

CHAPTER XVIII.

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 work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossing of strains has 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 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 adoption 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. An investigation into the problems of the dairying industry was decided upon by the Commonwealth Government in 1929, the task of making the necessary inquiries being referred to the Development and Migration Commission and the Council for Scientific and Industrial Research for joint action. The first report, which relates to farm production, was completed by the Federal Dairy Investigation Committee in 1930. The subjects covered in this report included the extent and value of the industry, existing conditions and practices, and the possibilities of improvement. Further reports are to be submitted regarding manufacture and marketing of dairy products.

2. **Official Supervision of Industry.**—Dairy experts, under the supervision 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 *matériel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431–2. It will be sufficient to note here that the true trade description, &c., 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 certificated by the inspector.

3. **Stabilization Scheme.**—A scheme for the stabilization of prices of butter and cheese advocated by the Hon. Thomas Paterson, M.H.R., was introduced in January, 1926. The working of the scheme, which is purely voluntary, is controlled by a body known as the Australian Stabilization Committee. Provision is made for levies on all butter and cheese produced within the Commonwealth sufficient to pay a bounty of not less than 3d. per lb. on butter exported and of 1½d. per lb. on cheese exported. Up to the present, however, cheese has not been included in the scheme. The rate of levy charged and the amount of bounty payable on butter exported since 1st January, 1926, are shown in the statement hereunder:—

Period.	Rate of Levy on Butter produced.	Amount of Bounty paid on Butter Exported.
	per lb.	per lb.
1st January, 1926 to 12th December, 1927 ..	d.	d.
13th December, 1927 to 31st December, 1927 ..	1½	3
1st January, 1928 to 31st August, 1928 ..	1½	4
1st September, 1928 to 31st December, 1928 ..	1½	3
1st January, 1929 to 31st December, 1930 ..	1½	4
1st January, 1931 to 31st December, 1931 ..	1½	4½
1st January, 1931 to 31st March, 1931 ..	1½	3½
1st April, 1931 to latest available date (November)	1½	3

The bounty results in an automatic increase in the local price up to the amount of bounty paid, while the average return to the producer on all butter produced is increased by approximately the amount of the bounty less the rate of levy charged.

On an average annual production of 265,000,000 lb., of which it is estimated that 180,000,000 lb. constitute the requirements for local consumption, leaving a balance of 85,000,000 lb. available for export—the extent to which the producer would benefit from an export bounty of 3d. per lb. is shown hereunder—

Increased value of 3d. per lb. on total production of 265,000,000 lb.	£3,313,000
Less amount required to provide export bounty of 3d. per lb. on 85,000,000 lb. exported	1,063,000
Estimated net gain to producer	£2,250,000

It should be noted that the above figures do not take into consideration any consequent increases in the price of milk or other milk products, nor any decrease in consumption resultant thereon.

Allowance must be made also for the fact that the plan, though voluntary, depends upon adequate tariff protection of the "home price". The duty on imported butter was raised to 6d. in 1927 to safeguard the scheme against imports from New Zealand.

4. **Mixed Farming.**—Dairying is not now, as formerly, wholly confined to farmers, since many graziers in a large way of business have lately given 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.

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, supplied by numerous separating establishments or "creameries," has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators may be profitably worked at the larger establishments. The product is also of a more uniform quality. The number of farmers who adhere to hand processes is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than 2½ gallons.

6. **Butter and Cheese Factories.**—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 509 in 1929-30, as compared with 585 in 1925-26. These were distributed in the various States as follows:—New South Wales, 138; Victoria, 163; Queensland, 117; South Australia, 44; Western Australia, 13; and Tasmania, 34. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXII.

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—The dairy herds of Australia were severely depleted during the drought of 1914-15, when the number was reduced to 1,684,393. Following that year substantial increases have taken place, and the number recorded in 1929 represents a gain of more than 556,000 in the past decade. 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, dairying not being firmly established in the tropical regions of the Continent. In Southern Queensland, however, the industry has developed remarkably during the past decennium, and the progress attained in that area has been largely responsible for the Australian increases since 1916. The returns for 1929 include heifers intended for milking and being within three months of calving. Details were not collected for Victoria, but the total of such heifers in the other States amounted to 98,039.

CATTLE AND DAIRY CATTLE.—NUMBER, 1925 TO 1929.

