

CHAPTER XXI.

FARMYARD, DAIRY AND BEE PRODUCTS.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this publication. It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and in certain districts rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *materiel*, prevails.

The export trade is regulated by the terms of the Commonwealth Commerce (Trade Descriptions) Act 1905–1933, and regulations thereunder. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

3. **Stabilization Schemes.**—(i) *Voluntary Plan.* During the period from January, 1926 to April, 1934, a voluntary scheme known as the “Paterson Plan” was in operation and had the effect of stabilizing the price of butter in Australia. The scheme provided for the payment of a levy on all butter produced in Australia sufficient to pay a bounty on export which ranged from 3d. to 4½d. per lb. The local price was raised by the amount of the bounty per unit while the return to the producer on all butter produced was increased by approximately the difference between the rate of bounty paid and the rate of levy charged. The scheme, which continued until 25th April, 1934, did not receive the full support of all butter manufacturers.

(ii) *Compulsory Plan.* On 1st May, 1934 the “Paterson Plan” was superseded by a compulsory price equalization plan. The object of this scheme was to maintain local prices for butter and cheese independently of prices realized for exports. The Dairy Produce Act was passed by the Commonwealth Parliament towards the end of 1933, and at the same time complementary legislation was passed by the Parliaments of New South Wales, Victoria, Queensland and Tasmania. As a result of a referendum

among producers held in 1936, Tasmania withdrew from the plan and the State Act expired. In the Commonwealth Act power was given to regulate interstate trade while the State Acts were designed to regulate trade within the respective States. The authority set up by each State Act fixed the proportion of the State's production to be sold within the State, and the Commonwealth Act protected this allocation by regulating the movement of butter and cheese from one State to another and so ensured the removal from the Australian market of the surplus production.

The compulsory plan was invalidated by the decision in 1936 of the Privy Council which declared in the James (Dried Fruits) Case that the Commonwealth had no power under the Constitution to regulate trade between the States.

(iii) *Equalization Scheme.* Since the Privy Council decision, the butter price stabilization scheme has continued to operate by voluntary action based on the agreements between the manufacturers and the Commonwealth Dairy Produce Equalization Committee Limited. The Committee, which comprises members of the Dairy Products Boards of the four eastern States and other persons representing the industry, enters into agreements with manufacturers to secure to them equal rates from sales of dairy produce, and for this purpose may fix basic prices at which dairy produce sold in Australia or abroad is to be taken into account. The effect is that local and export trade are distributed in equitable proportions among the manufacturers by means of quotas. The Committee fixes basic prices and equalizes returns to factories through an Equalization Fund. The quotas are the same in New South Wales, Victoria, Queensland and Tasmania, all the States concerned in the scheme.

The Commonwealth Prices Commissioner has fixed the home consumption prices of butter and cheese.

4. *Mixed Farming.*—Dairying is not, as formerly, wholly confined to agriculturists, since many graziers in a large way of business also give it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established. The extent to which dairy cows and pigs were run in conjunction with the growing of wheat in 1935-36 is referred to on page 375 of Official Year Book No. 33.

5. *Factory System.*—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality, and few farmers prefer to convert the cream rather than send it to the factory. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than $2\frac{1}{2}$ gallons.

6. *Butter and Cheese Factories.*—The factories in Australia for the manufacture of butter, cheese and condensed milk numbered 472 in 1943-44. They were distributed among the States as follows:—New South Wales, 117; Victoria, 152; Queensland, 59; South Australia, 47; Western Australia, 17; and Tasmania, 40. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXV. "Manufacturing Industry".

7. *Employment.*—The numbers of persons employed in primary industry are ascertained at the annual census of rural production. The particulars collected are in respect of those persons who were permanently engaged in the actual work of the farm and include owners, lessees, tenants or sharefarmers, relatives over 14 years of age not receiving wages, and other permanent employees, including managers and relatives, working for wages or salary.

For the years prior to 1940-41, it was possible to classify each holding according to the chief purpose for which it was used and thus obtain a distribution of employment in the three main classes viz., Agriculture, Pastoral and Dairying. As this information has been omitted from the schedules since that year, it has not been possible to continue the details given in the following table.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total.
		No.	No.	No.	No.	No.	No.	No.
1935-36	Males ..	38,150	42,072	27,000	4,500	5,465	3,539	120,726
	Females ..	6,481	7,790	7,000	2,756	1,249	2,462	27,738
1936-37	Males ..	37,450	41,922	28,600	4,578	5,261	3,332	121,143
	Females ..	5,444	7,666	7,000	2,331	1,143	2,234	25,818
1937-38	Males ..	35,940	41,878	(b) 29,000	4,540	5,495	3,634	120,487
	Females ..	6,027	7,406	(b) 7,000	2,779	1,129	2,146	26,487
1938-39	Males ..	35,860	41,829	27,000	4,436	6,365	3,917	119,407
	Females ..	6,505	7,222	7,000	2,812	1,661	2,200	27,400
1939-40	Males ..	35,915	41,854	28,800	4,757	6,362	3,670	121,358
	Females ..	7,130	7,314	7,000	2,418	1,678	2,064	27,604

(a) Estimated from returns of Queensland State Government Insurance Office. (b) As recorded by Government Statistician.

The following table gives some indication of the activity in the dairying industry since 1918-19 :-

DAIRYING INDUSTRY : AUSTRALIA.

Year.	Number of Dairy Cows.		Production of Butter.	Production of Cheese.	Milking Machines (No. of Stands).	Number of Males engaged.
	In milk.	Dry.				
1918-19 ..	1,319,588	582,448	Tons. 81,162	Tons. 10,621	(a)	68,100
1928-29 ..	1,744,728	600,342	129,817	13,490	(a)	82,300
1938-39 ..	2,600,707	608,812	203,500	29,304	(a)	119,400
1942-43 ..	2,370,982	836,774	171,237	36,134	89,796	(a)
1943-44 ..	2,292,769	900,063	156,282	35,825	100,878	(a)

(a) Not available.

§ 2. Dairy Cattle and Dairy Products.

1. Dairy Herds.—Due to the lack of uniformity in the schedules used by the several States in the collection of live-stock statistics, it is not possible to measure with precision the growth of the dairy herds of Australia prior to 1943. However, statistics of dairy cows, which provide a reliable measurement of this development, show that in 1918-19 there were 1,900,000 dairy cows in milk and dry, compared with 2,345,000 in 1928-29 and 3,200,000 in 1938-39. This latter figure was sustained until March, 1944, but in 1945 a slight decline occurred. In New South Wales, Victoria, South Australia and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory and Western Australia there is a greatly preponderating number of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in Southern Queensland since 1914-15, and the largest contribution to the Australian increase previously mentioned has been made by this State. The numbers of dairy cows for 1943 to 1945 shown in the following table refer to those recorded by farmers as being in milk and dry as at 31st March. The figures shown for the earlier years cover the same categories, but the period differs in some States. To this extent the figures lack comparability which is indicated in footnotes (b) and (c).

NUMBER OF CATTLE AND DAIRY COWS (IN MILK AND DRY).^(a)

State.	Beginning of Year.		31st March—			
	1939. ^(b)	1942. ^(c)	1943.	1944.	1945.	
New South Wales	All Cattle ..	2,811,884	2,878,450	3,039,546	3,143,378	3,144,701
	Dairy Cows ..	985,251	944,912	926,599	919,135	903,157
Victoria	All Cattle ..	1,697,295	1,986,544	2,022,892	2,013,033	1,903,110
	Dairy Cows ..	859,811	900,467	877,164	874,796	859,200
Queensland	All Cattle ..	6,097,089	6,303,468	6,466,316	6,524,553	6,623,112
	Dairy Cows ..	997,123	1,020,000	1,035,260	1,022,859	1,001,378
South Australia	All Cattle ..	318,897	399,143	424,253	414,997	391,323
	Dairy Cows ..	152,699	162,404	157,297	161,676	161,953
Western Australia	All Cattle ..	767,680	839,731	831,231	870,939	852,563
	Dairy Cows ..	119,814	128,664	129,763	138,100	136,499
Tasmania	All Cattle ..	262,407	253,106	244,681	230,127	224,668
	Dairy Cows ..	93,816	89,345	80,559	75,014	75,435
Northern Territory	All Cattle ..	899,472	892,881	978,434	978,569	984,370
	Dairy Cows ..	(d)	(d)	(d)	(d)	(d)
Australian Capital Territory	All Cattle ..	7,057	7,432	6,967	8,083	9,320
	Dairy Cows ..	1,005	1,122	1,114	1,252	1,264
Australia	All Cattle ..	12,861,781	13,560,754	14,005,320	14,183,679	14,133,167
	Dairy Cows ..	3,209,519	3,246,855	3,207,756	3,192,832	3,138,886

(a) Includes cows (milking and dry) in New South Wales not in registered dairies. (b) As at 31st March for New South Wales; 1st March for Victoria; 1st January for Queensland, South Australia, Western Australia and Tasmania. (c) As shown in footnote (b) except as follows:—30th June, Queensland; and 31st March, Tasmania. (d) Not available.

