia 180 700 104 700

At the end of 1995–96, Australian farm businesses owed banks \$11,938.5 million, or 60.9% of the total amount owed. The debt to banks was split almost equally between non-current (i.e. long-term loans) and current loans (overdraft and other short-term loans). Current loans amounted to \$6,183.4 million at the end of 1995–96. Pastoral and insurance companies and government agencies were owed \$2,103.1 million (10.7%) of the total debt. Interest paid to banks during 1995–96 totalled \$1,194.3 million.

Total interest payments by farm businesses in 1995–96 were \$1,666.7 million, 10.5% above 1994–95 interest payments, and 6.2% of total farm business turnover. Average interest payments per farm business in 1995–96 were \$15,400.

## ASSET VALUE AND NET WORTH

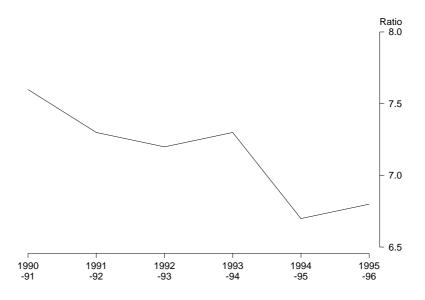
The estimated value of farm business assets at the end of 1995–96 was \$133,100 million, an increase of \$10,900 million (8.9%) on the asset value at the end of 1994–95. Just over 85.0% of the increase in asset value was attributable to increases in the value of land, buildings and other structures.

Average farm business asset value at the end of 1995–96 was \$1,227,600.

AVERAGE FARM BUSINESS ASSE	T VALUE
State	\$
New South Wales Victoria Queensland South Australia Western Australia Tasmania <b>Australia</b>	1 189 500 923 400 1 482 000 1 023 800 1 799 600 1 021 200 <b>1 227 600</b>

During 1995–96 there was a marginal improvement in the debt to asset ratio (value of assets divided by gross indebtedness). At the end of 1995–96, the debt to asset ratio was 1:6.8, i.e. for every dollar of debt there was \$6.80 of asset backing.

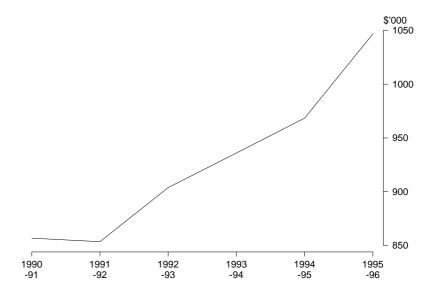
#### Debt to asset ratio



## ASSET VALUE AND NET WORTH

Aggregate net worth (value of assets less gross indebtedness) of all farm businesses at the end of 1995–96 was \$113,500 million. The average net worth per farm business was \$1,046,900, an increase of \$78,200 (8.1%) on the 1994–95 average net worth value.

## Average net worth



# FARM BUSINESSES

The population from which the sample for the Agricultural Finance Survey was drawn comprised all farm businesses classified to ANZSIC Subdivision 01: Agriculture, based on their principal activity, and which had an EVAO of \$22,500 or more.

The table below shows estimates of the numbers of farm businesses classified to Agriculture with an EVAO of 22,500 or more.

#### FARM BUSINESSES

	1993-94	1994–95	1995–96
State	no.	no.	no.
New South Wales	30 083	30 632	31 601
Victoria	28 509	27 551	27 693
Queensland	22 482	22 595	22 543
South Australia	12 119	12 283	12 303
Western Australia	10 971	10 914	10 873
Tasmania	3 149	3 078	3 127
Australia	107 538	107 286	108 413

	AGGREGATES				AVERAG	AVERAGES(a)			
	1993–94	1994–95	1995–96		1993–94	1994–95	1995–96		
Items	\$m	\$m	\$m	SE%	\$'000	\$'000	\$'000	SE%	
	• • • • • • •	POULTR	Y (0141-0	142)	• • • • • • • • •	• • • • • • •		• • • •	
Sales from crops	4.2	n.p.	n.p.	n.p.	3.6	n.p.	n.p.	n.p.	
Sales from livestock	188.7	n.p.	n.p.	n.p.	162.3	n.p.	n.p.	n.p.	
Sales from livestock products	296.6	n.p.	n.p.	n.p.	255.0	n.p.	n.p.	n.p.	
Turnover	586.9	n.p.	n.p.	n.p.	504.6	n.p.	n.p.	n.p.	
Purchases and selected expenses	358.7	n.p.	n.p.	n.p.	308.4	n.p.	n.p.	n.p.	
Value added(b)	228.6	n.p.	n.p.	n.p.	196.6	n.p.	n.p.	n.p.	
Adjusted value added(b)	196.8	n.p.	n.p.	n.p.	169.2	n.p.	n.p.	n.p.	
Gross operating surplus	113.2	n.p.	n.p.	n.p.	97.3	n.p.	n.p.	n.p.	
Interest paid	26.2	n.p.	n.p.	n.p.	22.5	n.p.	n.p.	n.p.	
Cash operating surplus(c)	84.7	n.p.	n.p.	n.p.	72.8	n.p.	n.p.	n.p.	
Gross indebtedness	374.2	n.p.	n.p.	n.p.	321.7	n.p.	n.p.	n.p.	
Total net capital expenditure	50.9	n.p.	n.p.	n.p.	43.8	n.p.	n.p.	n.p.	
Total value of assets	1 408.3	n.p.	n.p.	n.p.	1 210.9	n.p.	n.p.	n.p.	
Net indebtedness	206.7	n.p.	n.p.	n.p.	177.7	n.p.	n.p.	n.p.	
Net worth	1 034.1	n.p.	n.p.	n.p.	889.2	n.p.	n.p.	n.p.	
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	FRUIT	(0114-01	19)	• • • • • • • • • •	• • • • • • •			
Oalas faces and	4.075.0				450.0	405.5	100.0	0	
Sales from crops	1 375.6	1 519.4	1 744.5	6	152.6	165.5	188.0	6	
Sales from livestock	27.2	37.5	30.7	51	3.0	4.1	3.3	51	
Sales from livestock products	7.7	13.7	11.4	61	0.9	1.5	1.2	61	
Turnover	1 485.9 708.8	1 773.6 814.4	1 949.0 882.9	6 7	164.9 78.6	193.1 88.7	210.0 95.2	6 7	
Purchases and selected expenses	708.8 780.9	948.0	1 055.9	7 7	78.6 86.6	103.2	95.2 113.8	7	
Value added(b) Adjusted value added(b)	690.9	948.0 835.2	960.4	<i>1</i> 8	76.7	91.0	103.5	8	
Gross operating surplus	419.9	835.2 488.4	960.4 610.6	9	76.7 46.6	53.2	65.8	9	
Interest paid	73.6	400.4 87.8	88.7	11	8.2	9.6	9.6	11	
Cash operating surplus(c)	351.4	435.7	549.8	10	39.0	9.0 47.5	59.3	10	
Gross indebtedness	841.4	1 172.7	921.2	10	93.4	127.7	99.3	10	
Total net capital expenditure	141.4	88.6	152.7	15	15.7	9.6	16.5	15	
Total value of assets	5 298.0	6 243.8	6 012.5	6	587.9	679.9	648.0	6	
Net indebtedness	262.3	526.9	299.2	40	29.1	57.4	32.2	40	
Net worth	4 456.6	5 071.1	5 091.4	6	494.5	552.2	548.7	6	
					• • • • • • • • • •	• • • • • •			
		VEGET	ABLES (01	.13)					
Sales from crops	1 030.2	1 266.9	1 348.7	8	261.4	295.7	333.3	8	
Sales from livestock	91.8	62.8	73.3	16	23.3	14.7	18.1	16	
Sales from livestock products	27.5	61.8	59.5	66	7.0	14.4	14.7	66	
Turnover	1 214.4	1 493.3	1 589.3	7	308.1	348.5	392.7	7	
Purchases and selected expenses	652.6	781.5	860.4	8	165.6	182.4	212.6	8	
Value added(b)	580.8	709.8	718.1	8	147.4	165.6	177.4	8	
Adjusted value added(b)	519.7	653.0	645.3	9	131.9	152.4	159.5	9	
Gross operating surplus	332.0	410.9	401.9	11	84.2	95.9	99.3	11	
Interest paid	50.2	55.0	65.3	10	12.7	12.8	16.1	10	
Cash operating surplus(c)	260.6	354.1	354.6	13	66.1	82.6	87.6	13	
Gross indebtedness	652.9	630.2	833.9	10	165.7	147.1	206.1	10	
Total net capital expenditure	90.0	125.8	157.0	14	22.8	29.4	38.8	14	
Total value of assets	3 746.3	3 344.0	4 157.7	9	950.6	780.4	1 027.4	9	
Net indebtedness	519.1	414.1	482.2	39	131.7	96.6	119.1	39	
Net worth	3 093.5	2 713.7	3 323.7	11	785.0	633.3	821.3	11	

<sup>(</sup>a) Averages have been calculated by dividing industry estimates by the estimated number of farm businesses in each industry.

<sup>(</sup>b) Includes an estimate for the value of the increase in livestock.

<sup>(</sup>c) Excludes an estimate for the value of the increase in livestock.

	AGGREGATES				AVERAG	AVERAGES(a)			
	1993–94	1994-95	1995–96		1993–94	1994–95	1995–96		
Items	\$m	\$m	\$m	SE%	\$'000	\$'000	\$'000	SE%	
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • • •		• • • • • •	• • • • • • • • • •		• • • • • • •		
		GH	RAIN (0121)	)					
Sales from crops	2 750.1	2 119.4	4 331.4	6	205.1	221.7	316.0	6	
Sales from livestock	337.9	284.7	467.5	10	25.2	29.8	34.1	10	
Sales from livestock products	242.1	217.4	236.3	9	18.1	22.7	17.2	9	
Turnover	3 513.4	2 790.0	5 332.2	6	262.1	291.9	389.0	6	
Purchases and selected expenses	2 071.1	1 607.1	2 751.1	6	154.5	168.1	200.7	6	
Value added(b)	1 530.7	1 169.4	2 634.2	6	114.2	122.3	192.2	6	
Adjusted value added(b)	1 325.8	1 003.4	2 366.2	6	98.9	105.0	172.6	6	
Gross operating surplus	1 180.3	855.0	2 154.6	5	88.0	89.4	157.2	5	
Interest paid	187.5	156.3	283.0	9	14.0	16.4	20.6	9	
Cash operating surplus(c)	921.2	731.3	1 882.1	5	68.7	76.5	137.3	5	
Gross indebtedness	2 319.2	2 015.6	2 982.7	8	173.0	210.9	217.6	8 9	
Total yelve of accets	345.9	363.6	705.5	9	25.8	38.0	51.5		
Total value of assets Net indebtedness	14 042.3	11 623.1	19 301.3	5	1 047.4	1 215.9	1 408.1	5	
Net worth	1 381.0 11 723.1	1 230.0 9 607.5	1 763.7	14 6	103.0 874.4	128.7 1 005.1	128.7 1 190.5	14 6	
Net worth	11 /23.1	9 607.5	16 318.6	O	014.4	1 005.1	1 190.5	O	
	• • • • • • •	CDAIN C	UEED/DEEE	(0122)	• • • • • • • • • • •		• • • • • • • •		
		GRAIN-SI	HEEP/BEEF	(0122)					
Sales from crops	1 404.8	1 624.8	2 301.0	8	88.1	96.3	153.1	8	
Sales from livestock	630.6	726.3	874.8	9	39.6	43.0	58.2	9	
Sales from livestock products	632.3	815.8	574.2	8	39.7	48.3	38.2	8	
Turnover	2 825.6	3 397.3	4 007.8	7	177.2	201.3	266.7	7	
Purchases and selected expenses	1 706.3	2 059.3	2 227.5	7	107.0	122.0	148.2	7	
Value added(b)	1 447.6	1 249.1	1 806.1	7	90.8	74.0	120.2	7	
Adjusted value added(b)	1 238.8	1 012.1	1 572.6	8	77.7	60.0	104.7	8	
Gross operating surplus	1 054.4	820.5	1 343.3	8	66.1	48.6	89.4	8	
Interest paid	186.2	286.7	300.3	11	11.7	17.0	20.0	11	
Cash operating surplus(c)	541.2	616.5	1 052.8	9	33.9	36.5	70.1	9	
Gross indebtedness	2 204.8	3 151.8	3 526.8	10	138.3	186.8	234.7	10	
Total net capital expenditure	252.7	377.2	416.6	11	15.9	22.3	27.7	11	
Total value of assets	16 857.7	18 315.7	19 289.7	7	1 057.4	1 085.2	1 283.7	7	
Net indebtedness	1 507.0	2 241.3	2 615.7	12	94.5	132.8	174.1	12	
Net worth	14 652.9	15 163.9	15 762.9	7	919.1	898.3	1 049.0	7	
	• • • • • • •				• • • • • • • • • •		• • • • • • •		
		SHEEP-BI	EEF CATTLE	(0123)					
Sales from crops	31.3	126.0	111.5	30	3.6	11.8	11.3	30	
Sales from livestock	744.4	890.0	780.8	9	84.5	83.2	79.1	9	
Sales from livestock products	443.5	698.4	469.0	9	50.3	65.3	47.5	9	
Turnover	1 295.7	1 857.3	1 489.4	8	147.0	173.6	150.8	8	
Purchases and selected expenses	762.1	1 084.0	897.9	8	86.5	101.3	90.9	8	
Value added(b)	814.0	665.2	598.0	9	92.4	62.2	60.5	9	
Adjusted value added(b)	687.6	509.7	456.6	10	78.0	47.6	46.2	10	
Gross operating surplus	537.5	363.5	306.6	14	61.0	34.0	31.0	14	
Interest paid	102.0	144.8	131.7	11	11.6	13.5	13.3	11	
Cash operating surplus(c)	179.9	346.3	189.2	24	20.4	32.4	19.2	24	
Gross indebtedness	1 305.0	1 585.1	1 336.2	10	148.1	148.2	135.3	10	
Total net capital expenditure	106.7	102.8	66.4	18	12.1	9.6	6.7	18	
Total value of assets	12 134.3	14 865.1	13 862.8	8	1 376.7	1 389.7	1 403.5	8	
Net indebtedness	777.5	731.8	916.2	17	88.2	68.4	92.8	17	
Net worth	10 829.3	13 280.0	12 526.6	8	1 228.6	1 241.5	1 268.3	8	
	• • • • • • •	• • • • • • •		• • • • • •	• • • • • • • • • • •		• • • • • • •		

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<sup>(</sup>a) Averages have been calculated by dividing industry estimates by the estimated number of farm businesses in each industry.

<sup>(</sup>b) Includes an estimate for the value of the increase in livestock.

<sup>(</sup>c) Excludes an estimate for the value of the increase in livestock.

