

CHAPTER XIX.

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 crossings 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 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. 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. It was proposed to issue additional reports, but the investigation was discontinued. Investigation by the British Medical Research Council into the vitamin content of Australian, New Zealand and British butter respectively showed high and uniform results for the Australian product, the figures being on a par with those for the United Kingdom and other European countries. It was demonstrated also 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, 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 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 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 in Australia 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 following statement:—

Period.	Rate of Levy on Butter produced.	Rate of Bounty paid on Butter Exported.
	per lb. d.	per lb. d.
1st January, 1926 to 11th December, 1927 ..	1½	3
12th December, 1927 to 31st December, 1927 ..	1½	4
1st January, 1928 to 31st August, 1928 ..	1½	3
1st September, 1928 to 31st December, 1928 ..	1½	4
1st January, 1929 to 31st December, 1930 ..	1¾	4½
1st January, 1931 to 31st March, 1931 ..	1¾	3½
1st April, 1931 to 11th April, 1931 ..	1¾	3
12th April, 1931 to 2nd April, 1932 ..	1¾	2½
2nd April, 1932 to latest available date (Nov., 1933)	1¾	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 290,000,000 lb., of which it is estimated that 190,000,000 lb. constitute the requirements for local consumption, leaving a balance of 100,000,000 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 290,000,000 lb. ..	£3,625,000
Less amount required to provide export bounty of 3d. per lb. on 100,000,000 lb. exported	£1,250,000
Estimated net gain to producer	£2,375,000

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 resulting therefrom.

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 agriculturists, 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, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality and the number of farmers who prefer to convert the cream rather than send it to the factory 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 513 in 1931-32, as compared with 579 in 1926-27. These were distributed in the various States as follows:—New South Wales, 136; Victoria, 169; Queensland, 116; South Australia, 42; Western Australia, 14; and Tasmania, 36. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXII.

7. *Ottawa Conference.*—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, should materially assist the dairying, bee, and poultry industry. Under the terms of this agreement free entry into the United Kingdom of eggs, poultry, butter, cheese and other milk products of Australian origin will be continued for three years from 15th November, 1932, while similar goods imported from foreign countries are to be subjected to customs duties. The rate to be imposed on the undermentioned items is as follows:—butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; eggs in shell, 1s. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, 5s. per cwt., and condensed milk, 5s. and 6s. per cwt. The right to review the basis of preference of these items at the end of this period is reserved by the Government of the United Kingdom. The quantitative regulation of supplies of bacon and ham coming on to the market in Great Britain is to be arranged after the receipt of the report of the Commission investigating the reorganization of the pig industry in the United Kingdom. The granting of new or additional preferences on some of these items by Crown Colonies and Protectorates should further benefit these industries. Details of imports into the United Kingdom are given in § 9 hereafter.

§ 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 1931 represents a gain of more than 538,000 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, the main object in these areas being the production of beef. In Southern Queensland, however, dairying has developed remarkably during the past decennium, and the progress attained in that area and in New South Wales has been largely responsible for the Australian increase previously mentioned. The returns for 1931 include heifers intended for milking and being within three months of calving. Details were not collected for Victoria or Tasmania, but the total of such heifers in the other States amounted to 103,449.

CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1927.	1928.	1929.	1930.	1931.
New South Wales	All Cattle ..	2,848,654	2,784,615	2,686,132	2,840,473	2,993,586
	Dairy Cows ..	894,440	907,774	913,555	964,739	1,020,947
Victoria	All Cattle ..	1,327,077	1,304,426	1,335,242	1,429,920	1,637,530
	Dairy Cows ..	626,139	615,092	619,416	669,132	775,538
Queensland	All Cattle ..	5,225,804	5,128,341	5,208,588	5,463,724	5,550,399
	Dairy Cows ..	645,316	670,805	680,577	724,323	775,301
South Australia	All Cattle ..	316,314	263,016	204,516	218,985	265,324
	Dairy Cows ..	117,580	108,969	104,255	109,672	127,756
Western Australia	All Cattle ..	846,735	837,527	836,646	812,844	826,532
	Dairy Cows ..	70,880	69,047	74,223	85,725	99,287
Tasmania	All Cattle ..	210,894	208,812	214,643	230,254	232,444
	Dairy Cows ..	66,902	94,268	72,235	76,825	81,800
Northern Territory	All Cattle ..	835,390	768,751	711,607	720,476	749,745
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	6,188	5,269	4,760	4,240	5,395
	Dairy Cows ..	1,417	704	679	788	643
Australia..	All Cattle ..	11,617,056	11,300,757	11,202,134	11,720,916	12,260,955
	Dairy Cows ..	2,422,674	2,466,659	2,464,940	2,631,204	2,881,272

(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. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods is being continually extended, and the 300 gallon average has been exceeded in each of the last six seasons,

the yield of 392 gallons in 1931 constituting a record. The best yields over a series of years were in Victoria, Tasmania, South Australia and New South Wales, while Queensland in normal years shows a higher average than 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, naturally, far below that for cows which were yielding during the greater part of the year.

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1927-28—								
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	802,255
Aver. per cow .. gal.	338	401	319	332	261	336	376	349
1928-29—								
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 .. gal.	326	450	307	337	277	362	432	354
1929-30—								
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 .. gal.	331	444	293	351	316	363	502	352
1930-31—								
Dairy Cows (a) .. No.	880,079	644,274	671,803	98,502	75,465	74,530	614	2,445,267
Production 1,000 gals.	298,111	313,815	224,085	39,035	24,329	31,165	238	930,778
Aver. per cow .. gal.	339	487	334	396	322	418	388	381
1931-32—								
Dairy Cows (a) ..No.	935,438	722,335	718,677	107,075	87,275	79,312	614	2,650,726
Production 1,000 gals.	332,293	362,868	231,688	50,001	29,890	31,306	280	1,038,326
Aver. per cow .. gal.	355	502	322	466	342	395	456	392

(a) Mean for the year. (b) Exclusive of Northern Territory.

3. **Butter and Cheese.**—Although the quantity of dairy production is largely affected by the nature of the season, a large increase in the output of butter has taken place in recent years. The average annual production rose from 205,000,000 lb. for the quinquennium 1917-1921 to 322,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1931-32, when, as a result of a specially favourable season, 390,650,000 lb. were manufactured. The previous highest figure was in 1930-31 when the total amounted to 350,000,000 lb. It is anticipated that this record will be broken by the return for the season 1932-33. Preliminary data indicate a total production for the season of 420,000,000 lb.

The manufacture of cheese is also largely dependent upon seasonal conditions. The production in 1931-32 was 31,422,973 lb. as compared with 33,099,781 lb., the record quantity produced during the previous year.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on page 542. Particulars for the past five years are as follow :—

BUTTER AND CHEESE PRODUCTION.

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	100,794,838	95,337,240	104,175,340	113,237,295	123,252,722
Victoria	84,270,812	93,728,516	90,639,652	110,006,619	132,131,812
Queensland	72,039,151	77,044,859	78,796,483	95,719,316	98,013,043
South Australia	12,136,638	11,315,714	10,789,706	12,961,231	17,663,029
Western Australia	4,265,258	5,051,088	6,179,489	8,666,399	10,109,795
Tasmania	6,514,642	7,395,689	8,488,932	9,802,261	9,462,866
Federal Capital Territory ..	16,065	10,094	10,943	11,983	20,803
Australia	280,037,404	289,883,200	299,080,545	350,405,104	390,654,070

BUTTER AND CHEESE PRODUCTION—*continued.*

State.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	7,284,622	6,339,052	6,345,785	6,516,065	6,590,357
Victoria	5,621,945	5,505,932	6,953,949	8,064,463	7,723,328
Queensland	14,128,420	14,391,910	12,380,882	13,648,038	11,021,963
South Australia	3,465,456	2,975,095	3,536,943	3,901,159	5,096,731
Western Australia	5,088	7,526	998	528	909
Tasmania	1,029,344	997,586	954,463	969,528	989,685
Australia	31,534,875	30,217,101	30,173,020	33,099,781	31,422,973

