

CHAPTER XX.

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 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 given a certificate by the inspector.

3. **Stabilization Scheme.**—(i) *Voluntary Plan.* During the period from January, 1926, to May, 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 of 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, however, did not receive the full support of all manufacturers of butter and has been superseded by a system of compulsory control.

(ii) *Compulsory Plan.* Legislation known as 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 States of New South Wales, Victoria,

Queensland and Tasmania. In the Commonwealth Act, power is given to regulate interstate trade, whilst the State Acts were designed to regulate trade within the respective States. The authority set up by each State Act fixes the proportion of the State's production which may be sold within the State, whilst the Commonwealth Act protects this allocation by regulating the movement of butter and cheese from one State to another, and so ensures that the surplus production of butter and cheese is removed from the Australian Market.

The Commonwealth *Dairy Produce Act* was brought into operation by Proclamation issued on the 2nd May, 1934, and it was provided that a poll of producers throughout the Commonwealth had to be taken within six months from that date to decide whether or not the Act should continue to operate. The Poll was held on the 11th October, 1934, and 50,747 producers voted in favour of continuance, and only 1,416 against continuance.

To assure that the legislation will be effective in securing a reasonable return for butter and cheese notwithstanding any adverse conditions in overseas markets—representatives of the industry formed themselves into a public company known as the Commonwealth Dairy Products Equalization Committee. This body has entered into agreements with manufacturers in the States of New South Wales, Victoria, Queensland and Tasmania, under which the manufacturers undertake not to sell butter or cheese on the local market at prices less than those fixed by the Committee.

The agreement also ensures to manufacturers equal rates of returns from sales made in Australia and overseas, and in the case of those manufacturers who either oversell or undersell (on a quantity basis) on the Australian Market, an equalization cash adjustment is made by the Committee representing the difference between the ruling Australian and overseas prices.

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 520 in 1932-33, as compared with 563 in 1927-28. The factories were distributed among the States as follow:—New South Wales, 131; Victoria, 174; Queensland, 118; South Australia, 44; Western Australia, 18; and Tasmania, 35. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXIII.

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 granting of new or additional preferences on some of these items by Crown Colonies and Protectorates should further benefit these industries. The Agreement at the Ottawa Conference regarding the regulation of imports of bacon has been superseded by the introduction of a Bacon Marketing Scheme by the British Government. Under this scheme foreign supplies will be adjusted according to the quantities furnished by British and Dominion producers. 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 there has been a steady expansion in the number of dairy cattle until in 1932 there were 3.1 million; showing that in seventeen years the number of dairy cattle in Australia have almost been doubled. 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 greatly during the last decennium, and the progress in that area and in New South Wales has been largely responsible for the Australian increase previously mentioned. The number of dairy cows shown in the following table includes heifers intended for milking and being within three months of calving. Details however are not collected for Victoria or Tasmania, but the total of such heifers in the other States amounted to 109,227:—

CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1928.	1929.	1930.	1931.	1932.
New South Wales	All Cattle ..	2,784,615	2,686,132	2,840,473	2,993,586	3,141,174
	Dairy Cows ..	907,774	913,555	964,739	1,020,947	1,068,605
Victoria ..	All Cattle ..	1,304,426	1,335,242	1,429,920	1,637,530	1,900,922
	Dairy Cows ..	615,092	619,416	669,132	775,538	887,996
Queensland ..	All Cattle ..	5,128,341	5,208,588	5,463,724	5,550,399	5,535,065
	Dairy Cows ..	670,805	680,577	724,323	775,301	792,943
South Australia	All Cattle ..	263,016	204,516	218,985	265,324	312,932
	Dairy Cows ..	108,969	104,255	109,672	127,756	149,172
Western Australia	All Cattle ..	837,527	836,646	812,844	826,532	857,473
	Dairy Cows ..	69,047	74,223	85,725	99,287	114,022
Tasmania ..	All Cattle ..	208,812	214,643	230,254	232,444	250,807
	Dairy Cows ..	94,268	72,235	76,825	81,800	87,854
Northern Territory	All Cattle ..	768,751	711,607	720,476	749,745	780,121
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	5,269	4,760	4,240	5,395	4,643
	Dairy Cows ..	704	679	788	643	411
Australia ..	All Cattle ..	11,300,757	11,202,134	11,720,916	12,260,955	12,723,137
	Dairy Cows ..	2,466,659	2,464,940	2,631,204	2,881,272	3,101,003