State.		1925.	1926.	1927.	1928.	1929.
New South Wales	All Cattle ..	2,931,818	2,813,144	2,818,654	2,784,615	2,686,132
	Dairy Cows ..	840,930	885,238	894,440	907,774	913,555
Victoria	All Cattle ..	1,513,787	1,435,761	1,327,077	1,304,426	1,335,242
	Dairy Cows ..	727,940	673,089	626,139	615,092	619,416
Queensland	All Cattle ..	6,436,645	5,464,845	5,225,804	5,128,341	5,208,588
	Dairy Cows ..	611,426	611,227	645,316	670,805	680,577
South Australia	All Cattle ..	373,597	340,007	316,314	263,016	204,516
	Dairy Cows ..	127,670	127,292	117,580	108,969	104,255
Western Australia	All Cattle ..	835,911	827,303	846,735	837,527	836,646
	Dairy Cows ..	63,008	69,627	70,580	69,047	74,223
Tasmania	All Cattle ..	212,373	213,112	210,894	208,812	214,643
	Dairy Cows ..	70,382	67,457	66,902	94,268	72,235
Northern Territory	All Cattle ..	070,342	863,507	835,300	768,751	711,607
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	5,312	5,509	6,188	5,269	4,760
	Dairy Cows ..	646	815	1,417	704	679
Australia..	All Cattle ..	13,279,785	11,963,278	11,617,056	11,300,757	11,202,134
	Dairy Cows ..	2,442,002	2,434,745	2,422,674	2,466,650	2,464,940

(a) Not available.

2. Milk.—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia for all dairy cows and for all seasons prior to 1916 considerably under 300 gallons per annum. Of late years an improvement in the grade of dairy cattle has taken place, and the 300 gallon mark has been exceeded in each of the last six seasons, the yield of 363 gallons in 1924 constituting a record. The best yields over a series of years appear to be in Victoria, Tasmania, South Australia and New South Wales, while Queensland in normal years is above Western Australia. In the following table the annual average yields per cow for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given is considerably below that for cows which were yielding during the greater part of the year. The highest averages were, of course, obtained in those States which have most extensively adopted scientific methods of dairying, such as systematic breeding, culling of herds, milk testing, etc.

MILK PRODUCTION, 1925-26 TO 1929-30.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1925-26—(c)								
Dairy Cows (a) .. No.	837,744	744,074	568,156	130,644	61,945	70,227	530	2,413,320
Production 1,000 gals.	289,861	255,120	153,386	41,380	14,823	18,684	199	773,459
Aver. per cow .. gals.	346	343	270	317	239	266	375	320
1926-27—(c)								
Dairy Cows (a) .. No.	837,373	700,515	553,472	123,066	63,768	68,920	730	2,347,844
Production 1,000 gals.	277,917	258,437	136,416	40,434	15,553	21,009	188	749,064
Aver. per cow .. gals.	332	369	246	329	244	305	271	319
1927-28—(c)								
Dairy Cows (a) .. No.	837,617	649,614	565,913	114,459	65,701	67,180	585	2,301,069
Production 1,000 gals.	283,046	260,648	180,679	37,947	17,159	22,556	220	862,255
Aver. per cow .. gals.	338	401	319	332	261	336	376	349
1928-29—(c)								
Dairy Cows (a) .. No.	849,769	620,616	606,637	105,800	65,982	67,491	567	2,316,862
Production 1,000 gals.	277,378	279,032	186,307	35,701	18,252	24,444	245	821,359
Aver. per cow .. gals.	326	450	307	337	277	362	432	354
1929-30—(c)								
Dairy Cows (a) .. No.	858,194	617,254	643,272	98,969	67,592	70,157	550	2,355,988
Production 1,000 gals.	283,947	274,172	188,520	34,774	21,366	25,466	276	828,521
Aver. per cow .. gals.	331	444	293	351	316	363	502	352

(a) Mean for the year.

(b) Exclusive of Northern Territory.

(c) Year ended 30th June.

3. **Butter and Cheese.**—Although the quantity of dairy production is largely affected by the nature of the season, an important advance in the output of butter has taken place in the past decade. During that period the average annual production increased from 188,000,000 lb. for the quinquennium 1916–1920, to 279,000,000 lb. for the latest five years under review. Queensland was responsible for the largest share of the increased output during recent years. The maximum output of butter in Australia was recorded in 1924, when, as a result of a specially favourable season, 313,952,291 lb. were manufactured. It is anticipated that this record will be broken by the return for the season 1930–31. Preliminary data indicate a total production for this season of 345,000,000 lb.

The manufacture of cheese is also largely dependent upon seasonal conditions. The production in 1921 of 32,653,003 lb. is the highest yet recorded, while for 1929–30 the production, amounting to 30,173,020 lb., follows very closely.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on page 468. Particulars for the past five years are as follow :—

BUTTER AND CHEESE PRODUCTION, 1925–26 TO 1929–30.