4. **Condensed or Concentrated Milk.**—The manufacture of this product 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. The output of this State amounted in 1927-28 to 53,876,662 lb.; in 1928-29 to 53,948,559 lb.; in 1929-30 to 51,581,802 lb.; in 1930-31 to 45,665,474 lb., and in 1931-32 to 41,409,540 lb. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk. No condensed or concentrated milk is made in Tasmania. Information regarding production in the remaining States is not available for publication, but the volume is not very large.

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.

Products.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
IMPORTS.					
Butter	lb. 6,975,370	964	3,947	3,016	1,525
"	£ 549,548	89	287	(a) 201	(a) 110
Cheese	lb. 2,084,486	515,257	458,481	30,356	13,695
"	£ 116,200	45,817	34,462	(a) 2,729	(a) 1,482
Milk—concentrated and preserved	lb. 931,344	774,115	1,177,593	524,865	393,953
"	£ 36,837	33,422	36,219	(a) 22,016	(a) 11,162
EXPORTS.					
Butter	lb. 99,164,946	102,442,843	107,663,264	163,180,695	201,639,404
"	£ 6,905,933	7,545,430	7,001,556	8,120,165	9,812,827
Cheese	lb. 6,933,857	8,335,078	3,094,092	8,595,019	7,267,727
"	£ 260,879	330,165	125,102	244,107	212,871
Milk—concentrated and preserved	lb. 20,640,224	25,402,575	16,498,819	12,351,714	15,996,464
"	£ 1,188,903	1,424,854	997,756	610,705	642,036
NET EXPORTS.(b)					
Butter	lb. 92,189,576	102,441,879	107,659,317	163,177,679	201,637,879
"	£ 6,356,385	7,545,341	7,001,269	8,119,964	9,812,717
Cheese	lb. 4,849,371	7,819,821	2,635,611	8,564,663	7,254,032
"	£ 144,679	284,348	90,640	241,378	211,389
Milk—concentrated and preserved	lb. 19,708,880	24,628,460	15,321,226	11,826,849	15,602,511
"	£ 1,152,066	1,391,432	961,537	588,689	630,874

(a) Australian currency values.

(b) Excess of exports over imports.

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

BUTTER AND CHEESE.—LOCAL CONSUMPTION.

Products.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	187,847,828	187,441,321	191,421,228	187,227,425	189,016,191
.. .. Per head of population ..	30.13	29.58	29.84	28.91	28.96
Cheese .. Total ..	26,685,504	22,397,280	27,537,409	24,535,118	24,168,941
.. .. Per head of population ..	4.28	3.53	4.29	3.79	3.70

Consumption in 1931-32 averaged 29 lb. of butter and 3½ lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada, and New Zealand is given at 21.8 lb., 30.4 lb., and 34.7 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.6 lb., and 5.6 lb. respectively.

§ 3. Pigs and Pig Products.

1. Pigs.—The number of pigs in Australia has varied considerably during the last 30 years. In 1904 the total amounted to 1,062,703, but in 1919 it had dwindled to 695,968. During the last five years the increase has been fairly steady, but the number in 1931, i.e., 1,167,845, is lower than in 1917 when it amounted to 1,169,365. The distribution of pigs among the States and Territories in 1931 was—New South Wales, 385,846; Victoria, 286,780; Queensland, 222,686; South Australia, 109,780; Western Australia, 120,521; Tasmania, 41,459; Northern Territory, 665; Federal Capital Territory, 108; total, 1,167,845. The figures for New South Wales and the Federal Capital Territory represent the numbers as on the 31st March, 1932.