In the next table the dairy cattle in each State are shown in various categories as at 31st March, 1943, 1944 and 1945. Similar information in this detail is not available for earlier dates as the schedules then used in the collection of these statistics were not completely uniform.

NUMBER OF DAIRY CATTLE.

State.	31st March.	Dairy Cows.		Dairy Heifers 1 year and over.	Dairy Calves under 1 year.	Dairy Bulls.	Total Dairy Cattle.
		In Milk.	Dry.				
New South Wales	1943	(a) 721,417	205,182	210,468	190,585	26,720	1,354,372
	1944	(a) 691,867	227,268	206,138	185,297	26,116	1,336,686
	1945	(a) 706,272	196,885	212,834	189,777	25,767	1,331,535
Victoria	1943	642,110	235,054	247,374	281,512	39,480	1,445,530
	1944	611,599	263,197	275,005	218,970	37,257	1,406,028
	1945	591,437	267,763	267,265	202,258	35,479	1,364,202
Queensland	1943	764,629	270,631	273,520	232,276	32,569	1,573,625
	1944	749,162	273,697	267,539	225,134	39,522	1,549,054
	1945	742,387	258,991	266,451	210,960	39,453	1,509,242
South Australia	1943	109,154	48,143	43,288	44,822	8,189	253,596
	1944	111,022	50,654	44,043	39,991	7,393	253,103
	1945	108,428	53,525	41,907	34,099	7,149	245,108
Western Australia	1943	68,471	61,292	39,728	50,787	6,410	226,688
	1944	67,770	70,330	41,804	54,831	6,634	241,369
	1945	66,219	70,280	42,753	49,047	6,235	234,534
Tasmania	1943	61,414	16,145	22,883	35,016	4,488	142,946
	1944	60,485	14,529	20,833	29,221	3,707	128,775
	1945	61,617	13,818	20,892	28,097	3,642	128,066
Australian Capital Territory	1943	787	327	204	203	18	1,539
	1944	864	388	467	318	31	2,068
	1945	887	377	637	484	27	2,412
Australia ^(b)	1943	2,370,982	836,774	837,465	835,201	117,874	4,998,296
	1944	2,292,769	900,063	855,829	753,762	111,660	4,914,083
	1945	2,277,247	861,639	852,739	714,722	108,752	4,815,099

(a) Including other cows in milk not in registered dairies. (b) Excludes Northern Territory.

2. Milk.—The annual quantity of milk produced per dairy cow reaches as high as 1,000 gallons, varying greatly with breed, locality and season. For the whole of Australia for all dairy cows and for all seasons prior to 1916 it averaged considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods has been continually extended, and the 300-gallon average has been exceeded in each year since 1924, the yield of 392 gallons in 1931 constituting a record. The annual average yields per cow for the last five years given in the following table are based on the number of dairy cows which were in milk during any part of the year. The average given is, therefore, below that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of particulars of the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with reasonable accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend :—

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia. (b)
1938-39—								
Dairy Cows (a) .. No.	994,155	889,719	961,674	152,686	119,183	93,154	1,041	3,211,612
Production '000 gal.	311,384	377,882	347,336	72,521	45,562	34,140	350	1,189,175
Aver. per cow .. gal.	313	425	361	475	382	366	336	370
1940-41—								
Dairy Cows (a) .. No.	969,341	883,994	1,013,706	159,783	123,111	92,618	1,064	3,243,617
Production '000 gal.	308,048	447,874	279,267	78,762	44,801	31,978	444	1,190,274
Aver. per cow .. gal.	318	501	276	493	364	336	417	367
1941-42—								
Dairy Cows (a) .. No.	951,657	902,662	1,011,339	162,812	126,517	91,582	1,109	3,247,678
Production '000 gal.	279,975	428,691	237,635	78,918	49,050	30,196	405	1,104,870
Aver. per cow .. gal.	294	475	235	485	388	330	365	340
1942-43—								
Dairy Cows (a) .. No.	935,756	888,786	1,027,630	159,850	129,213	84,952	1,118	3,227,305
Production '000 gal.	303,502	381,640	289,868	78,563	46,346	29,371	400	1,129,630
Aver. per cow .. gal.	324	429	282	491	359	309	358	350
1943-44—								
Dairy Cows (a) .. No.	922,867	875,980	1,029,060	159,487	133,931	77,786	1,183	3,200,294
Production '000 gal.	297,175	360,532	260,996	78,172	43,156	26,288	360	1,066,679
Aver. per cow .. gal.	322	412	254	495	322	338	304	333

(a) Mean for the year.

(b) Excludes Northern Territory.

3. Butter.—The quantity of butter produced in Australia depends chiefly upon seasonal conditions. There was a steady increase in the annual output of butter for many years prior to the 1939-45 War. The average annual production rose from 120,000 tons for the five years 1924 to 1928 to 195,500 tons for the five years ended 1939-40.

The output of 212,000 tons in 1939-40 was a record. Except for a slight increase in 1942-43 production has declined consistently since that year and for 1945-46 represents a level of about 150,194 tons. The factors contributing to this decline include unfavourable seasons, transfer of man-power owing to the war, shortages of fertilizers for pastures and change in some factories from butter to cheese manufacture.

The following table shows production of butter in factories in each State for the years 1938-39 and 1941-42 to 1944-45.

BUTTER PRODUCTION IN FACTORIES.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia (a)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	50,822	56,611	68,919	7,836	6,545	4,053	194,786
1941-42 ..	37,998	61,558	42,712	7,912	6,990	3,598	160,768
1942-43 ..	41,864	54,809	49,782	8,065	6,446	3,389	164,355
1943-44 ..	39,222	48,864	45,276	8,049	6,155	3,268	150,834
1944-45 ..	32,019	46,443	42,415	6,974	5,676	3,643	137,170

(a) Northern Territory and Australian Capital Territory: Nil.

The table below shows the monthly production of factory butter in Australia in each of the years 1938-39 and 1941-42 to 1944-45. The annual output of farm butter is also shown.

PRODUCTION OF BUTTER IN FACTORIES AND ON FARMS: AUSTRALIA.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	Tons.	Tons.	Tons.	Tons.	Tons.
Factories—					
July	9,415	10,003	10,317	7,142	6,124
August	11,645	11,028	11,589	8,224	8,586
September	15,531	14,164	14,016	11,591	12,538
October	20,485	17,227	17,206	16,955	16,831
November	22,561	17,605	19,832	20,927	15,955
December	20,710	17,860	19,516	20,997	15,193
January	15,872	12,977	19,521	18,688	15,409
February	15,816	13,261	15,439	14,670	12,129
March	17,729	14,505	13,369	12,194	12,922
April	16,583	12,078	9,067	7,748	8,707
May	15,568	10,283	7,688	6,265	6,784
June	12,871	9,777	6,795	5,433	5,992
Factory Total	194,786	160,768	164,355	150,834	137,170
Made on Farms	8,714	6,863	6,882	5,448	(a) 4,793
Grand Total	203,500	167,631	171,237	156,282	141,963

(a) Estimated.