	AGGREGATES				AVERAG	AVERAGES(a)			
	1993–94	1994–95	1995–96		1993–94	1994–95	1995–96		
Items	\$m	\$m	\$m	SE%	\$'000	\$'000	\$'000	SE%	
	• • • • • • •	SH	EEP (0124	)	• • • • • • • • • • •	• • • • • •	• • • • • • •	• • • •	
Sales from crops	110.0	105.0	159.6	25	10.4	9.0	14.3	25	
Sales from livestock	317.2	392.0	424.4	12	30.0	33.6	38.1	12	
Sales from livestock products	783.6	1 060.1	776.5	8	74.1	90.8	69.6	8	
Turnover	1 302.4	1 652.1	1 498.9	8	123.1	141.6	134.4	8	
Purchases and selected expenses	735.5	863.6	895.6	8	69.5	74.0	80.3	8	
Value added(b)	744.6	658.1	924.9	8	70.4	56.4	82.9	8	
Adjusted value added(b)	619.8	513.8	792.3	9	58.6	44.0	71.0	9	
Gross operating surplus	470.2	373.0	652.0	10	44.4	32.0	58.5	10	
Interest paid	106.3	134.3	120.7	12	10.0	11.5	10.8	12	
Cash operating surplus(c)	195.4	372.1	242.6	19	18.5	31.9	21.8	19	
Gross indebtedness	1 283.2	1 417.0	1 403.6	13	121.3	121.4	125.8	13	
Total net capital expenditure	73.8	148.3	98.7	19	7.0	12.7	8.8	19	
Total value of assets	11 165.9	10 933.7	13 596.9	8	1 055.3	936.8	1 219.1	8	
Net indebtedness	683.9	950.1	397.3	61	64.6	81.4	35.6	61	
Net worth	9 882.6	9 516.7	12 193.3	9	934.0	815.4	1 093.3	9	
BEEF CATTLE (0125)									
Sales from crops	82.7	119.1	159.1	21	4.2	6.8	9.0	21	
Sales from livestock	2 810.2	2 617.4	2 398.1	4	143.5	148.4	135.8	4	
Sales from livestock products	71.7	77.5	25.8	26	3.7	4.4	1.5	26	
Turnover	3 284.9	3 163.9	3 046.7	5	167.8	179.3	172.5	5	
Purchases and selected expenses	2 038.1	2 002.6	1 898.9	5	104.1	113.5	107.5	5	
Value added(b)	1 610.9	954.0	265.6	32	82.3	54.1	15.0	32	
Adjusted value added(b)	1 361.6	723.6	4.8	**	69.5	41.0	0.3	**	
Gross operating surplus	1 107.6	473.7	-248.2	36	56.6	26.8	-14.1	36	
Interest paid	242.6	221.4	249.9	10	12.4	12.5	14.2	10	
Cash operating surplus(c)	551.3	503.1	450.7	15	28.2	28.5	25.5	15	
Gross indebtedness	2 860.9	3 071.2	3 299.4	9	146.1	174.1	186.8	9	
Total net capital expenditure	254.3	285.3	156.4	13	13.0	16.2	8.9	13	
Total value of assets	26 403.5	26 674.7	27 305.5	5	1 348.5	1 511.9	1 546.2	5	
Net indebtedness	1 413.0	1 471.6	1 664.8	18	72.2	83.4	94.3	18	
Net worth	23 542.6	23 603.5	24 006.1	6	1 202.4	1 337.8	1 359.3	6	
	• • • • • • •	DAIRY	CATTLE (0:	130)		• • • • • •	• • • • • • •	• • • •	
			OMMED (O.	ŕ					
Sales from crops	61.4	39.6	43.9	34	4.6	2.9	3.3	34	
Sales from livestock	326.6	310.7	307.5	10	24.3	23.0	23.3	10	
Sales from livestock products	2 081.7	2 285.4	2 419.7	4	155.2	169.0	183.6	4	
Turnover	2 585.9	2 718.2	2 858.5	4	192.8	201.0	216.9	4	
Purchases and selected expenses	1 427.9	1 674.6	1 705.9	4	106.4	123.8	129.5	4	
Value added(b)	1 301.8	1 375.4	1 115.5	6	97.0	101.7	84.7	6	
Adjusted value added(b)	1 178.9	1 232.0	992.9	6	87.9	91.1	75.4	6	
Gross operating surplus	1 013.3	1 071.4	857.4	7	75.5	79.2	65.1	7	
Interest paid	163.1	185.7	205.7	8	12.2	13.7	15.6	8	
Cash operating surplus(c)	689.2	546.9	711.8	7	51.4	40.4	54.0	7	
Gross indebtedness	1 791.9	1 995.9	2 061.0	9	133.6	147.6	156.4	9	
Total net capital expenditure	286.3	227.2	193.5	11	21.3	16.8	14.7	11	
Total value of assets	12 190.9	13 690.7	13 732.9	4	908.8	1 012.2	1 042.2	4	
Net indebtedness	1 228.3	1 128.5	1 281.4	16	91.6	83.4	97.2	16	
Net worth	10 399.0	11 694.7	11 672.0	5	775.2	864.7	885.8	5	

<sup>(</sup>a) Averages have been calculated by dividing industry estimates by the estimated number of farm businesses in each industry.

<sup>(</sup>b) Includes an estimate for the value of the increase in livestock.

<sup>(</sup>c) Excludes an estimate for the value of the increase in livestock.

	AGGREGATES				AVERAG	AVERAGES(a)				
	1993–94	1994–95	1995–96		1993–94	1994–95	1995–96			
Items	\$m	\$m	\$m	SE%	\$'000	\$'000	\$'000	SE%		
PIGS (0151)										
Sales from crops	48.0	37.0	39.3	40	30.1	28.3	36.9	40		
Sales from livestock	571.5	558.3	583.6	7	358.3	426.8	548.7	7		
Sales from livestock products	16.8	25.6	12.6	15	10.5	19.6	11.8	15		
Turnover	680.6	666.6	673.8	7	426.7	509.6	633.3	7		
Purchases and selected expenses	486.6	495.3	476.7	7	305.1	378.7	448.0	7		
Value added(b)	206.4	172.6	168.0	12	129.4	132.0	157.9	12		
Adjusted value added(b)	180.6	142.9	140.4	14	113.2	109.3	132.0	14		
Gross operating surplus	128.2	84.9	83.7	20	80.4	64.9	78.7	20		
Interest paid	24.8	26.7	23.4	17	15.5	20.4	22.0	17		
Cash operating surplus(c)	93.4	56.4	91.6	13	58.6	43.1	86.1	13		
Gross indebtedness	314.6	321.4	295.6	20	197.2	245.7	277.8	20		
Total net capital expenditure  Total value of assets	32.0	45.4	25.7	21 12	20.1	34.7	24.2	21 12		
Net indebtedness	1 694.4 265.7	1 549.8 215.5	1 576.7 220.9	12 27	1 062.3 166.6	1 184.9 164.8	1 481.9 207.6	27		
Net worth	1 379.8	1 228.3	1 281.1	27 14	865.1	939.1	1 204.0	14		
	20.0.0	1 220.0	1 202.1			300.1	1 20			
SUGAR (0161)										
Sales from crops	950.1	1 246.2	1 188.8	8	207.1	258.1	241.5	8		
Sales from livestock	19.1	12.4	15.0	35	4.2	2.6	3.0	35		
Sales from livestock products	0.2	_	_	_	_	_	_	_		
Turnover	1 055.2	1 375.2	1 326.9	8	230.0	284.8	269.6	8		
Purchases and selected expenses	579.4	621.7	626.6	8	126.3	128.8	127.3	8		
Value added(b)	479.0	754.7	697.0	9	104.4	156.3	141.6	9		
Adjusted value added(b)	423.1	685.8	623.5	9	92.2	142.0	126.7	9		
Gross operating surplus	333.5	565.7	496.8	10	72.7	117.2	100.9	10		
Interest paid	42.2	40.6	45.7	20	9.2	8.4	9.3	20		
Cash operating surplus(c) Gross indebtedness	301.3 611.3	533.5 754.4	483.2 743.1	12 16	65.7 133.2	110.5 156.3	98.2 151.0	12 16		
Total net capital expenditure	138.3	140.6	154.7	29	30.1	29.1	31.4	29		
Total value of assets	5 155.9	5 224.7	5 746.1	9	1 123.8	1 082.2	1 167.4	9		
Net indebtedness	219.4	326.7	336.8	37	47.8	67.7	68.4	37		
Net worth	4 544.6	4 470.3	5 003.0	10	990.5	925.9	1 016.5	10		
	• • • • • • •				• • • • • • • • • •	• • • • • •	• • • • • • •			
			TON (0162							
Sales from crops	659.6	676.9	893.1	13	1 159.2	867.8	1 137.7	13		
Sales from livestock	33.9	17.0	56.9	29	59.6	21.8	72.5	29		
Sales from livestock products	12.2	7.5	5.0	6	21.4	9.6	6.4	6		
Turnover	777.9	790.1	1 095.2	12	1 367.1	1 012.9	1 395.2	12		
Purchases and selected expenses Value added(b)	473.5 315.2	484.0 313.0	714.7 381.4	11 16	832.2 554.0	620.5 401.3	910.4 485.9	11 16		
Adjusted value added(b)	277.1	265.8	328.1	17	487.0	340.8	485.9 418.0	17		
Gross operating surplus	210.3	193.0	239.9	24	369.6	340.8 247.4	305.6	24		
Interest paid	47.9	63.1	239.9 58.8	22	84.2	80.9	74.9	22		
Cash operating surplus(c)	152.4	125.5	186.4	28	267.8	160.9	237.5	28		
Gross indebtedness	620.5	890.4	910.1	18	1 090.5	1 141.5	1 159.5	18		
Total net capital expenditure	77.3	80.4	91.0	16	135.9	103.1	115.9	16		
Total value of assets	2 503.2	3 060.7	2 619.2	15	4 399.3	3 924.0	3 336.6	15		
Net indebtedness	265.9	436.0	567.9	28	467.3	559.0	723.4	28		
Net worth	1 882.7	2 170.3	1 709.1	16	3 308.8	2 782.4	2 177.2	16		

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<sup>(</sup>a) Averages have been calculated by dividing industry estimates by the estimated number of farm businesses in each industry.

<sup>(</sup>b) Includes an estimate for the value of the increase in livestock.

<sup>(</sup>c) Excludes an estimate for the value of the increase in livestock.

	AGGREGATES				AVERAG	AVERAGES(a)		
	1993–94	1994-95(b)	1995–96(b)		1993–94	1994–95	1995–96	
Items	\$m	\$m	\$m	SE%	\$'000	\$'000	\$'000	SE%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •		• • • • • • • •	• • • • • •	• • • • • • • • •	• • • • • • •	• • • • • • •	
0-	THER AGRIC	ULTURE (01	11-0112, (	0151–015	9, 0169)			
Sales from crops	861.5	924.0	838.9	27	174.7	133.3	108.7	27
Sales from livestock	133.4	370.1	327.1	23	27.1	53.4	42.4	23
Sales from livestock products	21.3	333.1	385.3	23	4.3	48.0	49.9	23
Turnover	1 085.3	1 838.9	1 857.2	15	220.1	265.2	240.7	15
Purchases and selected expenses	540.5	1 028.7	1 010.4	15	109.6	148.4	131.0	15
Value added(c)	557.9	798.9	820.6	18	113.2	115.2	106.4	18
Adjusted value added(c)	477.9	656.8	669.5	19	96.9	94.7	86.8	19
Gross operating surplus	180.9	306.0	278.1	31	36.7	44.1	36.0	31
Interest paid	49.5	106.4	93.4	15	10.0	15.3	12.1	15
Cash operating surplus(d)	111.3	214.5	234.4	34	22.6	30.9	30.4	34
Gross indebtedness	741.8	1 261.8	1 279.0	18	150.5	182.0	165.8	18
Total net capital expenditure	95.6	105.6	89.6	20	19.4	15.2	11.6	20
Total value of assets	4 000.0	6 672.5	5 885.8	16	811.4	962.3	762.9	16
Net indebtedness	412.2	713.2	802.7	25	83.6	102.9	104.0	25
Net worth	3 258.2	5 410.7	4 606.8	16	660.9	780.3	597.1	16
	• • • • • • •							
	Д	GRICULTURE	E, ALL INDU	STRIES				
Sales from crops	9 369.5	9 804.2	13 159.6	3	87.1	91.4	121.4	3
Sales from livestock	6 232.5	6 279.1	6 339.7	3	58.0	58.5	58.5	3
Sales from livestock products	4 637.3	5 596.3	4 975.1	3	43.1	52.2	45.9	3
Turnover	21 694.3	23 516.3	26 724.9	2	201.7	219.2	246.5	2
Purchases and selected expenses	12 541.1	13 517.0	14 948.6	2	116.6	126.0	137.9	2
Value added(c)	10 598.4	9 768.1	11 185.3	3	98.6	91.0	103.2	3
Adjusted value added(c)	9 178.5	8 234.3	9 552.5	3	85.4	76.7	88.1	3
Gross operating surplus	7 081.2	6 006.0	7 176.6	3	65.8	56.0	66.2	3
Interest paid	1 302.0	1 508.9	1 666.7	3	12.1	14.1	15.4	3
Cash operating surplus(d)	4 433.3	4 835.7	6 429.3	3	41.2	45.1	59.3	3
Gross indebtedness	15 921.7	18 267.7	19 592.7	3	148.1	170.3	180.7	3
Total net capital expenditure	1 945.0	2 090.8	2 307.9	4	18.1	19.5	21.3	4
Total value of assets	116 600.7	122 198.4	133 087.1	2	1 084.3	1 139.0	1 227.6	2
Net indebtedness	9 142.0	10 385.8	11 348.9	6	85.0	96.8	104.7	6
Net worth	100 679.0	103 930.7	113 494.4	2	936.2	968.7	1 046.9	2

<sup>(</sup>a) Averages have been calculated by dividing industry estimates by the estimated number of farm businesses in each industry.

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<sup>(</sup>b) Poultry industries 0141–0142 included in 'Other agriculture' for 1994–95 and 1995–96.

<sup>(</sup>c) Includes an estimate for the value of the increase in livestock.

<sup>(</sup>d) Excludes an estimate for the value of the increase in livestock.

# SECTION 5

# CROPS AND PASTURES.....

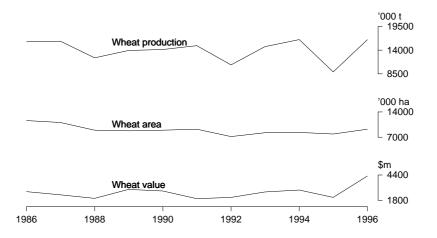
WHEAT

The 1995–96 season was notable for improved growing conditions, in contrast to the drought conditions which severely reduced grain production in some States in 1994–95. The price outlook at the start of the year was sound and prices remained strong during the year. These factors led to major increases in the area planted to wheat in New South Wales. Although wheat production had increased in Queensland, production was only a quarter of the 1990–91 harvest, due to the continuing dry conditions.

The area sown to wheat for grain increased by 16.9% to 9.2 million hectares. Production increased substantially, by 84.2% to 16.5 million tonnes, with New South Wales increasing fourfold to 4.5 million tonnes and Victoria doubling to 1.9 million tonnes. The yield per hectare in New South Wales increased from 0.6 to 1.9 tonnes per hectare and in Victoria from 1.1 to 2.3 tonnes per hectare. Western Australia produced 6.8 million tonnes, 41.4% of total wheat production, with a yield per hectare increase of 28.6%.

The gross value of wheat doubled from \$2,127.2 million to \$4,304.7 million in 1995–96. The gross unit value for wheat was \$260.83 per tonne, an increase of 10.0%.

OATS

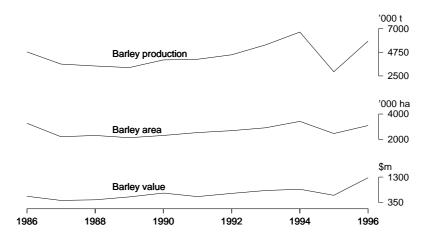


Australia's feed grain supplies were boosted by the breaking of the drought. The area of oats sown for grain increased by 26.6% to 1.1 million hectares. Production also increased, 102.9% to 1.9 million tonnes; yield increased by 70.0% to 1.7 tonnes per hectare. Gross value of oats for grain rose by 74.5% to \$289.4 million, whereas average gross unit value decreased by 14.0% to \$154.37 per tonne.

### **BARLEY**

The area of barley sown increased in 1995–96 by 26.0% to 3.1 million hectares. A yield increase of 58.3% (to 1.9 tonnes per hectare) resulted in a doubling of production to 5.8 million tonnes. South Australia contributed 1.9 million tonnes (31.8%) of total barley production.

The gross value of barley rose 105.1% to \$1,276.4 million. South Australia contributed \$415.6 million of the gross value of the total barley crop. The average gross unit value for barley increased slightly to \$219.21 per tonne.



### GRAIN SORGHUM

Improved production levels in New South Wales and Queensland resulted in increases in production of grain sorghum. As a result, growers were better able to meet the demand from intensive livestock industries. The area of grain sorghum sown in 1995–96 increased by 12.1% to 770,000 hectares. Production increased by 25.1% to 1.6 million tonnes, while yield increased by 10.5% to 2.1 tonnes per hectare.

The gross value of grain sorghum increased by 32.5% to \$320.4 million. Queensland produced 70.1% (1.1 million tonnes) of the total crop, with a gross value of \$225.6 million.

RICE

The area of rice sown increased by 15.1% to 137,000 hectares in 1995–96. However, as a result of adverse growing conditions, production fell by 4.9% to 966,000 tonnes with a decrease in yield to 7.1 tonnes per hectare. The gross value of rice rose by 4.6% to \$226.0 million reflecting strong prices during the season.

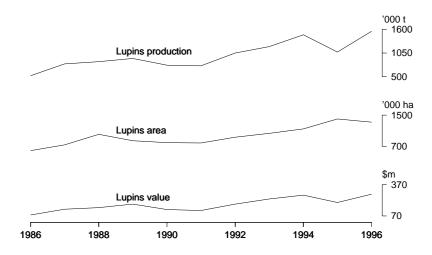
### COTTON

The area planted to seed cotton in 1995–96 increased by 28.6% to 315,000 hectares. Production of cotton increased by 16.0% to 923,000 tonnes. Gross value for cotton increased by 17.8% to \$1,002.7 million.

