



**DAIRYING AND
DAIRY PRODUCTS
AUSTRALIA
1979-80**

CATALOGUE NO. 7209.0

AUSTRALIAN BUREAU OF STATISTICS Canberra

DAIRYING AND DAIRY PRODUCTS
AUSTRALIA

1979-80

A. R. BAGNALL
Acting Australian Statistician

Catalogue No. 7209.0

AUSTRALIAN BUREAU OF STATISTICS

INQUIRIES

If you want to know more about these statistics ring Ms Angie Ulrichson on Canberra (062) 525337 or our State office, or write to Information Services, ABS, P.O. Box 10, Belconnen, A.C.T. 2616.

For copies of this publication contact Information Services, Canberra (062) 526627 or State offices.

DAIRYING AND DAIRY PRODUCTS, AUSTRALIA 1979-80

CATALOGUE NO. 7209.0

NOON 21 JANUARY 1981

CONTENTS

Table	Page
.. Explanatory notes	3
I. MILK CATTLE NUMBERS	
1. Number of milk cattle : Australia, 31 March, 1978 to 1980 (States, 31 March 1980)	4
II. PRODUCTION AND UTILISATION OF WHOLE MILK	
2. Whole milk production and utilisation : Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	5
3. Whole milk used for the factory production of butter, non-processed cheese and processed milk products : States and Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	6
4. Whole milk used for other purposes : States and Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	6
5. Whole milk used for all purposes : States and Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	7
III. PRODUCTION OF DAIRY PRODUCTS	
6. Factory production of butter : States and Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	7
7. Factory production of non-processed cheese : States and Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	8
8. Factory production of non-processed cheese by variety : Australia, year ended 30 June, 1978 to 1980	8
9. Factory production of processed milk products : Australia, year ended 30 June, 1978 to 1980 (months 1979-80)	9
IV. STOCKS OF BUTTER AND CHEESE	
10. Stocks of butter : Australia, months, 1977-78 to 1979-80	10
11. Stocks of cheese : Australia, months, 1977-78 to 1979-80	10
V. OVERSEAS TRADE STATISTICS	
12. Imports of cheese by variety : Australia, year ended 30 June, 1978 to 1980	11
13. Imports of cheese by country of origin : Australia, year ended 30 June, 1978 to 1980	11
14. Exports of butter by country of consignment : Australia, year ended 30 June, 1978 to 1980	11
15. Exports of non-processed cheese by country of consignment : Australia, year ended 30 June, 1978 to 1980	12
16. Exports of processed cheese by country of consignment : Australia, year ended 30 June, 1978 to 1980	12
17. Exports of cheese by variety : Australia, year ended 30 June, 1978 to 1980	12
18. Exports of dairy products : Australia, year ended 30 June, 1978 to 1980	12

CONTENTS — *continued*

<i>Table</i>		<i>Page</i>
VI. APPARENT CONSUMPTION OF DAIRY PRODUCTS AND MARGARINE		
19.	Apparent consumption of dairy products and margarine : Australia, year ended 30 June, 1978 to 1980	13
20.	Apparent consumption of dairy products and margarine : Australia, 1979-80	13
VII. GROSS VALUE OF WHOLE MILK		
21.	Gross value of whole milk used : States and Australia, year ended 30 June, 1978 to 1980	14
VIII. STRUCTURAL STATISTICS		
22.	Number of agricultural enterprises classified to ASIC industry class 0187 — milk cattle : States and Australia, 1976-77 to 1978-79	15
23.	Legal status of agricultural enterprises classified to ASIC industry class 0187 — milk cattle : Australia, 1976-77 to 1978-79	15
24.	Summary of operations of manufacturing establishments classified to ASIC industry group 212 — milk products : States and Australia, 1976-77 to 1978-79	16
IX. ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY CLASSIFIED ACCORDING TO SIZE OF MILK CATTLE HERDS		
25.	Number of establishments with agricultural activity classified according to area of establishment and size of milk cattle herd : Australia, at 31 March, 1977 to 1979	17

EXPLANATORY NOTES

Introduction

This publication provides a statistical summary of the dairy industry in Australia. It covers numbers of dairy cattle, production, utilisation, stocks, imports and exports of selected dairy products and gross value of whole milk production. Structural statistics of agricultural enterprises classified to the Australian Standard Industrial Classification (ASIC) class 0187, milk cattle, are also included, together with size classification of milk cattle herds.

2. The attention of readers is drawn to the explanatory notes which are included in many parts of this publication. They have been included to assist users in the interpretation of the relevant statistics.

Related publications

Agricultural Sector, Financial Statistics, Australia 1977-78 (7507.0)

Agricultural Sector, Structure of Operating Units, Australia 1978-79 (7102.0)

Apparent Consumption of Foodstuffs and Nutrients, Australia, 1978-79 (4306.0)

Australian Standard Industrial Classification, Vols 1 and 2 (1201.0 and 1202.0)

Livestock, Australia, 31 March 1980 (7203.0)

Manufacturing Establishments, Details of Operations by Industry Class, Australia 1978-79 (8203.0)

Milk, Australia (7208.0) — issued monthly

Production Bulletin No. 3 : Food, Drink and Tobacco, Australia (8359.0) — issued monthly

Seasonally Adjusted Indicators, Australia 1979-80 (1308.0)

3. In addition to these publications further Agricultural Census details for small areas are available in published form and on magnetic tape and microfiche.

4. Current publications produced by the ABS are listed in *Catalogue of Publications* (1101.0) which is available free of charge from any ABS office.

Symbols and other usages

— nil or rounded to zero

.. not applicable

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

p preliminary — figures or series subject to revision

n.a. not available

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

R. J. CAMERON
Australian Statistician

I. MILK CATTLE NUMBERS

The statistics in this section are derived from the annual Agricultural Census, conducted at 31 March, which collects commodity data from establishments with agricultural activity throughout Australia. In recent years, the ABS has been gradually excluding from the statistics those establishments whose contribution to agricultural production is small. While this has resulted in changes to the number of establishments appearing in publications the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small scale operations may be affected to a greater extent.