(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 seven seasons, the yield of 392 gallons in 1931 constituting a record. The annual average yields per cow given in the following table 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, 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 the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with any degree of 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.	Fed. Cap. Ter.	Australa. (b)
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
1932-33—								
Dairy Cows (a) .. No.	992,343	831,767	751,938	122,710	100,755	84,827	460	2,884,800
Production 1,000 gals.	320,659	396,716	237,130	58,499	33,034	33,847	255	1,080,740
Aver. per cow .. gal.	323	477	315	477	334	399	554	375

(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 211,500,000 lb. for the triennium 1918-1922 to 350,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1932-33, when, as a result of a specially favourable season, 419,675,000 lb. were manufactured. The previous highest figure was in 1931-32 when the total amounted to 390,654,000 lb. It is anticipated that this record will be broken by the return for the season 1933-34. Preliminary data indicate a total production for the season of 452,000,000 lb.

The output of cheese is also largely dependent upon seasonal conditions. The production in 1932-33 was 36,933,306 lb. as compared with 31,423,000 lb., produced during the previous year and is the greatest quantity produced in any year.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on pages 526-7. The butter and cheese production for the last five years was as follow :—

BUTTER AND CHEESE PRODUCTION.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	95,337,240	104,175,340	113,237,295	123,252,722	128,210,092
Victoria	93,728,516	90,639,652	110,006,619	132,131,812	144,564,666
Queensland	77,044,859	78,796,483	95,719,316	98,013,043	103,032,474
South Australia	11,315,714	10,789,706	12,961,231	17,663,029	21,310,000
Western Australia	5,051,088	6,179,489	8,666,399	10,109,795	11,469,661
Tasmania	7,395,689	8,488,932	9,802,261	9,462,866	11,071,631
Federal Capital Territory	10,094	10,943	11,983	20,803	16,273
Australia	289,883,200	299,080,545	350,405,104	390,654,070	419,674,803

BUTTER AND CHEESE PRODUCTION—continued.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	6,339,052	6,345,785	6,516,065	6,590,357	7,193,806
Victoria	5,505,932	6,953,949	8,064,463	7,723,328	9,189,018
Queensland	14,391,910	12,380,882	13,648,038	11,021,963	13,083,959
South Australia	2,975,095	3,536,943	3,901,159	5,096,731	6,093,170
Western Australia	7,526	998	528	909	138,051
Tasmania	997,586	954,463	969,528	989,685	1,235,302
Australia	30,217,101	30,173,020	33,099,781	31,422,973	36,933,306

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 reached 23 million lb. nearly doubling that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria. The output of this State amounted in 1928-29 to 53,948,559 lb.; in 1929-30 to 51,581,802 lb.; in 1930-31 to 45,665,474 lb.; in 1931-32 to 41,409,540 lb.; and in 1932-33 to 44,186,979 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
IMPORTS.					
Butter lb.	3,947	3,016	1,525	2,359	2,471
" £	287	(a) 201	(a) 110	(a) 150	(a) 199
Cheese lb.	458,481	30,356	13,695	86,892	58,453
" £	34,462	(a) 2,729	(a) 1,482	(a) 8,205	(a) 5,283
Milk—concentrated and preserved lb.	1,177,593	524,865	393,953	312,730	260,311
" £	36,219	(a) 22,016	(a) 11,162	(a) 12,016	(a) 9,408
EXPORTS.					
Butter lb.	107,663,264	163,180,695	201,639,404	226,329,334	244,299,732
" £	7,001,556	a 8,120,165	a 9,812,827	a 9,264,665	a 8,194,220
Cheese lb.	3,094,092	8,595,019	7,267,727	11,799,265	9,314,529
" £	123,102	(a) 244,107	(a) 212,871	(a) 320,084	(a) 229,388
Milk—concentrated and preserved lb.	16,498,819	12,351,714	15,906,464	24,452,610	19,773,041
" £	997,756	(a) 610,705	(a) 642,036	(a) 927,533	(a) 739,031

NET EXPORTS.