### LUPINS

The area of lupins sown in 1995–96 fell by 6.0% to 1.3 million hectares. However, yield increased by 50.0% to 1.2 tonnes per hectare and production increased by 44.9% to 1.6 million tonnes. Western Australia produced 82.7% of the total crop.

Gross value of lupins rose by 40.3% to \$279.2 million, with Western Australia recording a gross value of \$223.8 million.



### CANOLA

The area of canola sown in 1995–96 increased by 5.9% to 377,000 hectares. Production more than doubled to 557,000 tonnes with a similar increase in yield (to 1.5 tonnes per hectare). Production in New South Wales increased almost fourfold to 272,000 tonnes with a yield of 1.6 tonnes per hectare. Gross value of canola more than doubled to \$207.9 million.

## OTHER OILSEEDS

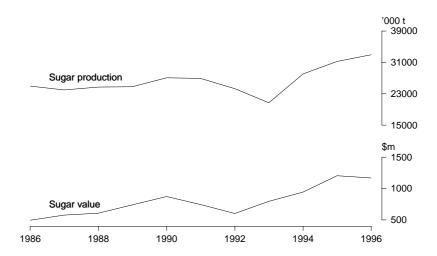
Other oilseeds (including soybean and sunflower) planted during the 1995–96 season declined by 20.7% to 146,000 hectares. Production fell by 9.7% to 139,000 tonnes and the gross value fell by 14.4% to \$53.4 million. During 1995–96, safflower production increased and sunflower production declined.

### PASTURE CUT FOR HAY

Area of pasture cut for hay increased 25.9% to 1.2 million hectares. Production increased by 34.1% to 4.5 million tonnes. Gross value of pastures cut for hay increased by 12.9% to \$664.1 million.

SUGAR

Production of sugar cane for crushing increased by 8.9% to 35.9 million tonnes; the yield increased by 4.8% to 95.2 tonnes per hectare. The gross value of sugar cane for crushing decreased by 3.2% to \$1,168.7 million; the average unit value for sugar cane fell by 11.1% to \$32.56 per tonne.



PRINCIPAL CROPS, Production, Area and Yield—Years ended 31 March

	AUST.	AUST		1996	1996							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT		
Cereals for grain	• • • • • • •	• • • • • •		• • • • • • • •	• • • • •	• • • • • •	• • • • •	• • • • • •	• • • • •	• • • •		
Barley												
Production ('000 t)	6 668	2 913	5 823	1 074	1 342	195	1 851	1 323	39	(a)		
Area ('000 ha)	3 424	2 470	3 111	593	628	168	964	745	14	(a)		
Yield (t/ha)	1.9	1.2	1.9	1.8	2.1	1.2	1.9	1.8	2.8			
Grain sorghum												
Production ('000 t)	1 084	1 273	1 592	472	4	1 116	(a)	_	(a)	1		
Area ('000 ha)	499	687	770	171	2	597	(a)	_	(a)	1		
Yield (t/ha)	2.2	1.9	2.1	2.8	2.1	1.9	• • •	_		1.6		
Maize Production ('000 t)	204	242	311	190	7	114	(a)	1	(a)			
Area ('000 ha)	44	50	56	24	1	31	(a) (a)	1	(a) (a)			
Yield (t/ha)	4.7	4.8	5.5	8.1	6.0	3.7	(a)	1.0	(a)			
Oats		1.0	0.0	0.1	0.0	0.1	• • •	1.0				
Production ('000 t)	1 647	924	1 875	711	392	7	162	585	18	(a)		
Area ('000 ha)	947	897	1 136	505	187	14	120	300	10	(a)		
Yield (t/ha)	1.7	1.0	1.7	1.4	2.1	0.5	1.4	1.9	1.8			
Rice												
Production ('000 t)	1 042	1 016	966	965	(a)	(a)	(a)	(a)	(a)	1		
Area ('000 ha)	125	119	137	136	(a)	(a)	(a)	(a)	(a)	_		
Yield (t/ha)	8.4	8.5	7.1	7.1						_		
Triticale												
Production ('000 t)	263	182	469	209	120	8	104	20	7	(a)		
Area ('000 ha)	129	153	221	75	55	6	66	17	2	(a)		
Yield (t/ha)	2.0	1.2	2.1	2.8	2.2	1.4	1.6	1.2	3.5	• •		
Wheat	16 479	9.061	16 504	4 508	1 921	E10	2 724	6 827	4	(0)		
Production ('000 t) Area ('000 ha)	8 383	8 961 7 891	9 221	2 328	853	519 627	1 519	3 892	1	(a) (a)		
Yield (t/ha)	2.0	1.1	1.8	1.9	2.3	0.8	1.8	1.8	3.9	(a)		
ricia (Vila)	2.0		1.0	1.0	2.0	0.0	1.0	1.0	0.0			
Legumes												
Lupins for grain												
Production ('000 t)	1 480	1 076	1 559	117	62	_	90	1 290	_	(a)		
Area ('000 ha)	1 150	1 407	1 323	92	51	_	80	1 100	_	(a)		
Yield (t/ha)	1.3	0.8	1.2	1.3	1.2	_	1.1	1.2	_			
Field peas for grain												
Production ('000 t)	558	240	530	22	260	(a)	214	34	1	(a)		
Area ('000 ha)	400	461	382	20	172	(a)	152	38	1	(a)		
Yield (t/ha)	1.4	0.5	1.4	1.1	1.5	• • •	1.4	0.9	1.8			
Crops for hay												
Oats			4.0=0									
Production ('000 t)	931	745	1 370	285	273	(a)	366	445	(a)	(a)		
Area ('000 ha)	233	252	346	76	66	(a)	98	106	(a)	(a)		
Yield (t/ha)	4.0	3.0	4.0	3.7	4.1		3.8	4.2				
Wheat Production ('000 t)	65	64	62	62	(a)	(a)	(a)	(a)	(a)	(a)		
Area ('000 ha)	17	36	22	22	(a)	(a)	(a)	(a)	(a)	(a)		
Yield (t/ha)	3.7	1.8	2.9	2.9		(u)	(u)	(u)		(u)		
Other	0.1	1.0	2.0	2.5	•••		• • •	• • •	• •	• •		
Production ('000 t)	241	264	533	79	81	158	104	95	14	3		
Area ('000 ha)	73	97	162	26	23	46	36	29	3	_		
Yield (t/ha)	3.3	2.7	3.3	3.0	3.5	3.4	2.9	3.3	4.7	_		

<sup>(</sup>a) Data not collected.

PRINCIPAL CROPS, Production, Area and Yield—Years ended 31 March continued

	ALIOT			4000						
	AUS1.			1996	'					
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT
	• • • • • •	• • • • • •	• • • • • • •	• • • • • • • •		• • • • • •		• • • • •		• • • • •
<b>Oilseeds</b> Canola										
Production ('000 t)	305	264	557	272	120	_	48	117	_	(a)
Area ('000 ha)	177	356	377	170	76	_	30	99	_	(a)
Yield (t/ha)	1.7	0.7	1.5	1.6	1.6	_	1.6	1.2	_	
Other										
Production ('000 t)	240	154	139	66	23	46	3	(a)	(a)	(a)
Area ('000 ha)	216	184	146	56	29	56	5	(a)	(a)	(a)
Yield (t/ha)	1.1	0.8	1.0	1.2	8.0	0.8	0.6	• •		
Other crops										
Sugar cane cut for crushing	04.040		.=	4 000						
Production ('000 t)	31 312	32 971	35 889	1 923	. ,	33 898	(a)	69	(a)	(a)
Area ('000 ha)	338 92.6	363 90.8	377 95.2	18 106.8	(a)	359 94.4	(a)	1	(a)	(a)
Yield (t/ha) Seed cotton	92.6	90.8	95.2	106.8		94.4		69.0		• •
Production ('000 t)	788	796	923	621	(a)	303	(a)	_	(a)	(a)
Area ('000 ha)	293	245	315	195	(a)	120	(a)	_	(a)	(a)
Yield (t/ha)	2.7	3.2	2.9	3.2		2.5		_		
Peanuts (in shell)										
Production ('000 t)	45	23	38	1	(a)	38	(a)	_	(a)	_
Area ('000 ha)	22	13	21	1	(a)	20	(a)	_	(a)	_
Yield (t/ha)	2.0	1.8	1.8	1.0		1.9		_		_
Tobacco										
Production ('000 t)	8	7	8	_	3	5	(a)	(a)	(a)	(a)
Area ('000 ha)	3	3	3	_	1	2	(a)	(a)	(a)	(a)
Yield (t/ha)	2.7	2.3	2.7	_	3.0	2.5	• •	• • •	• • •	
Pastures and grasses cut for hay										
Lucerne										
Production ('000 t)	943	822	989	468	238	183	81	(a)	19	(a)
Area ('000 ha)	176	177	210	112	49	25	21	(a)	4	(a)
Yield (t/ha)	5.4	4.6	4.7	4.2	4.9	7.3	3.9		4.8	
Other										
Production ('000 t)	2 594	2 115	3 066	472	1 971	125	249	(a)	249	(a)
Area ('000 ha)	687	622	827	143	512	32	83	(a)	57	(a)
Yield (t/ha)	3.8	3.4	3.7	3.3	3.8	3.9	3.0		4.4	
Total cut for hay Production ('000 t)	2.070	2.252	4 406	040	2 200	200	220	442	267	26
Area ('000 ha)	3 979 977	3 353 915	4 496 1 152	940 254	2 209 561	308 57	330 104	413 111	267 61	26 3
Yield (t/ha)	4.1	3.7	3.9	3.7	3.9	5.4	3.2	3.7	4.4	8.7
Pasture seed										
Production ('000 t)	24	19	26	2	10	1	9	2	1	_
Area ('000 ha)	105	82	102	15	20	26	25	14	2	_
Yield (t/ha)	0.2	0.2	0.2	0.1	0.5	_	0.4	0.2	0.4	_

<sup>(</sup>a) Data not collected.

# PRINCIPAL CROPS, Gross Value—Years ended 30 June

	AUST.(a	a)		1995-9	6						
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.		
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m		
• • • • • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • •		
Cereal for grain											
Barley	844.9	622.2	1 276.4	231.6	312.1	38.8	415.6	269.2	9.1		
Grain sorghum	172.6	241.8	320.4	93.8	0.8	225.6	_	_	_		
Maize	40.7	59.3	69.4	43.7	1.6	24.0	_	0.1	_		
Oats	147.9	165.8	289.4	121.7	55.1	1.2	25.9	82.3	3.1		
Rice	261.5	216.1	226.0	225.8	_	_	_	_	_		
Triticale	34.7	35.4	94.7	43.0	25.3	1.5	19.7	3.7	1.5		
Wheat	2 866.8	2 127.2	4 304.7	1 121.4	504.0	142.2	724.1	1 812.0	1.0		
Legumes											
Lupins for grain	269.9	199.0	279.2	22.5	13.9	0.1	18.8	223.8	0.1		
Field peas for grain	128.2	63.7	131.5	5.1	65.4	_	53.1	7.6	0.2		
Crops for hay											
Oats	108.2	109.2	169.3	36.1	37.6	_	51.2	44.5	_		
Wheat(b)	6.3	11.5	7.6	7.6	_	_	_	_	_		
Other hay	21.9	37.4	60.2	9.3	11.6	21.2	8.3	7.8	1.6		
Oilseeds											
Canola	108.0	96.7	207.9	97.3	47.5	_	17.3	45.7	0.1		
Other oilseeds	95.5	62.4	53.4	24.0	9.4	18.6	1.2	_	_		
Other crops											
Sugar cane cut for											
crushing	944.6	1 207.7	1 168.7	50.0	_	1 116.9	_	1.8	_		
Cotton	652.2	851.2	1 002.7	665.4	_	337.4	_	_	_		
Peanuts	34.0	17.4	28.2	0.6	_	27.6	_	_	_		
Tobacco	50.5	39.7	45.5	_	18.8	26.6	_	_	_		
Pastures and grasses Cut for hay											
Lucerne	151.1	187.8	179.3	83.6	43.1	36.9	11.7	_	3.9		
Other	354.8	400.5	484.8	49.6	279.0	13.1	29.4	86.7	22.9		
Total	505.9	588.3	664.1	133.2	322.1	50.0	41.2	86.7	26.8		
Harvested for seed											
Pasture seed	63.0	53.2	63.3	8.0	22.4	4.2	20.6	6.4	1.6		
Total	568.8	641.5	727.4	141.2	344.5	54.2	61.8	93.1	28.4		
Total crops	11 515.9	11 131.7	r15 330.6	3 840.8	r2 764.2	3 110.3	2 261.6	3 011.7	301.4		

<sup>(</sup>a) Includes the Northern Territory and the Australian Capital Territory.

<sup>(</sup>b) Incomplete; 'Wheat for hay' included in 'Other crops for hay' for all States except New South Wales.

# SECTION 6

# HORTICULTURE .....

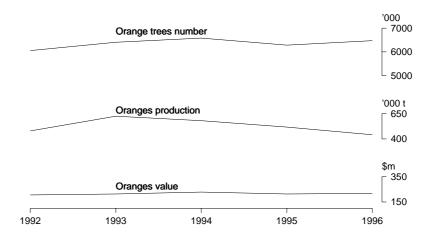
OVERVIEW

The gross value of fruit and nuts increased by 14.2% to \$2,213.2 million in 1995–96. All States recorded an increase except Queensland due largely to a drop in the value of the banana crop. The largest increase was recorded in South Australia, up 25.4% to \$540.3 million. Victoria continued to be the major contributor with 25.8% (\$571.6 million) of the gross value of fruit and nuts.

The gross value of vegetables increased by 8.3% to \$1,616.1 million; all States recorded an increase. Queensland continued to be the major contributor, making up 27.0% of the total, with a value of \$436.6 million.

**ORANGES** 

The number of orange trees increased by 2.9% to 6.5 million trees while production fell by 14.5% to 442,100 tonnes. All major growing States (New South Wales, South Australia and Victoria) recorded significant production falls due to the seasonal conditions. The gross value of oranges increased by 2.2% to \$219.5 million, with Queensland, Western Australia and South Australia recording an increase.



**PEARS** 

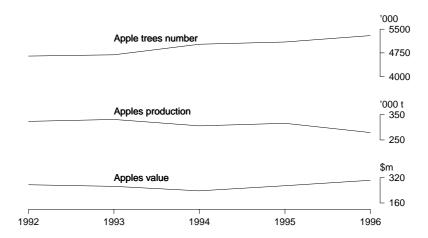
Production of pears increased by 2.8% to 156,000 tonnes. Victoria accounted for 86.7% of production with a crop of 135,200 tonnes. The gross value of pears increased by 23.6% to \$90.7 million.

### **APRICOTS**

Production of apricots decreased by 27.3% to 21,600 tonnes and the yield decreased by 26.3% to 34.1 kilograms per tree. The gross value of apricots increased by 6.6% to \$30.7 million.

# APPLES

Production of apples decreased by 11.5% to 280,100 tonnes, and the yield decreased by 15.0% to 52.8 kilograms per tree. The gross value increased by 13.2% to \$305.3 million, with increases in all States except South Australia.

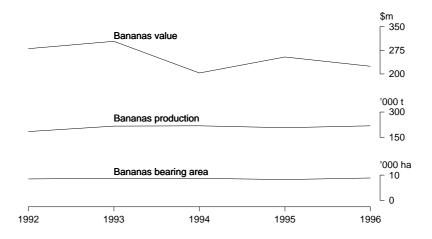


## MANGOES

Production of mangoes decreased by 8.0% to 27,200 tonnes and the yield decreased by 22.0% to 44.8 kilograms per tree. Queensland's production decreased by 4.7% to 23,300 tonnes. The number of bearing trees increased 18.1% to 608,000. The gross value of mangoes increased slightly to \$73.3 million.

### **BANANAS**

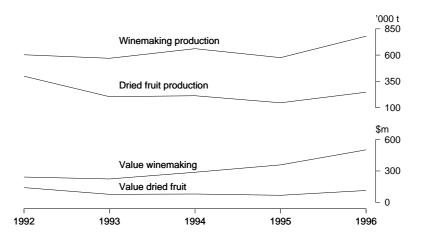
The production of bananas increased by 5.7% to 220,000 tonnes, an improvement after the drought conditions experienced in 1994–95. However, the estimated gross value of bananas decreased by 11.7% to \$224.9 million due to a 16.5% decrease in average gross unit value to \$1,022.22 per tonne. Queensland's gross value of bananas fell by 10.6% to \$163.3 million.