2. From 1980, establishments with agricultural activity have been included in the statistics if the enterprises operating the establishments had or were expected to have Estimated Value of Agricultural Operations (EVAO) of \$1,500 or more during the current season. Details of the methods used in the calculation of EVAO are contained in the publication *Agricultural Sector, Structure of Operating Units, Australia 1978-79* (7102.0).

TABLE 1. NUMBER OF MILK CATTLE

At 31 March	Dairy breed bulls and bull calves used or intended for service		Cows and heifers used or intended for production of milk or cream for sale			House cows and heifers (a)	Total milk cattle (including bulls)
	Bulls 1 year and over	Bull calves under 1 year	Cows (in milk and dry)	Heifers			
				1 year and over	Under 1 year		
1978	47,340	12,922	2,055,672	479,735	367,070	98,620	3,061,734
1979	43,188	12,307	1,921,467	442,323	369,203	77,924	2,866,759
1980	42,090	13,470	1,869,410	431,417	396,089	77,087	2,829,563
1980							
New South Wales	6,289	1,395	307,608	79,967	58,754	32,298	486,311
Victoria	24,556	8,770	1,037,256	217,970	226,973	11,850	1,527,375
Queensland	5,478	1,381	247,336	56,369	41,352	23,128	375,044
South Australia	2,463	677	102,241	24,811	22,324	4,353	156,869
Western Australia	1,285	435	71,541	27,671	22,683	3,942	127,557
Tasmania	1,955	809	103,177	24,601	23,968	1,435	155,945
Northern Territory	62	2	108	28	12	31	243
A.C.T.	2	1	143	-	23	50	219

(a) One year and over, kept primarily for the establishments' own milk supply.

II. PRODUCTION AND UTILISATION OF WHOLE MILK

Table 2 contains seasonally adjusted figures for whole milk produced. In the seasonal adjustment account has been taken of both normal seasonal factors and trading-day effects (arising from the varying number of Sundays, Mondays, Tuesdays, etc., in the month) because the quantity of milk used is partly derived from factory production statistics. Details of the methods used in seasonally adjusting this and other series are given in the ABS publication *Seasonally Adjusted Indicators, Australia* (1308.0).

2. Monthly estimates of the quantity of milk used

in the manufacture of factory butter and cheese have been derived from recorded monthly output of these commodities on the basis of factors ascertained from the annual manufacturing census returns. Monthly estimates of milk used for processed milk products are obtained from factories engaged in this industry. The amount of milk used for other purposes represents the quantity recorded by milk authorities in the States. Milk used for other purposes also includes milk consumed on farms, quantities used by factories for manufacture of confectionery, etc., and the milk equivalent of farm production of butter and cheese.

TABLE 2. WHOLE MILK PRODUCTION AND UTILISATION, AUSTRALIA
(*000 litres)

	Quantity of whole milk used for				Total whole milk	
	Factory butter	Non-processed cheese	Processed milk products (a)	Other purposes (b)	Original	Seasonally adjusted
Year ended 30 June						
1978	1,963,070	985,932	928,616	1,611,974	5,489,592	..
1979	1,830,379	1,198,207	1,022,341	1,625,489	5,676,416	..
1980	1,543,337	1,293,030	978,205	1,658,877	5,473,449	..
1979-80 —						
July	61,271	57,743	56,734	136,712	312,459	476,186
August	146,629	108,835	89,766	139,122	484,352	497,378
September	210,013	147,668	122,796	135,971	616,448	484,915
October	279,943	170,382	137,687	139,912	727,924	453,631
November	261,618	175,589	137,733	136,071	711,011	461,357
December	202,024	170,063	125,254	138,224	635,565	448,975
January	130,390	137,032	124,950	139,846	532,217	440,333
February	95,206	121,357	68,756	136,537	421,856	443,224
March	63,713	93,076	43,732	143,589	344,111	438,676
April	37,805	48,955	20,416	136,588	243,764	386,222
May	26,215	29,963	21,679	141,015	218,873	436,925
June	28,509	32,369	28,701	135,291	224,869	465,009

(a) Quantities of milk used to produce two or more products (for example, initially as full cream milk and subsequently as skim milk) are counted once only. (b) Principally fluid milk for domestic purposes.

NOTE: Non-processed cheese and processed milk products are used in the production of processed cheese.

TABLE 3. WHOLE MILK USED FOR THE FACTORY PRODUCTION OF BUTTER, NON-PROCESSED CHEESE AND PROCESSED MILK PRODUCTS (a)
(⁰⁰⁰ litres)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Year ended 30 June							
1978	333,571	2,714,323	255,482	184,383	63,584	326,274	3,877,618
1979	356,718	2,796,872	314,715	190,543	56,121	335,958	4,050,927
1980	325,661	2,707,088	245,742	200,992	52,271	282,818	3,814,572
1979-80 -							
July	24,586	105,336	15,567	18,810	6,576	4,873	175,748
August	29,783	247,019	20,454	20,678	7,533	19,763	345,230
September	37,283	357,315	22,624	24,244	7,393	31,619	480,478
October	43,260	440,469	22,944	29,151	8,892	43,297	588,013
November	40,722	426,945	26,556	26,358	6,994	47,365	574,940
December	34,742	365,439	29,813	19,914	4,486	42,947	497,341
January	30,220	282,501	28,811	14,691	1,387	34,762	392,372
February	25,925	200,304	26,059	8,700	511	23,820	285,319
March	20,155	135,961	20,123	5,899	542	17,843	200,522
April	13,037	66,452	11,340	6,319	612	9,417	107,176
May	11,491	39,205	9,127	11,505	1,734	4,795	77,857
June	14,459	40,142	12,327	14,721	5,611	2,318	89,579

(a) Quantities of milk used to produce two or more products (for example, initially as full cream milk and subsequently as skim milk) are counted once only.