State.	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	106,953,339	95,832,624	100,794,838	95,337,240	104,175,340
Victoria	81,747,291	81,995,815	84,270,812	93,728,516	90,639,652
Queensland	63,001,073	51,402,633	72,039,151	77,044,859	78,796,483
South Australia	13,882,850	13,416,904	12,136,638	11,315,714	10,789,706
Western Australia	2,591,818	3,829,728	4,265,258	5,051,088	6,179,489
Tasmania	5,122,562	6,032,567	6,514,642	7,555,689	8,488,932
Federal Capital Territory	14,322	20,758	16,065	10,094	10,943
Australia	273,313,685	252,531,059	280,037,404	289,883,200	299,080,545
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	6,469,535	6,735,960	7,284,622	6,339,052	6,345,785
Victoria	5,279,009	5,697,648	5,621,045	5,505,932	6,953,949
Queensland	12,580,942	9,260,043	14,128,420	14,391,910	12,380,832
South Australia	3,636,278	3,708,730	3,465,456	2,975,095	3,536,943
Western Australia	3,818	5,172	5,088	7,526	998
Tasmania	830,738	971,614	1,020,344	907,586	954,463
Australia	28,799,320	26,679,197	31,534,875	30,217,101	30,173,020

4. **Concentrated Milk.**—“Condensed” or “concentrated” milk represents milk the bulk of which is reduced by evaporation. The industry is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output nearly doubled that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria, where the industry is most largely established. The output of this State in 1925–26 amounted to 43,646,852 lb.; in 1926–27, 48,186,040 lb.; in 1927–28, 53,876,662 lb.; in 1928–29, 53,948,559 lb., and in 1929–30, 51,581,802 lb. There is still an import of milk, but the exports in each year far outweigh the quantity imported. No condensed or concentrated milk is made in South Australia, Western Australia, or Tasmania. The output in New South Wales and Queensland is not available for publication, but the volume of production is comparatively small.

5. **Oversea Trade in Butter, Cheese, and Milk.**—The following tables give the imports, exports, and net exports of butter, cheese, and milk. In each of the five years dealt with the exports of butter, cheese, and condensed milk exceeded the imports.

BUTTER, CHEESE, AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA,
1925-26 TO 1929-30.

Products.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
IMPORTS.					
Butter lb.	2,961,243	7,160,864	6,975,370	964	3,947
.. .. . £	246,703	519,672	549,548	89	287
Cheese lb.	1,487,023	1,789,766	2,084,486	515,257	458,481
.. .. . £	111,827	133,600	116,200	45,817	34,462
Milk—concentrated and preserved(a)lb.	348,178	647,122	931,344	774,115	1,177,593
.. .. . £	20,398	34,115	36,837	33,422	36,219

EXPORTS.					
Butter lb.	97,899,824	76,767,844	99,164,946	102,442,843	107,663,264
.. .. . £	7,006,830	5,465,347	6,905,933	7,545,430	7,001,556
Cheese lb.	6,884,347	3,663,175	6,933,857	8,335,078	3,094,092
.. .. . £	271,973	133,266	260,879	330,165	125,102
Milk—concentrated and preserved(a)lb.	25,908,328	17,759,929	20,640,224	25,402,575	16,498,819
.. .. . £	1,476,422	1,081,256	1,188,903	1,424,554	997,756

NET EXPORTS.(b)					
Butter lb.	94,908,581	69,006,980	92,189,576	102,441,879	107,659,317
.. .. . £	6,760,127	4,915,675	6,356,385	7,545,341	7,001,269
Cheese lb.	5,397,324	1,873,409	4,849,371	7,819,821	2,635,611
.. .. . £	100,146	—334	144,679	284,348	90,640
Milk—concentrated and preserved(a)lb.	25,560,150	17,112,807	19,708,880	24,628,460	15,321,226
.. .. . £	1,456,024	1,047,141	1,152,066	1,391,432	961,537

NOTE.—The minus sign (—) indicates net imports.
(a) See definition above. (b) Excess of exports over imports.

6. Local Consumption of Butter and Cheese.—The total production of butter and cheese, with the subtraction or addition of the net export or import for the corresponding period gives approximately the quantity available for consumption in Australia. The figures for the past five years are as follows :—

BUTTER AND CHEESE.—LOCAL CONSUMPTION, 1925-26 TO 1929-30.

Products.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total	178,465,104	132,924,079	187,847,828	187,441,321	191,421,223
.. .. Per head of population ..	29.77	29.94	30.13	29.58	29.84
Cheese .. Total	23,401,996	24,805,788	26,685,504	22,597,280	27,537,409
.. .. Per head of population ..	3.91	4.06	4.28	3.53	4.29

Consumption in 1929-30 averaged 29½ lb. of butter and 4½ lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada, and New Zealand is given at 15.4 lb., 29.3 lb., and 34.2 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.5 lb., and 7.9 lb. respectively.