Butter lb.	107,659,317	163,177,679	201,637,879	226,326,975	244,297,261
" £	7,001,269	a 8,119,964	a 9,812,717	a 9,264,515	a 8,194,021
Cheese lb.	2,635,611	8,564,663	7,254,032	11,712,373	9,256,076
" £	90,640	(a) 241,378	(a) 211,389	(a) 311,879	(a) 224,105
Milk—concentrated and preserved lb.	15,321,226	11,826,849	15,602,511	24,139,880	19,512,730
" £	961,537	(a) 588,689	(a) 630,874	(a) 915,542	(a) 729,623

(a) Australian currency values.

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 last five years are as follow :—

BUTTER AND CHEESE.—LOCAL CONSUMPTION.

Products.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	187,441,322	191,421,228	187,227,425	189,016,191	193,347,828
.. Per head of population ..	29.58	29.84	28.91	28.96	29.27
Cheese .. Total ..	22,397,280	27,537,409	24,535,118	24,168,941	25,220,933
.. Per head of population ..	3.53	4.29	3.79	3.70	3.82

Consumption in 1932-33 averaged 29½ 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., 30.0 lb., and 40.0 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.3 lb., and 7.0 lb. respectively.

§ 3. Pigs and Pig Products.

1. **Pigs.**—The number of pigs in Australia has varied considerably since the commencement of the present century. In 1904 the total amounted to 1,062,703, but after a period of fluctuations it declined to 695,968 in 1919. In 1921 the number increased to 960,000 and from that year it remained fairly constant up to 1928. During the last four years slightly more than 1,000,000 pigs have been maintained but it is still slightly below the record of 1,169,000 of 1917. The distribution of pigs among the States and Territories in 1932 was—New South Wales, 388,273; Victoria, 287,627; Queensland, 213,249; South Australia, 113,831; Western Australia, 117,529; Tasmania, 41,391; Northern Territory, 449; Federal Capital Territory, 58; Total, 1,162,407. The figures for New South Wales, Victoria and the Federal Capital Territory represent the number as on the 31st March, 1933.

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 70,000,000 lb. The production in the several States in 1932-33 was as follows :—New South Wales, 20,476,555 lb.; Victoria, 18,181,958 lb.; Queensland, 16,976,595 lb.; South Australia, 7,328,314 lb.; Western Australia, 3,742,942 lb.; Tasmania, 1,737,665 lb.; Federal Capital Territory, 1,505 lb.; Total, 68,365,534 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 69,500,000 lb. per year, or 10.7 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 (excluding bacon and ham) indicate an average for Australia in 1932-33 of 8.49 lb. per head of population, as compared with 13 lb. per head in New Zealand, 74.58 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.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Pigs.						
Imports	No.	59	7	4	6	12
"	£	2,603	(a) 252	(a) 159	(a) 242	(a) 291
Exports	No.	325	280	274	28	201
"	£	1,365	(a) 1,186	(a) 1,074	(a) 192	(a) 800
Net Exports	No.	266	273	270	22	189
"	£	-1,238	(a) 934	(a) 915	(a) -50	(a) 518

BACON AND HAM.

Imports	lb.	209,021	25,245	1,191	7,135	11,014
"	£	12,325	(a) 1,595	(a) 97	(a) 468	(a) 803
Exports	lb.	1,481,897	2,100,290	1,429,367	1,598,106	1,664,501
"	£	116,709	(a) 115,278	(a) 87,213	(a) 95,128	(a) 96,579
Net Exports	lb.	1,272,876	2,075,045	1,428,176	1,590,971	1,653,487
"	£	104,384	(a) 113,683	(a) 87,116	(a) 94,660	(a) 95,776

LARD.