2. Bacon and Ham.—The highest production of bacon and ham was reached in 1927-8 with an output of 75,000,000 lb. During the last three years the average was about 70,700,000 lb. The production in the several States in 1931-32 was as follows:—New South Wales, 20,468,259 lb.; Victoria, 18,287,404 lb.; Queensland, 20,008,227 lb.; South Australia, 7,034,439 lb.; Western Australia (including a quantity made from imported green bacon), 3,473,433 lb.; Tasmania, 1,849,678 lb.; Federal Capital Territory, 300 lb.; total, 71,121,740 lb. Practically the whole of the bacon and ham produced is consumed locally. On the experience of the last five years the local consumption was about 71,000,000 lb., or 11.1 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

3. Pork Consumption.—Data available regarding the consumption of pork indicate an average for Australia in 1931-32 of 6.68 lb. per head of population, as compared with 13.72 lb. per head in New Zealand, 92 lb. in Canada and 70 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.—OVERSEA TRADE, AUSTRALIA.

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
PIGS.						
Imports	No.	..	85	59	7	4
..	£	..	707	2,603 (a)	252	(a) 159
Exports	No.	328	201	325	280	274
..	£	1,294	934	1,365	1,186	1,074
Net Exports	No.	328	116	266	273	270
..	£	1,294	227	-1,238	934	915

PIG PRODUCTS.—OVERSEA TRADE, AUSTRALIA—*continued.*

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
BACON AND HAM.						
Imports	.. lb.	356,288	406,335	209,021	25,245	1,191
"	.. £	21,108	23,465	12,325	(a) 1,595	(a) 97
Exports	.. lb.	1,533,967	1,464,313	1,481,897	2,100,290	1,429,367
"	.. £	129,073	122,929	116,709	115,278	87,213
Net Exports	.. lb.	1,177,679	1,057,978	1,272,876	2,075,045	1,428,176
"	.. £	107,965	99,464	104,384	113,683	87,116
LARD.						
Imports	.. lb.	712,307	420,609	206,037	101,391	15,244
"	.. £	20,092	11,188	5,157	(a) 2,972	(a) 492
Exports	.. lb.	1,380,960	1,609,914	969,512	1,043,930	2,924,492
"	.. £	38,209	41,741	26,664	26,189	43,498
Net Exports	.. lb.	668,653	1,189,305	763,475	942,539	2,909,248
"	.. £	18,117	30,553	21,507	23,217	43,006
FROZEN PORK.						
Imports	.. lb.	2,112,595	2,288,385	413,949	46,695	706
"	.. £	67,876	76,141	13,486	(a) 1,684	(a) 32
Exports	.. lb.	159,494	199,336	934,149	8,629,901	7,383,355
"	.. £	6,183	7,856	32,735	235,999	173,373
Net Exports	.. lb.	-1,953,101	-2,089,049	520,200	8,583,206	7,382,649
"	.. £	-61,693	-68,285	19,249	234,315	173,341

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

(a) Australian currency values.

The output of pig products in Australia is usually sufficient to meet local requirements and provide a small surplus for export. Exports of frozen pork showed a remarkable increase in 1930-31 and 1931-32, when more than 8.6 million lb. and 7.4 million lb. respectively were sent overseas, as compared with an average of 373,000 lb. for the five preceding years. The chief pig product consumed in the United Kingdom is bacon and ham, the imports of which during 1931 amounted to 12 million cwt., valued at £33,000,000, obtained chiefly from Denmark. With the regulation of supplies from foreign countries to the United Kingdom under the terms of the agreement at the Ottawa Conference in 1932, Australia should gain a larger share in this important market.

§ 4. Total Dairy Production.

The total dairy production of Australia in 1931-32 is shown below:—

PRINCIPAL DAIRY PRODUCTION.—AUSTRALIA, 1931-32.