4. Cheese.—For many years the production of cheese in Australia ranged about 13,400 tons per annum. By 1932-33 production had risen to 16,500 tons and, apart from minor fluctuations, has continued to rise until it reached nearly 36,000 tons in 1943-44. The States contributing chiefly towards this increase are Victoria, Queensland and South Australia.

The following table shows production of cheese in factories in each State in the years 1938-39 and 1941-42 to 1944-45 :—

CHEESE PRODUCTION IN FACTORIES.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.(a)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39	3,211	8,637	7,031	8,239	436	1,420	28,974
1941-42	2,332	10,937	7,292	8,439	580	1,370	30,050
1942-43	2,297	11,266	12,729	7,999	723	965	35,979
1943-44	2,399	11,868	10,733	8,805	792	1,052	35,649
1944-45	1,964	12,205	10,101	8,244	822	1,122	34,458

(a) Northern Territory and Australian Capital Territory : Nil.

The monthly production of cheese in factories in Australia, together with the annual output from farms, is shown in the table below for 1938-39 and each of the years 1941-42 to 1944-45.

PRODUCTION OF CHEESE IN FACTORIES AND ON FARMS: AUSTRALIA.

Month.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	Tons.	Tons.	Tons.	Tons.	Tons.
Factories—					
July	1,517	1,669	2,367	1,755	1,572
August	1,950	2,208	3,024	2,288	2,555
September	2,820	3,065	3,707	3,602	3,918
October	4,028	3,891	4,631	5,250	5,273
November	3,990	3,852	4,974	5,521	4,858
December	3,462	3,283	4,201	4,975	4,112
January	2,212	2,196	3,767	3,627	3,264
February	1,715	1,904	2,649	2,634	2,433
March	1,826	2,117	2,220	2,126	2,471
April	1,656	1,909	1,502	1,448	1,496
May	1,898	1,900	1,417	1,199	1,279
June	1,900	2,056	1,460	1,224	1,227
Factory Total	28,974	30,050	35,979	35,649	34,458
Made on Farms	330	93	155	176	162
Grand Total	29,304	30,143	36,134	35,825	34,620

5. **Condensed, Concentrated and Powdered Milk, etc.**—The manufacture of these products has expanded greatly since 1938-39 due mainly to the demand to meet the needs of the Services during the 1939-45 War. The output for the years 1938-39 and 1940-41 to 1943-44 was as follows:—

PRODUCTION OF CONDENSED, CONCENTRATED AND POWDERED MILK, ETC.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	lb.	lb.	lb.	lb.	lb.
New South Wales	11,204,574	26,714,311	37,769,089	34,870,506	43,530,151
Victoria	52,475,320	81,114,033	119,162,917	109,746,110	110,764,536
Other States (a)	8,600,558	14,456,699	13,482,670	12,639,360	14,977,972
Total	72,280,452	122,285,043	170,414,676	157,255,976	169,272,659

(a) Separate details not available for publication.

6. **War-time Contract—Butter and Cheese.**—At the outbreak of war in September, 1939, contracts were negotiated between the Governments of the Commonwealth and the United Kingdom whereby the latter undertook to purchase from Australia, at prices fixed according to grade, surplus quantities of butter and cheese for the period ending June, 1940. The contracts have been further extended to June, 1948. Further details regarding quantities and prices paid may be found in Chapter XXVIII. "Miscellaneous".

7. **Oversea Trade in Butter, Cheese and Milk.**—The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon the seasonal conditions. In pre-war years the quantity of butter and cheese consumed annually in Australia was about 100,000 tons and 13,400 tons respectively, and production in excess of these amounts was available as surplus for export.

Because of the abnormal requirements due to the presence of Australian and Allied Servicemen in the South-West Pacific Area exports of butter to the United Kingdom have been reduced to a level lower than that attained in any year since 1926-27. During

1938-39, 97,000 tons or 95 per cent. of all butter exported was shipped to the United Kingdom, but by 1944-45 exports to this country had decreased to 37,000 tons or 86 per cent. of the total quantity exported.

Similarly with cheese, and for the same reason, increased production has been accompanied by decreased exports. In 1938-39 exports totalled 16,038 tons of which 15,500 tons were exported to the United Kingdom. By 1944-45, however, the quantity exported to the United Kingdom had declined to 2,800 tons or 18 per cent. of the total of 15,000 tons exported.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination of officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows:—Flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Fuller details, which include actual quantities by States, are to be found in *Production Bulletin* No. 38, Part II.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA.

Grade.	Butter.			Cheese.		
	1941-42.	1942-43.	1943-44.	1941-42.	1942-43.	1943-44.
	%	%	%	%	%	%
Choicest	50.75	54.78	54.78	5.32	3.88	1.94
First Quality ..	41.91	39.01	37.59	67.14	58.81	61.30
Second Quality ..	6.48	5.52	6.43	27.54	37.31	36.76
Third Quality ..	0.86	0.69	1.20	(a)	(a)	(a)
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Included with Second Quality.

The following tables give the imports, exports and net exports of butter, cheese and condensed milk.

BUTTER, CHEESE, AND MILK: IMPORTS AND EXPORTS. AUSTRALIA.

Products.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
IMPORTS.					
Butter lb.	3,425	82	191,549	8,683	25
.. .. . £A.	286	10	18,904	967	3
Cheese lb.	156,188	19,645	139,695	509,580	13,577
.. .. . £A.	11,551	1,727	10,630	28,686	1,599
Milk—concentrated and preserved lb.	44,135	38,149	573,671	296,545	233,403
.. .. . £A.	1,048	1,199	22,891	8,143	9,277
EXPORTS.					
Butter lb.	229,542,779	195,708,596	130,347,196	124,320,720	104,226,518
.. .. . £A.	12,891,837	11,973,485	8,124,975	8,085,660	6,870,852
Cheese lb.	35,924,467	33,907,833	31,457,408	25,964,332	32,974,752
.. .. . £A.	1,074,008	1,543,909	1,428,118	1,225,184	1,953,958
Milk—concentrated and preserved lb.	19,106,953	56,315,000	75,650,451	59,135,863	39,251,891
.. .. . £A.	791,100	1,528,951	2,059,724	1,858,137	1,447,979
NET EXPORTS.					
Butter lb.	229,539,354	195,708,514	130,155,647	124,312,037	104,226,493
.. .. . £A.	12,891,551	11,973,475	8,106,071	8,084,693	6,870,849
Cheese lb.	35,768,279	33,888,188	31,317,713	25,454,752	32,961,175
.. .. . £A.	1,062,457	1,542,182	1,417,488	1,196,498	1,952,359
Milk—concentrated and preserved lb.	19,062,818	56,276,851	75,076,780	58,839,318	39,013,488
.. .. . £A.	790,052	1,527,752	2,036,833	1,849,994	1,438,702

8. **Local Consumption of Butter and Cheese.**—The production of butter and cheese less net exports and adjusted by stocks represents the quantity available for consumption in Australia.

As previously mentioned, the quantity of butter required by the Armed Services based upon Australia was such as to limit supplies for export overseas and for consumption in Australia. The former, however, had diminished to such an extent that, in order to prevent further decline, it became necessary to introduce a system of butter rationing on 7th June, 1943. The rate was fixed at 8 oz. per head per week which was reduced to 6 oz. per week as from 7th June, 1944, at which level it still remains.

Cheese, unlike butter, was not rationed, although the supplies available for civil needs were limited to the residue after Service needs and exports had been met. This had the effect of limiting consumption below the level it would have attained if there had been no such restriction. Nevertheless, consumption of cheese rose during the war to offset, in part, the reduced consumption of butter due to rationing.

The following table gives details of the production and disposals of butter and cheese for the periods stated.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA.
(‘000 tons.)