Imports	lb.	206,037	101,391	15,244	24,644	17,973
"	£	5,157	(a) 2,972	(a) 492	(a) 694	(a) 481
Exports	lb.	969,512	1,043,930	2,924,492	1,620,590	1,483,680
"	£	26,664	(a) 26,189	(a) 43,498	(a) 27,385	(a) 25,969
Net Exports	lb.	763,475	942,539	2,909,248	1,595,946	1,465,707
"	£	21,507	(a) 23,217	(a) 43,006	(a) 26,691	(a) 25,488

FROZEN PORK.

Imports	lb.	413,949	46,695	706	180	..
"	£	13,486	(a) 1,684	(a) 32	(a) 10	..
Exports	lb.	934,149	8,629,901	7,383,355	6,703,234	8,663,864
"	£	32,735	(a) 235,999	(a) 173,373	(a) 154,163	(a) 210,793
Net Exports	lb.	520,200	8,583,206	7,382,649	6,703,054	8,663,864
"	£	19,249	(a) 234,315	(a) 173,341	(a) 154,153	(a) 210,793

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

(a) Australian currency values.

Hitherto the output of pig products in Australia was usually sufficient to meet local requirements and provide a small surplus for export. During the four years ended 1933-34, however, overseas exports of frozen pork showed a remarkable increase averaging 7.8 million lb. 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 1933 amounted to 10 million cwt., valued at £33,000,000, obtained chiefly from Denmark.

The agreement at the Ottawa Conference regarding the regulation of supplies from foreign countries and the Dominions has been superseded by the institution by the British Government of a Bacon Marketing scheme. This scheme aims at creating a regular market for home producers of bacon pigs and necessitates adjustment of foreign supplies to conform with British bacon factories' requirements after estimated home and Dominion production is provided for. The estimated share of Australian production in this market for 1935 is 8,400,000 lb., which indicates a steady expansion of this trade in bacon pigs. In Victoria particularly the tendency toward export of bacon pigs as against porkers is in evidence.

§ 4. Total Dairy Production.

The total dairy production for each State in 1932-33 is shown below :—

PRINCIPAL DAIRY PRODUCTION.—1932-33.

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	251,537,871	322,922,673	210,776,700	44,715,448	24,630,210	26,041,036	70,998	880,694,936
Cheese		8,966,129		5,690,667		1,132,490		
Condensing and concentrating	10,614,701	13,826,740	12,891,517		558,180			53,780,414
Other purposes	58,506,701	51,000,666	13,461,927	8,092,925	8,445,147	6,573,340	184,092	146,264,798
Total	320,659,273	396,716,208	237,130,144	58,499,040	33,633,537	33,846,866	255,090	1,080,740,158

BUTTER.								
In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	b.	lb.	lb.
	122,904,421	139,920,159	100,027,594	17,161,664	9,461,462	8,478,449	..	397,953,749
	5,305,671	4,644,507	3,004,880	4,148,342	2,008,199	2,593,182	16,273	21,721,054
Total	128,210,092	144,564,666	103,032,474	21,310,006	11,469,661	11,071,631	16,273	419,674,803

CHEESE.								
In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	7,053,566	9,073,827	13,080,003	6,091,924	135,410	1,106,972	..	36,541,702
	140,240	115,191	2,956	1,246	2,641	128,330	..	391,604
Total	7,193,806	9,189,018	13,083,959	6,093,170	138,051	1,235,302	..	36,933,306

CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb. (a)	lb. 44,186,979	lb. (a)	lb. ..	lb. (a)	b. ..	lb. ..	lb. 44,186,979
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BACON AND HAM.

In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	19,250,875	16,425,732	16,701,874	6,593,717	3,453,994	1,108,954	..	63,535,146
	1,225,680	1,676,226	274,721	734,597	288,948	628,711	1,505	4,830,388
Total	20,476,555	18,101,958	16,976,595	7,328,314	3,742,942	1,737,665	1,505	68,365,534

(a) Figures not available for publication.

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 1,766,125 lb., valued at £26,407 was manufactured in Victoria during 1932-33.