§ 3. Pigs and Pig Products.

1. Pigs.—The number of pigs in Australia from 1925 to 1929 is shown below :—

PIGS.—NUMBER, 1925 TO 1929.

State.	1925.	1926.	1927.	1928.	1929.
New South Wales (a) ..	382,331	332,827	301,819	311,605	323,499
Victoria	339,601	284,271	212,785	222,084	265,978
Queensland	199,598	183,662	191,947	215,764	236,037
South Australia ..	90,794	79,108	69,733	62,723	74,906
Western Australia ..	74,316	69,798	59,810	49,243	64,522
Tasmania	41,009	38,906	41,752	48,304	52,899
Northern Territory ..	382	343	292	407	359
Federal Cap. Territory (a)	343	94	69	51	124
Australia	1,128,374	989,009	878,207	910,181	1,018,324

(a) As on 30th June of year following.

For many years the number of pigs in Australia has fluctuated considerably. There was a heavy falling off in 1915, followed by substantial increases during the next two years, the number in 1917, viz., 1,169,365, being the highest recorded in Australia. From 1917 onwards the numbers have remained fairly constant at about 900,000. The number of pigs per head of population and the number per square mile, will be found in the tables of live stock, page 464.

2. Bacon and Ham.—(i) *Production.* The production of bacon and ham is increasing fairly rapidly, the averages for the past three quinquennia being 56,000,000, 62,000,000, and 73,000,000 lb. respectively. No increase in the volume of exports has taken place, the extra production being needed to supply the local demand, which is expanding with the population and the increasing consumption per head.

BACON AND HAM.—PRODUCTION, 1925-26 TO 1929-30.

State.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	22,949,531	24,600,275	25,479,208	23,087,271	21,616,472
Victoria	21,213,925	20,952,310	20,605,148	19,401,447	18,888,537
Queensland	18,326,728	18,288,690	18,264,855	22,043,114	19,195,176
South Australia ..	5,600,760	5,165,670	5,111,465	5,110,352	5,232,878
Western Australia (a)	2,960,139	2,678,830	2,760,694	2,557,068	2,713,127
Tasmania	2,314,756	1,946,323	2,780,304	2,298,745	2,454,548
Federal Cap. Territory	8,840	2,790	..	1,400	1,243
Total	73,374,679	73,634,888	75,001,674	74,499,397	70,101,981

(a) A portion only from pigs slaughtered in the State; balance imported and subsequently cured.

(ii) *Local Consumption.* From about 1904 onwards the production of bacon and ham has been sufficient to meet the local demand and provide a small surplus for export. The total home consumption and the average per head of population for the last five years are given hereunder :—

BACON AND HAM.—LOCAL CONSUMPTION, 1925-26 TO 1929-30.

Particulars.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
	lb.	lb.	lb.	lb.	lb.
Total	72,205,137	72,176,870	73,823,995	73,441,419	68,829,105
Per head of population ..	12.05	11.81	11.84	11.59	10.73

3. **Pork Consumption.** Data available regarding the consumption of pork indicate an average for Australia in 1929-30 of 6 lb. per head of population, as compared with 13 lb. per head in New Zealand, 82 lb. in Canada and 73 lb. in the United States of America.

4. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products for the last five years is shown in the following table :—

PIG PRODUCTS.—AUSTRALIAN TRADE, 1925-26 TO 1929-30.

Particulars.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Pigs.					
Imports No.	6	8	..	85	59
" £	250	223	..	707	2,603
Exports No.	320	418	328	201	325
" £	1,951	2,506	1,294	934	1,365
Net Exports .. No.	314	410	328	116	266
" £	1,701	2,283	1,294	227	-1,238

BACON AND HAM.

Imports lb.	509,101	374,814	356,283	406,335	209,021
" £	33,773	23,101	21,108	23,465	12,325
Exports lb.	1,678,643	1,833,832	1,533,967	1,464,313	1,481,897
" £	139,864	147,886	129,073	122,929	116,709
Net Exports .. lb.	1,169,542	1,459,018	1,177,679	1,057,978	1,272,876
" £	106,091	124,785	107,965	99,464	104,384

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Imports lb.	244,517	575,293	712,307	420,609	206,037
" £	8,787	17,169	20,092	11,188	5,157
Exports lb.	1,953,796	1,334,421	1,380,960	1,609,914	969,512
" £	56,630	38,839	38,209	41,741	26,664
Net Exports .. lb.	1,709,279	759,128	668,653	1,189,305	763,475
" £	47,843	21,670	18,117	30,553	21,507

FROZEN PORK.