Period.	Changes in Stock.	Production.	Exports.	Consumption by—		Civilian consumption per head per annum.
				Services.	Civilians.	
BUTTER						
1937-1939 (Average)	..	191.0	90.0	..	101.0	lb. 33.0
1943	+ 1.0	165.5	50.0	18.0	96.5	33.5
1944	- 4.4	145.8	46.2	23.3	80.7	27.5
1945	+ 1.3	141.4	39.7	21.9	78.5	26.1
CHEESE						
1937-1939 (Average)	..	24.9	11.5	..	13.4	lb. 4.4
1943 .. ..	..	36.0	14.0	10.0	12.0	4.1
1944	- 0.1	34.8	14.3	2.5	18.0	6.1
1945	+ 4.3	35.5	10.2	3.0	18.0	6.0

§ 3. Pigs and Pig Products.

1. **Pigs.**—Between 1928 and 1938 the number of pigs fluctuated around one million. In 1938 an upward movement occurred and, except for 1941, when there was a drop, the numbers have exceeded $1\frac{1}{2}$ millions since that year. The maximum number recorded was 1,797,340 in 1940. The distribution of pigs among the States and Territories in 1944 was—New South Wales, 561,294; Victoria, 337,878; Queensland, 450,391; South Australia, 186,007; Western Australia, 163,876; Tasmania, 46,427; Northern Territory, 191; Australian Capital Territory, 657; total 1,746,721.

A more accurate index of the development of pig-raising in Australia is provided in the following table which combines the number of slaughtering with the number returned each year from 1934. The table discloses substantial increases in the number of pigs raised over the period under review:—

NUMBER OF PIGS AND NUMBER SLAUGHTERED: AUSTRALIA.

Year.	Number of Pigs.	Number Slaughtered.	Year.	Number of Pigs.	Number Slaughtered.
1934	1,158,274	1,763,332	1939	1,455,341	1,952,552
1935	1,293,964	1,983,745	1940	1,797,340	2,350,358
1936	1,202,752	2,073,909	1941	1,477,303	2,593,927
1937	1,100,082	1,897,430	1942	1,563,000	2,082,903
1938	1,155,591	1,839,597	1943	1,746,721	1,848,655

2. **Production of Pork.**—With Allied Servicemen in Australia during the war years the demand for pork was considerably increased and producers were encouraged to increase production to the highest level possible in order to meet Service requirements and maintain exports as far as possible. After these requirements had been met, the quantity available for civilian consumption was much less than that normally consumed. In some States the civilian consumption of pork was negligible, but in other parts of Australia, where transport difficulties precluded the marketing of pork in the main centres, civilian consumption was not prohibited. In the following table details of production in each State are given for the years shown:—

PRODUCTION OF PORK (BONE-IN-WEIGHT).

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	9,617	10,769	11,844	2,037	1,002	1,623	8	43	37,033
1940-41 ..	10,324	15,243	14,117	4,668	3,951	1,893	16	53	50,565
1941-42 ..	13,826	15,606	12,221	6,796	7,870	1,680	17	70	58,086
1942-43 ..	11,376	9,963	9,343	3,033	3,863	1,347	17	69	39,011
1943-44 ..	14,532	11,226	8,709	5,892	3,640	1,446	17	11	45,182

3. **Consumption of Pork.**—For the three pre-war years ended 1938-39 the average annual production of pork was 46,000 tons, of which 14,000 tons were exported, leaving 32,000 tons, or the carcass equivalent of 10.4 lb. per head per annum, available for local consumption.

As in the case of other meats, the demand for pork for the Armed Services and for exports was such that it was necessary to divert supplies from civilian consumption under the rationing scheme introduced in January, 1944. This resulted in the per capita consumption of pork declining from the pre-war average of 10.4 lb. to 9.0 lb. in 1943, to 7.4 lb. in 1944 and to 3.4 lb. in 1945. In the following table details of the production and disposal of pork are given for the periods stated.

PRODUCTION AND DISPOSAL OF PORK (BONE-IN-WEIGHT): AUSTRALIA.

('000 tons).

Period.	Changes in Stock.	Production.(a)	Exports.	Canning.	Consumption by—		Civilian Consumption per head per annum.
					Services.	Civilians.	
1937-39(Average)	..	46	14	..	..	32	10.4
1943 ..	..	39	13	(b)	(b)	26	9.0
1944 ..	+ 1	58	19	8	8	22	7.4
1945 ..	..	43	16	13	4	10	3.4

(a) Including an estimate of trimmings from baconer carcasses. Separate details not available.

(b) Included with exports.

4. **Production of Bacon and Ham.**—As in the case of pork, the increased demand for bacon and ham during the war years stimulated production to a level never previously attained. Details of production are given by States in the following table for the years indicated.

PRODUCTION OF BACON AND HAM.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	11,794	7,370	8,402	2,673	1,804	1,015	..	33,238
1941-42 ..	15,293	8,602	10,023	3,942	2,766	937	1	42,464
1942-43 ..	15,082	8,855	13,057	4,208	4,142	1,238	..	46,802
1943-44 ..	13,913	9,687	11,958	4,605	4,358	1,202	..	45,723
1944-45 ..	20,148	12,103	13,298	4,544	5,007	1,190	..	50,290

5. **Consumption of Bacon and Ham.**—For the three pre-war years ended 1938-39 the annual production of bacon and ham averaged 32,400 tons of which 1,000 tons were exported, leaving 31,400 tons, or 10.2 lb. per head per annum, available for local consumption. The presence of large numbers of Allied Servicemen in Australia during

the 1939-45 War necessitated the diversion of civilian supplies. Bacon and ham was not included in the list of rationed meat but supplies to be placed on the civilian market were determined after the demands for Services and export requirements had been met. Details of production and disposal of bacon and ham are given for the periods stated in the following table.

PRODUCTION AND DISPOSAL OF BACON AND HAM: AUSTRALIA.
(’000 tons).

Period.	Changes in Stocks.	Production.	Exports.	Canning.	Consumption by—		Civilian consumption per head per annum.
					Services.	Civilians.	
1937-39 (Average)	..	32.4	1.0	..	..	31.4	10.2
1943	39.0	..	(?)	20.0	19.0	6.6
1944	51.9	1.6	3.0	17.0	30.0	10.?
1945	51.8	5.9	3.0	13.1	30.0	10.0

(a) Included with Services.

6. **War-time Contracts.**—Contracts for the sale of the surplus production of Australian pig meats were concluded between the Governments of the Commonwealth and the United Kingdom. Details will be found in Chapter XXVIII. "Miscellaneous".

7. **Oversea Trade in Pigs and Pig Products.**—The oversea trade in pigs and pig products for the years 1938-39 and 1940-41 to 1943-44 is shown in the following table :—

PIG PRODUCTS : OVERSEA TRADE, AUSTRALIA.

Particulars.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Pigs.						
Imports..	No.	28	5	9	1	11
	£A.	1,007	183	54	71	691
Exports..	No.	69	208	28	..	50
	£A.	621	883	272	..	497
Net Exports	No.	41	203	19	- 1	39
	£A.	-386	700	218	-71	-194
BACON AND HAM.						
Imports..	lb.	9,681	428	185,652	549	13
	£A.	597	31	13,027	50	1
Exports..	lb.	1,739,053	6,676,900	5,764,260	66,043,208	14,954,984
	£A.	119,994	439,655	395,031	405,290	1,172,784
Net Exports	lb.	1,729,372	6,676,472	5,578,608	6,042,659	14,954,971
	£A.	119,397	439,624	382,004	404,240	1,172,783
LARD. ()						
Imports..	lb.	106,821	2,176	6,634	6,884	9,733
	£A.	3,065	88	229	844	713
Exports..	lb.	5,490,959	15,652,900	7,812,207	5,143,127	2,752,038
	£A.	67,744	196,857	131,020	107,782	61,671
Net Exports	lb.	5,384,138	15,650,724	7,805,573	5,136,243	2,742,305
	£A.	64,679	196,769	130,791	106,938	60,958
FROZEN PORK.						
Imports..	lb.	31,805	1,120	81,518	375	..
	£A.	1,770	11	4,240	20	..
Exports..	lb.	30,716,417	74,889,552	34,240,367	1,997,030	16,017,199
	£A.	882,117	2,302,656	1,107,929	85,885	587,321
Net Exports	lb.	30,684,612	74,888,432	34,158,849	1,996,655	16,017,199
	£A.	880,347	2,302,645	1,103,689	85,865	587,321

(a) Includes 3,401,368 lb. exported as tinned bacon. (b) Includes 6,329,821 lb. exported as tinned bacon. (c) Includes Lard Oil and Refined Animal Fats.