§ 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, 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.
	£	£	£	£	£	£	£
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
1932-33 ..	2,949,000	3,541,276	544,811	757,979	504,804	250,000	b 8,555,047

(a) Estimated. (b) Includes Federal Capital Territory, 1928-29 £3,185; 1929-30 £4,075; 1930-31 £5,530; 1931-32 £5,882; and 1932-33 £7,177.

3. **Overseas Trade in Poultry Products.**—The Australian overseas 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 1932-33 amounted to £1,018,614 and £1,066,648 in 1933-34. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 6d. per 10 dozen by the Government of the United Kingdom on imported eggs of foreign origin has assisted 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, and to nearly 17 million dozen valued at £958,000 in 1932-33, while in 1933-34 19.6 million dozen valued at more than £1 million were exported. The exports of frozen poultry have increased considerably in recent years as the following table shows. The overseas trade during the last five years was as follows:—

POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32	1932-33.	1933-34.
LIVE POULTRY.					
Imports ..	No. 424	176	164	253	77
..	£ 1,512 (a)	582	(a) 292	(a) 788	(a) 239
Exports ..	No. 2,165	1,526	2,067	1,742	2,047
..	£ 1,821 (a)	1,147 (a)	1,039 (a)	896 (a)	986
Net Exports ..	No. 1,741	1,350	1,903	1,489	1,970
..	£ 309 (a)	565 (a)	747 (a)	108 (a)	747

(a) Australian currency values.

POULTRY PRODUCTS, TRADE.—AUSTRALIA—*continued.*

Particulars.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
FROZEN POULTRY.						
Imports	.. lb.	1,097	1,695	49	20,486	13,290
"	.. £	86	(b) 121	(b) 2	(b) 809	(b) 919
Exports	.. pair	13,908	14,553	32,597	60,921	33,538
"	.. £	17,118	(b) 11,729	(b) 33,366	(b) 40,266	(b) 16,798
Net Exports	(a)	(a)	(a)	(a)	(a)
"	.. £	17,032	(b) 11,608	(h) 33,364	(b) 39,457	(b) 15,879
Eggs.						
Imports	.. doz.	16,568	10,828	8,513	6,722	6,003
"	.. £	873	(b) 458	(b) 443	(b) 397	(b) 333
Exports	.. doz.	3,570,219	5,970,696	9,921,829	16,844,288	19,617,032
"	.. £	255,571	(b) 321,627	(b) 494,032	(b) 958,065	(b) 1,058,164
Net Exports	.. doz.	3,553,651	5,959,868	9,913,316	16,837,566	19,611,029
"	.. £	254,698	(b) 321,169	(b) 493,589	(b) 957,668	(b) 1,057,831
EGG-CONTENTS.						
Imports	.. lb.	29,693	11,108	13,219	9,470	24,173
"	.. £	3,901	(b) 1,007	(b) 1,706	(b) 1,755	(b) 3,491
Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	354	(b) 5,116	(b) 60,926	(b) 60,549	(b) 8,484
Net Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	-3,547	(b) 4,109	(b) 59,220	(b) 58,794	(b) 4,993

(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 1932-33 gave an average of 68.96 lb. per hive, while the average quantity of wax was 0.85 lb. per hive.

2. *Production of Honey and Beeswax.*—The number of hives and the production of honey and beeswax during the year 1932-33 are given in the following table:—

BEE-HIVES, HONEY, AND BEESWAX, 1932-33.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	46,523	13,442	59,965	2,921,242	50,148	38,715	2,178
Victoria ..	48,649	17,847	66,496	3,543,103	66,433	41,827	2,353
Queensland ..	10,415	2,619	13,034	531,075	9,264	9,948	566
South Australia ..	59,104	13,589	72,693	4,791,526	49,912	52,273	2,723
Western Australia ..	10,052	1,654	11,706	438,209	6,740	7,343	379
Tasmania ..	4,399	1,472	5,871	127,896	2,660	2,741	240
Fed. Cap. Territory ..	38	1	39	2,976	50	50	3
Australia ..	179,180	50,624	229,804	12,356,027	185,207	152,897	8,442

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.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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
1932-33	2,921,242	3,543,103	531,075	4,791,526	438,209	127,896	2,976	12,356,027
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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
1932-33	38,715	41,827	9,948	52,273	7,343	2,741	50	152,897

