

## 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 effective State supervision, the dairying industry has shown rapid expansion.

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, advances made being generally repaid with promptitude.

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. **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.

4. **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 only  $2\frac{1}{2}$  gallons.

5. Butter and Cheese Factories.—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 523 in 1928-29. These were distributed in the various States as follows:—New South Wales, 144; Victoria, 169; Queensland, 119; South Australia, 48; Western Australia, 12; and Tasmania, 31.

## § 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 1928 represents a gain of nearly 565,000 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 1928 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 121,589.

### CATTLE AND DAIRY CATTLE.—NUMBER, 1924 TO 1928.

State.		1924.	1925.	1926.	1927.	1928.
New South Wales	{ All Cattle ..	2,871,196	2,931,818	2,813,144	2,848,654	2,784,615
	{ Dairy Cows ..	834,557	840,930	885,238	894,440	907,774
Victoria	{ All Cattle ..	1,605,554	1,513,787	1,455,761	1,327,077	1,304,426
	{ Dairy Cows ..	760,207	727,940	675,085	626,139	615,092
Queensland	{ All Cattle ..	6,454,653	6,430,645	5,464,645	5,225,804	5,128,341
	{ Dairy Cows ..	584,886	611,426	611,227	645,316	670,805
South Australia	{ All Cattle ..	400,423	375,597	340,007	316,314	263,016
	{ Dairy Cows ..	133,619	127,670	127,292	117,580	108,969
Western Australia	{ All Cattle ..	891,564	835,911	827,303	840,735	837,527
	{ Dairy Cows ..	60,582	63,008	69,627	70,880	69,047
Tasmania	{ All Cattle ..	225,740	212,373	213,112	210,894	208,812
	{ Dairy Cows ..	70,073	67,382	67,457	60,902	64,268
Northern Territory	{ All Cattle ..	855,285	970,342	863,597	855,390	768,751
	{ Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	{ All Cattle ..	5,058	5,312	5,509	6,188	5,269
	{ Dairy Cows ..	413	646	815	1,417	704
Australia..	{ All Cattle ..	13,309,473	13,279,785	11,963,278	11,617,056	11,300,757
	{ Dairy Cows ..	2,444,637	2,442,002	2,434,745	2,422,674	2,466,659

(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 on each of the last five 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, 1924 TO 1928-29.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1924—								
Dairy Cows (a) .. No.	809,691	749,178	548,707	135,029	61,357	70,285	394	2,374,641
Production 1,000 gals.	316,810	294,765	170,074	45,426	13,363	21,840	116	862,394
Aver. per cow ..gals.	391	393	310	336	218	311	294	363
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	41,386	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	198	749,964
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	1,082	2,301,566
Production 1,000 gals.	283,046	260,648	180,079	37,947	17,159	22,556	220	802,255
Aver. per cow ..gals.	338	401	319	332	261	336	203	349
1928-29 (c)								
Dairy Cows (a) .. No.	849,769	620,616	606,637	105,800	65,982	67,491	964	2,317,259
Production 1,000 gals.	277,378	279,032	180,396	35,701	18,252	24,444	245	815,448
Aver. per cow ..gals.	326	450	297	337	277	362	254	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 183,000,000 lb. for the quinquennium 1913-1917, to 281,000,000 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.

The manufacture of cheese is also largely dependent upon seasonal conditions. The average for the last decennium is, however, much greater than that for the previous one. The production in 1921 of 32,653,003 lb. is the highest yet recorded, while for 1928-29 the production, amounting to 30,217,101 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 follows :—

BUTTER AND CHEESE PRODUCTION, 1924 TO 1928-29.

State.	1924.	1925-26.	1926-27.	1927-28.	1928-29.
<b>BUTTER.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	a117,195,871	106,953,339	95,832,624	100,794,838	95,337,240
Victoria .. ..	a100,849,382	81,747,291	81,995,815	84,270,812	93,728,516
Queensland .. ..	a70,406,492	63,001,073	51,402,633	72,039,151	77,044,859
South Australia .. ..	a13,066,694	13,882,550	13,416,904	12,136,638	11,315,714
Western Australia .. ..	2,962,630	2,591,818	3,829,728	4,265,258	5,051,088
Tasmania .. ..	a6,455,746	5,122,992	6,032,597	6,514,642	5,395,689
Federal Capital Territory ..	15,476	14,322	20,758	16,065	10,094
Australia .. ..	313,952,291	273,313,685	252,531,059	280,037,404	289,883,200
<b>CHEESE.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	a7,705,596	6,462,535	6,735,960	7,284,622	6,339,052
Victoria .. ..	a6,193,135	5,279,009	5,997,648	5,621,945	5,505,932
Queensland .. ..	a12,643,863	12,580,942	9,260,043	14,128,420	14,391,910
South Australia .. ..	a3,743,628	3,636,278	3,708,730	3,465,456	2,975,005
Western Australia .. ..	4,055	3,818	5,172	5,088	7,526
Tasmania .. ..	a1,152,015	836,738	971,644	1,029,344	997,586
Australia .. ..	31,442,292	28,799,320	26,679,197	31,534,875	30,217,101

(a) For year ended 30th June of year following.