NOTE: Non-processed cheese and processed milk products are used in the production of processed cheese.

TABLE 4. WHOLE MILK USED FOR OTHER PURPOSES (a)
(⁰⁰⁰ litres)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (b)
Year ended 30 June							
1978	542,013	453,055	280,116	132,298	148,643	54,423	1,611,974
1979	556,082	450,681	275,394	130,656	156,797	54,819	1,625,489
1980	577,972	447,448	282,844	130,353	164,208	55,109	1,658,877
1979-80 -							
July	47,665	37,459	22,829	11,017	13,135	4,519	136,712
August	48,610	38,181	23,098	11,008	13,629	4,519	139,122
September	46,618	36,996	22,730	10,446	14,639	4,464	135,971
October	48,234	37,876	23,586	10,955	14,601	4,574	139,912
November	46,624	36,779	23,050	10,710	14,246	4,574	136,071
December	48,983	36,610	22,739	10,664	14,128	5,015	138,224
January	49,320	37,029	23,616	10,798	14,314	4,684	139,846
February	47,255	37,181	23,854	10,725	13,109	4,354	136,537
March	50,668	38,086	25,507	11,214	13,363	4,684	143,589
April	47,663	37,115	24,053	10,757	12,405	4,519	136,588
May	49,047	37,306	24,291	11,497	14,116	4,684	141,015
June	47,284	36,830	23,493	10,562	12,523	4,519	135,291

(a) Principally fluid milk for domestic purposes. (b) Includes estimates of production in the Northern Territory and the Australian Capital Territory.

TABLE 5. WHOLE MILK USED FOR ALL PURPOSES
(⁰⁰⁰ litres)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (a)
Year ended 30 June							
1978	875,585	3,167,378	535,598	316,681	212,228	380,697	5,489,592
1979	912,800	3,247,553	590,109	321,199	212,918	390,777	5,676,416
1980	903,633	3,154,536	528,586	331,345	216,479	337,927	5,473,449
1979-80 -							
July	72,252	142,794	38,396	29,827	19,712	9,392	312,459
August	78,393	285,201	43,552	31,686	21,162	24,282	484,352
September	83,900	394,311	45,353	34,690	22,032	36,083	616,448
October	91,494	478,345	46,529	40,107	23,493	47,871	727,924
November	87,346	463,725	49,606	37,069	21,240	51,939	711,011
December	83,725	402,049	52,552	30,578	18,614	47,962	635,565
January	79,540	319,530	52,426	25,488	15,701	39,447	532,217
February	73,180	237,486	49,912	19,426	13,619	28,173	421,856
March	70,823	174,046	45,629	17,113	13,904	22,527	344,111
April	60,699	103,566	35,393	17,076	13,017	13,936	243,764
May	60,538	76,511	33,418	23,002	15,851	9,480	218,873
June	61,744	76,973	35,820	25,283	18,134	6,837	224,869

(a) Includes estimates of production in the Northern Territory and the Australian Capital Territory.

III. PRODUCTION OF DAIRY PRODUCTS

Sources of data in Tables 6 to 8 are the Australian Dairy Corporation and State Departments of Agriculture.

TABLE 6. FACTORY PRODUCTION OF BUTTER (a)
(Tonnes)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Year ended 30 June							
1978	4,090	89,954	4,837	2,766	2,212	7,861	111,721
1979	4,046	84,120	5,664	n.p.	n.p.	7,075	104,750
1980	3,178	68,647	3,521	n.p.	n.p.	5,461	84,304
1979-80 -							
July	268	2,295	240	n.p.	n.p.	63	3,222
August	300	5,882	279	n.p.	n.p.	335	7,189
September	311	9,621	278	n.p.	n.p.	587	11,230
October	386	13,367	295	n.p.	n.p.	996	15,634
November	339	12,620	320	n.p.	n.p.	1,029	14,746
December	403	9,309	467	n.p.	n.p.	898	11,312
January	248	5,981	432	n.p.	n.p.	540	7,393
February	282	4,144	391	n.p.	n.p.	334	5,271
March	276	2,428	323	n.p.	n.p.	289	3,411
April	130	1,394	175	n.p.	n.p.	213	2,020
May	121	788	142	n.p.	n.p.	114	1,379
June	114	818	179	n.p.	n.p.	63	1,496

(a) Includes the butter equivalent of butter oil production.

TABLE 7. FACTORY PRODUCTION OF NON-PROCESSED CHEESE (a)
(Tonnes green weight)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Year ended 30 June							
1978	10,367	64,030	10,106	15,425	1,817	13,901	115,646
1979	11,869	80,746	12,562	16,806	2,340	17,493	141,815
1980	11,766	94,829	11,328	18,000	2,866	15,431	154,221
1979-80 -							
July	1,007	3,187	800	1,711	310	241	7,256
August	1,108	7,896	899	1,917	425	1,133	13,377
September	1,137	10,285	932	2,238	422	1,836	16,852
October	1,398	12,894	1,108	2,622	434	2,206	20,662
November	1,364	13,119	1,193	2,440	404	2,371	20,890
December	1,192	12,124	1,128	1,911	342	2,284	18,981
January	980	11,231	1,273	1,300	92	2,028	16,905
February	1,007	9,829	1,197	723	17	1,491	14,263
March	835	7,529	912	463	20	999	10,759
April	591	4,214	612	477	16	495	6,406
May	545	1,387	628	956	n.p.	n.p.	3,844
June	603	1,134	646	1,243	n.p.	n.p.	4,026

(a) Includes producers not within the equalisation scheme.