Imports lb.	466,425	733,179	2,112,595	2,288,385	413,949
" £	20,066	31,657	67,876	76,141	13,486
Exports lb.	90,106	481,330	159,494	199,336	934,149
" £	3,647	16,608	6,183	7,856	32,735
Net Exports .. lb.	-376,319	-251,849	-1,953,171	-2,089,049	520,200
" £	-16,419	-15,049	-61,693	-68,285	19,249

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

The output of pig products in Australia is usually sufficient to meet local requirements and provide a small surplus for export. During the last five years the value of the average annual net export amounted to £108,890, the bulk of the shipments consisting of bacon, ham and lard.

§ 4. Total Dairy Production.

The total dairy production of Australia in 1929-30 is shown below :—

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1929-30.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter	218,528,536	202,252,260	162,257,015	23,221,828	13,137,292	18,292,376	31,347	637,720,654
Cheese		6,760,830		3,260,144		936,534		
Condensing and concentrating	8,832,312		12,939,075					47,171,835
Other purposes	50,586,152	50,715,910	13,323,541	8,292,433	8,228,592	6,237,090	244,489	143,628,212
Total	283,947,000	274,171,940	188,519,631	34,774,410	21,365,884	25,466,000	275,836	828,520,701

BUTTER.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
In Factories On Dairy and other Farms	99,967,310	87,169,848	76,103,611	7,056,586	4,723,132	6,439,992	..	282,060,470
	4,208,030	3,469,804	2,692,872	3,133,120	1,456,357	2,048,940	10,943	17,020,066
Total	104,175,340	90,639,652	78,796,483	10,789,706	6,179,489	8,488,932	10,943	299,080,545

CHEESE.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
In Factories On Dairy and other Farms	6,163,295	6,747,894	12,374,705	3,536,943	..	761,583	..	29,584,420
	182,490	206,055	6,177	..	998	192,880	..	588,600
Total	6,345,785	6,953,949	12,380,882	3,536,943	998	954,463	..	30,173,020

CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb. (b)	51,581,802	lb. (b)	..	lb. ..	lb. ..	lb. ..	51,581,802
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BACON AND HAM.

In Factories On Dairy and other Farms	lb.	18,222,220	18,924,040	4,819,604	2,601,422	1,696,263	..	67,247,798
	632,223	666,317	271,136	413,274	111,705	758,285	1,243	2,854,183
Total	21,616,472	18,888,537	19,195,176	5,232,878	2,713,127	2,454,548	1,243	70,101,981

(a) Including milk used for making cheese (b) Figures not available for publication.

(c) A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured.

Particulars in regard to the production of other milk products are not available for all the States, but the following articles were made in Victoria during 1929-30:—Casein, 2,568,956 lb.; other milk products, 68,714 lb.

§ 5. Poultry Farming.

1. **General.**—Poultry stocks are largely maintained by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. During recent years, however, poultry-keeping has assumed an independent position among rural industries, while it is also carried on in conjunction with pig-farming. Special poultry farms have been instituted for scientific breeding, poultry experts give lectures and instruction, and egg-laying competitions are conducted. Poultry for consumption is extensively reared, and the egg-producing qualities of the birds have been greatly improved by careful breeding. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with the milk and cream to the local butter factories, and thence forwarded to market.

2. **Poultry Products.**—There is some difficulty in obtaining complete figures for the yield of poultry products. The following values relate to poultry and eggs:—

POULTRY AND EGGS.—VALUE OF PRODUCTION, 1925-26 TO 1929-30.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1925-26 ..	3,446,000	4,515,400	621,876	1,094,205	305,888	300,000	10,283,369
1926-27 ..	3,807,500	4,819,500	500,237	1,046,056	330,903	300,000	10,804,196
1927-28 ..	3,924,350	4,760,000	598,467	1,234,532	426,422	300,000	11,247,869
1928-29 ..	3,329,000	4,348,000	619,329	1,053,939	456,242	300,000	10,109,695
1929-30 ..	3,471,000	4,638,000	635,145	950,542	542,291	300,000	10,541,053

(a) Estimated.

(b) Includes Federal Capital Territory, 1927-28 £4,098, 1928-29 £3,185, and 1929-30 £4,075.

3. **Oversea Trade in Poultry Products.**—The Australian oversea trade in poultry products is confined chiefly to eggs, which are mainly consigned to the United Kingdom. New South Wales, Victoria, and Queensland are participating in this trade, which, during 1929-30, amounted to £255,925. The exports of frozen poultry have fluctuated considerably in recent years, being valued at £17,118 during 1929-30 as compared with £50,205 for 1921-22. The oversea trade during the past five years was as follows:—

POULTRY PRODUCTS, TRADE.—AUSTRALIA, 1925-26 TO 1929-30.