NOTE.—The minus sign (-) signifies net imports.

§ 4. Total Dairy Production.

The dairy production for each State in 1943-44 is shown below :—

DAIRY PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Total.
MILK.								
Used for—	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
Butter ..	(a)196,902	241,285	(b)207,644	39,287	30,615	17,638	20	733,451
Cheese ..	5,539	26,556	23,352	18,466	1,579	2,471	..	77,963
Condensing and concentrating purposes ..	17,166	42,048	..	(c)	(c)	(c)	..	(d)63,253
Other purposes ..	77,508	50,643	(e)30,000	(f)20,419	(f)10,962	(f)6,179	340	192,012
Total ..	297,175	360,532	260,996	78,172	43,156	26,288	360	1,066,679

BUTTER.								
In Factories On Dairy and other Farms (e)	'000 lb. (g)87,857	'000 lb. 109,457	'000 lb. (h)101,416	'000 lb. 18,027	'000 lb. 13,786	'000 lb. 7,325	'000 lb. ..	'000 lb. 337,868
Total ..	92,357	111,639	103,032	19,804	14,723	8,509	8	350,072
	4,500	2,182	1,616	1,777	937	1,184	8	12,204

CHEESE.								
In Factories On Dairy and other Farms (e)	'000 lb. 5,374	'000 lb. 26,584	'000 lb. (i)24,042	'000 lb. 19,726	'000 lb. 1,773	'000 lb. 2,356	'000 lb. ..	'000 lb. 79,855
Total ..	5,525	26,661	24,051	19,726	1,797	2,489	..	80,249
	151	77	9	..	24	133	..	394

CONDENSED, CONCENTRATED AND POWDERED MILK, ETC.

In Factories	'000 lb. 43,530	'000 lb. 110,765	'000 lb. (c)	'000 lb. ..	'000 lb. ..	'000 lb. (c)	'000 lb. ..	'000 lb. (d)169,273
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BACON AND HAM.

In Factories On Dairy and other Farms ..	'000 lb. 30,680	'000 lb. 21,198	'000 lb. 26,701	'000 lb. 9,896	'000 lb. 9,681	'000 lb. 2,392	'000 lb. ..	'000 lb. 100,548
Total ..	31,165	21,698	26,787	10,316	9,761	2,692	..	102,419
	485	(e)500	(e)86	420	(e)30	300	..	1,871

(a) Includes 3,090,885 gallons of milk the produce of New South Wales sent as cream to Victoria and Queensland. (b) Includes 756,943 gallons of milk the produce of Queensland sent as cream to New South Wales. (c) Not available for publication. (d) Includes particulars of States marked (e). (e) Estimated. (f) Includes milk used in the production of condensed, concentrated and powdered milk, etc. (g) Includes 649,183 lb. of butter made from cream the produce of Victoria and Queensland. (h) Includes 279,913 lb. of butter made from cream the produce of New South Wales. (i) Includes 1,720,440 lb. of cheese made in establishments not classified as cheese factories.

§ 5. Value of Dairy Production.

1. Value of Production—Gross and Net—Year 1943-44. The values of dairy production on a gross, local and net basis are shown in the following table. Production values for this and other industries are dealt with more fully in Chapter XXVIII. "Miscellaneous".

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1943-44.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)	Depreciation (estimated).
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.		
	£	£	£	£	£	£	£
New South Wales ..	17,958,000	1,753,000	16,205,000	2,708,000	(b) 14,000	13,483,000	(c)
Victoria ..	16,982,450	613,797	16,368,653	2,103,869	444,098	13,820,686	25,000
Queensland ..	14,013,000	360,000	13,653,000	1,600,000	320,000	11,733,000	140,000
South Australia ..	4,403,636	133,773	4,269,863	667,265	107,284	3,495,314	15,027
Western Australia ..	2,906,709	117,889	2,788,820	1,007,758	174,537	1,606,525	17,550
Tasmania ..	1,303,390	49,550	1,253,840	557,960	11,690	684,190	10,000
Total ..	57,567,185	3,028,009	54,539,176	8,644,852	1,071,609	44,822,715	(d) 207,577

(a) No deduction has been made for depreciation and maintenance. (b) No allowances made for costs of power, power kerosene, petrol and other oils. (c) Not available. (d) Incomplete.

2. Net Value of Production, 1934-35 to 1943-44. In the following table the net value of dairy production and the net value per head of population are given by States for the years 1934-35 to 1943-44.

NET VALUE OF DAIRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
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NET VALUE. (a).

	£	£	£	£	£	£	£
1934-35 ..	8,844,000	7,531,415	5,798,796	1,121,089	619,810	445,130	24,360,240
1935-36 ..	9,195,000	9,344,742	5,869,000	1,393,141	505,401	540,600	26,847,884
1936-37 ..	9,128,000	10,778,186	4,957,000	1,587,796	554,010	542,070	27,547,062
1937-38 ..	10,181,000	10,495,005	7,443,000	1,891,356	825,354	733,620	31,589,335
1938-39 ..	10,446,000	9,958,474	9,878,000	1,942,994	893,428	662,860	33,781,756
1939-40 ..	10,887,000	12,332,822	9,799,000	2,194,167	905,372	724,850	36,843,211
1940-41 ..	10,740,000	13,080,352	8,417,000	2,101,945	898,181	468,940	35,706,418
1941-42 ..	10,455,000	12,601,657	7,413,000	2,138,139	1,173,362	562,390	34,343,548
1942-43 ..	13,825,000	12,465,847	10,671,000	2,961,598	1,718,014	602,460	42,243,919
1943-44 ..	13,483,000	13,820,686	11,733,000	3,495,314	1,606,525	684,190	44,822,715

(a) No deduction has been made for depreciation and maintenance.

NET VALUE OF DAIRY PRODUCTION—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE PER HEAD OF MEAN POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	3 7 2	4 2 0	6 0 9	1 18 5	1 8 0	1 18 10	3 12 8
1935-36	3 9 3	5 1 4	6 0 9	2 7 6	1 2 7	2 7 0	3 19 7
1936-37	3 8 1	5 16 5	5 0 9	2 14 0	1 4 6	2 6 8	4 1 0
1937-38	3 15 2	5 12 10	7 9 7	3 4 0	1 16 1	3 4 1	4 12 0
1938-39	3 16 5	5 6 3	9 16 3	3 5 5	1 18 8	2 16 0	4 17 6
1939-40	3 18 10	6 10 6	9 12 1	3 13 4	1 18 8	3 0 7	5 5 4
1940-41	3 17 2	6 16 3	8 3 1	3 10 1	1 18 0	1 19 0	5 1 1
1941-42	3 14 7	6 9 0	7 2 10	3 10 5	2 10 1	2 6 11	4 16 3
1942-43	4 17 8	6 6 6	10 4 8	4 16 8	3 11 7	2 9 11	5 17 4
1943-44	4 14 5	6 19 0	11 1 9	5 13 0	3 6 7	2 16 1	6 3 4

§ 6. Poultry-Farming.

1. *General.*—Poultry-farming has been carried on in Australia for many years and the State Departments of Agriculture have encouraged its development by appointing experts to advise on the care and management of poultry and by conducting egg-laying competitions.

Originally the industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialized and distinct industry. It is from this source that the bulk of the commercial production is obtained. Practically all farms keep poultry for the purpose of supplying their own domestic requirements and in many cases some supplies from this source are also marketed. In addition, small numbers of fowls are kept in backyards of some private homes and this helps to maintain domestic needs particularly when eggs are in short supply as was the case during the war years.