TABLE 8. FACTORY PRODUCTION OF NON-PROCESSED CHEESE (a) BY VARIETY, AUSTRALIA
(Tonnes green weight)

Variety	Year ended 30 June		
	1978	1979	1980
Very hard -			
Romano, Kasser, Montasio, Sardo, Malling	2,047	1,378	1,723
Other very hard varieties	1,618	1,963	1,997
Total very hard	3,665	3,341	3,720
Hard and semi-hard -			
Cheddar	85,819	104,118	113,460
Gouda	8,861	11,231	8,447
Edam, Samsoe, Swiss, Taffel,			
Tambo, Danbo, Leiden	2,940	3,907	3,492
Other hard and semi-hard varieties	909	2,803	5,212
Total hard and semi-hard	98,529	122,059	130,611
Soft -			
Feta	528	595	871
Gbejna, Strachino, Casalingo,			
Pastorello, Formaggio Fresco	(b)	(b)	(b)
Mozzarella, Scamorza, Treccia, Burrino,			
'large' cheese, Pizza Cacio	3,360	5,041	5,714
Other soft varieties	550	775	1,157
Total soft	4,438	6,410	7,742
Fresh -			
Ricotta	574	610	691
Cottage	3,807	4,117	4,566
Other fresh varieties	4,633	5,277	6,889
Total fresh	9,014	10,004	12,146
Total all varieties	115,646	141,815	154,221

(a) Includes producers not within the equalisation scheme. (b) Included in 'Other soft varieties'.

TABLE 9. FACTORY PRODUCTION OF PROCESSED MILK PRODUCTS (a), AUSTRALIA
(Tonnes)

	Condensed, concentrated and evaporated milk			Infants', invalid and health beverages			Milk in powdered form								
	Full cream			Casein (incl. casein co-precip- itates)	Infants' milk powder	Other (incl. malted milk)	Skim								
	Sweet- ened (b)	Unsweet- ened	Skim				Full cream		Without added ingredients		With added ingredients		Buttermilk or mixed skim and buttermilk		
							Spray	Roller	Spray	Roller	Bakers powder	Other	Spray	Roller	
Year ended 30 June															
1978	16,780	37,554	22,955	18,516	11,855	13,218	77,848		73,174	3,535	1,649	4,869	7,669	1,614	
1979	15,488	39,110	27,506	17,221	13,032	10,760	77,451		66,130	3,685	1,943	2,868	7,189	1,071	
1980	17,942	39,333	22,548	15,137	14,172	11,947	79,736		49,694	1,846	1,596	2,759	5,752	485	
1979-80 -															
July	502	1,114	1,583	375	946	1,268	3,351		2,783	n.p.	90	n.p.	139	42	
August	1,341	3,486	1,877	1,043	1,606	719	8,691		4,660	n.p.	189	n.p.	517	72	
September	1,642	4,229	2,167	1,956	1,187	852	11,936		5,155	n.p.	159	n.p.	952	92	
October	2,193	5,332	2,229	2,952	917	1,258	11,534		10,077	n.p.	198	n.p.	1,390	100	
November	1,958	5,515	2,424	3,142	923	1,059	10,254		10,161	n.p.	113	n.p.	1,125	85	
December	1,730	4,795	2,276	2,427	1,050	965	10,512		6,671	n.p.	176	n.p.	637	40	
January	2,126	4,695	2,098	1,374	1,766	1,119	9,183		4,183	233	144	139	426	16	
February	1,615	4,236	2,043	842	1,847	1,222	5,240		2,369	118	158	91	291	14	
March	1,904	3,304	1,955	429	1,169	1,228	4,519		1,085	16	77	54	144	10	
April	1,710	1,978	1,415	249	1,182	970	1,488		815	6	n.p.	n.p.	67	5	
May	1,060	309	1,210	188	635	290	1,156		600	8	n.p.	n.p.	n.p.	4	
June	162	340	1,270	160	944	997	1,872		1,134	17	n.p.	n.p.	n.p.	5	

(a) All annual figures are derived from the recorded monthly production and are subject to revision. (b) Includes coffee and milk.

IV. STOCKS OF BUTTER AND CHEESE

TABLE 10. STOCKS OF BUTTER, AUSTRALIA (a)
(Source : Australian Dairy Corporation)
(Tonnes)

<i>At end of month</i>	<i>1977-78</i>	<i>1978-79</i>	<i>1979-80</i>
July	12,437	17,049	6,305
August	11,074	17,236	6,859
September	15,363	21,938	10,941
October	25,047	32,146	18,183
November	35,585	38,279	25,275
December	36,797	35,908	27,645
January	41,265	37,755	29,015
February	42,568	36,516	27,738
March	40,223	32,447	23,669
April	37,327	28,028	18,936
May	29,957	19,864	13,287
June	21,673	12,533	6,192

(a) Includes butter oil etc. commercial butter equivalent basis, as reported by manufacturers.

TABLE 11. STOCKS OF CHEESE, AUSTRALIA (a)
(Source : Australian Dairy Corporation)
(Tonnes)

<i>At end of month</i>	<i>1977-78</i>	<i>1978-79</i>	<i>1979-80</i>
July	26,932	28,477	37,991
August	31,360	30,659	39,469
September	34,321	36,347	44,221
October	39,312	41,935	50,794
November	43,871	47,079	56,504
December	48,437	52,784	61,299
January	45,483	55,881	65,761
February	46,648	56,625	66,726
March	42,035	54,417	67,903
April	37,404	50,429	63,557
May	34,905	45,215	57,055
June	29,271	41,031	48,931

(a) Stocks of cheese on which the levy is payable.