### **GRAPES**

The grape growing industry showed strong improvement in 1995–96 after drought and frost curtailed this industry during 1994–95. Production of wine grapes increased by 35.4% to 782,400 tonnes. This rise in production saw the gross value of wine grapes increase by 40.3% to \$503.0 million. The average gross unit value of wine grapes increased by 3.4% to \$641.69 per tonne.

Production of dried grapes rose by 68.9% to  $248,\!300$  tonnes. The gross value of dried grapes rose by 69.2% to \$115.9 million.



### **POTATOES**

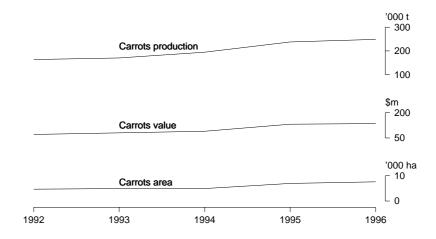
Production of potatoes increased by 16.5% to 1.3 million tonnes. The gross value of potatoes increased by 9.6% to \$414.1 million. The average gross unit value of potatoes decreased by 6.0% to \$316.54 per tonne.

### ONIONS

Production of onions increased by 22.0% to 244,500 tonnes. The gross value of onions increased by 43.2% to \$113.3 million following a fall in the average gross unit value of 17.4% to \$463.25 per tonne.

### CARROTS

Production of carrots increased by 4.8% to 249,900 tonnes. Victoria produced 36.5% (91,100 tonnes) of the total production. The total gross value of carrots increased by 2.8% to \$136.4 million. The average gross unit value decreased by 1.9% to \$545.65 per tonne.



### **TOMATOES**

Production of tomatoes increased by 9.1% to 370,900 tonnes. The total gross value of tomatoes increased by 6.0% to \$176.2 million. The gross value for Queensland tomato production increased by 19.6% to \$122.6 million.

FRUIT, Production, Tree Numbers or Area and Yield(a)—Years ended 31 March

	AUST			1996						
Fruit or nut	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT
• • • • • • • • • • • • • •										
Citrus										
Oranges										
Production (t)	582 095	517 242	442 077	177 700	72 358	16 169	170 454	5 395	(b)	(b)
Trees ('000)	6 587	6 297	6 478	3 184	1 110	193	1 828	162	(b)	(b)
Yield (kg/tree)	88.4	82.1	68.2	55.8	65.2	83.8	93.2	33.3		
Lemons and limes										
Production (t)	34 328	33 873	30 634	5 523	4 849	5 830	13 490	881	(b)	60
Trees ('000)	367	383	403	131	92	73	92	15	(b)	_
Yield (kg/tree)	93.5	88.4	76.0	42.2	52.7	79.9	146.6	58.7		_
Mandarins										
Production (t)	57 595	58 630	62 017	4 400	4 963	40 255	10 865	1 524	(b)	10
Trees ('000)	601	729	824	105	105	419	140	54	(b)	_
Yield (kg/tree)	95.8	80.4	75.3	41.9	47.3	96.1	77.6	28.2		_
, 3										
Pome										
Apples										
Production (t)	306 920	316 555	280 147	61 819	78 988	28 361	20 329	38 200	52 398	(b)
Trees ('000)	5 033	5 101	5 302	1 278	1 350	501	527	550	1 093	(b)
Yield (kg/tree)	61.0	62.1	52.8	48.4	58.5	56.6	38.6	69.5	47.9	
Pears (excl. Nashi)										
Production (t)	155 215	151 750	156 022	2 419	135 239	1 676	6 156	9 726	804	(b)
Trees ('000)	1 376	1 317	1 384	55	1 081	28	87	115	18	(b)
Yield (kg/tree)	112.8	115.2	112.7	44.0	125.1	59.9	70.8	84.6	44.7	
, 5										
Stone										
Apricots										
Production (t)	21 174	29 753	21 640	506	7 026	149	13 365	382	212	(b)
Trees ('000)	646	642	634	28	198	21	346	12	28	(b)
Yield (kg/tree)	32.8	46.3	34.1	18.1	35.5	7.1	38.6	31.8	7.6	
Cherries										
Production (t)	6 350	5 766	4 783	1 582	2 353	_	560	96	192	(b)
Trees ('000)	494	480	571	334	130	_	54	17	37	(b)
Yield (kg/tree)	12.9	12.0	8.4	4.7	18.1	_	10.4	5.6	5.2	
Nectarines										
Production (t)	16 751	16 914	18 248	6 278	6 919	1 374	1 042	2 586	41	(b)
Trees ('000)	561	644	781	295	216	141	31	89	10	(b)
Yield (kg/tree)	29.9	26.3	23.4	21.3	32.0	9.7	33.6	29.1	4.1	
Peaches										
Production (t)	59 361	58 665	60 390	12 909	36 354	1 753	7 306	2 043	21	(b)
Trees ('000)	1 353	1 247	1 296	403	551	144	120	76	3	(b)
Yield (kg/tree)	43.9	47.0	46.6	32.0	66.0	12.2	60.9	26.9	7.0	
Plums and prunes										
Production (t)	26 102	21 347	21 429	8 606	3 756	1 540	4 030	3 487	9	(b)
Trees ('000)	863	905	902	365	151	145	98	143	1	(b)
Yield (kg/tree)	30.2	23.6	23.8	23.6	24.9	10.6	41.1	24.4	9.0	
. 2										

<sup>(</sup>a) Yield derived based on number of trees six years and over.

<sup>(</sup>b) Data not collected.

FRUIT, Production, Tree Numbers or Area and Yield(a)—Years ended 31 March continued

	AUST			1996 .						
Fruit or nut	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT
Other orchard n.e.i.		• • • • • •	• • • • • • •			• • • • • •	• • • • •		• • • • •	• • • • •
Avocados Production (t)	16 802	15 640	16 416	4 430	993	9 006	500	1 487		(b)
Trees ('000)	402	387	414	90	28	235	18	42		(b)
Yield (kg/tree)	41.8	40.4	39.7	49.2	35.5	38.3	27.8	35.4	_	(6)
Mangoes	41.0	40.4	33.1	43.2	33.3	30.3	21.0	55.4		• • •
Production (t)	19 440	29 603	27 236	165	(b)	23 274	(b)	1 258	(b)	2 540
Trees ('000)	507	515	608	19	(b)	504	(b)	25	(b)	60
Yield (kg/tree)	38.3	57.5	44.8	8.7		46.2		50.3		42.3
Nuts										
Almonds (kernel)										
Production (t)	r4 997	5 028	5 021	89	2 907	(b)	2 025	(b)	(b)	(b)
Trees ('000)	r882	894	913	15	400	(b)	498	(b)	(b)	(b)
Yield (kg/tree)	5.7	5.6	5.5	5.9	7.3		4.1			
Macadamia										
Production (t)	9 536	11 503	13 587	8 008	(b)	5 580	(b)	(b)	(b)	(b)
Trees ('000)	1 032	1 167	1 511	841	(b)	670	(b)	(b)	(b)	(b)
Yield (kg/tree)	9.2	9.9	9.0	9.5		8.3			• •	
Currants (black)										
Production (t)	547	633	665	(b)	(b)	(b)	(b)	(b)	665	(b)
Area (ha)	135	137	163	(b)	(b)	(b)	(b)	(b)	163	(b)
Yield (t/ha)	4.1	4.6	4.1						4.1	
Kiwifruit										
Production (t)	4 103	4 280	3 422	717	2 063	243	22	377	(b)	(b)
Area (ha)	442	457	330	104	160	33	6	27	(b)	(b)
Yield (t/ha)	9.3	9.4	10.4	6.9	12.9	7.4	3.7	14.0		
Raspberries										
Production (t)	459	399	370	34	220	(b)	5	(b)	112	(b)
Area (ha)	191	167	173	28	90	(b)	6	(b)	48	(b)
Yield (t/ha)	2.4	2.4	2.1	1.2	2.4		0.8		2.3	
Strawberries										
Production (t)	9 375	8 532	10 808	217	3 279	3 131	1 376	2 649	135	_
Area (ha)	656	584	637	40	209	195	70	97	19	_
Yield (t/ha)	14.3	14.6	17.0	5.4	15.7	16.1	19.7	27.3	7.1	_
Tropical										
Bananas										
Production (t)	219 222	208 102	220 047	38 708	(b)	165 640	(b)	11 987	(b)	3 712
Area (ha)	8 756	8 281	8 893	3 108	(b)	5 299	(b)	381	(b)	106
Yield (t/ha)	25.0	25.1	24.7	12.5		31.3		31.5		35.0
Papaws										
Production (t)	6 201	6 225	5 726	61	(b)	5 513	(b)	136	(b)	16
Area (ha)	399	320	316	12	(b)	295	(b)	8	(b)	2
Yield (t/ha)	15.5	19.5	18.1	5.1		18.7		17.0		8.0
Pineapples		400								
Production (t)	157 439	138 503	127 864	29	(b)	127 835	(b)	(b)	(b)	_
Area (ha)	3 668	3 209	2 824	3	(b)	2 821	(b)	(b)	(b)	_
Yield (t/ha)	42.9	43.2	45.3	9.7		45.3				_
• • • • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • • •	• • • • •	• • • • • •		• • • • • •	• • • • •	• • • • •

<sup>(</sup>a) Yield derived based on number of trees six years and over.

<sup>(</sup>b) Data not collected.

# PRODUCTION OF GRAPES(a), Area of Vines and Yield—Years ended 31 March

	AREA C	F VINES AT	HARVEST		GRAPE PR	GRAPE PRODUCTION (fresh weight)						
	Bearing	Not yet bearing; planted or grafted prior to collection year	Not yet bearing; planted or grafted during collection year	Total	Winemaking	Drying	Table and other	Total	Yield			
	ha	ha	ha	ha	t	t	t	t	t/ha			
• • • • • • • • • • • • • •												
Australia												
1994	r61 363	(b)2 771	(b)2 940	r67 074	(b)661 282	(b)212 870	(b)45 456	r919 608	15.0			
1995	r62 542	(b)4 446	r(b)5 981	r72 969	r(b)577 896	(b)147 006	(b)44 456	r769 359	12.3			
1996	64 844	8 900	6 815	80 559	782 381	248 342	55 786	1 086 509	16.8			
1996												
<b>New South Wales</b>	13 768	1 933	1 183	16 883	167 556	46 687	10 841	225 084	16.3			
Victoria	19 821	1 506	1 761	23 088	199 141	193 028	34 522	426 691	21.5			
Queensland	967	92	113	1 172	618	_	3 366	3 984	4.1			
South Australia	27 153	4 826	3 310	35 289	395 835	7 229	3 769	406 832	15.0			
Western Australia	2 803	453	386	3 642	17 234	1 398	3 288	21 920	7.8			
Tasmania	324	88	63	475	1 988	_	1	1 989	6.1			
Northern Territory Australian Capital	_	_	_	_	_	_	_	_	_			
Territory	9	2	_	11	10	_	_	10	1.2			

.....

<sup>(</sup>a) Varietal information is available in Australian Wine and Grape Industry (Cat. no. 1329.0).

<sup>(</sup>b) Excludes the Northern Territory and the Australian Capital Territory.

FRUIT, Gross Value—Years ended 30 June

	AUST.(a).			1995–96						
	1993-94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.	
Fruit	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	
Citrus										
Oranges	230.0	214.8	219.5	68.3	40.7	11.0	97.3	2.2	_	
Lemons and limes	21.2	18.9	26.9	6.5	3.7	6.2	9.7	0.6	_	
Mandarins	59.2	70.8	70.7	5.8	4.8	47.5	10.8	1.9	_	
Pome										
Apples	237.6	269.8	305.3	69.5	98.0	29.0	25.7	36.3	46.7	
Pears	89.0	73.4	90.7	1.2	74.2	0.9	6.7	7.0	0.8	
Stone										
Apricots	27.1	28.8	30.7	1.4	4.8	0.2	23.1	0.8	0.4	
Cherries	27.0	27.2	22.7	7.0	9.2	_	4.3	1.1	1.1	
Nectarines	34.6	37.0	r40.1	17.4	r12.4	2.9	2.1	5.3	0.1	
Peaches	53.2	50.0	50.3	16.0	24.5	2.5	4.4	2.8	_	
Plums and prunes	37.2	31.9	33.4	12.9	5.2	2.5	6.5	6.3	_	
Other orchard n.e.i.										
Avocados	35.6	39.5	37.5	7.2	2.8	21.8	1.4	4.4	_	
Mangoes	47.4	73.0	73.3	0.6	_	59.6	_	4.2	_	
Almonds	32.7	28.5	40.0	0.5	23.3	_	16.2	_	_	
Macadamia	23.5	40.7	61.6	46.5	_	15.1	_	_	_	
Small, berry and										
tropical fruit										
Kiwifruit	6.0	5.7	5.3	1.1	3.1	0.3	_	0.8	_	
Raspberries	3.2	2.9	3.0	0.5	1.9	_	0.1	_	0.6	
Strawberries	42.6	45.6	54.1	1.8	11.1	16.8	11.0	12.8	0.5	
Bananas	203.3	254.7	224.9	43.0	_	163.3	_	14.9	_	
Pawpaws	4.3	6.9	6.8	0.1	_	6.6	_	0.2	_	
Grapes										
Winemaking	288.8	358.4	r503.0	87.6	r91.1	0.3	302.9	17.3	3.8	
Drying	82.5	68.5	r115.9	23.8	87.1	_	4.3	0.7	_	
Table and other	78.8	84.2	95.4	21.1	49.5	5.9	6.6	6.2	_	
Other fruit n.e.c.	102.0	106.3	101.8	20.0	24.3	46.1	7.4	2.2	1.3	
Total fruit and nuts	1 766.8	1 937.4	r2 213.2	459.8	r571.6	438.5	540.3	127.9	55.4	

<sup>(</sup>a) Includes the Northern Territory and the Australian Capital Territory.

VEGETABLES, Production, Area and Yield—Years ended 31 March

	AUST			1996.							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
-	• • • • • •	• • • • • •	• • • • • • •	• • • • • • • • •	• • • • •	• • • • • •		• • • • •	• • • • • •		• • • •
<b>Asparagus</b> Production (t)	7 9 4 0	6 216	7 415	2.406	2 021	848		95	21	36	
Area (ha)	7 840 1 778	1 785	1 877	2 496 438	3 921 1 116	245	_	38	11	29	_
Yield (t/ha)	4.4	3.5	4.0	5.7	3.5	3.5		2.5	1.9	1.2	_
rieid (Vria)	4.4	3.3	4.0	5.7	3.5	3.5	_	2.5	1.9	1.2	_
Beans, French and runner											
Production (t)	30 969	29 407	32 014	1 871	2 220	17 176	108	1 168	9 453	16	_
Area (ha)	6 499	6 057	7 102	604	672	3 924	38	190	1 668	6	_
Yield (t/ha)	4.8	4.9	4.5	3.1	3.3	4.4	2.8	6.1	5.7	2.7	_
Beetroot											
Production (t)	25 848	27 833	28 015	1 305	824	25 448	109	317	12	_	_
Area (ha)	812	878	956	89	66	756	13	31	1	_	_
Yield (t/ha)	31.8	31.7	29.3	14.7	12.5	33.7	8.4	10.2	12.0	_	_
Broccoli											
Production (t)	33 331	31 694	37 804	3 974	17 349	7 658	1 802	3 320	3 667	_	35
Area (ha)	5 731	5 673	6 979	776	3 305	1 628	347	322	583	_	20
Yield (t/ha)	5.8	5.6	5.4	5.1	5.2	4.7	5.2	10.3	6.3	_	1.8
Cabbages and											
brussels sprouts											
Production (t)	70 434	76 051	76 213	10 191	33 619	14 589	7 527	6 911	3 292	85	_
Area (ha)	2 341	2 379	2 493	445	985	436	287	182	154	5	_
Yield (t/ha)	30.1	32.0	30.6	22.9	34.1	33.5	26.2	38.0	21.4	17.0	_
Capsicum, chillies and											
peppers											
Production (t)	25 889	27 662	30 398	666	3 233	23 105	1 213	2 081	_	100	_
Area (ha)	1 520	1 574	1 649	80	211	1 105	102	144	_	8	_
Yield (t/ha)	17.0	17.6	18.4	8.3	15.3	20.9	11.9	14.5	_	12.5	_
Carrots											
Production (t)	194 839	238 539	249 926	22 757	91 123	29 426	39 996	45 369	21 256	_	_
Area (ha)	5 436	6 887	7 564	1 307	2 736	1 073	985	1 004	459	_	_
Yield (t/ha)	35.8	34.6	33.0	17.4	33.3	27.4	40.6	45.2	46.3	_	_
Cauliflowers											
Production (t)	75 235	66 105	71 052	10 743	20 780	9 291	6 624	19 200	4 415	_	_
Area (ha)	3 678	3 741	3 968	565	1 249	395	258	1 192	309	_	_
Yield (t/ha)	20.5	17.7	17.9	19.0	16.6	23.5	25.7	16.1	14.3	_	_
Celery											
Production (t)	40 697	38 631	47 996	471	21 065	13 229	5 788	6 913	531	_	_
Area (ha)	814	765	896	18	457	211	56	136	19	_	_
Yield (t/ha)	50.0	50.5	53.6	26.2	46.1	62.7	103.4	50.8	27.9	_	_
Cucumbers											
Production (t)	11 458	14 144	16 523	5 856	689	6 642	1 415	1 821	89	11	_
Area (ha)	767	1 020	1 106	482	34	446	52	91	1	_	_
Yield (t/ha)	14.9	13.9	14.9	12.1	20.3	14.9	27.2	20.0	89.0	_	_
Peas											
Processing											
Production (t)	43 273	43 603	36 179	3 792	69	1 003	38	1 542	29 734	_	_
Area (ha)	9 884	9 350	7 748	846	25	224	18	623	6 011	_	_
Yield (t/ha)	4.4	4.7	4.7	4.5	2.8	4.5	2.1	2.5	4.7	_	_
Sold in pod	1 100	1.070	4 4 7 5	405	٥٥٦	450	4.4	4.4	057		
Production (t)	1 133	1 973	1 175 494	485	255	153	14	11	257	_	_
Area (ha) Yield (t/ha)	607 1.9	469 4.2	2.4	174 2.8	156 1.6	56 2.7	5 2.8	9 1.2	94 2.7	_	_
nciu (Vila)	1.9	4.2	2.4	2.0	1.0	۷.۱	2.0	1.2	۷.۱	_	_