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. 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. In New South Wales, Victoria, and Queensland the returns for the last five years were as follows:—

**CONDENSED, CONCENTRATED, OR POWDERED MILK MADE, 1924-25 TO 1928-29.**

Year.	N.S.W.	Victoria.	Queensland.	Australia.
	lb.	lb.	lb.	lb.
1924-25 .. ..	5,804,191	45,693,120	10,511,919	62,009,230
1925-26 .. ..	5,745,454	43,646,852	8,831,623	58,223,929
1926-27 .. ..	a	48,186,040	a	659,180,891
1927-28 .. ..	a	53,876,662	a	c53,876,662
1928-29 .. ..	a	53,948,559	a	c53,948,559

(a) Not available for publication.

(b) Including New South Wales and Queensland.

(c) Victorian total only.

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, 1924-25 TO 1928-29.**

Products.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>IMPORTS.</b>					
Butter .. .. lb.	19,717	2,991,243	7,160,864	6,975,370	964
.. .. .. £	1,340	246,703	519,672	549,548	89
Cheese .. .. lb.	356,717	1,487,023	1,789,766	2,084,486	515,257
.. .. .. £	37,448	111,827	133,600	116,200	45,817
Milk—concentrated and preserved(a) lb.	367,073	348,178	647,122	931,344	774,115
.. .. .. £	32,359	20,398	34,115	36,837	33,422

<b>EXPORTS.</b>					
Butter .. .. lb.	145,281,326	97,899,824	76,767,844	99,164,946	102,442,843
.. .. .. £	10,006,081	7,006,830	5,465,347	6,905,933	7,545,430
Cheese .. .. lb.	10,397,392	6,884,347	3,663,175	6,933,857	8,335,078
.. .. .. £	365,764	271,973	133,266	260,879	330,165
Milk—concentrated and preserved(a) lb.	29,172,996	25,908,328	17,759,929	20,640,224	25,402,575
.. .. .. £	1,694,634	1,476,422	1,081,256	1,188,903	1,424,854

**NET EXPORTS.(b)**

Butter .. .. lb.	145,261,609	94,908,581	69,606,980	92,189,576	102,441,879
.. .. .. £	10,004,741	6,760,127	4,945,675	6,856,355	7,545,341
Cheese .. .. lb.	10,040,675	5,397,324	1,873,409	4,849,871	7,819,821
.. .. .. £	323,318	160,146	— 334	144,679	234,348
Milk—concentrated and preserved(a) lb.	28,805,923	25,560,150	17,112,807	19,708,880	24,623,460
.. .. .. £	1,662,275	1,456,024	1,047,141	1,152,066	1,391,432

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, 1924 TO 1928-29.

Products.	1924.	1925-26.	1926-27.	1927-28.	1928-29.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	168,690,682	178,405,104	182,924,079	187,647,628	187,441,321
„ .. Per head of population ..	28.72	29.77	29.94	30.13	29.58
Cheese .. Total ..	21,401,617	23,401,996	24,805,788	26,685,504	22,397,280
„ .. Per head of population ..	3.64	3.91	4.06	4.28	3.53

The quantity available for consumption in 1928-29 averaged 29½ lb. of butter and 3½ lb. of cheese, or a total of 33 lb. per head of population, an amount probably unsurpassed anywhere. The consumption of butter and cheese in the United Kingdom in normal times is given at about 25 lb. per head per annum.

§ 3. Pigs and Pig Products.

1. Pigs.—The number of pigs in Australia from 1924 to 1928 is shown below :—

PIGS.—NUMBER, 1924 TO 1928.

State.	1924.	1925.	1926.	1927.	1928.
New South Wales (a) ..	339,378	382,331	332,827	301,819	311,605
Victoria ..	288,509	339,601	284,271	212,785	222,084
Queensland ..	156,163	199,598	183,662	191,947	215,764
South Australia ..	80,988	90,794	79,108	69,733	62,723
Western Australia ..	66,375	74,316	69,798	59,810	49,243
Tasmania ..	47,305	41,009	38,906	41,752	48,304
Northern Territory ..	1,000	382	343	292	407
Federal Cap. Territory (a) ..	291	343	94	69	51
Australia ..	980,009	1,128,374	989,009	878,207	910,181

(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 451.