Particulars.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
LIVE POULTRY.					
Imports	No. 384	281	264	310	424
.. ..	£ 1,475	1,604	1,002	1,244	1,512
Exports	No. 3,418	1,847	2,585	2,116	2,165
.. ..	£ 2,311	1,311	1,837	1,757	1,821
Net Exports ..	No. 3,034	1,566	2,321	1,806	1,741
.. ..	£ 836	-293	835	513	309
FROZEN POULTRY.					
Imports	lb. 12,367	12,340	66,677	14,315	1,097
.. ..	£ 741	749	4,766	1,055	86
Exports	pair 22,381	19,880	9,570	12,419	13,908
.. ..	£ 25,242	30,259	8,930	15,341	17,118
Net Exports ..	(a)	(a)	(a)	(a)	(a)
.. ..	£ 24,501	29,510	4,164	14,286	17,032

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

(a) Quantity not available.

POULTRY PRODUCTS, TRADE.—AUSTRALIA, 1925-26 TO 1929-30—*continued.*

Particulars.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Eggs.					
Imports doz.	29,652	24,182	25,752	21,349	16,568
" £	2,003	1,507	1,579	1,210	873
Exports doz.	1,531,744	3,151,990	1,104,005	2,916,338	3,570,219
" £	116,681	233,672	85,844	218,929	255,571
Net Exports doz.	1,502,092	3,127,808	1,078,253	2,894,989	3,553,651
" £	114,678	232,165	84,265	217,719	254,698
EGG-CONTENTS.					
Imports lb.	21,495	39,675	38,858	39,483	29,693
" £	4,313	6,382	6,531	5,147	3,901
Exports lb.	(a)	(a)	(a)	(a)	(a)
" £	95	97	17	127	354
Net Exports lb.	(a)	(a)	(a)	(a)	(a)
" £	-4,218	-6,285	-6,514	-5,020	-3,547

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

(a) Quantity not available.

§ 6. Bee Farming.

1. *General.*—As is the case with poultry-farming, bee-farming is frequently carried on in conjunction with agriculture or dairying. The returns of honey from productive hives during 1929-30 gave an average of 63.24 lb. per hive, while the average quantity of wax was 0.83 lb. per hive.

2. *Production of Honey and Beeswax.*—The number of hives and the production of honey and beeswax during the year 1929-30 are given in the following table:—

BEE-HIVES, HONEY, AND BEESWAX, 1929-30.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	32,420	10,860	43,280	2,101,619	45,535	35,493	3,061
Victoria	41,909	16,806	58,715	3,097,805	67,765	29,682	2,226
Queensland	12,810	3,302	16,112	714,068	12,240	10,739	812
South Australia ..	13,776	15,334	29,110	678,348	9,893	7,924	561
Western Australia ..	10,508	1,262	11,770	611,938	10,788	10,419	700
Tasmania	4,254	911	5,165	115,845	2,620	1,779	170
Fed. Cap. Territory ..	130	101	231	4,170	90	65	5
Australia ..	115,807	48,576	164,383	7,323,793	148,931	96,101	7,535

The table hereunder gives the production of honey and beeswax for the latest available five years :—

HONEY AND BEESWAX PRODUCTION, 1925-26 TO 1929-30.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1925-26	2,234,495	2,114,807	801,587	1,360,916	311,492	116,392	600	6,940,289
1926-27	1,510,420	2,370,310	461,009	1,918,195	553,238	75,876	12,120	6,901,168
1927-28	1,154,201	2,992,860	394,960	931,711	366,286	88,419	..	5,928,437
1928-29	2,354,845	4,181,571	667,846	3,047,421	509,415	89,969	12,900	10,863,967
1929-30	2,101,619	3,097,805	714,068	678,348	611,938	115,845	4,170	7,323,793
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1925-26	38,171	28,812	11,888	11,772	3,737	1,566	100	96,046
1926-27	22,532	33,238	8,785	22,368	5,190	1,224	104	93,441
1927-28	17,139	34,358	7,504	13,069	5,501	1,337	..	78,908
1928-29	30,064	49,675	13,629	28,041	6,555	1,465	162	129,591
1929-30	35,493	29,682	10,739	7,924	10,419	1,779	65	96,101

The quantity of honey and beeswax produced naturally varies from year to year according to the condition of the seasons. During the last five years New South Wales has produced 9,355,580 lb. of honey and 143,399 lb. of beeswax, while the Victorian figures amounted to 14,757,353 lb. and 175,765 lb. respectively for honey and beeswax. These two States together accounted for 63.53 per cent. of the total production of honey, and 64.60 per cent. of the beeswax. Next in order of importance were South Australia, Queensland, and Western Australia.