VEGETABLES, Production, Area and Yield—Years ended 31 March continued

	AUST			1996.							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
• • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • • •		• • • • •	• • • • • •	• • • • • •		• • • • •	• • • •
Lettuces											
Production (t)	92 965	92 454	107 243	7 194	45 785	34 287	5 744	12 035	1 891	166	140
Area (ha)	3 955	4 012	4 690	519	2 071	1 311	280	377	104	18	10
Yield (t/ha)	23.5	23.0	22.9	13.9	22.1	26.2	20.5	31.9	18.2	9.2	14.0
Marrows, squashes and zucchinis											
Production (t)	12 690	13 453	13 956	1 825	1 236	9 727	212	896	_	58	_
Area (ha)	1 858	1 690	1 825	243	170	1 277	25	104	_	4	_
Yield (t/ha)	6.8	8.0	7.6	7.5	7.3	7.6	8.5	8.6	_	14.5	_
<b>Melons</b> Water											
Production (t)	72 030	72 263	79 279	4 929	786	56 348	302	16 329		585	
Area (ha)	4 268	3 963	4 228	345	35	3 197	12	601	_	38	_
Yield (t/ha)									_		_
** *	16.9	18.2	18.8	14.3	22.5	17.6	25.2	27.2	_	15.4	_
Rock and cantaloupe	70 700	60.005	70.004	10.100	F 240	27.004	F 606	40.000		0.075	
Production (t)	70 783	69 925	72 294	10 126	5 310	37 964	5 696	10 322	_	2 875	_
Area (ha)	3 252	3 099	3 093	582	240	1 329	176	597	_	169	_
Yield (t/ha)	21.8	22.6	23.4	17.4	22.1	28.6	32.4	17.3	_	17.0	_
Mushrooms											
Production (t)	38 889	33 337	34 945	12 372	13 834	4 398	2 445	1 252	644	_	_
Area (ha)	155	166	165	59	70	18	11	6	2	_	_
Yield (t/ha)	250.9	200.8	211.8	209.7	197.6	244.3	222.3	208.7	322.0	_	_
Onions, white and brown											
Production (t)	213 206	200 432	244 484	14 060	17 604	24 934	69 576	27 191	91 119	_	_
Area (ha)	5 202	5 165	5 492	749	545	710	1 377	478	1 632	_	_
Yield (t/ha)	41.0	38.8	44.5	18.8	32.3	35.1	50.5	56.9	55.8	_	_
Doronino											
Parsnips	0.005	0.507	0.250	4.074	C 700		245	707	447		
Production (t)	6 305	6 507	9 358	1 071	6 708	_	345	787	447	_	_
Area (ha)	352	395	418	39	284	_	19	50	27	_	_
Yield (t/ha)	17.9	16.5	22.4	27.5	23.6	_	18.2	15.7	16.6	_	_
Potatoes											
Production (t)	1 184 705	1 122 417	1 308 099	162 456	335 649	103 845	282 568	121 546	302 035	_	_
Area (ha)	40 259	37 642	41 812	7 168	11 457	4 672	8 115	2 836	7 565	_	_
Yield (t/ha)	29.4	29.8	31.3	22.7	29.3	22.2	34.8	42.9	39.9	_	_
Pumpkins											
Production (t)	82 922	76 678	96 463	22 236	5 774	43 266	10 010	12 507	1 903	767	_
Area (ha)	6 449	5 390	6 628	1 643	375	3 334	444	668	112	53	_
Yield (t/ha)	12.9	14.2	14.6	13.5	15.4	13.0	22.5	18.7		14.5	_
C											
Sweet corn Production (t)	70.600	74.055	01 004	40.004	7 2 4 0	15.004	000	1 454	7 02 4		
Production (t)	72 686	74 055	81 901	49 064	7 349	15 894	906	1 454	7 234	_	_
Area (ha) Yield (t/ha)	5 765 12.6	5 488 13.5	6 472 12.7	3 634 13.5	711 10.3	1 493 10.6	71 12.8	168 8.7	395 18.3	_	_
noid (Vila)	12.0	10.0	12.1	10.0	10.0	10.0	12.0	0.1	10.0		
Tomatoes											
Production (t)	327 221	340 033	370 913	82 535	171 805	102 643	4 199	8 969	762	_	_
Area (ha)	8 903	8 657	8 580	1 819	2 991	3 394	164	198	15	_	_
Yield (t/ha)	36.8	39.3	43.2	45.4	57.4	30.2	25.6	45.3	50.8	_	_
Total area (ha)	125 324	129 057	131 421	23 197	31 319	32 822	13 587	10 324	19 793	347	34

# VEGETABLES, Gross Value—Years ended 30 June

	AUST.(a)			1995-	1995–96				
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
• • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • • • •	• • • • • •	• • • • • •		• • • • • •	• • • • •
Asparagus	45.0	36.4	37.8	16.3	14.8	5.5	_	0.8	0.1
Beans, French and runner	36.0	38.5	42.6	3.7	3.6	28.4	0.4	1.7	4.8
Broccoli	46.9	51.0	53.6	6.5	24.2	11.6	2.4	4.0	4.9
Cabbages and brussels									
sprouts	26.2	34.8	34.3	3.8	13.9	5.1	6.6	2.2	2.5
Capsicums, chillies and									
peppers	42.0	41.2	43.8	0.6	4.2	31.5	2.6	4.6	_
Carrots	90.7	132.7	136.4	6.0	52.4	11.8	34.2	27.7	4.4
Cauliflowers	42.8	44.5	48.3	5.5	9.8	4.4	3.5	22.5	2.5
Celery	24.8	21.9	26.1	0.3	11.5	6.4	3.9	3.5	0.4
Cucumbers	12.5	15.5	17.8	4.4	0.8	7.6	1.9	3.0	0.1
Green peas (pod weight)	15.6	16.5	14.1	2.5	0.6	0.8	0.1	0.5	9.7
Lettuces	59.2	69.6	76.8	8.6	27.7	24.7	6.2	7.3	1.9
Marrows and zucchini	15.1	16.8	19.7	2.3	1.2	13.6	0.4	2.0	_
Watermelons	27.3	23.4	20.3	3.0	0.2	11.0	0.1	5.6	_
Rockmelons/cantaloupes	51.5	51.5	53.3	6.3	3.6	25.2	5.9	8.2	_
Mushrooms(b)	152.9	125.5	127.9	40.0	56.6	15.9	10.2	5.2	(c)
Onions, white and brown	105.8	79.1	113.3	7.3	7.7	18.5	43.3	16.1	20.4
Potatoes	338.1	377.9	414.1	49.8	114.2	42.5	102.7	37.9	66.8
Pumpkins	27.2	29.5	28.2	4.8	1.5	11.7	3.9	5.1	0.5
Sweet corn	25.5	30.6	35.4	8.8	6.4	9.9	0.7	1.5	8.0
Tomatoes	173.2	166.2	176.2	16.5	21.8	122.6	5.8	8.0	1.5
Other vegetables	85.6	88.6	96.3	16.6	28.8	27.6	8.0	7.5	7.5
Total vegetables	1 443.7	1 491.6	1 616.1	213.6	405.4	436.6	243.1	175.1	136.1

<sup>(</sup>a) Includes the Northern Territory and the Australian Capital Territory.

<sup>(</sup>b) Incomplete; excludes Tasmania.

<sup>(</sup>c) Not available for publication; included in 'Other vegetables'.

# SPECIAL ARTICLE — THE CHANGING FACE OF HORTICULTURE IN AUSTRALIA .........

This article is a condensed version of a paper presented at the 1997 ABARE Outlook Conference by Alan Mackay, Assistant Statistician, Production Statistics Branch, ABS. Copies are available from the contact officer for this publication.

### INTRODUCTION

The ABS collects, analyses and publishes a wide range of statistics about the horticulture industry including production and trade in horticulture commodities as part of its Agriculture and Overseas Trade Programs. This information is used by industry and government bodies for policy formulation and decision-making.

There are pressures on the horticulture industry, largely from the removal of tariff barriers and import restrictions generally. Such pressures could result in significant restructuring of parts of the industry. Examples include apple imports from New Zealand, juice concentrate imports from Brazil and California and the rapid growth of the wine industry which has placed enormous pressure on the grape-producing industry to expand production.

### **VOLUME AND VALUE OF PRODUCTION**

In terms of volume of production, the most important fruit crops in Australia are grapes, oranges, apples and bananas. However, other fruit types have experienced considerable growth in recent years. These include mangoes, nectarines and strawberries.

Grapes have consistently been the fruit with the largest volume of production in Australia. In 1995–96 just over 1,000,000 tonnes of grapes were produced; the next ranked fruit were oranges (442,100 tonnes) followed by apples (280,100 tonnes).

The area sown to vegetables reached a peak of over 200,000 hectares during the last year of the Second World War, but has remained relatively static at just over 100,000 hectares since 1970. However, yields from most vegetable crops have increased, due in part to irrigation and in part to the control of diseases and insect pests.

Potatoes have consistently been the vegetable with the largest annual volume of production in Australia. In 1995–96 just over 1.3 million tonnes of potatoes were produced; the next ranked vegetables were tomatoes (371,000 tonnes) followed by carrots (250,000 tonnes).

Since the mid-1970s, the gross value of horticulture excluding nurseries (as a proportion of total agriculture) has risen slightly from 10.6% in 1974–75 to 14.0% in 1995–96, with some annual falls during this twenty-year period.

Since the end of the Second World War, the gross values of fruit and vegetable production have increased steadily with the value of fruit being larger than that for vegetables most of the time. However, the most recent figures available show the value for vegetables overtaking that for fruit.

# GROSS VALUE OF FRUIT AND VEGETABLE PRODUCTION

	Fruit(a)	Vegetables for human consumption
Year	\$m	\$m
• • • • • • • • • • • • • •		
1949–50	53.0	51.7
1954-55	93.0	76.9
1959-60	104.0	85.8
1964-65	146.0	134.4
1969-70	193.0	138.3
1974-75	267.0	256.2
1979–80	407.0	402.3
1984–85	671.0	624.8
1989-90	1 022.1	1 328.2
1994–95	1 426.4	1 491.6
1995–96	1 499.3	1 616.1

(a) Excludes grapes.

# **EMPLOYMENT STATISTICS**

In August 1996 there were 81,400 persons employed in the horticulture and fruit industry (ANZSIC 011) in Australia. This figure represented 1.0% of all persons employed in Australia and 21.8% of persons employed in agriculture.

Figures for the period 1987 to 1996 show a general increase in employment in the fruit and vegetable industries as a proportion of employment in agriculture. In May 1987, 16.1% of all persons employed in agriculture were employed in the fruit and vegetable industries; in May 1996 the figure was 22.3%.

EMPLOYED PERSONS, Fruit and Vegetable Industries

May	Males	Females	Persons
		• • • • • • • • • • • • •	
1987	39 393	20 798	60 190
1988	40 547	21 621	62 168
1989	44 508	25 237	69 745
1990	46 498	24 239	70 736
1991	40 745	19 224	59 969
1992	49 198	26 754	75 952
1993	37 239	17 801	55 039
1994	40 753	24 615	65 368
1995	47 209	27 416	74 264
1996	55 969	27 037	83 006

### APPARENT CONSUMPTION

Improvements in marketing methods, effective promotion and heightened public awareness of the nutritious value of fruit saw a significant increase in the apparent consumption of fresh citrus fruit beginning in the late 1960s and early 1970s. For the period 1960–94, kilogram per head apparent consumption of fruit has increased by 50.6%.

Historically, market gardens were located near urban centres. However, urban expansion, rising urban land values, improvements in transport and irrigation, and developments in freezing, canning and drying have extended the vegetable industry far from the cities. Thus more extensive forms of production have led to greater volumes and have, in turn, encouraged increases in kilogram per head apparent consumption of vegetables since 1960. For the period 1960–94, kilogram per head apparent consumption of vegetables has increased by 36.7%.

# APPARENT CONSUMPTION OF SELECTED FRUIT AND VEGETABLES(a)

	FRUIT			VEGETA	VEGETABLES							
	Oranges	Other citrus	Other fresh fruit	Potatoes	Other root and bulb vegetables	Tomatoes	Leafy and green vegetables					
Year	kg	kg	kg	kg	kg	kg	kg					
• • • • • • •	• • • • • • •	• • • • •	• • • • • •	• • • • • • • • • • •		• • • • • •						
1959–60 1964–65 1969–70 1974–75 1979–80 1984–85 1989–90	15.1 19.3 17.7 30.5 33.8 37.8 30.9	3.5 3.9 6.5 6.0 6.4 7.5 8.1	39.0 35.3 36.2 32.4 39.3 41.4 57.5	52.5 41.9 55.6 51.7 54.9 60.0 68.0	15.4 15.8 17.1 17.7 17.3 19.3	11.2 14.2 12.5 10.0 14.5 19.6 22.2	17.4 20.9 21.4 21.6 25.1 22.5 26.2					
1993–94	35.8	7.5	60.5	63.6	20.7	22.4	20.6					

<sup>(</sup>a) Fresh equivalent weight.

### FINANCE STATISTICS

A key industry performance measure is *cash operating surplus*. This is the estimate of gross operating surplus less an estimate of the value of increase in livestock, less estimates of interest and land rent paid, plus estimates of interest and land rent received. Although an indicator of profit, cash operating surplus is not quite a true measure of profit since depreciation and income tax have not been deducted.

Another important industry performance measure is *turnover*; this 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.

### CASH OPERATING SURPLUS AND TURNOVER

	CASH OPER SURPLUS		TURNOVER				
	Aggregate	Average	Aggregate	Average			
Year	\$m	\$	\$m	\$			
• • • • • • • •	EDIUT II	NDUCTDY (044	4.0440)	• • • • • •			
	FRUITII	NDUSTRY (011	4-0119)				
1986-87	231.4	27.8	970.7	115.9			
1987–88	277.9	31.3	1 171.1	132.0			
1988–89	212.4	24.0	1 106.1	125.0			
1989–90	321.6	36.8	1 274.9	145.8			
1990–91	278.4	32.1	1 417.9	163.4			
1991–92	315.3	35.2	1 384.5	154.7			
1992–93	275.9	30.1	1 404.6	153.3			
1993–94	351.4	39.0	1 485.9	164.9			
1994–95	435.7	47.4	1 773.6	193.1			
1995–96	549.8	59.3	1 949.0	210.0			
	VEGETA	ABLE INDUSTRY	(0113)				
1986–87	205.1	51.1	799.0	197.3			
1987-88	267.9	62.9	1 004.1	235.8			
1988-89	224.2	60.0	937.3	250.9			
1989-90	243.7	60.6	1 163.1	289.3			
1990-91	178.1	43.4	990.0	241.3			
1991–92	199.3	51.1	1 116.1	286.2			
1992-93	171.5	41.3	1 078.5	259.7			
1993–94	260.6	66.1	1 214.4	308.1			
1994–95	354.1	82.6	1 493.3	348.6			
1995–96	354.6	87.6	1 589.3	392.7			

### **VOLUME AND VALUE OF EXPORTS**

In recent years the volumes of Australian fruit and vegetable exports has shown an upward trend. Since 1988–89 the volume of Australian fruit exports has risen by 59.0% to 233,200 tonnes in 1995–96, and the volume of vegetable exports has risen by 33.1% to 641,300 tonnes. During 1995–96, in terms of individual commodities, oranges and apples were the leading fruit exports by volume. Dried and shelled peas and chickpeas were the leading vegetable exports by volume.