V. OVERSEAS TRADE STATISTICS

TABLE 12. IMPORTS OF CHEESE BY VARIETY, AUSTRALIA
(Tonnes)

Variety	Year ended 30 June		
	1978	1979	1980 p
Processed (a) -			
cheddar	167	627	529
other (incl. gruyere)	1,581	2,110	2,516
Blue vein	478	471	434
Cheddar	1,072	776	716
Edam	840	1,009	873
Gouda	1,266	882	889
Parmesan (incl. parmigiano and reggiano)	52	62	88
Provolone	282	293	289
Camembert	380	343	441
Emmentaler	165	185	148
Fetta	748	944	1,033
Jarlsberg	690	667	962
Kasseri	210	166	270
Other (incl. pecorino and curd)	3,391	3,573	2,794
Total	11,322	12,109	11,981

(a) Includes pastes and spreads.

TABLE 13. IMPORTS OF CHEESE BY COUNTRY OF ORIGIN, AUSTRALIA
(Tonnes)

Country of origin	Year ended 30 June		
	1978	1979	1980 p
Austria	124	125	110
Bulgaria	395	597	507
Denmark	1,436	1,388	1,502
France	312	353	307
Germany, Federal Republic of	620	613	658
Greece	411	366	516
Italy	662	702	722
Netherlands	1,125	839	903
New Zealand	4,142	4,868	4,230
Norway	813	821	1,066
Romania	372	327	470
Switzerland	202	169	149
Other countries	708	942	840
Total	11,322	12,109	11,981

TABLE 14. EXPORTS OF BUTTER (a) BY COUNTRY OF CONSIGNMENT, AUSTRALIA
(Tonnes)

Country of consignment	Year ended 30 June		
	1978	1979	1980 p
Canada	4,000	2	-
Hong Kong	3,135	2,476	2,261
Indonesia	3,419	3,308	530
Japan	443	454	32
Malaysia	1,657	2,849	1,354
Mauritius	460	534	709
New Caledonia	381	327	314
Oman	2,233	2,660	1,647
Papua New Guinea	831	860	841
Philippines	1,207	2,105	238
Saudi Arabia	5,451	4,840	4,480
Singapore	1,473	2,669	2,164
Sri Lanka	712	876	879
Taiwan	457	670	856
Thailand	416	1,990	339
United Arab Emirates	1,499	1,069	1,590
U.S.S.R.	-	2,500	-
Yemen, Arab Republic	345	1,892	2,567
Yemen, Dem. Rep. of	438	599	376
Other countries	3,121	1,788	1,945
Total	31,678	34,466	23,122

(a) Australian produce only, excludes re-exports.

TABLE 15. EXPORTS OF NON-PROCESSED CHEESE (a) BY COUNTRY OF CONSIGNMENT, AUSTRALIA (Tonnes)

Country of consignment	Year ended 30 June		
	1978	1979	1980 p
Barbados	—	101	188
Canada	139	251	58
Guyana	49	603	1,424
Japan (b)	24,605	24,291	28,555
Kuwait	87	36	71
Malta	332	526	538
Oman	5	9	11
Panama	—	104	311
Papua New Guinea	48	138	174
Philippines	530	1,930	1,604
Saudi Arabia	—	191	13
United States of America	3,662	5,212	5,402
Other countries	585	758	1,939
Total	30,041	34,150	40,288

(a) Australian produce only; excludes ships' stores. (b) Includes Okinawa.

TABLE 16. EXPORTS OF PROCESSED CHEESE (a) BY COUNTRY OF CONSIGNMENT, AUSTRALIA (Tonnes)

Country of consignment	Year ended 30 June		
	1978	1979	1980 p
Bahrain	591	570	722
Indonesia	422	266	518
Iraq	486	1,838	1,856
Japan (b)	964	187	211
Kuwait	768	1,355	954
Mauritius	290	228	423
Oman	173	184	244
Philippines	3	1,102	519
Saudi Arabia	7,007	8,528	10,537
Singapore	527	320	404
United Arab Emirates	806	786	1,768
Other countries	2,012	1,877	2,682
Total	14,048	17,241	20,840

(a) Australian produce only; includes cheese pastes and cheese spreads; excludes ships' stores. (b) Includes Okinawa.

TABLE 17. EXPORTS OF CHEESE (a) BY VARIETY, AUSTRALIA (Tonnes)

Year ended 30 June	Processed (b)	Cheddar and epicure cheddar	Parmesan (incl. Parmigiano and Reggiano)	Gouda	Other	Total
1978	14,048	18,954	5	8,143	2,940	44,089
1979	17,241	19,383	55	8,505	6,206	51,391
1980 p	20,840	25,204	100	6,139	8,844	61,127

(a) Excludes ships' stores. (b) Includes pastes and spreads. (c) Included in 'Other'.

TABLE 18. EXPORTS OF DAIRY PRODUCTS, AUSTRALIA (Tonnes)

Year ended 30 June	Processed milk products								
	Cheese		Preserved, condensed, concentrated, etc.		Milk and cream baby foods		Dried or in powdered form		
	Butter	Non-processed	Processed	Sweetened	Un-sweetened	Ice cream mix	Casein (a)	Full cream	Skim
1978	31,678	30,041	14,048	5,265	2,370	610	7,349	11,902	50,250
1979	34,466	34,130	17,241	5,537	5,241	918	9,767	11,605	44,204
1980 p	23,122	40,288	20,840	7,076	6,890	1,259	12,588	10,723	64,578

(a) Casein includes hydrochloric, lactic and rennet.