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	265,389,802	294,157,259	207,670,685	37,222,016	221,205,573	23,920,966	73,907	849,640,208
Cheese		7,491,173		4,753,044	..	1,001,291	..	
Condensing and concentrating	9,056,504	10,706,052	11,024,241	..	..	..	..	44,032,305
Other purposes	57,846,694	50,513,151	12,992,982	8,026,234	8,684,206	6,383,743	206,682	144,653,692
Total	332,293,000	362,867,635	231,687,908	50,001,294	29,889,779	31,306,000	280,589	1,038,326,205

PRINCIPAL DAIRY PRODUCTION.—AUSTRALIA, 1931-32—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
BUTTER.								
In Factories	lb. 117,853,273	lb. 127,981,768	lb. 95,050,738	lb. 13,828,764	lb. 8,347,833	lb. 7,015,862	lb. ..	lb. 370,078,238
On Dairy and other Farms ..	5,399,449	4,150,044	2,962,305	3,834,265	1,761,962	2,447,004	20,803	20,575,832
Total ..	123,252,722	132,131,812	98,013,043	17,663,029	10,109,795	9,462,866	20,803	390,654,070

CHEESE.								
In Factories	lb. 6,476,737	lb. 7,656,819	lb. 11,016,663	lb. 5,095,391	lb. ..	lb. 874,935	lb. ..	lb. 31,120,545
On Dairy and other Farms ..	113,620	66,509	5,300	1,340	909	114,750	..	302,428
Total ..	6,590,357	7,723,328	11,021,963	5,096,731	909	989,685	..	31,422,973

CONDENSED, CONCENTRATED, OR POWDERED MILK.								
In Factories	lb. (b)	lb. 41,409,540	lb. (b)	lb. ..	lb. (b)	lb. ..	lb. ..	lb. 41,409,540

BACON AND HAM.								
In Factories	lb. 19,442,931	lb. 16,833,907	lb. 19,639,692	lb. 6,408,730	lb. 3,240,306	lb. 1,160,630	lb. ..	lb. 66,726,196
On Dairy and other Farms ..	1,025,328	1,453,497	368,535	625,709	233,127	689,048	300	4,395,544
Total ..	20,468,259	18,287,404	20,008,227	7,034,439	3,473,433	1,849,678	300	71,121,740

(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 1931-32 :—Casein, 1,364,816 lb. ; other milk products, 224,658 lb.

§ 5. Poultry Farming.

1. General.—Poultry is kept in varying numbers by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. For many years, however, poultry-keeping has been carried on as a separate industry, while it is also practised in conjunction with other rural industries. Special poultry farms have been instituted by the State Governments for scientific breeding, experts have been appointed to advise and instruct in the care and management of the various kinds of poultry raised, and exhibitions of leading breeds have been arranged, as well as egg-laying competitions. Co-operative egg-collecting circles have been formed in some districts ; eggs are also delivered with milk and cream to the local butter factories, and thence forwarded to market.

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

POULTRY AND EGGS.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1927-28 ..	3,924,350	4,760,000	598,467	1,234,532	426,422	300,000	b11,247,869
1928-29 ..	3,329,000	4,348,000	619,329	1,053,939	456,242	300,000	b10,109,695
1929-30 ..	3,471,000	4,638,000	635,145	950,542	542,291	300,000	b10,541,053
1930-31 ..	2,886,000	3,926,000	556,620	831,020	399,430	300,000	b 8,904,600
1931-32 ..	2,806,000	3,653,000	510,031	761,612	498,957	300,000	b 8,535,482

(a) Estimated. (b) Includes Federal Capital Territory, 1927-28 £4,098, 1928-29 £3,185, 1929-30 £4,075, 1930-31 £5,530, and 1931-32 £5,882.