In recent years the value of Australian fruit exports has shown a strong upward trend. Since 1988–89 the value of Australian fruit exports has risen by 92.7% to \$406.3 million in 1995–96. Victoria was the principal State of discharge for fruit exports in this period, approximately 45.0% of the total value. This was followed by New South Wales (17.2%) and Queensland (13.6%). In terms of individual commodities, oranges and fresh grapes were the leading fruit exports by value in 1995–96.

# SECTION 7

# LIVESTOCK AND LIVESTOCK PRODUCTS .....

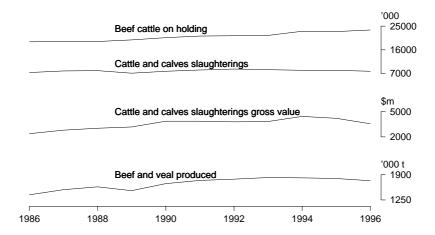
OVERVIEW

While seasonal conditions improved in the eastern States in 1995–96, stock numbers increased only marginally. Cattle prices declined significantly after the British mad cow disease scare in the early part of 1996 and the reduced overseas demand resulting from the oversupplied United States market.

The gross value of livestock slaughterings and other disposals fell by 6.4% to \$6,192.7 million, while the gross value of livestock products decreased by 4.9% to \$5,696.1 million.

BEEF CATTLE

At 31 March 1996, there were 23.6 million beef cattle and calves, an increase of 2.5% on the previous year. New South Wales and Queensland were the main contributors to the increase, up 2.6% and 2.5% respectively. The number of establishments reporting beef cattle holdings was 83,255, down 0.9%. New South Wales reported the most establishments with beef cattle (28,323), followed by Queensland (20,251) and Victoria (20,152).



Beef and veal production fell slightly, and the number of cattle and calves slaughtered fell by 4.0% to 7,935,000. Cattle and calves slaughterings decreased in New South Wales by 3.9% to 2,207,000; Victoria increased by 0.5% to 2,114,000. The gross value of cattle and calves slaughterings fell 15.1% to \$3,575.9 million. All States registered a decline except for the Northern Territory.

### BEEF CATTLE continued

Live cattle exports increased 59.7% during 1995–96, mainly due to the increased number of exports to Indonesia. The value of these exports was \$343.7 million, an increase of 70.2%.

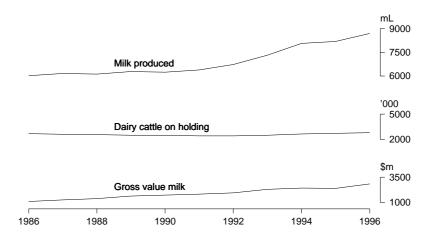
LIVE CATTLE EXPORTS(a)—Years ended 30 June

	1993–94	1994–95	1995–96
• • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • •
Number ('000)	234.7	385.7	615.9
Gross weight ('000 t)	79.9	136.5	219.0
Gross value (\$'000)	115 021	201 948	343 699
Unit value (\$)(b)	489.97	523.52	558.07

- (a) Excludes cattle for breeding.
- (b) Obtained by dividing the gross value by the number of cattle exported.

### DAIRY CATTLE

The number of dairy cattle in 1995–96 increased by 2.5% to 2.8 million. Main increases were in Tasmania (6.5%) and Victoria (3.7%), whilst Western Australia recorded a drop of 4.0%. The dairy cattle herd accounted for 10.6% of total cattle and calves. The number of establishments reporting dairy cattle rose by 1.4% to 15,667, with the average dairy cattle herd at 179, up from 177 in 1994–95. Milk production rose by 6.2% to 8,716 million litres, with Victoria producing 62.9% of the total. The gross value of milk production rose by 17.7% to \$2,848.3 million.

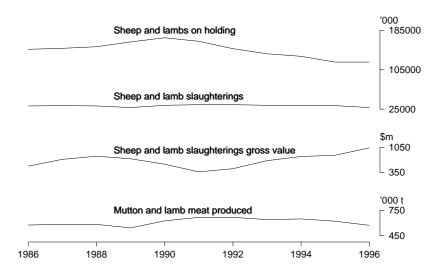


SHEEP

Sheep and lamb numbers at 31 March 1996 stood at 121.1 million, a 0.2% increase on the flock at 31 March 1995. New South Wales recorded a 1.4% increase to 41.1 million and Victoria rose by 2.8% to 22.0 million. Queensland recorded a decrease of 7.5% to 10.7 million. The number of establishments reporting sheep and lambs increased by 0.8% to 57,313 with New South Wales, up by 2.5% to 19,937, and South Australia, up by 1.3% to 9,093 being the main contributors to the increase.

### SHEEP continued

Due to rebuilding of the national flock after the drought, disposals of sheep and lambs from farms declined. Sheep and lamb slaughterings fell by 12.2% to 28.8 million and mutton and lamb meat production fell by 7.6% to 575,000 tonnes.



The gross value of sheep and lamb slaughterings increased by 23.8% to \$1,035.7 million. Saleyard prices for both sheep and lambs increased significantly as the number slaughtered fell. All States showed an increase with the gross value in Western Australia increasing by 42.7% to \$247.0 million. Exports of live sheep increased by 3.2% with the value of these exports up by 23.1% to \$226.9 million.

LIVE SHEEP EXPORTS(a)—Years ended 30 June

	1993–94	r1994–95	1995–96
• • • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • •
Number ('000)	5 433.1	5 697.0	5 879.9
Gross weight ('000 t)	287.6	290.2	296.9
Gross value (\$'000)	149 027	184 291	226 911
Unit value (\$)(b)	27.43	32.35	38.59

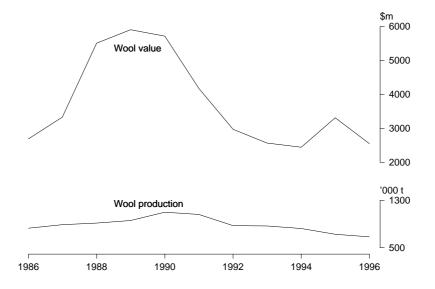
<sup>(</sup>a) Excludes sheep for breeding.

The number of ewes mated during 1995–96 fell by 3.1% to 50.9 million. However, due to better seasonal conditions the number of lambs marked increased by 3.3% to 39.2 million. The proportion of lambs marked to ewes mated was 77.0%, up from 72.2% in 1994–95.

<sup>(</sup>b) Obtained by dividing the gross value by the number of sheep exported.

### SHEEP continued

Wool production decreased by 6.3% to 684,900 tonnes. The largest contributors to the decrease, in percentage terms, were Queensland down 12.6% to 50,200 tonnes and Tasmania down 10.6% to 17,700 tonnes. The gross value of wool production decreased by 23.2% to \$2,548.6 million. New South Wales was the largest producer of wool in both volume and value terms, contributing \$872.8 million or 34.2% of the gross value for Australia.



PIGS

Pig numbers declined by 4.8% to 2.5 million during 1995–96. The only State that showed an increase in the number of pigs was Victoria, up 4.3% to 458,000. Queensland fell by 6.4% to 603,000 and New South Wales by 10.2% to 710,000. The number of establishments reporting pigs fell by 12.2% to 4,511, with New South Wales recording a 13.8% fall to 1,139 and Tasmania a 19.2% fall to 122.

Pig slaughterings fell by 5.8% to 4.8 million, and pig meat production decreased by 4.8% to 334,000 tonnes.

The gross value of pig slaughterings fell by 5.2% to \$597.8 million. The State with the largest reduction in gross value was South Australia, falling by 18.2% to \$43.2 million followed by Western Australia down by 8.5% to \$68.8 million.

**POULTRY** 

Total poultry numbers increased by 15.9% to 78.4 million. The total number of chickens on holdings at 31 March 1996 increased 15.5% to 75.7 million, and meat strain chickens increased by 14.5% to 62.3 million. The number of chickens slaughtered increased by 1.8% to 336.4 million, and the production of chicken meat increased by 3.0% to 481,000 tonnes. The gross value of poultry slaughterings rose by 5.1% to \$948.1 million.

Egg production fell by 1.8% to 174.1 million dozen. However, the gross value of egg production rose by 11.4% to \$256.9 million.

### BEEKEEPING

The number of beekeepers increased by 6.3% to 1,351 during 1995–96. Production of honey rose by 37.6% to 25,900 tonnes and average production of hives rose 13.7% to 68.2 kilograms per hive. New South Wales production increased by 53.3% to 11,900 tonnes and South Australia by 46.4% to 3,300 tonnes. The gross value of honey rose by 58.5% to \$39.0 million with New South Wales increasing by 85.7% to \$18.2 million.

Beeswax production increased by 74.8% to 596 tonnes. The gross value increased by 113.3% to \$3.2 million.

### LIVESTOCK—Years ended 31 March

	AUST			1996							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
Livestock	'000	1000	'000	'000	'000	'000	'000	'000	'000	1000	'000
• • • • • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • •	• • • • •	• • • • • •	• • • • •	• • • • •	• • • •
Meat cattle	23 080	22 991	23 569	6 019	2 714	9 928	1 069	1 803	521	1 502	13
Milk cattle(a)	2 678	2 740	2 808	371	1 682	286	150	121	197	2	_
Sheep and lambs	132 569	120 862	121 116	41 090	21 974	10 707	13 576	29 834	3 862	(b)	73
Pigs	2 775	2 653	2 526	710	458	603	412	314	26	3	_
Deer	149	144	136	38	35	16	18	12	17	_	_
Poultry	70 335	67 682	78 417	38 303	16 253	11 413	4 984	6 743	288	241	192
Stud horses	82	66	80	27	16	28	4	5	1	_	_

<sup>(</sup>a) Excluding house cows.

<sup>(</sup>b) Data not collected.

# LIVESTOCK SLAUGHTERINGS AND PRODUCTS—Years ended 30 June

	AUST			1995–96							
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
Livestock		• • • • • • •	• • • • • • •	• • • • • • • •			• • • • • •				
slaughterings(a)(b)											
Cattle ('000)	7 290	7 220	6 950	1 963	1 524	2 407	375	400	184	55	42
Calves ('000)	992	1 048	985	244	590	91	13	3	41	1	2
Sheep ('000)	17 831	17 500	14 581	5 680	2 488	728	2 371	2 833	350	_	132
Lambs ('000)	15 040	15 289	14 223	3 417	5 898	695	1 905	1 594	393	_	320
Pigs ('000)	5 190	5 120	4 823	1 408	1 142	1 080	467	563	87	8	70
Chicken ('000)(c)(d)	329 525	330 495	336 380	133 757	85 411	55 333	26 948	34 931	n.p.	n.p.	n.p.
Livestock products(a)											
Meat(e)											
Beef ('000 t)	1 786	1 766	1 711	458	349	656	90	95	45	10	8
Veal ('000 t)	39	38	34	16	12	4	_	_	1	_	_
Mutton ('000 t)	381	354	310	121	51	14	56	57	7	_	3
Lamb ('000 t)	267	268	265	63	110	13	38	28	7	_	6
Pigmeat ('000 t)	344	351	334	96	83	78	32	35	6	n.p.	n.p.
Chicken meat ('000 t)											
(d)(f)	469	467	481	199	128	72	38	44	n.p.	n.p.	n.p.
Wool											
Shorn wool (incl.											
crutchings) (t)(g)	775 770	682 448	641 290	209 826	115 672	48 104	84 687	165 998	16 603	_	400
Other wool (t)(h)	52 560	48 511	43 636	13 651	12 857	2 135	6 619	7 213	1 131	_	30
Total wool produced (t)	828 330	730 999	684 926	223 477	128 529	50 239	91 306	173 211	17 734	_	430
Whole milk (mill. L)(i)	8 077	8 206	8 716	1 114	5 481	751	513	342	514	_	(j)
Eggs ('000 doz.)	180 563	177 288	174 053	64 965	40 131	28 510	12 217	18 826	4 152	1 936	3 316
Beekeeping											
Honey produced (t)	25 990	18 839	25 925	11 884	4 415	3 212	3 319	2 072	741	267	15
Beeswax produced (t)	620	341	596	297	80	65	90	50	13	2	_

<sup>(</sup>a) Source: Livestock Products, Australia (Cat no. 7215.0).

<sup>(</sup>b) Includes estimates of animals slaughtered on farms and by country butchers.

<sup>(</sup>c) Comprises broilers, fryers and roasters.

<sup>(</sup>d) Excludes Tasmania, the Northern Territory and the Australian Capital Territory.

<sup>(</sup>e) Dressed carcass weight, excluding offal.

<sup>(</sup>f) Dressed weight of whole birds, pieces and giblets.

<sup>(</sup>g) Unpublished ABS Data: ABS Brokers and Dealers collection of wool receivals, purchases and sales.

<sup>(</sup>h) Comprises dead and fellmongered wool and wool exported on skins.

<sup>(</sup>i) Source: Australian Dairy Corporation.

<sup>(</sup>j) Australian Capital Territory data is included in New South Wales.

CATTLE, By Type and Number of Establishments—Years ended 31 March

	AUST			1996							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
	• • • • • •	• • • • • •		·········· ATTLE	• • • • •			• • • • •		• • • • •	
Milk cattle											
Cows in milk and dry ('000)	1 786	1 821	1 884	235	1 161	189	97	71	130	1	_
Other milk cattle ('000)	891	919	923	136	521	97	53	50	67	_	_
Total milk cattle ('000)(a)	2 678	2 740	2 808	371	1 682	286	150	121	197	2	_
Meat cattle											
Intended for service ('000)	557	555	553	122	70	222	29	47	12	51	_
Under one year ('000)	5 388	5 806	5 768	1 680	749	2 174	283	447	159	272	4
Cows and heifers one year and											
over ('000)	12 076	11 213	11 667	2 963	1 287	4 775	534	934	233	933	7
Other cattle one year and											
over ('000)	5 058	5 418	5 581	1 254	608	2 758	222	374	117	246	2
Total meat cattle ('000)	23 080	22 991	23 569	6 019	2 714	9 928	1 069	1 803	521	1 502	13
Total cattle and calves ('000)(a)	25 758	25 731	26 377	6 390	4 396	10 214	1 219	1 924	718	1 503	14
Proportion of total herd											
Milk cattle (%)	10.4	10.7	10.6	5.8	38.3	2.8	12.3	6.3	27.4	0.1	_
Meat cattle (%)	89.6	89.4	89.4	94.2	61.7	97.2	87.7	93.7	72.6	99.9	92.9
NUMBER OF	ESTABLI	SHMENT	S WITH A	GRICULTUF	RAL ACT	IVITY RE	PORTIN	G CATTL	.E		
Milk cattle	4.4.000	44.007	44055	0.040	7 770	0.070	075	100	007		
Cows in milk and dry Other milk cattle	14 233	14 227	14 255	2 212	7 770	2 079 1 967	875 850	490	827 818	1	1 2
Other milk cattle	n.a.	14 035	13 787	2 084	7 601	1967	850	465	818	_	2
Total milk cattle(b)	15 924	15 445	15 667	2 510	8 471	2 282	959	517	925	1	2
Meat cattle											
Intended for service	65 670	65 170	63 483	22 133	14 330	16 246	4 242	4 042	2 233	198	59
Under one year	66 386	68 758	66 825	23 326	15 059	16 880	4 655	4 113	2 555	181	56
Cows and heifers one year and											
over	72 680	71 870	71 926	25 488	16 108	18 007	4 958	4 501	2 594	206	64
Other cattle one year and over	46 654	53 406	55 769	18 101	12 871	15 691	3 520	3 169	2 196	180	41
Total meat cattle	84 474	84 042	83 255	28 323	20 152	20 251	5 879	5 115	3 244	221	70
Total establishments(b)	90 284	90 076	89 663	29 289	23 933	21 151	6 228	5 215	3 556	221	70

<sup>(</sup>a) Excluding house cows and heifers.