2. *Numbers of Poultry.*—In pre-war years the numbers of the principal kinds of poultry was a normal feature of the annual census of live-stock in all States except Victoria and Tasmania. This collection was suspended during 1941-42 but was resumed in 1942-43 and extended to cover all States. It was not, however, resumed on the previous basis, but was restricted to farms of 1 acre or more producing eggs or poultry for sale. Moreover, the details do not include poultry held by persons (including "backyard" poultry-keepers) producing for their own use as well as those who are producing from areas of less than 1 acre. Because of this incompleteness, details of poultry numbers are not published.

3. *Recorded Production and Disposals of Eggs.*—(i) *Shell Eggs.* Available statistics of the production and disposals of eggs in Australia are restricted to those recorded by the Egg Boards of the several States.

Egg Boards, or authorities appointed to control the marketing of eggs, have operated in the States of New South Wales, Victoria and Queensland for some years whilst in South Australia the Board commenced to operate in August, 1942. It was not until August, 1943 that Advisory Committees were established in Western Australia and Tasmania. These authorities were created under National Security Regulations. Statistics of recorded production of eggs for Australia as a whole, therefore, are not available prior to 1943-44.

In the following table details of receipts and disposals of eggs, as recorded by these authorities, are shown for Australia for 1943-44 and 1944-45.

SHELL EGGS : RECEIVALS AND DISPOSALS RECORDED BY EGG BOARDS.

Particulars.	Year ended June—	
	1944.	1945.
RECEIVALS.		
	Doz.	Doz.
Stock held at beginning of year	178,105	7,434
Receipts from Consignors	64,164,506	80,898,566
Receipts from Producer Agents	24,999,998	23,124,060
Withdrawals from Cold Storage	132,438	859,345
Interstate Transfers	1,848,270	165,870
Other Sources	750	..
Total	91,324,067	105,055,275
DISPOSALS.		
	Doz.	Doz.
Sales by Egg Boards	39,767,318	45,617,933
Sales by Producer Agents	24,999,998	23,124,060
Packed for Cold Storage	127,055	913,945
Packed for Powder	10,557,050	17,901,730
Packed for Pulp	13,430,403	16,490,811
Interstate Transfers	1,848,270	165,870
Other Disposals	586,539	826,766
Stocks held at end of year	7,434	14,160
Total	91,324,067	105,055,275

The receipts—in million dozen—recorded in each State during the year ended June, 1945 were as follows—New South Wales, 47.4; Victoria, 28.0; Queensland, 9.5; South Australia, 11.1; Western Australia, 6.8 and Tasmania, 1.2.

(ii) *Whole Egg Pulp.* Considerable quantities of eggs are pulped for use in the manufacture of cakes, pastry and biscuits. In 1943-44 production amounted to 17,416,399 lb. and in 1944-45 to 23,795,411 lb. New South Wales, in addition, produces liquid egg whites and liquid egg yolks. The amounts produced in 1944-45 were 222,976 lb. and 161,124 lb. respectively compared with 173,559 lb. and 111,350 lb. in 1943-44.

(iii) *Egg Powder.* The production of dried egg powder was not established in Australia until 1942, when the industry was introduced to treat Australia's surplus eggs so as to maintain exports to the United Kingdom. The shortage of refrigerated shipping space precluded the export of shell eggs so they were converted into powdered form. Following the outbreak of war in the Pacific in December, 1941, when Australia undertook responsibility for the feeding of the fighting services in the South-West Pacific Area, the bulk of the egg powder produced was diverted, however, for use by Australian and Allied Servicemen.

Details of production of egg powder are given in the table below.

PRODUCTION OF EGG POWDER.

State.	1942-43.	1943-44.	1944-45.
	lb.	lb.	lb.
New South Wales	1,145,035	1,407,034	1,918,244
Victoria	699,102	1,044,353	1,361,179
Queensland .. .. .	..	..	..
South Australia	255,199	663,435	1,093,200
Western Australia	244,945	355,781	406,074
Tasmania .. .. .	..	..	..
Australia	2,344,281	3,470,603	4,778,697

4. Oversea Trade in Poultry Products.—The Australian overseas export of poultry products is confined chiefly to eggs in shell and egg contents which are mainly consigned to the United Kingdom; New South Wales, Victoria and South Australia are at present the largest exporters. Exports of eggs from Australia rose from less than 3 million dozen valued at £219,000 in 1928-29 to 21.7 million dozen valued at more than £1.1 million in 1934-35, but declined to 10.3 million dozen in 1939-40. A high level of exports in 1940-41 was followed by a steep decline in 1941-42 and a further decrease in 1942-43 and 1943-44 to almost negligible quantities. A feature has been a reverse trend in egg contents for which an excess of imports in 1939-40 has changed to an excess of exports of 1.1 million, 5.9 million, 2.7 million and 3.9 million lb. for 1940-41, 1941-42, 1942-43 and 1943-44 respectively.

The oversea trade during the four years ended 1943-44 in comparison with 1938-39 was as follows:—

POULTRY PRODUCTS: TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
LIVE POULTRY.						
Imports	No.	29	12	1	..	4
	£	139	53	4	..	28
Exports	No.	2,189	2,194	330	70	8,900
	£	970	1,442	161	75	7,970
Net Exports	No.	2,160	2,182	329	70	8,896
	£	831	1,389	157	75	7,942
FROZEN POULTRY.						
Imports	lb.	83	..	14,336	..	47
	£	8	..	1,527	..	4
Exports	pair	21,768	44,728	21,010	8,314	44,825
	£	19,917	27,521	15,815	4,285	36,077
Net Exports .. .. .	..	(a)	(a)	(a)	8,314 (pair)	(a)
	£	19,909	27,521	14,288	4,285	36,073
Eggs.						
Imports	doz.	105,330	3,347	2,620	..	8
	£	8,188	296	292	..	30
Exports	doz.	10,144,344	17,881,732	6,306,532	394,600	361,885
	£	638,159	1,122,758	402,795	33,385	32,552
Net Exports	doz.	10,039,014	17,878,385	6,303,912	394,600	361,877
	£	629,971	1,122,462	402,503	33,385	32,522
EGG CONTENTS.						
Imports	lb.	68,567	718	..	..	..
	£	4,936	109	..	..	..
Exports	lb.	650,470	1,095,356	5,909,610	2,723,212	3,894,242
	£	23,065	45,354	762,647	351,346	343,941
Net Exports	lb.	581,903	1,094,638	5,909,610	2,723,212	3,894,242
	£	18,129	45,245	762,647	351,346	343,941

(a) Quantity not available.

5. Value of Poultry Products—Gross and Net.—(i) *General.* Difficulty is experienced in obtaining complete figures for the production of poultry products. The following table sets out the values accruing to the poultry industry for Australia on a gross, local and net basis, and has been compiled from data actually collected or carefully estimated by the State Statisticians:—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1943-44.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production. (a)
	£	£	£	£	£
New South Wales ..	7,680,000	735,000	6,945,000	2,355,000	4,590,000
Victoria ..	7,250,997	643,825	6,607,172	1,455,170	5,152,002
Queensland ..	1,478,000	196,250	1,281,750	495,000	786,750
South Australia ..	1,832,536	167,661	1,664,875	533,231	1,131,644
Western Australia ..	1,059,409	198,510	860,899	163,850	697,049
Tasmania ..	602,040	45,150	556,890	29,840	527,050
Total ..	19,902,982	1,986,396	17,916,586	5,032,091	12,884,495

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1934-35 to 1943-44.* In the following table the net value of poultry products and the net value per head of population are given by States for the years 1934-35 to 1943-44:—

NET VALUE OF POULTRY PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1934-35 ..	1,849,000	2,185,047	248,679	339,335	322,478	317,120	5,261,659
1935-36 ..	2,203,000	2,333,620	299,000	257,088	270,414	305,440	5,668,502
1936-37 ..	2,186,000	2,301,568	322,000	244,354	288,624	338,540	5,681,086
1937-38 ..	2,248,000	2,902,026	362,000	326,492	251,166	367,110	6,456,688
1938-39 ..	2,658,000	3,112,609	376,000	436,425	294,216	425,240	7,302,490
1939-40 ..	2,337,000	3,099,861	319,000	532,747	292,756	397,470	6,978,834
1940-41 ..	2,526,000	2,283,963	403,000	398,312	270,955	382,310	6,263,640
1941-42 ..	2,225,000	2,636,248	419,500	440,105	329,571	446,330	6,490,754
1942-43 ..	3,392,000	4,807,716	576,250	750,063	674,228	523,560	10,723,817
1943-44 ..	4,590,000	5,152,002	786,750	1,131,044	697,049	527,050	12,884,495