VI. APPARENT CONSUMPTION OF DAIRY PRODUCTS AND MARGARINE

TABLE 19. APPARENT CONSUMPTION OF DAIRY PRODUCTS AND MARGARINE, AUSTRALIA

	Available for consumption Year ended 30 June			Per capita consumption (a) Year ended 30 June		
	1978	1979	1980 p	1978	1979	1980 p
	- million litres -			- litres -		
Fluid whole milk	1,473.8	1,480.9	1,519.8	104.1	103.3	104.7
	- '000 tonnes -			- kilograms -		
Butter	72.4	64.9	66.5	5.1	4.5	4.6
Cheese (natural equivalent weight)	92.2	93.5	104.3	6.5	6.5	7.2
Condensed, concentrated and evaporated milk -						
Full cream -						
Sweetened	11.8	10.7	6.6	0.8	0.7	0.5
Unsweetened	32.2	36.3	27.7	2.3	2.5	1.9
Skim	22.0	21.6	19.0	1.6	1.5	1.3
Powdered milk -						
Full cream	20.8	28.6	18.2	1.5	2.0	1.3
Skim (incl. buttermilk and mixed skim and buttermilk)	44.8	55.4	46.0	3.2	3.9	3.2
Infants' and invalids' food	17.7	15.1	16.0	1.2	1.1	1.1
Margarine -						
Table	80.6	84.9	93.9	5.7	5.9	6.5
Other	41.2	42.0	35.8	2.9	2.9	2.5

(a) Apparent per capita consumption has been calculated using the following mean population figures: 1977-78 14,161,421; 1978-79 14,333,241; 1979-80 14,516,489 p.

TABLE 20. APPARENT CONSUMPTION OF DAIRY PRODUCTS AND MARGARINE, AUSTRALIA, 1979-80 p

Commodity	Supply				Utilisation			
	Net change in stocks	Commercial production	Imports	Total supply	Exports (a)	For processed food	Apparent consumption in Australia as human food	Per capita per year
				- million litres -				Litres
Fluid whole milk	..	5,465.2	-	5,465.2	12.7	3,932.8	1,519.8	104.7
				- '000 tonnes -				Kg
Butter	n.a.	n.a.	-	n.a.	n.a.	..	(b)66.5	4.6
Cheese (natural equivalent weight)	(+)7.4	(c)157.0	11.9	161.4	57.1	..	104.3	7.2
Condensed, concentrated and evaporated milk -								
Full cream -								
Sweetened	(+)4.4	17.9	0.4	13.9	7.3	..	6.6	0.5
Unsweetened	(+)4.8	39.3	-	34.6	6.9	..	27.7	1.9
Skim	-	22.5	0.8	23.3	4.3	..	19.0	1.3
Powdered milk -								
Full cream	(-)7.1	79.7	1.0	87.8	69.6	..	18.2	1.3
Skim (incl. buttermilk and mixed skim and buttermilk)	(-)0.6	62.1	-	62.7	16.7	..	46.0	3.2
Infants' and invalids' food	(-)1.8	26.1	0.7	28.6	12.6	..	16.0	1.1
Margarine -								
Table	(-)0.4	94.1	-	94.5	0.7	..	93.9	6.5
Other	(-)0.2	38.0	-	38.1	2.4	..	35.8	2.5

(a) Includes ships' and aircraft stores. (b) Includes butter equivalent of butter oil, butter concentrate and ghee. (c) Includes an estimate of 2,74.3 tonnes estimated home production.

VII. GROSS VALUE OF WHOLE MILK

TABLE 21. GROSS VALUE OF WHOLE MILK USED
(\$'000)

<i>Year ended 30 June</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
WHOLE MILK USED FOR BUTTER									
1978	7,912	102,151	5,286	2,834	2,508	n.p.	—	—	(a)120,691
1979	8,360	101,121	6,582	2,745	1,627	12,935	—	—	133,370
1980 p	7,506	89,949	3,908	2,748	938	11,578	—	—	116,627
WHOLE MILK USED FOR CHEESE									
1978	6,021	37,248	6,672	11,044	1,667	n.p.	—	—	(a)62,652
1979	7,470	46,537	8,659	13,126	2,571	17,406	—	—	95,769
1980 p	7,587	53,806	9,330	18,685	3,326	14,429	—	—	107,163
WHOLE MILK USED FOR PROCESSED MILK PRODUCTS									
1978	7,457	35,198	5,931	339	401	n.p.	—	—	(a)49,326
1979	7,807	47,868	8,048	499	690	3,255	—	—	68,167
1980 p	8,466	47,595	6,456	478	664	3,689	—	—	67,348
WHOLE MILK USED FOR OTHER PURPOSES (b)									
1978	114,756	72,380	53,232	20,076	25,349	8,693	72	n.a.	(c)294,558
1979	130,136	85,629	55,249	21,038	31,661	10,416	72	n.a.	(c)334,201
1980 p	145,962	70,835	57,275	22,012	34,437	11,022	72	n.a.	(c)341,615
TOTAL WHOLE MILK USED									
1978	136,146	246,977	71,121	34,253	29,925	34,795	72	n.a.	(c)553,329
1979	153,773	281,155	78,538	37,407	36,549	44,012	72	n.a.	(c)631,506
1980 p	169,521	262,185	76,969	43,924	39,364	40,718	72	n.a.	(c)632,753

(a) Incomplete; excludes Tasmania. (b) Principally fluid milk for domestic purposes. (c) Incomplete; excludes the Australian Capital Territory.

VIII. STRUCTURAL STATISTICS

Tables 22 and 23 contain details of the structural data of economic units predominantly engaged in the milk cattle industry.

Australian Standard Industrial Classification (ASIC)

2. The Australian Standard Industrial Classification (ASIC) defines the industries of the economy for statistical purposes, thus permitting the scope of the different economic statistical collections to be specified without gaps or overlapping between them. It also sets out standard rules for identifying the economic units referred to in these tables (i.e. enterprises) and for coding them to the industries of the Classification. The 1978 edition of ASIC sub-division 01, Agriculture, has been used for tables 22 and 23 covering agricultural industries.