<sup>(</sup>b) Excludes establishments with house cows and heifers only.

SHEEP, By Type, Lambing and Number of Establishments—Years ended 31 March

	AUST			1996										
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT			
		• • • • • •	(	SHEEP	• • • • •	• • • • •	• • • • •	• • • • •	• • • • • •		• • • •			
Sheep and lambs Sheep ('000) Lambs and hoggets under	102 831	94 030	91 706	30 956	17 138	8 573	10 034	22 077	2 868	(a)	59			
1 year ('000)	29 739	26 830	29 410	10 134	4 836	2 134	3 541	7 757	994	(a)	14			
Total sheep and lambs ('000)	132 569	120 862	121 116	41 090	21 974	10 707	13 576	29 834	3 862	(a)	73			
	LAMBING													
Ewes actually mated ('000)(b) Lambs marked ('000)	53 731 41 464	52 528 37 943	50 874 39 187	17 547 13 596	8 491 7 027	4 025 2 285	6 215 5 200	13 107 9 801	1 463 1 258	(a) (a)	26 20			
Proportion of lambs marked to ewes mated (%)	77.2	72.2	77.0	77.5	82.8	56.8	83.7	74.8	86.0	(a)	76.9			
Ewes intended to be mated ('000)(c)	56 832	51 900	52 917	18 600	9 198	3 830	6 408	13 311	1 538	(a)	32			
NUMBER O	F ESTABL	ISHMENT	S WITH A	AGRICULTI	JRAL AC	TIVITY F	REPORTI	NG SHEE	• • • • • • • • • • • • • • • • • • •					
Sheep and lambs Sheep Lambs and hoggets under	59 046	55 167	56 279	19 612	14 126	2 736	8 915	8 843	1 993	(a)	54			
1 year	46 867	44 238	45 763	15 972	11 008	2 067	7 391	7 710	1 570	(a)	45			
Total establishments	60 022	56 878	57 313	19 937	14 515	2 770	9 093	8 930	2 012	(a)	56			

<sup>(</sup>a) Data not collected.

<sup>(</sup>b) Ewes mated to produce lambs marked in the season shown.

<sup>(</sup>c) Forecast made at the beginning of each season.

# PIGS AND ESTABLISHMENTS(a)—Years ended 31 March

	AUST			1996									
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT		
• • • • • • • • • • • • • • • • •	• • • • • •	• • • • •		• • • • • • • •	• • • • •	• • • • •		• • • • •	• • • • •	• • • •			
Pigs ('000) Establishments (no.)	2 775 5 723	2 653 5 140	2 526 4 511	710 1 139	458 613	603 953	412 922	314 758	26 122	3	_		
Establishments (no.)	3 123	3 140	4 311	1 155		933			122				

<sup>(</sup>a) Number of establishments with agricultural activity reporting pigs.

# POULTRY—Years ended 31 March

	AUST.(a)			1996	1996								
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT		
• • • • • • • • • • • • • • • • • • • •	• • • • • •		• • • • •										
Chickens													
For egg production ('000)	13 163	11 148	13 413	5 148	3 009	2 615	771	1 279	263	136	192		
For meat production ('000)	55 513	54 445	62 331	31 236	12 804	8 771	3 995	5 420	n.p.	105	_		
Total chickens ('000)	68 676	65 593	75 744	36 384	15 813	11 385	4 766	6 699	263	241	192		
Other poultry ('000)	1 660	2 088	2 673	1 919	441	27	218	43	25	_	_		
Total poultry ('000)	70 335	67 682	78 417	38 303	16 253	11 413	4 984	6 743	288	241	192		

<sup>(</sup>a) Excludes some establishments in Tasmania.

# BEEKEEPING—Years ended 31 March

	AUST			1996							
	1994	1995	1996	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
• • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • •	• • • • • •						• • • • •		• • • •
Beekeepers (no.)	1 659	1 271	1 351	596	254	267	130	67	29	4	4
Beehives											
Productive ('000)(a)	381	314	380	157	67	53	65	24	12	2	_
Unproductive ('000)	153	151	109	47	15	32	5	7	2	_	_
Total ('000)	534	465	489	204	82	85	71	31	14	3	_
Honey											
Quantity produced (t)  Average production per	25 990	18 839	25 925	11 884	4 415	3 212	3 319	2 072	741	267	15
productive beehive (kg)	68.2	60.0	68.2	75.7	65.9	60.6	51.1	86.3	61.8	133.5	_
Beeswax (t)	620	341	596	297	80	65	90	50	13	2	_

<sup>(</sup>a) Beehives from which honey is taken.

# GROSS VALUE, LIVESTOCK SLAUGHTERINGS AND PRODUCTS—Years ended 30 June

	AUST			1995–							
	1993–94	1994–95	1995–96	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
	LIVI	ESTOCK	SLAUGHT	ERINGS AND	OTHER	DISPOSA	ALS(a)	• • • • •	• • • • •		• • • •
Cattle and calves(b) Sheep and lambs(c) Pigs(d) Poultry(d) Other(g)	4 433.5 797.2 660.5 929.3 13.9	4 213.5 836.8 630.6 902.0 14.2	3 575.9 1 035.7 597.8 948.1 14.7	860.9 261.6 187.6 (e)436.7 9.5	694.0 324.5 141.6 209.7 0.8	1 304.5 38.1 156.7 143.3 0.2	152.9 148.8 43.2 75.4 2.2	283.4 247.0 68.8 83.0 1.9	69.7 15.2 n.p. n.p. n.p.	208.8 — n.p. n.p. 0.2	1.8 0.5 — (f)
Total slaughterings and other disposals(h)	6 856.6	6 618.8	6 192.7	1 756.2	1 370.6	1 642.8	422.5	684.1	105.3	209.0	2.3
			LIVE	STOCK PROD	DUCTS	• • • • •	• • • • •	• • • • •	• • • • •		• • • •
Wool Shorn Other(i)	2 351.1 98.5	3 200.7 118.5	2 464.1 84.4	845.3 27.5	457.3 25.4	179.4 4.0	311.3 12.2	603.5 13.1	65.7 2.2	_	1.7 0.1
Total wool	2 449.6	3 319.3	2 548.6	872.8	482.7	183.3	323.4	616.6	67.9	_	1.7
Liquid whole milk used for Manufacturing Human consumption(j)	1 619.5 828.5	1 511.2 907.9	r1 897.8 950.5	r137.3 324.6	r1 452.1 202.9	r88.0 219.9	r73.5 83.0	r30.7 96.5	r116.2 23.2	— n.p.	— 0.5
Total wholemilk production(j)	2 448.0	2 419.1	r2 848.3	r461.8	r1 655.0	r307.9	r156.5	r127.2	r139.4	n.p.	0.5
Eggs(j) Honey	233.9 32.9	230.6 24.6	256.9 39.0	88.6 18.2	51.3 6.7	50.4 4.7	16.5 5.0	35.8 2.9	9.7 1.6	n.p. n.p.	4.6
Beeswax	2.8	1.5	3.2	1.6	0.4	0.4	0.5	0.3	0.1	_	_
Total livestock products(k)	5 167.2	5 995.0	r5 696.1	r1 443.0	r2 196.1	r546.7	r501.9	r782.8	r218.8	n.p.	6.9

<sup>(</sup>a) Includes net exports of livestock.

<sup>(</sup>b) Includes dairy cattle slaughtered.

<sup>(</sup>c) Excludes value of wool on skins.

<sup>(</sup>d) Excludes pigs and poultry in the Northern Territory and Tasmania.

<sup>(</sup>e) Includes the Australian Capital Territory.

<sup>(</sup>f) Included in New South Wales.

<sup>(</sup>g) Excludes goats in Tasmania.

<sup>(</sup>h) Excludes the Northern Territory pigs and poultry.

<sup>(</sup>i) Includes dead and fellmongered wool on skins.

<sup>(</sup>j) Excludes the Northern Territory.

<sup>(</sup>k) Excludes milk and eggs in the Northern Territory.

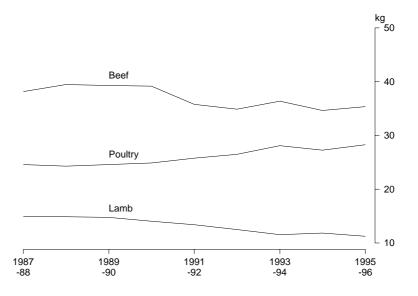
# SECTION 8 APPARENT CONSUMPTION OF FOODSTUFFS

### MEAT. MEAT PRODUCTS AND POULTRY

The apparent per capita consumption of meat and meat products decreased by 3.3% to 73.2 kg in 1995–96. Beef remained the most significant meat consumed, increasing 2.0% in 1995–96, to 35.4 kg per capita, while demand for veal fell 11.8% to 1.3 kg per capita. The per capita consumption of lamb fell 5.1% to 11.3 kg in 1995–96. Consumption of lamb in 1995–96 was 20.4% below the 14.1 kg recorded in 1990–91. The per capita consumption of mutton fell in 1995–96, by 11.6% to 5.7 kg. Consumption of pigmeat continued to fluctuate, with intake in 1995–96 at 18.1 kg per capita, a decrease of 6.4% on the previous years 19.3 kg per capita. Offal intake declined to a record low of 1.5 kg per capita in 1995–96 (down 20.6%).

The apparent per capita consumption of poultry increased by 3.9% in 1995–96 to a record high of 28.3 kg per capita. This was 13.6% up on the per capita consumption recorded in 1990–91.

### Apparent per capita consumption



SEAFOOD

The apparent per capita consumption of seafood fell by 7.9% in 1995–96 to 10.2 kg. Major contributors to this fall were crustacea and molluscs, at 1.7 kg per capita (down 9.8%) and Australian fish at 3.2 kg per capita (down 8.3%).

DAIRY PRODUCTS

The consumption of dairy products increased by 1.3% to 24.4 kg per capita in 1995–96. The per capita consumption of both full cream and skim condensed milk recorded significant declines at 1.1 kg (down 34.5%) and 0.4 kg (down 52.0%) respectively. Increases were recorded in market milk (up 1.2%) at 104.2 litres per capita, powdered full cream milk (up 20.2%) at 1.1 kg per capita and cheese (up 3.2%) at a record high of 10.6 kg per capita.

### FRUIT AND FRUIT PRODUCTS

The consumption of fruit (including fruit for fruit juices) decreased marginally (1.7%) to 122.1 kg per capita in 1995–96. The per capita consumption of processed fruit fell 14.5% to 6.4 kg. Dried fruit also fell, by 7.7% to 2.7 kg per capita. These falls were offset by an increase in the consumption of other fresh fruit, which rose 2.6% to 55.4 kg per capita.

### **VEGETABLES**

Per capita consumption of vegetables rose 10.8% in 1995–96 to a record high of 162.8 kg. Tomatoes were the only broad vegetable group to show a fall, decreasing marginally. All other groups rose, with potatoes at 70.1 kg (up 13.9%), other root and bulb vegetables at 24.3 kg (up 12.9%), leafy and green at 21.5 kg (up 5.5%) and other vegetables at 26.3 kg (up 16.2%).

### **GRAIN PRODUCTS**

The consumption of grain products decreased marginally in 1995–96 to 93.1 kg per capita. Flour remained steady, but the consumption of breakfast foods fell 11.8% to 9.1 kg per capita. This was partially offset by a 7.5% increase in rice intake at 6.5 kg per capita. The consumption of bread rose 5.0% to 49.4 kg in 1995–96.

### OILS AND FATS

In 1995–96, the apparent consumption of fats rose 1.8% to 19.2 kg per capita. The principal component of this increased fat intake was other margarine, which was consumed at a rate of 2.5 kg per capita (up 25.0%). Butter intake fell in 1995–96 by 8.0% to 2.9 kg per capita, but consumption of dairy spreads rose 12.4% to 0.8 kg per capita.

### SUGARS

The per capita consumption of sugars in 1995–96 increased by 5.5% to 46.6 kg after the record low of 44.2 kg in 1994–95. Refined cane sugar consumption rose 3.2% to 8.6 kg per capita and sugar consumed in manufactured products also rose, by 8.6% to 32.3 kg per capita. In 1995–96, the per capita consumption of honey was 0.9 kg, almost doubling the 0.5 kg recorded the previous year. The decline in honey consumption in 1994–95 was due to a sharp fall in the production of honey.

### EGGS AND EGG PRODUCTS

Egg consumption declined in 1995-96 by 2.3% to 132 eggs per capita, compared with the previous year when consumption fell 3.8% to 135 eggs.

### NUTS

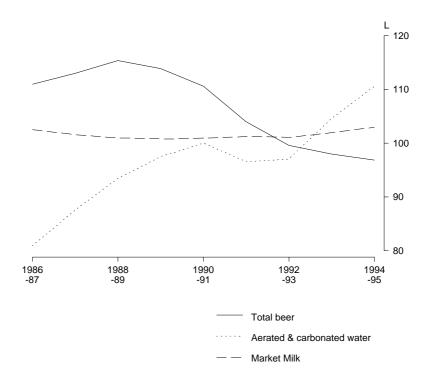
The per capita consumption of peanuts fell 12.3% to 2.1 kg in 1995–96, after an increase of 15.6% in 1994–95. The consumption of tree nuts continued to fluctuate with a rise in 1995–96 of 1.2% to 4.5 kg per capita; a contributing factor to this rise was an increase in production.

# **BEVERAGES**

The per capita consumption of tea and coffee remained steady at 0.9 kg and 2.2 kg respectively in 1995–96. Carbonated and aerated waters increased by 3.6% to 114.6 litres per capita, making it the most popular beverage.

The apparent per capita consumption of low alcohol beer showed a rise of 4.6% in 1995–96, to 22.4 litres. The consumption of other beer fell 3.4% to 72.9 litres per capita. Total beer consumption fell 1.6% in 1995–96 to 95.3 litres per capita, a decline which began after 1988–89, when consumption was 115.4 litres per capita.

# Apparent per capita consumption



# AVAILABLE AND APPARENT CONSUMPTION OF SELECTED FOODSTUFFS—Years ended 30 June

	AVAILABLE FOR CONSUMPTION				APPARENT PER CAPITA CONSUMPTION		
		1994–95			1994–95		
	t	t		kg	kg	kg	
Meat and meat products	•		•				
Carcass meat							
Beef	646 742	622 495	643 300	36.4	34.7	35.4	
Veal Lamb	28 964 206 342	27 266	24 353 204 746	1.6 11.6	1.5 11.9	1.3 11.3	
Mutton	149 863	213 014 115 762	103 686	8.4	6.4	5.7	
Pigmeat	339 170	346 623		19.1	19.3	18.1	
Total		1 325 160		77.2	73.8	71.7	
Offal and meat n.e.i.	42 324	33 984	27 333	2.4	1.9	1.5	
•	1 413 406	1 359 144	1 332 217	79.6	75.7	73.2	
Bacon and ham (cured carcass weight)	131 730	134 624	141 902	7.4	7.5	7.8	
Poultry Poultry (dressed weight)	499 590	489 373	515 268	28.1	27.3	28.3	
roundy (urossed weight)	400 000	400 010	313 200	20.1	21.5	20.0	
Seafood Fresh and frozen (edible weight) Fish							
Australian	60 122	62 564	58 111	3.4	3.5	3.2	
Imported	37 565	36 500	35 468	2.1	2.0	1.9	
Crustacea and molluscs Seafood otherwise prepared (product weight)	30 407	33 729	30 841	1.7	1.9	1.7	
Australian	9 394	8 449	8 333	0.5	0.5	0.5	
Imported							
Fish	34 401	37 476	36 482	1.9	2.1	2.0	
Crustacea and molluscs	14 463	15 556		0.8	0.9	0.9	
Total seafood	186 351	194 274	185 060	10.5	10.8	10.2	
	• • • • • • • •	• • • • • • • •				• • • • • •	
	'000 L	'000 L	'000 L	L	L	L	
Dairy products  Market milk (fluid whole)	1 010 000	1 040 000	1 00E 400	101.9	102.0	104.0	
Market Milk (IIulu Whole)	1 810 200	1 848 900	1 895 429	101.9	103.0	104.2	
Dairy products	t	t	t	kg	kg	kg	
Condensed, concentrated and evaporated milk Full-cream sweetened and							
unsweetened	35 261	30 385	20 149	2.0	1.7	1.1	
Skim	33 528	15 078	7 328	1.9	0.8	0.4	
Powdered milk							
Full-cream	14 743	16 402	19 977	0.8	0.9	1.1	
Skim	42 791	39 424	40 907	2.4	2.2	2.2	
Infants' and invalids' food	19 679	21 601	23 531	1.1	1.2	1.3	
Cheese (natural equivalent weight)  Total (converted to milk solids, fat	170 820	184 291	192 696	9.6	10.3	10.6	
and non-fat)	426 415	431 929	443 207	24.0	24.1	24.4	
Fruit and fruit products							
Fresh fruit (incl. fruit for fruit juice)							
Citrus	768 691	828 913	826 850	43.3	46.2	45.5	
Other	1 072 557	969 910	1 008 117	60.4	54.0	55.4	
Jams, conserves, etc. (product weight)	34 782	35 821	37 029	2.0	2.0	2.0	
Dried fruit (product weight)	53 073	52 519	49 135	3.0	2.9	2.7	
Processed fruit (product weight)	132 436	135 069	117 073	7.5	7.5	6.4	
Total (fresh fruit equivalent)	2 255 704	2 228 696	2 220 390	127.0	124.1	122.1	