3. Oversea Trade in Poultry Products.—The Australian oversea export of poultry products is confined chiefly to eggs, which are mainly consigned to the United Kingdom. New South Wales, Victoria, and South Australia are the largest exporters, the total exports in 1931-32 amounting to £554,958. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 9d. per 10 dozen by the Government of the United Kingdom on imported eggs of foreign origin should assist Australia to obtain a larger share in this valuable market. Exports from Australia have risen from slightly more than 1 million dozen valued at £85,000 in 1927-28 to nearly 10 million dozen valued at £494,000 in 1931-32. The exports of frozen poultry have fluctuated considerably in recent years, being valued at £33,366 during 1931-32, as compared with £50,205 for 1921-22. The oversea trade during the past five years was as follows:—

POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
LIVE POULTRY.						
Imports ..	No.	264	310	424	176	164
„ ..	£	1,002	1,244	1,512 (b)	582	(b) 292
Exports ..	No.	2,585	2,116	2,165	1,526	2,067
„ ..	£	1,837	1,757	1,821	1,147	1,039
Net Exports ..	No.	2,321	1,806	1,741	1,350	1,903
„ ..	£	835	513	309	565	747
FROZEN POULTRY.						
Imports ..	lb.	66,677	14,315	1,097	1,695	49
„ ..	£	4,766	1,055	86 (b)	121	(b) 2
Exports ..	pair	9,570	12,419	13,908	14,553	32,597
„ ..	£	8,930	15,341	17,118	11,729	33,366
Net Exports ..	..	(a)	(a)	(a)	(a)	(a)
„ ..	£	4,164	14,286	17,032	11,608	33,364
Eggs.						
Imports ..	doz.	25,752	21,349	16,568	10,828	8,513
„ ..	£	1,579	1,210	873 (b)	458	(b) 443
Exports ..	doz.	1,104,005	2,916,338	3,570,219	5,970,696	9,921,829
„ ..	£	85,844	218,929	255,571	321,627	494,032
Net Exports ..	doz.	1,078,253	2,894,989	3,553,651	5,959,868	9,913,316
„ ..	£	84,265	217,719	254,698	321,169	493,589

(a) Quantity not available

(b) Australian currency values.

POULTRY PRODUCTS, TRADE.—AUSTRALIA—continued.

Particulars.		1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
EGG-CONTENTS.						
Imports	.. lb.	38,858	39,483	29,693	11,108	13,219
"	.. £	6,531	5,147	3,901	(b) 1,007	(b) 1,706
Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	17	127	354	5,116	60,926
Net Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	-6,514	-5,020	-3,547	4,109	59,220

(a) Quantity not available.

(b) Australian currency values.

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

§ 6. Bee Farming.

1. *General.*—Although practised to some extent as a separate industry, bee-farming is frequently carried on in conjunction with agriculture or dairying. The returns of honey from productive hives during 1931-32 gave an average of 48.89 lb. per hive, while the average quantity of wax was 0.66 lb. per hive.

2. *Production of Honey and Beeswax.*—The number of hives and the production of honey and beeswax during the year 1931-32 are given in the following table :—

BEE-HIVES, HONEY, AND BEESWAX, 1931-32.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	38,099	11,251	49,350	2,123,233	37,000	27,933	1,600
Victoria ..	37,749	17,222	54,971	2,159,770	42,745	26,239	1,531
Queensland ..	8,544	4,539	13,083	283,022	5,055	6,082	476
South Australia ..	27,366	22,302	49,668	1,240,525	18,091	17,253	917
Western Australia ..	9,941	1,432	11,373	250,146	4,160	4,251	241
Tasmania ..	3,238	2,131	5,369	52,559	1,260	644	60
Fed. Cap. Territory ..	50	22	72	1,480	26	80	5
Australia ..	124,987	58,899	183,886	6,110,735	108,337	82,482	4,830

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

HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
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HONEY.