Definitions

3. An *enterprise* is defined broadly as the unit comprising all operations in Australia of a single operating legal entity. The term legal entity is used to cover a sole operator, partnership, company, trust, co-operative society or estate in the private sector, or a department, local government authority or statutory authority in the government sector. An *agricultural enterprise* is an enterprise which is mainly engaged in agricultural activities. For the agricultural sector a multi-State enterprise is an enterprise which undertakes agricultural activities in more than one State or Territory. An *establishment* covers all operations carried out by one enterprise at a single physical location.

Structural statistics

4. Each agricultural enterprise is classified each year to an industry of ASIC Sub-division 01, Agriculture, by applying unit prices to each agricultural activity undertaken by the enterprise and by then assessing the predominant activity according to the estimated value derived. An enterprise is not tabulated if the estimated value derived is less than \$1,500. A more detailed explanation of the units involved in agriculture and the determination of the industry of such economic units is given in the publication *Agricultural Sector, Structure of Operating Units, Australia 1977-78* (7102.0).

Financial statistics

5. The 1977-78 financial statistics of agricultural enterprises engaged predominantly in the milk cattle industry were last published in the 1978-79 issue of this publication. The statistics were derived from the 1977-78 Agricultural Finance Survey and the next Survey is planned to be conducted for the 1980-81 financial year. No data will be available for the intervening years. Detailed information and an explanation of the framework of the Survey is given in the publication *Agricultural Sector Financial Statistics, Australia, 1977-78* (7507.0).

TABLE 22. NUMBER OF AGRICULTURAL ENTERPRISES CLASSIFIED TO ASIC INDUSTRY CLASS 0187 - MILK CATTLE

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (a)
0187 Milk cattle							
1976-77	4,501	12,561	3,881	1,628	770	1,707	25,079
1977-78	4,158	11,851	3,597	1,527	663	1,517	23,334
1978-79	3,779	11,347	3,144	1,455	604	1,480	21,823
01 Total agriculture (b)							
1976-77	49,586	46,788	32,297	18,921	15,691	5,768	169,754
1977-78	48,806	46,626	32,185	19,236	15,756	5,793	169,143
1978-79	48,562	47,536	32,867	19,391	16,065	5,847	170,989

(a) Includes enterprises located in the Northern Territory and the Australian Capital Territory as well as multi-State enterprises. (b) Includes all classes in ASIC sub-division 01, Agriculture.

TABLE 23. LEGAL STATUS OF AGRICULTURAL ENTERPRISES CLASSIFIED TO ASIC INDUSTRY CLASS 0187 - MILK CATTLE, AUSTRALIA (Number)

	Legal Status						Total enterprises
	Sole operator	Family partnership	Other partnership	Private incorporated company	Public incorporated company	Other (a)	
0187 Milk cattle							
1976-77	9,305	14,466	355	453	13	487	25,079
1977-78	7,898	14,139	395	438	19	445	23,334
1978-79	6,643	13,894	418	470	18	380	21,823
01 Total agriculture (b)							
1976-77	58,975	97,470	3,614	5,982	128	3,585	169,754
1977-78	55,672	99,169	4,083	6,422	176	3,621	169,143
1978-79	53,407	101,797	4,861	7,187	189	3,548	170,989

(a) Includes co-operative societies, trusts and estates. (b) Includes all classes in ASIC sub-division 01, Agriculture.

The following table, compiled from the Census of Manufacturing Establishments, shows a summary of the operations of establishments classified to the ASIC industry group Milk Products (comprising ASIC industry

classes; 2121 - Liquid Milk and Cream, 2122 - Butter, 2123 - Cheese, 2124 - Ice Cream and Frozen Confections and 2125 - Milk Products not elsewhere classified).

TABLE 24. SUMMARY OF OPERATIONS OF MANUFACTURING ESTABLISHMENTS (a) CLASSIFIED TO ASIC INDUSTRY GROUP 212 - MILK PRODUCTS

	Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (b)
	- number -							
Number of establishments operating at 30 June	1977	76	103	45	28	18	16	289
	1978	79	115	42	27	16	15	296
	1979	75	111	41	23	16	15	283
Employment (incl. working proprietors)								
Average over whole year -								
Males	1976-77	4,407	6,663	1,780	1,202	843	634	15,694
	1977-78	4,351	7,036	1,709	1,087	n.p.	657	15,736
	1978-79	4,161	7,265	1,877	929	n.p.	652	15,691
Females	1976-77	1,189	1,501	449	364	350	157	4,061
	1977-78	1,254	1,633	447	368	n.p.	171	4,217
	1978-79	1,111	1,706	473	299	n.p.	157	4,053
Total	1976-77	5,596	8,164	2,229	1,566	1,193	791	19,755
	1977-78	5,605	8,669	2,156	1,455	n.p.	828	19,953
	1978-79	5,272	8,971	2,350	1,228	n.p.	809	19,744
	- \$'000 -							
Wages and salaries (c)	1976-77	54,477	74,985	20,300	13,598	11,056	7,182	183,846
	1977-78	59,950	89,740	20,269	13,659	n.p.	6,843	203,472
	1978-79	59,032	98,932	24,363	12,413	n.p.	8,426	215,389
Turnover	1976-77	326,268	642,899	171,822	77,310	80,972	66,686	1,380,078
	1977-78	357,903	783,327	170,411	83,552	n.p.	74,561	1,562,670
	1978-79	389,369	891,481	211,694	88,329	n.p.	71,718	1,765,721
Stocks at end of June -								
Opening	1976-77	16,902	49,638	8,713	4,140	3,815	6,611	90,606
	1977-78	17,738	51,465	9,817	4,773	n.p.	8,187	95,343
	1978-79	17,635	66,228	10,286	4,389	n.p.	5,933	109,147
Closing	1976-77	17,231	49,820	9,698	4,562	2,897	7,762	93,003
	1977-78	18,987	60,418	10,057	4,956	n.p.	5,571	104,397
	1978-79	20,243	74,337	13,162	6,030	n.p.	7,269	126,271
Purchases, transfers in and selected expenses	1976-77	244,113	503,954	134,671	47,790	63,633	50,333	1,055,810
	1977-78	269,761	628,104	127,885	51,463	n.p.	52,085	1,201,678
	1978-79	296,570	708,289	160,605	60,038	n.p.	54,786	1,369,825
Value added	1976-77	82,483	139,128	38,137	29,942	16,420	17,505	326,665
	1977-78	89,391	164,176	42,766	32,272	n.p.	19,860	370,046
	1978-79	95,408	191,302	53,965	29,933	n.p.	18,267	413,019
Fixed capital expenditure (outlay on fixed tangible assets less disposals)	1976-77	8,822	10,636	3,773	2,176	2,315	1,094	29,930
	1977-78	7,757	18,873	4,720	2,603	n.p.	3,509	38,899
	1978-79	10,090	28,243	6,618	4,565	n.p.	2,272	53,976