# AVAILABLE AND APPARENT CONSUMPTION OF SELECTED FOODSTUFFS—Years ended 30 June continued

	AVAILABLE CONSUMPT				T PER CAPI PTION	
	1993-94	1994–95	1995–96	1993–94	1994–95	1995–96
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • • • • • • •	• • • • • • •	• • • • • •
	t	t	t	kg	kg	kg
Vegetables						
Potatoes	1 177 919	1 104 999	1 274 815	66.3	61.5	70.1
Other root and bulb vegetables	367 831	387 269	442 835	20.7	21.6	24.3
Tomatoes	398 646	373 367	374 756	22.4	20.8	20.6
Leafy and green vegetables	366 627	366 097	391 179	20.6	20.4	21.5
Other vegetables	435 222	405 959	477 849	24.5	22.6	26.3
Total (fresh equivalent weight)	2 746 244	2 637 691	2 961 433	153.6	146.9	162.8
Grain products						
Flour(a)	1 405 606	1 389 362	1 409 550	79.1	77.4	77.5
Breakfast foods	160 220	184 725	165 091	9.0	10.3	9.1
Table rice	98 686	108 510	118 180	5.6	6.0	6.5
Total grain products	1 664 512	1 682 598	1 692 822	93.7	93.7	93.1
Bread	(b)	845 565	899 357	(b)	47.1	49.4
			• • • • • • • •		• • • • • • •	• • • • • •
	'000 doz	'000 doz	'000 doz	no.	no.	no.
Eggs and egg products						
Number of eggs(c)	207 221	201 436	199 400	140	135	132
			• • • • • • • •	• • • • • • • • • • • • • •	• • • • • • •	• • • • • •
	t	t	t	kg	kg	kg
Nuts (in shell)						
Peanuts	37 044	43 288	38 459	2.1	2.4	2.1
Tree nuts	79 863	79 715	81 716	4.5	4.4	4.5
Oils and fats						
Butter(d)	55 373	55 655	51 886	3.1	3.1	2.9
Margarine						
Table margarine	105 141	95 721	98 704	5.9	5.3	5.4
Other margarine	34 324	35 237	44 614	1.9	2.0	2.5
Total	139 465	130 958	143 318	7.9	7.3	7.9
Dairy spreads (product weight)	11 700	12 121	13 808	0.7	0.7	0.8
Total (fat content)(e)	343 937	339 637	350 160	19.4	18.9	19.2
Sugars						
Cane sugar						
As refined sugar	151 230	149 273	156 063	8.5	8.3	8.6
In manufactured foods	537 219	534 551	588 023	30.2	29.8	32.3
Total	668 449	638 824	744 086	38.8	38.1	40.9
Honey	17 040	9 192	16 185	0.7	0.5	0.9
Total(f)	818 812	792 693	847 312	46.1	44.2	46.6
Beverages						
Tea	18 493	16 579	16 090	1.0	0.9	0.9
Coffee(g)	40 478	39 211	39 396	2.3	2.2	2.2
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • • • • • • •	• • • • • • •	• • • • • •

<sup>(</sup>a) Includes flour used for breadmaking.

<sup>(</sup>b) Data not collected.

<sup>(</sup>c) Includes commercial disposals only.

<sup>(</sup>d) Includes butter equivalent of butter oil, butter concentrate and ghee.

<sup>(</sup>e) Includes an estimate for vegetable oils and other fats.

<sup>(</sup>f) Includes sugar content of syrups and glucose.

<sup>(</sup>g) Coffee and coffee products in terms of roasted coffee.

AVAILABLE AND APPARENT CONSUMPTION OF SELECTED FOODSTUFFS—Years ended 30 June continued

	AVAILABLE FOR CONSUMPTION				APPARENT PER CAPITA CONSUMPTION		
	1993–94	1994–95	1995–96	1993–94	1994–95	1995–96	
	• • • • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • • • • • • • •	• • • • • • •	• • • • • •	
	'000 L	'000 L	'000 L	L	L	L	
Beverages							
Aerated & carbonated waters(a)	1 856 487	1 985 100	2 084 085	104.5	110.6	114.6	
Beer							
Low alcohol	393 166	384 062	407 232	22.1	21.4	22.4	
Other beer	1 347 296	1 355 321	1 326 722	75.9	75.5	72.9	
Total	1 740 462	1 739 384	1 733 954	98.0	96.9	95.3	
Wine	330 424	329 929	332 191	18.6	18.4	18.3	
	• • • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • • • • • • • •	• • • • • • •	• • • • • •	
	'000 L al	'000 L al	'000 L al	L al	L al	L al	
Alcohol content Beer							
Low alcohol	11 927	11 859	12 597	0.67	0.66	0.69	
Other beer	64 476	64 743	63 118	3.63	3.61	3.47	
Total	76 403	76 602	75 715	4.30	4.27	4.16	
Wine	37 751	37 805	38 122	2.13	2.11	2.10	
Spirits	24 284	23 211	25 045	1.37	1.29	1.38	
Total	138 438	137 618	138 882	7.79	7.67	7.63	

<sup>(</sup>a) Includes bulk pre-mix and post-mix concentrates in terms of drink equivalent.

# EXPLANATORY NOTES .....

#### INTRODUCTION

**1** This publication contains detailed statistics on crops, livestock and livestock products and characteristics of farms. Also included is summary information on the financial performance of agricultural industries, the value of agricultural commodities produced (VACP) and apparent consumption of foodstuffs.

#### SCOPE AND COVERAGE

- **2** The statistics on crops (including horticulture), livestock numbers, structure of agricultural industries, land management and farm inputs in this publication are derived from the annual Agricultural Census conducted throughout Australia at 31 March. The Agricultural Census collects data from establishments with agricultural activity.
- **3** The scope of the 1995–96 Census was establishments with an estimated value of agricultural operations (EVAO) of \$5,000 or more. The scope of the Census for earlier years was set at different levels. The table below indicates the change in scope of the Agricultural Census over the past ten years based on the EVAO of establishments.

	EVAO cut-off level
Year	\$
• • • • • • • • • •	• • • • • • • • •
1985–86	2 500
1986-87	20 000
1987-88	20 000
1988-89	20 000
1989-90	20 000
1990-91	20 000
1991–92	22 500
1992-93	22 500
1993-94	5 000
1994–95	5 000
1995–96	5 000

**4** In addition to the Census, some basic data has been previously collected via an Activity Collection for a limited range of commodities from those establishments having an EVAO of between \$5,000 and \$22,499. These data can be used together with census data to derive estimates of totals for selected commodities for all establishments having an EVAO greater than \$5,000. Results for 1993-94 to 1995-96 based on \$22,500 EVAO for crops (including fruit and vegetables) are available on request.

#### **STRUCTURE**

#### Agricultural establishments

**5** For the Agricultural Census, 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 including 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.

### Industry and size classification

- **6** Since 1991–92, units in the Agricultural Census 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.
- **7** The process of determining the industry class for ANZSIC is the step-by-step method of classification described in Chapter 4 of the *Australian Standard Industrial Classification (ASIC)*, *Volume 1 The Classification (Cat.* no. 1201.0). This method requires that the Division code of the unit be determined first. The Subdivision code within the major Division of the unit is then determined, followed by the Group code and finally the Class code of the unit. Certain departures from this basic method are outlined in the description of individual classes within Subdivision 01: Agriculture.
- **8** The Group and Class codes of agricultural units are determined annually by valuing physical crop and livestock information collected in the Agricultural Census. The valuation procedure allows for the industry classification of individual units to be changed to reflect significant or long-term changes in their activities.
- **9** However, the procedure provides for a dampening or resistance effect to offset instability in allocation to particular classes of the classification which would arise from short-term factors such as floods and drought. To obviate such effects, the valuation procedure takes into account (without double counting) the area of crops sown and numbers of livestock on holdings at a point in time as well as the crops produced and livestock turnoff during the year. The resultant aggregation of these commodity values is termed the EVAO. It should be noted that EVAO is applicable *only* for industry coding and size determination purposes. It is not an indicator of receipts obtained by units or of the value of agricultural commodities produced by these units.

#### **DEFINITIONS**

- **10** Following are definitions of terms used in the tables of this publication:
- Agricultural establishment is an establishment which is engaged mainly in agricultural activities.
- *Establishment with agricultural activity* is an establishment which is engaged in agricultural activity, regardless of the unit's predominant activity.
- Gross domestic product which is commonly referred to as GDP, is formally defined as '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)'.

#### AGRICULTURAL FINANCE SURVEY

- **11** Estimates of financial performance in this publication have been derived from the 1995–96 Agricultural Finance Survey (AFS). The survey provides annual financial statistics on a consistent basis across all agricultural industries in each State and Australia.
- **12** More detailed information is published in *Agricultural Industries, Financial Statistics, Australia* (Cat. no. 7507.0).

### Scope and content

**13** The population of the AFS consists of all economic units (management units) the principal activity of which resulted in them being classified within Subdivision 01: Agriculture of ANZSIC and which had an EVAO of \$22,500 or more.

### MANAGEMENT UNITS/FARM BUSINESSES

- **14** 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. Management units which have a predominant activity in the agricultural sector are called farm businesses.
- **15** The 1995–96 AFS consisted of approximately 2,500 farm businesses, selected at random from all in-scope farm businesses on the ABS business register.
- **16** The financial details collected in the AFS relate to the agricultural and (where applicable) non-agricultural business activities of the selected farm businesses. Any management unit which was predominantly engaged in non-agricultural activity was regarded as out of scope of the AFS even though it may have had one or more establishments engaged in agriculture.

## RELIABILITY OF ESTIMATES

**17** The estimates are based on information obtained from a sample drawn from the total farm business population, and are subject to sampling variability; that is, they may differ from the figures that would have been produced if all farm businesses had been included in the AFS. One measure of the likely difference is given by the *standard error*, which indicates the extent of which an estimate might have varied by chance because only a sample of farm businesses was included. For more information, refer to *Agricultural Industries, Financial Statistics, Australia* (Cat. no. 7507.0).

#### CROPS, PASTURES AND HORTICULTURE

**18** Statistics of area and production of crops relate, in the main, to crops sown during the year ended 31 March. Statistics of perennial crops relate to the position as at 31 March and the production during the year ended on that date, or of fruit set by that date. For example, particulars of area, production and yield per hectare of wheat in Australia refer to wheat sown during the period from April to September and harvested between October and the following February, i.e. the 1995–96 season relates to the harvesting period October 1995 to February 1996. Statistics of other crops which in some States are harvested after 31 March 1996 (e.g. maize, potatoes, apples and pears) are collected by supplementary census returns and are included in this publication.

#### LIVESTOCK SLAUGHTERING AND LIVESTOCK PRODUCTS

**19** 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. More detailed information is published monthly in *Livestock Products, Australia* (Cat. no. 7215.0).

WOOL

- **20** Wool production statistics contained in this publication are derived from the monthly ABS Wool Brokers and Dealers Receivals Collection.
- **21** 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. The information shown is on the basis of the State in which the wool has actually been produced and is different to the receivals of wool by State data that is published monthly in *Livestock Products*, *Australia* (Cat. no. 7215.0).

MILK

**22** Milk statistics have been collected and provided to the ABS by the Australian Dairy Corporation. More detailed information is published monthly in *Livestock Products*, *Australia* (Cat. no. 7215.0).

**POULTRY** 

**23** 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 collection. However, the statistics represent a high level of coverage. More detailed information is available in *Livestock Products*, *Australia* (Cat. no. 7215.0).

**BEEKEEPING** 

**24** Beekeepers were included in the scope of the 1995–96 Agricultural Census if they had an EVAO (whether from beekeeping alone or in conjunction with other agricultural activities) of \$5,000 or more. In 1991–92 and 1992–93 only those beekeepers with an EVAO of \$22,500 or more were included in the scope of the Agricultural Census.

#### VALUE OF AGRICULTURAL COMMODITIES PRODUCED

- **25** This publication contains summary information on the VACP compiled annually for all States and Australia. They include gross values of production for selected agricultural commodities. More detailed information is available in *Value of Agricultural Commodities Produced, Australia,* (Cat. no. 7503.0).
- **26** Gross value of commodities produced is defined as the value placed on recorded production at the wholesale prices realised in the market place.

#### Scope and coverage

**27** The statistics are derived by multiplying quantity data by price (or unit value) data. The quantity data are collected in Agricultural censuses and other ABS collections with some information from external sources. Most price information is obtained from non-ABS sources.

#### Information sources

**28** For quantity data, production of crops relates, in the main, to crops sown during the year ended 31 March. Statistics of perennial crops relate to the position as at 31 March and production during the year ended on that date. Information covering such commodities as livestock slaughtering, dairy produce and beekeeping is obtained from separate collections and from organisations such as the Australian Dairy Corporation.

#### Price and marketing costs data

**29** The method of collection of relevant prices for, and the costs of marketing of, agricultural commodities varies considerably between States and between commodities. Where a statutory authority handles marketing of the whole or portion of a product (e.g. Australian Wheat Board, Australian Barley Board) data are usually obtained from this source. Information is also obtained from marketing reports, wholesalers, brokers and auctioneers. For all commodities, values are in respect of production during the year (or season) irrespective of whether or when payments are made. For that portion of production not marketed (e.g. hay grown on farm for own use, milk used in farm household, etc.) estimates are made from the best available information and, in general, are valued on a local value basis.

#### PUBLICATION STRATEGY

- **30** The aim of the Agriculture Program is to disseminate statistics to the user community in a timely and appropriate form. Agricultural Census data are available in publications progressively throughout the processing cycle: first preliminary estimates are available in May; final estimates in electronic form (AgStats) by May the following year and release of the publication by June. A final publication is also produced for each State shortly after the release of this publication. There is no prerelease of data ahead of the May preliminary publication.
- **31** The derived series, VACP, is produced annually, using data from the Agricultural Census, the monthly livestock collections and a range of other sources. Preliminary results are released in July each year, with final results by May of the following year.
- **32** For the annual AFS, preliminary results are released by early February each year, with final results by the following July.

#### PUBLICATION STRATEGY continued

- **33** The monthly livestock products series are published within five weeks of the end of the reference month. Preliminary results of Apparent Consumption of Foodstuffs are released in November each year, while final estimates are released within two years.
- **34** The ABS package, AgStats, offers a wider range of census and VACP data aggregated to Statistical Local Area. This package is shortly to be redeveloped using the Integrated Regional Data Base as the software platform. It is planned to produce the new version of AgStats for the 1996–97 Census. Livestock products data are available monthly via PCAUSSTATS.
- **35** 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.

#### UNPUBLISHED STATISTICS

**36** Unpublished statistics and customised output are available as a special data service and can be obtained by contacting David Ketley on 1800 801 520 or Information Services in any ABS office.

#### GENERAL ACKNOWLEDGMENT

**37** 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**

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

Agricultural Industries, Financial Statistics, Australia (Cat. no. 7507.0)

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

Agriculture, New South Wales (Cat. no. 7113.1)

Agriculture, Queensland (Cat. no. 7113.3)

Agriculture, South Australia (Cat. no. 7113.4)

Agriculture, Tasmania (Cat. no. 7114.6)

Agriculture, Victoria (Cat. no. 7113.2)

Agriculture, Western Australia (Cat. no. 7113.5)

Agriculture and Fishing, Northern Territory (Cat. no. 7113.7)

Apparent Consumption of Foodstuffs, Australia (Cat. no. 4306.0)

Apparent Consumption of Selected Foodstuffs, Australia, Preliminary (Cat. no. 4315.0)

Livestock Products, Australia (Cat. no. 7215.0)

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

## RELATED PUBLICATIONS continued

Value of Agricultural Commodities Produced, Australia (Cat. no. 7503.0)

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

**39** 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)

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

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