3. **Oversea Trade in Bee Products.**—In normal years the local production of honey exceeds Australian requirements, and a small quantity is available for export. During the past five years the value of the exports amounted to only £26,312, or an annual average of £5,262, owing to the decrease in production. The more general use of frame hives has affected the production of wax, and as a result the quantity imported has exceeded that exported during each of the past five years.

BEE PRODUCTS.—IMPORTS, EXPORTS, ETC., AUSTRALIA, 1925-26 TO 1929-30.

Particulars.		1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
HONEY.						
Imports	lb.	4,684	657	922	11,142	13,950
"	£	211	20	43	349	332
Exports	lb.	113,401	402,745	281,090	83,413	122,524
"	£	3,756	9,157	6,912	2,856	3,631
Net Exports ..	lb.	108,717	402,088	280,168	72,276	108,574
"	£	3,545	9,137	6,869	2,507	3,299
BEESWAX.						
Imports	lb.	22,937	75,104	96,101	82,261	54,475
"	£	2,195	6,951	8,413	8,118	4,875
Exports	lb.	1,577	326	3,596	1,959	1,411
"	£	131	29	346	149	115
Net Exports ..	lb.	-21,360	-74,778	-92,505	-80,602	-53,064
"	£	-2,064	-6,922	-8,067	-7,969	-4,760

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

§ 7. Value of Farmyard, Dairy, and Bee Products.

The value of the farmyard, dairy and bee products raised in Australia in 1929-30 was as follows:—

FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1929-30.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	c3,040,426	2,535,796	c740,400	414,622	411,429	311,854	..	12,224	7,466,761
Butter ..	7,651,878	6,888,086	6,002,701	969,070	524,925	656,599	..	804	22,694,063
Cheese ..	288,217	381,183	550,869	188,464	.. 20	38,985	..	..	1,397,728
Condensed & concentrated milk	a	b1,557,879	a	..	..	..	..	..	1,557,879
Bacon and ham	1,079,188	1,078,272	1,030,660	296,784	171,881	112,135	..	62	3,768,982
Pork ..	544,766	343,340	274,420	115,215	104,322	113,973	662	993	1,497,691
Lard ..	22,630	39,534	37,749	7,174	3,531	4,361	..	..	114,979
Live Stock ..	11,894	109,735	15,205	24,366	38,198	3,447	..	73	202,918
Poultry and eggs	3,471,000	4,638,000	635,145	950,542	542,291	300,000	..	4,075	10,541,053
Honey and wax	48,596	69,991	13,052	10,454	11,488	2,790	..	95	156,466
Total ..	16,158,595	17,641,816	9,800,201	2,926,681	1,808,085	1,544,144	962	18,326	49,398,510

(a) Included with milk consumed as such. (b) Includes casein £63,548, milk sugar £8,724, and other milk products £2,173. (c) Includes condensed and concentrated milk.

§ 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 last five years are shown below:—

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS, 1925-26 TO 1929-30.

Particulars.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
QUANTITY.					
Beeswax	lb. 1,577	326	3,506	1,659	1,411
Butter	97,899,824	76,516,497	99,164,946	102,442,843	107,663,114
Cheese	6,872,781	3,643,832	6,926,601	8,330,972	3,089,382
Egg albumen and yolk	(a)	(a)	(a)	(a)	(a)
Eggs	1,531,744	3,151,965	1,104,005	2,916,333	3,570,219
Feathers, undressed	(a)	(a)	(a)	(a)	(a)
Honey	lb. 113,401	402,745	281,090	83,418	122,524
Lard	1,953,796	1,315,831	1,859,746	1,599,050	969,512
Meats—					
Bacon and Ham	1,678,643	1,833,468	1,533,967	1,461,313	1,473,036
Frozen Poultry	22,381	19,980	9,570	12,419	13,888
Frozen Pork	lb. 88,053	481,330	158,327	158,975	932,297
Milk, concentrated and preserved	23,026,795	17,762,506	20,622,779	25,385,174	16,493,546
Pigs, living	No. 320	418	328	201	325
Poultry, living	3,418	1,833	2,569	2,116	2,158
VALUE.					
	£	£	£	£	£
Beeswax	131	29	346	149	115
Butter	7,006,830	5,447,224	6,905,933	7,545,430	7,001,540
Cheese	270,712	131,168	200,233	329,700	124,716
Egg albumen and yolk	95	6	13	9	198
Eggs	116,681	233,670	85,841	218,929	255,571
Feathers, undressed	1,089	774	457	396	1,132
Honey	3,756	9,157	6,912	2,856	3,631
Lard	56,630	37,995	37,331	41,373	26,664
Meats—					
Bacon and Ham	139,864	147,861	129,072	122,742	116,150
Frozen Poultry	25,242	20,259	8,930	15,341	17,109
Frozen Pork	3,579	16,608	6,152	6,773	32,683
Milk, concentrated and preserved	1,261,417	1,080,963	1,188,504	1,424,813	997,512
Pigs, living	1,951	2,506	1,294	984	1,365
Poultry, living	2,311	1,281	1,817	1,757	1,801
Total	8,890,288	7,139,551	8,632,828	9,710,702	8,580,196