	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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
1930-31	2,643,871	2,804,186	555,244	1,717,442	641,969	102,540	10,600	8,475,852
1931-32	2,123,233	2,159,770	283,022	1,240,525	250,146	52,559	1,480	6,110,735

HONEY AND BEESWAX PRODUCTION—*continued.*

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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
1930-31	36,460	30,478	8,579	16,832	9,911	2,008	139	104,407
1931-32	27,933	26,239	6,082	17,253	4,251	644	80	82,482

The production of honey and beeswax varies greatly from year to year according to the condition of the seasons. During the last five years New South Wales produced 10,377,769 lb. of honey and 147,089 lb. of beeswax, while the Victorian figures amounted to 15,196,192 lb. and 170,432 lb. respectively for honey and beeswax. These States together accounted for 66.07 per cent. of the total Australian 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. The imports into the United Kingdom average 80,000 cwt. annually, of which Australia supplies approximately 1,800 cwt. At the Imperial Economic Conference at Ottawa in 1932, the representatives of the United Kingdom, on behalf of their Government, agreed to the imposition of an import duty of 7s. per cwt. on foreign honey, and Australia should, therefore, gain a larger proportion of the trade. During the past five years the value of the exports amounted to only £22,679, or an annual average of £4,536, 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.

For the year 1931-32 the imports of honey amounted to 5,264 lb. and the exports to 251,885 lb. The imports of beeswax for the same year amounted to 32,265 lb. and the exports to 2,888 lb.

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

The value of the farmyard, dairy and bee products raised in Australia in 1931-32 was as follows :—

FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1931-32.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	2,169,251	1,894,243	487,237	300,984	325,658	239,300	..	7,751	5,424,514
Butter ..	6,604,451	7,138,199	5,359,367	1,019,595	649,102	563,676	..	1,115	21,335,505
Cheese ..	238,337	320,236	338,648	155,249	25	30,502	..	..	1,082,997
Condensed & concentrated milk	874,371	988,639	662,792	252,551	142,275	69,241	..	..	3,668,865
Bacon and ham		678,986								..	10
Pork ..	339,682	326,571	300,833	132,466	94,068	49,096	484	1,175	1,244,375
Lard ..	11,878	23,769	23,740	6,199	3,063	4,007	..	..	72,656
Poultry and eggs	2,806,000	3,653,000	510,031	761,612	498,957	300,000	..	5,882	8,535,482
Honey and wax	38,600	44,276	5,531	19,008	4,401	1,320	..	31	113,167
Total ..	13,082,570	15,067,919	7,688,179	2,647,664	1,717,549	1,257,232	484	15,964	41,477,561

§ 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.

Particulars.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
QUANTITY.					
Beeswax	lb. 3,596	1,659	1,411	1,020	2,888
Butter	99,164,946	102,442,843	107,663,114	163,180,695	201,639,404
Cheese	6,926,691	8,330,972	3,089,382	8,594,693	7,267,719
Egg albumen and yolk	(a)	(a)	(a)	(a)	(a)
Eggs	doz. 1,104,005	2,916,338	3,570,219	5,970,696	9,921,829
Feathers undressed	(a)	(a)	(a)	(a)	(a)
Honey	lb. 281,090	83,418	122,524	138,491	251,857
Lard	1,359,746	1,599,050	969,512	1,043,930	2,924,492
Meats—					
Bacon and Ham	1,533,967	1,461,313	1,473,036	2,100,290	1,429,367
Frozen Poultry	pair 9,570	12,419	13,888	14,553	32,597
Frozen Pork	lb. 158,327	158,975	932,297	8,623,651	7,383,355
Milk, concentrated and preserved	20,622,779	25,385,174	16,493,546	12,351,024	15,996,318
Pigs, living	No. 328	201	325	280	274
Poultry, living	2,569	2,116	2,158	1,526	2,067
VALUE.					
Beeswax	£ 346	£ 149	£ 115	£ 77	£ 178
Butter	6,905,933	7,545,430	7,001,540	8,120,165	9,812,827
Cheese	260,235	329,700	124,716	244,066	212,870
Egg albumen and yolk	13	9	198	5,099	60,896
Eggs	65,844	216,929	255,571	321,627	494,032
Feathers, undressed	457	396	1,132	1,036	229
Honey	6,912	2,856	3,631	3,632	5,642
Lard	37,318	41,373	26,664	26,189	43,497
Meats—					
Bacon and Ham	129,073	122,742	116,159	115,278	87,213
Frozen Poultry	8,930	15,341	17,109	11,729	33,366
Frozen Pork	6,152	6,773	32,683	235,857	173,373
Milk, concentrated and preserved	1,188,504	1,424,313	997,512	610,653	642,016
Pigs, living	1,294	934	1,365	1,186	1,074
Poultry, living	1,817	1,757	1,801	1,147	1,939
Total	8,632,828	9,710,702	8,580,196	9,697,741	11,568,252