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, 59,000,000, 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, 1924 TO 1928-29.

State.	1924.	1925-26.	1926-27.	1927-28.	1928-29.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	a21,068,976	22,949,531	24,600,275	25,479,208	b23,087,271
Victoria ..	a21,993,869	21,213,925	20,952,310	20,605,148	19,401,447
Queensland ..	a15,640,561	18,326,728	18,288,690	18,264,855	22,043,114
South Australia ..	a5,374,457	5,600,760	5,165,670	5,111,465	5,110,352
Western Australia (b)	2,797,151	2,960,139	2,678,830	2,760,694	2,557,068
Tasmania ..	a2,428,966	2,314,756	1,946,323	2,780,304	2,298,745
Federal Cap. Territory	a7,820	8,840	2,790	..	1,400
Total ..	69,311,800	73,374,679	73,634,888	75,001,674	74,499,397

(a) For year ended 30th June of year following. (b) 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, 1924 TO 1928-29.

Particulars.	1924.	1925-26.	1926-27.	1927-28.	1928-29.
	lb.	lb.	lb.	lb.	lb.
Total ..	67,969,350	72,205,137	72,175,870	73,823,995	73,441,419
Per head of population ..	11.57	12.05	11.81	11.84	11.59

3. *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, 1924-25 TO 1928-29.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
Pigs.					
Imports ..	No. 10	6	8	..	85
..	£ 150	250	223	..	707
Exports ..	No. 65	320	418	328	201
..	£ 676	1,951	2,506	1,294	934
Net Exports ..	No. 55	314	410	328	116
..	£ 526	1,701	2,283	1,294	227

## BACON AND HAM.

Imports ..	lb. 322,106	509,101	374,814	356,288	406,335
..	£ 18,492	33,773	23,101	21,108	23,465
Exports ..	lb. 1,664,556	1,678,643	1,833,832	1,533,967	1,464,313
..	£ 124,891	139,864	147,886	129,073	122,929
Net Exports ..	lb. 1,342,450	1,169,542	1,459,018	1,177,679	1,057,978
..	£ 106,399	106,091	124,785	107,965	99,464

TOTAL DAIRY PRODUCTION.

529

PIG PRODUCTS.—AUSTRALIAN TRADE, 1924-25 TO 1928-29—continued.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>LARD.</b>					
Imports .. .. lb.	112,084	244,517	575,293	712,307	420,609
" .. .. £	4,080	8,787	17,169	20,092	11,188
Exports .. .. lb.	1,523,530	1,953,796	1,334,421	1,380,960	1,609,914
" .. .. £	42,744	56,630	38,839	38,209	41,741
Net Exports .. lb.	1,411,446	1,709,279	759,128	668,653	1,189,305
" .. .. £	33,664	47,843	21,670	18,117	30,553
<b>FROZEN PORK.</b>					
Imports .. .. lb.	962,639	466,425	733,179	2,112,595	2,288,385
" .. .. £	35,695	20,066	31,657	67,876	76,141
Exports .. .. lb.	61,393	90,106	481,330	159,494	199,336
" .. .. £	2,749	3,647	16,608	6,183	7,856
Net Exports .. lb.	-901,246	-376,319	-251,849	-1,953,191	-2,089,049
" .. .. £	-32,946	-16,419	-15,049	-61,693	-68,285

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 £101,432, the bulk of the shipments consisting of bacon, ham and lard.

§ 4. Total Dairy Production.

The total dairy production of Australia in 1928-29 is shown below :—

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1928-29.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>MILK.</b>								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter ..	210,545,300	208,623,670	151,376,859	24,465,445	10,347,910	17,356,000	29,394	622,744,578
Cheese ..	..	5,411,230	..	2,806,971	..	1,024,000	..	..
Condens- ing and concentrating	9,722,984	..	16,004,801	..	..	..	..	49,928,816
Other pur- poses ..	57,109,716	50,038,020	13,014,192	8,428,776	7,904,466	6,064,000	215,219	142,774,389
Total ..	277,378,000	279,031,750	180,395,852	35,701,192	18,252,376	24,444,000	244,613	815,447,783
<b>BUTTER.</b>								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy	90,826,582	90,263,977	74,386,663	8,156,870	3,622,324	5,385,012	..	272,641,428
and other	..	..	..	..	..	..	..	..
Farms ..	4,510,658	3,464,539	2,658,196	3,158,844	1,428,764	2,010,677	10,094	17,241,772
Total ..	95,337,240	93,728,516	77,044,859	11,315,714	5,051,088	7,395,689	10,094	289,883,200

(a) Including milk used for making cheese.