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35 ..	0 14 1	1 3 10	0 5 2	0 11 7	0 14 7	1 7 8	0 15 8
1935-36 ..	0 16 7	1 5 5	0 6 2	0 8 9	0 12 1	1 6 6	0 16 10
1936-37 ..	0 16 4	1 4 10	0 6 6	0 8 4	0 12 9	1 9 2	0 16 8
1937-38 ..	0 16 7	1 11 2	0 7 3	0 11 1	0 11 0	1 11 3	0 18 10
1938-39 ..	0 19 5	1 13 2	0 7 6	0 14 8	0 12 9	1 15 11	1 1 1
1939-40 ..	0 17 0	1 12 10	0 6 3	0 17 10	0 12 7	1 13 3	1 0 0
1940-41 ..	0 18 2	1 3 9	0 7 10	0 13 4	0 11 5	1 11 10	0 17 7
1941-42 ..	0 15 11	1 7 0	0 8 1	0 14 6	0 14 1	1 17 2	0 18 3
1942-43 ..	1 4 0	2 8 9	0 11 1	1 4 6	1 8 1	2 3 4	1 9 10
1943-44 ..	1 12 2	1 11 10	0 14 10	1 16 7	1 8 11	2 3 2	1 15 6

(a) No deduction has been made for depreciation and maintenance.

§ 7. Bee-Farming.

1. *General.*—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. The returns of honey from productive hives during 1943-44 gave an average of 70.1 lb. per hive and the average quantity of wax was 0.98 lb. per hive.

2. *Production of Honey and Bees-wax.*—The number of hives and the production of honey and bees-wax during the year 1943-44 are given in the following table. As these details have been collected from holdings of one acre and upwards, any production

from smaller areas is omitted and consequently the production is understated to that extent. In Victoria and South Australia, however, the compulsory registration of bee-keepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEEHIVES, HONEY AND BEES-WAX. 1943-44.

State.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	66,200	14,214	80,414	7,722,302	201,000	105,688	13,000
Victoria ..	a 72,008	a 18,002	a 90,010	2,544,760	79,524	33,796	4,225
Queensland ..	21,248	6,628	27,876	1,788,005	a 30,020	24,225	2,980
South Australia ..	b 49,354	b 9,177	b 58,531	a3,000,000	78,125	40,000	4,583
Western Australia ..	12,426	1,714	14,140	767,712	17,593	13,500	1,688
Tasmania ..	3,338	1,113	4,451	121,273	3,030	1,794	270
Aus. Cap. Territory	60	26	86	3,900	102	34	4
Australia ..	224,634	50,874	275,508	15,947,952	409,394	219,037	26,750

(a) Estimated. (b) Year 1940-41.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora of the eucalypts which varies greatly from year to year.

The table hereunder gives the production of honey and bees-wax for the six years ended 1943-44:—

HONEY AND BEES-WAX PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1938-39	2,723,719	1,340,046	1,164,536	2,940,877	754,254	148,473	1,280	9,073,185
1939-40	2,477,381	2,752,125	1,049,442	2,388,647	828,168	164,764	770	9,661,297
1940-41	4,771,422	4,503,927	1,174,427	5,324,611	1,246,354	151,168	5,896	17,177,805
1941-42	7,465,926	5,496,851	450,000	4,400,000	1,863,765	80,982	300	19,763,824
1942-43	1,700,000	4,600,000	500,000	4,300,000	900,000	100,000	..	12,100,000
1943-44	7,722,302	2,544,760	1,788,005	3,000,000	767,712	121,273	3,900	15,947,952
BEES-WAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1938-39	43,780	22,285	17,463	40,257	15,050	1,780	. 60	140,675
1939-40	42,393	35,630	15,259	30,952	11,549	1,668	25	137,476
1940-41	68,670	56,850	16,016	66,527	16,423	2,388	11	226,885
1941-42	124,432	64,484	19,337	40,000	22,296	1,699	..	272,248
1942-43	(b)	60,587	(b)	60,000	(b)	(b)	(b)	(b)
1943-44	105,688	33,796	24,225	40,000	13,500	1,794	34	219,037

(a) Estimated. (b) Not available.

3. **Oversea Trade in Bee Products.**—In normal years the production of honey exceeds Australian requirements and a small quantity is available for export. For the year 1941-42 the exports from Australia amounted to £312,679 compared with a total of £51,959 in 1942-43 and £81,499 in 1943-44. Of the 10.2 million lb. of honey exported in 1941-42, 9.7 million lb. was shipped to the United Kingdom.

The more general use of frame hives has reduced the production of wax, and as a result the quantity imported has exceeded that exported during each of the last five years.

For the year 1941-42 the exports of honey amounted to 10,223,707 lb. compared with 1,743,302 lb. in 1943-44.

The imports of bees-wax amounted to 156,484 lb. in 1941-42 compared with 233,163 lb. in 1942-43 and 6,506 lb. in 1943-44.

4. Value of Production—Gross and Net.—(i) *General.* The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States by uniform methods. These data are based upon actual records but, as previously explained, it is known that the production in some States is understated. As production costs are not known they are not taken into account and, consequently, the gross production valued at the farm and net values shown are identical:—

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1943-44.

State.	Gross Production - Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)
	£	£	£	£
New South Wales	214,000	18,000	196,000	196,000
Victoria	83,749	10,885	72,864	72,864
Queensland	33,000	3,750	29,250	29,250
South Australia	82,708	9,802	72,906	72,906
Western Australia	19,281	..	19,281	19,281
Tasmania	3,300	160	3,140	3,140
Total	436,038	42,597	393,441	393,441

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1934-35 to 1943-44.* In the following table the net value of bee products and the net value per head of population are given by States for the years 1934-35 to 1943-44:—

NET VALUE OF BEE PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1934-35	95,000	39,540	10,458	43,052	14,037	1,420	203,507
1935-36	68,000	77,505	6,000	31,367	12,137	4,210	199,219
1936-37	43,000	45,360	5,000	28,053	19,803	2,740	143,956
1937-38	51,000	59,930	5,000	20,645	18,850	5,180	160,605
1938-39	43,000	23,448	15,000	27,857	10,591	2,770	122,666
1939-40	42,000	62,838	14,000	31,698	11,976	3,710	166,222
1940-41	102,000	92,010	19,000	72,693	19,251	4,030	308,984
1941-42	146,000	132,956	19,500	75,698	31,445	2,380	407,979
1942-43	40,000	130,408	9,750	110,787	30,000	2,380	323,325
1943-44	196,000	72,864	29,250	72,906	19,281	3,140	393,441

NET VALUE PER HEAD OF MEAN POPULATION. (a)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1934-35	0 8	0 5	0 3	1 6	0 7	0 1	0 7
1935-36	0 6	0 10	0 1	1 1	0 6	0 4	0 7
1936-37	0 4	0 6	0 1	0 11	0 10	0 3	0 5
1937-38	0 5	0 8	0 1	0 8	0 10	0 5	0 6
1938-39	0 4	0 3	0 3	0 11	0 5	0 3	0 4
1939-40	0 4	0 8	0 3	1 1	0 6	0 2	0 6
1940-41	0 9	1 0	0 4	2 5	0 10	0 4	0 10
1941-42	1 0	1 4	0 5	2 6	1 4	0 3	1 2
1942-43	0 3	1 3	0 2	3 7	1 3	0 2	0 11
1943-44	1 4	0 9	0 7	2 4	0 10	0 3	1 1

(a) No deduction has been made for depreciation and maintenance.

§ 8. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during each of the four years ended 1943-44 are shown below in comparison with 1938-39.

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS : EXPORTS.