(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 1931-32, exports thereto amounted to 185,367,596 lb., or 92 per cent. of the total. Exports to Eastern countries were 12,964,868 lb., or 6 per cent. of the total. Consignments to the countries mentioned accounted for 98 per cent. of the total exports of butter for the year specified.

§ 9. British Imports of Dairy Products.

I. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1927 to 1931 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.

Products.	1927.	1928.	1929.	1930.	1931.
Butter	cwt. 5,818,611	6,112,972	6,397,266	6,821,620	8,060,068
"	£ 48,204,721	52,044,506	54,706,404	46,869,697	46,297,585
Cheese	cwt. 2,949,082	3,005,237	2,994,038	3,112,316	2,885,794
"	£ 13,493,668	14,997,173	13,912,535	12,602,974	9,062,707
Milk, concentrated and preserved	cwt. 2,684,019	2,907,225	2,935,151	2,869,229	3,164,618
"	£ 5,561,726	5,978,958	5,608,354	5,033,570	5,093,626
Bacon and ham	cwt. 9,370,696	9,794,909	9,306,909	10,194,208	11,964,825
"	£ 43,333,082	44,957,403	49,215,508	46,112,307	36,346,943
Pork (a)	cwt. 234,248	289,114	359,134	436,739	432,513
"	£ 912,271	1,014,253	1,305,804	1,641,860	1,282,774

(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 1931 amounted to 1,557,952 cwt., or 19 per cent. of the total importation. The Australian contribution was valued at £8,350,206, and was exceeded only by that shipped from Denmark and New Zealand.

BUTTER IMPORTS.—UNITED KINGDOM, 1931.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
Denmark ..	2,466,070	15,639,722	Lithuania ..	39,555	204,543
New Zealand ..	1,925,611	10,773,553	Latvia ..	39,532	209,659
Australia ..	1,557,952	8,350,206	Poland ..	32,619	157,955
Soviet Union ..	404,369	1,969,244	Norway ..	12,618	70,280
Irish Free State ..	381,028	2,111,488	Germany ..	7,947	46,741
Argentine Republic	373,934	2,047,282	France ..	1,074	6,508
Finland ..	254,071	1,486,898	British Possessions,		
Sweden ..	211,733	1,272,517	n.e.i. ..	7,343	38,263
Estonia ..	125,384	666,984	Foreign Countries,		
Netherlands ..	96,117	598,349	n.e.i. ..	5,012	28,453
Canada ..	78,110	411,421			
Union of South Africa ..	39,989	207,519			
				8,060,068	46,297,585

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

AUSTRALIAN BUTTER.—LONDON PRICES.

Year.	Average Top Price per cwt.		Year.	Average Top Price per cwt.	
	s.	d.		s.	d.
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
1924	189	6	1930	135	6
1925	184	0	1931	116	6

(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 1931 was £9,062,707, of which £4,947,571 was received from New Zealand, and £2,322,269 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 1931 amounted to £193,348.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1931 at £36,346,943, the United Kingdom received imports to the value of £22,405,738 from Denmark, £3,035,688 from Poland, and £3,002,099 from the United States of America. The import from Australia was small, experimental shipments only having been made hitherto.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and salted only) was £1,282,774 in 1931. There was only a small importation from Australia, the bulk of the supplies being drawn from New Zealand, the United States of America, and the Argentine Republic.

6. **Other Products.**—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey in 1931 were unimportant, but frozen rabbits to the value of £475,865 and eggs to the value of £582,213 were imported during the year.