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, the United Kingdom being the principal country of destination. During the year 1929-30, exports thereto amounted to 92,226,100 lb., or 86 per cent. of the total. Exports to Eastern countries were 11,132,000 lb., or 10 per cent. of the total. Canada during the same year took 1,069,600 lb. Consignments to the countries mentioned accounted for 97 per cent. of the total exports of butter for the year specified.

§ 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 1925 to 1929 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM, 1925 TO 1929.

Products.		1925.	1926.	1927.	1928.	1929.
Butter	cwt.	5,853,245	5,818,840	5,818,611	6,112,972	6,397,266
	£	53,204,417	48,283,312	48,204,721	52,044,506	54,706,404
Cheese	cwt.	3,098,702	3,014,055	2,949,082	3,005,237	2,994,038
	£	15,696,800	13,940,648	13,493,668	14,997,173	13,912,535
Milk, concentrated and preserved	cwt.	2,413,350	2,556,890	2,684,019	2,907,225	2,935,151
	£	5,756,372	5,420,167	5,561,726	5,978,958	5,608,354
Bacon and ham	cwt.	9,002,912	8,666,467	9,370,696	9,794,909	9,306,909
	£	50,774,719	50,146,958	43,333,082	44,957,403	49,215,508
Pork (a)	cwt.	262,998	303,234	234,248	289,114	359,134
	£	1,133,048	1,396,714	912,271	1,014,253	1,305,804

(a) Frozen, chilled, and salted.

2. Butter.—(i) Imports. Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity shipped in 1929 amounted to 768,173 cwt., or 12 per cent. of the total importation. The Australian contribution was valued at £6,342,454 and was exceeded only by that shipped from Denmark and New Zealand.

BUTTER IMPORTS.—UNITED KINGDOM, 1929.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark	2,204,027	19,736,873	Union of South Africa	12,112	103,470
New Zealand	1,303,793	11,277,012	Lithuania	12,868	102,721
Australia	768,173	6,342,454	Germany	10,184	82,355
Irish Free State	566,177	4,579,937	Norway	5,516	51,841
Argentine Republic	302,882	2,537,187	United States of America	70	599
Soviet Republics	290,314	2,299,050	Canada	8	68
Sweden	248,301	2,112,561	British Possessions, n.e.i.	2,280	14,576
Finland	233,593	1,952,445	Foreign Countries, n.e.i.	1,849	12,961
Netherlands	129,816	1,068,813			
Estonia	110,233	893,301			
Latvia	80,992	649,718			
Poland (including Dantzig)	69,384	538,155			
France	44,694	350,307	Total	6,397,266	54,706,404

(ii) *London Prices.* The average price of the best quality Australian butter in London during the past ten years is shown in the following table :—

AUSTRALIAN BUTTER.—LONDON PRICES, 1918 TO 1929.

Year.	Average Top Price per cwt.	Year.	Average Top Price per cwt.
	<i>s.</i> <i>d.</i>		<i>s.</i> <i>d.</i>
1918	(a) 252 0	1924	189 6
1919	(a) 252 0	1925	184 0
1920	(a) 299 9	1926	169 6
1921	234 0	1927	169 6
1922	183 0	1928	171 0
1923	184 6	1929	175 0

(a) Flat rate for all imported butter.

The surplus output of Australian butter was sold under contract to the British Government from 1st July, 1918, to 31st March, 1921, but thereafter it has been sold in the open market.

3. *Cheese.*—The value of cheese imported into the United Kingdom in 1929 was £13,912,535, of which £8,299,734 was received from New Zealand, and £3,411,644 from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia during 1929 amounted to £222,909.

4. *Bacon and Ham.*—Of a total import of bacon and ham valued in 1929 at £49,215,508, the United Kingdom received imports to the value of £27,239,189 from Denmark, £7,364,293 from the United States, and £1,567,422 from Canada. The import from Australia was small, experimental shipments only having been made during recent years.

5. *Pork.*—The value of the United Kingdom imports of pork (frozen and salted only) was £1,305,804 in 1929. There was only a small importation from Australia, the bulk of the supplies being forwarded from New Zealand, the United States, and Argentine Republic.

6. *Other Products.*—There was practically no shipment to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey, but frozen rabbits to the value of £396,194 and eggs to the value of £315,724 were received from Australia in 1929.