The production of honey and beeswax varies greatly from year to year according to the seasons. During the last five years New South Wales produced 12,144,810 lb. of honey and 168,665 lb. of beeswax, while the Victorian figures amounted to 15,786,435 lb. and 177,901 lb. respectively for honey and beeswax. These States together accounted for 61.89 per cent. of the total Australian production of honey, and 61.29 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 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 1,200 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, which should assist Australia to procure a larger proportion of the trade. During the five years ended 1932-33 the value of the exports amounted to only £23,779, or an annual average of £4,756, owing to the decrease in production. 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 1932-33 the imports of honey amounted to 5,193 lb. and the exports to 406,851 lb. The imports of beeswax for the same year amounted to 38,545 lb. and the exports to 2,081 lb.

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

The value of the farmyard, dairy and bee products raised in each State in 1932-33 was as follows:—

FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1932-33.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	2,072,308	1,806,444	476,821	286,651	299,127	232,828	..	6,522	5,180,700
Butter ..	5,775,424	6,734,334	4,647,526	1,074,279	655,623	523,904	..	733	19,411,823
Cheese ..	238,663	327,196	321,485	164,834	4,494	30,234	1,086,906
Condensed & concentrated milk									
Bacon and ham	886,074	1,031,307	612,457	244,055	175,621	62,389	..	50	3,683,438
Pork ..	374,492	671,485	383,148	150,860	121,049	44,293	403	1,301	1,439,436
Lard ..	10,677	30,558	17,374	5,813	3,604	2,587	70,613
Poultry and eggs	2,949,000	3,541,276	544,811	757,979	504,804	250,000	..	7,177	8,555,047
Honey and wax	52,326	68,786	9,830	52,635	7,119	2,900	..	53	193,649
Total ..	12,358,964	14,575,276	7,013,452	2,737,106	1,771,441	1,149,135	403	15,835	39,621,612

§ 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
QUANTITY.					
Beeswax	lb. 1,411	1,020	2,888	2,081	1,451
Butter	107,663,114	163,180,695	201,639,404	226,329,334	244,299,732
Cheese	3,089,382	8,594,693	7,267,719	11,785,156	9,313,714
Egg albumen and yolk	(a)	(a)	(a)	(a)	(a)
Eggs	doz. 3,570,219	5,070,696	9,921,829	16,844,288	19,617,032
Feathers undressed	(a)	(a)	(a)	(a)	(a)
Honey	lb. 122,524	138,491	251,857	406,851	351,674
Lard	969,512	1,043,930	2,924,492	1,620,590	1,483,456
Meats—					
Bacon and Ham	1,473,036	2,100,290	1,429,367	1,596,706	1,664,501
Frozen Poultry	pair 13,888	14,553	32,597	60,921	33,538
Frozen Pork	lb. 932,297	8,623,651	7,383,355	6,703,234	8,663,864
Milk, concentrated and preserved	16,493,546	12,351,024	15,996,318	24,452,509	19,771,958
Pigs, living	No. 325	280	274	28	201
Poultry, living	2,158	1,526	2,067	1,738	2,047
VALUE.					
	£	£	£	£	£
Beeswax	115	77	178	143	94
Butter	7,001,540	8,120,165	9,812,827	9,264,665	8,194,220
Cheese	124,716	244,066	212,870	318,895	229,313
Egg albumen and yolk	198	5,099	60,896	60,549	8,484
Eggs	255,571	321,627	494,032	958,065	1,058,164
Feathers, undressed	1,132	1,036	229	400	694
Honey	3,631	3,632	5,642	8,014	6,458
Lard	26,664	26,189	43,497	27,385	25,993
Meats—					
Bacon and Ham	116,159	115,278	87,213	95,093	96,579
Frozen Poultry	17,109	11,729	33,366	40,266	16,798
Frozen Pork	32,683	235,857	173,373	154,163	210,793
Milk, concentrated and preserved	997,512	610,653	642,016	927,546	739,000
Pigs, living	1,365	1,186	1,074	192	809
Poultry, living	1,801	1,147	1,039	846	986
Total	8,580,196	9,697,741	11,568,252	11,856,222	10,588,355

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, the United Kingdom being the principal country of destination, exports thereto amount to 226,929,716 lb., or 93 per cent. of the total during the year 1933-34. Exports to the principal Eastern countries were 13,006,031 lb., or 5 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 1929 to 1933 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.