Particulars.	Unit of Quantity.	QUANTITY.				
		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Bees-wax	lb.	5,565	6,774	956	56	..
Butter	"	229,542,779	195,708,596	130,347,196	124,320,720	104,226,518
Cheese	"	35,924,407	33,907,833	31,457,305	25,964,332	32,974,752
Eggs not in shell	"	650,470	1,095,356	5,909,610	2,723,212	3,894,242
Eggs	doz.	10,144,344	17,881,732	6,306,532	394,600	361,885
Feathers, undressed	"	(a)	(a)	(a)	(a)	(a)
Honey	lb.	687,007	4,194,038	10,223,707	1,332,027	1,743,302
Lard	"	5,490,959	15,652,900	7,812,207	5,141,939	2,752,038
Meats—						
Bacon and ham	"	1,739,053	6,676,900	5,764,260	66,043,208	614,954,984
Frozen poultry	pr.	21,768	44,728	21,010	8,314	44,825
Frozen pork	lb.	30,716,417	74,889,552	34,240,367	1,997,030	16,017,199
Milk, concentrated and preserved	"	19,106,953	56,315,000	75,041,102	59,135,863	39,248,681
Pigs, live	No.	69	208	28	70	43
Poultry, live	"	2,189	2,194	330	70	8,900

Particulars.	VALUE.				
	£A.	£A.	£A.	£A.	£A.
Bees-wax	148	527	40	6	..
Butter	12,891,837	11,973,485	8,124,975	8,085,660	6,870,852
Cheese	1,074,008	1,543,909	1,428,111	1,225,184	1,533,958
Eggs not in shell	23,005	45,354	762,647	351,346	343,941
Eggs in shell	638,159	1,122,758	402,795	33,385	32,552
Feathers, undressed	307	2,840	3,497	4,731	4,292
Honey	13,957	126,468	312,679	51,959	81,499
Lard	67,744	196,857	131,020	107,730	61,671
Meats—					
Bacon and ham	119,994	439,655	395,031	405,290	1,172,784
Frozen poultry	19,917	27,521	15,815	4,285	36,077
Frozen pork	882,117	2,302,656	1,107,929	85,885	587,321
Milk, concentrated and preserved	791,100	1,528,951	2,059,355	1,858,137	1,447,698
Pigs, live	621	883	272	..	419
Poultry, live	970	1,442	161	75	7,976
Total	16,523,944	19,313,306	14,744,327	12,213,673	12,601,034

(a) Quantity not available.

(b) Includes amount exported as tinned bacon.

§ 9. British Imports of Dairy Products.

1. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1939 to 1943.

DAIRY PRODUCTS : IMPORTS INTO UNITED KINGDOM.

Products.	1939.	1940.	1941.	1942.	1943.
Butter	cwt. 8,736,967	5,287,013	4,362,574	2,686,288	3,032,189
£ 48,424,422	32,957,727	27,755,449	17,746,994	20,808,422	
Cheese	cwt. 2,845,425	3,124,387	4,068,775	6,305,951	4,139,869
£ 8,868,544	11,950,288	16,335,934	27,764,108	19,789,163	
Milk, powdered and preserved	cwt. 1,608,806	1,685,976	3,318,474	5,137,999	4,366,999
£ 2,817,760	4,106,800	8,494,205	12,794,685	10,977,498	
Bacon and ham	cwt. 7,895,493	4,772,000	5,484,039	6,519,212	6,689,864
£ 36,706,410	26,248,042	25,505,210	33,993,059	38,797,629	
Pork, chilled or frozen	cwt. 988,804	1,139,314	1,670,986	1,995,416	4,320,921
£ 3,036,040	3,826,287	5,766,880	9,104,809	22,252,769	
Eggs, dried	cwt. 9,928	20,275	160,850	1,125,467	1,468,527
£ 85,197	216,787	2,737,399	21,322,840	30,518,133	
Eggs in shell	cwt. 28,330,494	14,894,198	8,894,464	3,381,357	2,293,985
£ 12,834,701	9,883,369	7,320,369	3,342,151	2,586,025	

2. Butter.—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1943 amounted to 880,273 cwt., or 29 per cent. of the total importation. The Australian contribution was valued at £5,920,417 and was exceeded only by that received from New Zealand. These two countries combined supplied 94 per cent. of the total imports in 1943.

BUTTER : IMPORTS INTO UNITED KINGDOM, 1943.

Country from which imported.				Quantity.	Value.
				Cwt.	£ Stg.
New Zealand	..	..	..	2,007,698	13,618,842
Australia	..	..	..	880,273	5,920,417
Canada	..	..	..	63,503	737,397
Eire	..	..	..	2,841	42,031
Other British Countries	..	..	..	189	1,143
Argentine Republic	..	..	..	69,970	446,105
United States of America	..	..	..	7,688	42,298
Other Foreign Countries	..	..	..	27	189
Total	..	..	..	3,032,189	20,808,422

(ii) *London Prices.* Fluctuations in prices in London during recent years are shown in the following table. Until September, 1939, the prices quoted represent the mean of the top prices quoted weekly for choicest salted Australian butter together with their f.o.b. equivalents in Sydney and Melbourne in terms of Australian currency. Since September, 1939, the price represents that fixed in accordance with the contract between the Governments of Australia and the United Kingdom for choicest Australian butter. Pence have been omitted throughout.

AVERAGE PRICE PER CWT. OF AUSTRALIAN CHOICEST BUTTER IN LONDON
(WITH F.O.B. EQUIVALENTS IN AUSTRALIAN CURRENCY).

Month.	1938-39.		1939-40.		1940-41-42.		1942-43-44.		1944-45-46.	
	London.	Australia. (a)	London.	Australia.	London.	Australia.	London.	Australia.	London.	Australia.
	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).
July	120	135	114	(a)127	(c)	(b)	(c)	(b)	(c)	(b)
August	118	132	110	(a)123	110	137	114	143	148	185
September	116	130	120	(a)135	110	137	114	143	148	185
October	111	124	(c)110	(b)137	110	137	114	143	148	185
November	104	115	(c)110	(b)137	110	137	114	143	148	185
December	107	119	(c)110	(b)137	110	137	114	143	148	185
January	120	134	(c)110	(b)137	110	137	114	143	148	185
February	118	132	(c)110	(b)137	110	137	114	143	148	185
March	115	128	(c)110	(b)137	110	137	114	143	148	185
April	113	126	(c)110	(b)137	110	137	114	143	148	185
May	107	119	(c)110	(b)137	110	137	114	143	148	185
June	113	126	(c)110	(b)137	110	137	114	143	148	185

(a) Sydney and Melbourne. (b) Equivalent of contract price. (c) Contract price f.o.b. Australian ports. Equivalent under pre-war conditions would be 122s. stg. covering the period 1939 to 1942, 126s. stg. during 1942 to 1944 and 149s. stg. during the contract period 1944 to 1946.

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1943 was £19,789,163, of which £8,300,221 was received from New Zealand, £6,290,638 from Canada and £4,536,645 from the United States of America. Imports from Australia during 1943 were valued at £661,546.

4. **Bacon and Ham.**—Of a total import in 1943 of bacon and ham valued at £38,797,629 Canada supplied £30,681,858 and United States of America £8,115,213. Small shipments from other countries amounted to £558. Exports of bacon and hams from Australia to the United Kingdom were prohibited during this period.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £22,252,769 in 1943. Imports from Australia were small, amounting to £34,880 only. The principal supplies were obtained from United States of America £15,900,844, Argentine Republic £5,522,569 and Canada £776,237.

6. **Eggs.**—In 1943 the value of eggs imported into the United Kingdom was £33,104,159 comprising eggs in shell £2,586,026 and dried eggs £30,518,133. The Australian share in this trade was insignificant and amounted to £52,342 only. Eggs in shell were supplied by Eire £2,129,994 and Argentine Republic £406,755. The principal exporters of dried eggs to the United Kingdom were United States of America £25,679,891, Canada £3,509,739 and Argentine Republic £1,276,161.

7. **Other Products.**—The imports into the United Kingdom from Australia of bees-wax, poultry, game, lard, honey and frozen rabbits in 1943 were unimportant.