(a) Details relate only to manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. (b) Includes the Northern Territory and the Australian Capital Territory. (c) Excludes the drawings of working proprietors.

IX. ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY CLASSIFIED ACCORDING TO SIZE OF MILK CATTLE HERDS

TABLE 25. NUMBER OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY CLASSIFIED ACCORDING TO AREA OF ESTABLISHMENT AND SIZE OF MILK CATTLE HERD, AUSTRALIA (a), AT 31 MARCH, 1977 TO 1979

	Size of milk cattle herd (number)															Establishments with milk cattle	Establishments with no milk cattle	Total number of establishments
	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-124	125-149	150-174	175-199	200-249	250 and over		
1977	4,631	1,168	1,044	1,050	1,238	1,382	1,623	1,759	1,981	1,931	4,565	3,442	2,335	1,388	1,444	1,218	32,199	185,891
1978	4,039	1,072	942	1,022	1,152	1,330	1,505	1,644	1,817	1,794	4,284	3,203	2,244	1,334	1,345	1,129	29,856	182,125
1979																		
NSW	513	89	100	149	169	238	276	301	368	342	651	452	289	183	218	186	4,524	53,528
Vic	1,794	447	352	327	318	456	490	595	747	773	2,243	1,861	1,263	816	700	620	13,802	49,270
Qld	298	90	171	202	246	255	316	296	320	293	558	382	271	113	135	99	4,045	31,409
S.A.	657	220	143	113	141	142	125	125	114	132	216	130	85	46	39	50	2,478	19,544
W.A.	218	16	20	17	16	15	13	15	28	17	72	86	92	63	104	128	920	16,957
Tas.	276	128	96	130	92	116	115	118	119	128	241	124	105	67	62	52	1,969	4,173
Area of establishment (Hectares)																		
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(b)1,810	(b)1,810
> 0	4	38	10	4	-	-	-	-	-	-	-	-	-	-	-	-	52	5,326
5	9	93	44	16	9	1	-	-	1	1	-	-	-	-	-	-	165	4,951
10	19	207	142	86	64	41	35	20	9	3	2	-	1	-	-	-	610	7,685
20	29	201	95	103	121	98	79	52	51	43	24	39	8	4	2	1	921	5,358
30	39	136	75	89	117	116	116	121	90	83	69	127	30	14	2	1	1,186	4,818
40	49	158	74	71	104	123	164	166	152	187	148	331	145	27	5	3	1,861	5,177
50	74	267	107	136	157	187	251	336	347	392	370	845	537	219	79	32	11	4,273
75	99	167	73	78	98	109	150	188	131	170	195	513	447	340	200	162	53	2,789
100	124	135	45	39	72	70	103	114	131	129	145	357	328	259	196	183	75	2,254
125	149	109	44	36	51	60	91	76	115	129	145	357	328	259	196	183	75	2,254
150	199	220	36	54	38	55	75	91	133	150	153	414	357	324	226	254	164	2,744
200	249	200	38	19	28	37	51	62	65	89	93	230	208	195	162	194	177	1,848
250	299	168	23	30	15	21	25	29	41	49	66	146	124	103	68	100	141	1,149
300	399	308	47	41	17	28	37	29	27	50	48	121	136	93	82	104	167	1,335
400	499	252	29	18	15	9	15	25	23	32	30	63	55	61	40	56	111	834
500	749	342	39	26	15	16	15	18	23	21	24	59	49	50	43	52	109	901
750	999	218	15	9	6	6	6	4	5	4	6	14	17	20	12	15	48	405
1,000 - 1,999	2,999	297	36	20	9	5	5	3	4	9	7	19	19	16	8	13	38	508
2,000 - 2,999	3,999	109	10	4	2	-	2	-	2	1	2	4	1	2	2	-	6	147
3,000 - 3,999	4,999	37	-	1	-	1	-	-	-	-	1	1	-	-	1	1	43	2,390
4,000 - 4,999	5,999	21	5	-	-	-	-	-	2	-	-	1	-	2	-	-	31	1,407
5,000 - 9,999	10,000 - 19,999	32	4	2	-	1	1	1	-	1	2	-	-	1	-	5	50	2,748
20,000 - 29,999	30,000 - 49,999	21	-	-	-	-	-	-	-	-	-	-	-	-	-	1	24	2,050
50,000 and over		12	-	-	-	-	-	-	-	-	1	-	1	-	-	-	14	867
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	744
		4	-	1	-	-	-	-	-	-	1	-	-	-	-	-	6	1,333
Total number of establishments	3,759	991	883	938	984	1,222	1,335	1,451	1,696	1,685	3,982	3,035	2,106	1,288	1,258	1,135	27,748	184,716

(a) Detailed State information is available on request. (b) Establishments engaged in beekeeping possessing no land.