Products.	1929.	1930.	1931.	1932.	1933.
Butter	cwt. 6,397,266	6,821,620	8,060,068	8,364,367	8,834,514
"	£ 54,706,404	46,869,697	46,297,585	41,055,142	34,437,081
Cheese	cwt. 2,994,038	3,112,316	2,885,794	3,003,113	3,039,667
"	£ 13,912,535	12,602,974	9,062,707	9,089,757	7,612,100
Milk, concentrated and preserved	cwt. 2,935,151	2,869,229	3,164,618	3,073,980	(b)
"	£ 5,608,354	5,033,570	5,093,616	4,252,202	(b)
Bacon and ham	cwt. 9,306,909	10,194,208	11,964,825	12,192,188	9,954,416
"	£ 49,215,508	46,112,307	36,346,943	32,913,045	33,001,715
Pork (a)	cwt. 359,134	436,739	432,513	375,259	644,132
"	£ 1,305,804	1,641,860	1,282,774	982,548	1,621,507

(a) Frozen, chilled, and salted.

(b) Not yet available.

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 1932 amounted to 1,795,465 cwt., or 21 per cent. of the total importation. The Australian contribution was valued at £8,618,438 and was exceeded only by that shipped from Denmark and New Zealand. Preliminary figures for the year 1933 show that the total imports into the United Kingdom amounted to 8.8 million cwt. of which Denmark and New Zealand each supplied 2.5 million cwt. followed by Australia with 1.7 million cwt. or 19 per cent. These three countries combined supplied 76 per cent. of the total imports:—

BUTTER IMPORTS.—UNITED KINGDOM, 1932.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
Denmark ..	2,583,664	13,432,387	Netherlands ..	46,990	248,867
New Zealand ..	2,140,280	10,857,148	Canada ..	19,299	95,981
Australia ..	1,795,465	8,618,438	Norway ..	14,938	72,228
Argentina ..	391,027	1,664,763	Germany ..	3,974	15,666
Soviet Union ..	322,887	1,234,886	Poland ..	3,004	11,400
Irish Free State ..	314,663	1,433,878	France ..	1,752	6,020
Finland ..	216,620	1,080,170	British Possessions,		
Sweden ..	175,771	892,011	n.e.i. ..	7,744	34,701
Latvia ..	112,556	450,432	Foreign Countries,		
Estonia ..	83,153	337,916	n.e.i. ..	3,343	15,379
Lithuania ..	68,130	263,049			
Union of South Africa ..	59,107	289,822	Total ..	8,364,367	41,055,142

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

AUSTRALIAN BUTTER.—LONDON PRICES.

Year.	Average Price, first quality, per cwt.	Year.	Average Price, first quality, per cwt.
	s. d.		s. d.
1922	183 0	1928	171 0
1923	184 6	1929	175 0
1924	189 6	1930	135 6
1925	184 0	1931	116 6
1926	169 6	1932	105 0
1927	169 6	1933	87 0

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 1933 was £7,612,100, of which £4,888,002 was received from New Zealand, and £1,665,669 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 1933 amounted to £219,776.

4. *Bacon and Ham.*—Of a total import of bacon and ham valued in 1933 at £33,001,715, the United Kingdom received imports to the value of £19,123,933 from Denmark, £2,539,335 from Poland, and £2,678,234 from the Netherlands. 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 £1,621,507 in 1933. There was only a small importation from Australia, the bulk of the supplies being drawn from New Zealand, United States of America, and Argentina.

6. *Other Products.*—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey in 1933 were unimportant, but frozen rabbits to the value of £465,528 and eggs in shell to the value of £1,024,547 representing 91 per cent. and 14 per cent. respectively of the total imports were imported during the year.