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1928-29—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>CHEESE.</b>								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	6,203,409	5,259,078	14,390,787	2,975,095	(b)	680,925	..	29,509,294
	135,643	246,854	1,123	..	7,526	316,661	..	707,807
Total ..	6,339,052	5,505,932	14,391,910	2,975,095	7,526	997,586	..	30,217,101

## CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb. (b)	lb.	lb. (b)	lb. ..	lb. ..	lb. ..	lb. ..	lb.
		53,948,559						53,948,559

## BACON AND HAM.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	22,340,106	18,611,728	21,710,900	4,654,651	2,438,462	1,594,645	..	71,350,492
	747,165	789,719	332,214	455,701	118,606	704,100	1,400	3,148,905
Total ..	23,087,271	19,401,447	22,043,114	5,110,352	2,557,068	2,298,745	1,400	74,499,397

(a) A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured. (b) Figures not available for publication.

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 1928-29:—Casein, 3,340,171 lb.; milk sugar, 310,426 lb.; and 210,967 lb. of ice cream mixture.

## § 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, 1924-25 TO 1928-29.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1924-25 ..	2,727,000	4,326,295	530,782	1,148,322	286,350	300,000	9,318,749
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	510,109,695

(a) Estimated.

(b) Includes £3,185, Federal Capital Territory.



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 1928-29, amounted to £219,056. The exports of frozen poultry have fluctuated considerably in recent years, being valued at £15,341 during 1928-29 as compared with £50,205 for 1921-22. The oversea trade during the past five years was as follows:—

**POULTRY PRODUCTS, TRADE.—AUSTRALIA, 1924-25 TO 1928-29.**

Particulars.		1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>LIVE POULTRY.</b>						
Imports	.. No.	459	384	281	264	310
"	.. £	1,084	1,475	1,604	1,002	1,244
Exports	.. No.	2,057	3,418	1,847	2,585	2,116
"	.. £	1,527	2,311	1,311	1,837	1,757
Net Exports	.. No.	1,598	3,034	1,566	2,341	1,806
"	.. £	443	836	-293	835	513
<b>FROZEN POULTRY.</b>						
Imports	.. lb.	11,591	12,367	12,340	66,677	14,315
"	.. £	752	741	749	4,766	1,055
Exports	.. pair	10,898	22,381	19,880	9,570	12,419
"	.. £	14,141	25,242	30,259	8,930	15,341
Net Exports	..	(a)	(a)	(a)	(a)	(a)
"	.. £	13,389	24,501	29,510	4,164	14,286
<b>Eggs.</b>						
Imports	.. doz.	30,051	29,652	24,182	25,752	21,349
"	.. £	1,796	2,003	1,507	1,579	1,210
Exports	.. doz.	692,015	1,531,744	3,151,990	1,104,005	2,916,338
"	.. £	53,538	116,681	233,672	85,844	218,929
Net Exports	.. doz.	661,964	1,502,092	3,127,808	1,078,253	2,894,989
"	.. £	51,742	114,678	232,165	84,265	217,719
<b>Egg-Contents.</b>						
Imports	.. lb.	32,105	21,495	39,675	38,858	39,483
"	.. £	7,190	4,313	6,382	6,531	5,147
Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	144	95	97	17	127
Net Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	-7,046	-4,218	-6,285	-6,514	-5,020

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 1928-29 gave an average of 80 lb. per hive, while the average quantity of wax was 0.95 lb. per hive.

2. Production of Honey and Beeswax.—The number of hives and the production of honey and beeswax during the year 1928–29 are given in the following table :—

## BEE-HIVES, HONEY, AND BEESWAX, 1928–29.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	32,444	8,711	41,155	2,354,845	46,100	30,064	2,700
Victoria ..	44,109	11,138	55,247	4,181,571	91,472	49,675	4,760
Queensland ..	14,194	3,053	17,247	667,846	13,629	13,629	870
South Australia ..	31,960	4,653	36,613	3,047,421	50,790	28,041	1,986
Western Australia ..	10,261	2,140	12,401	509,415	7,954	6,555	560
Tasmania ..	3,246	1,208	4,454	89,969	2,245	1,465	145
Fed. Cap. Territory ..	105	15	120	12,900	253	162	15
Australia ..	136,319	30,918	167,237	10,863,967	212,443	129,591	11,036

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

## HONEY AND BEESWAX PRODUCTION, 1924–25 TO 1928–29.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
HONEY.								
1924–25	3,088,560	4,054,975	691,136	2,764,389	378,889	95,476	1,600	11,075,015
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
BEESWAX.								
1924–25	40,043	47,117	9,883	27,837	6,844	1,666	65	133,455
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	28,764	49,675	13,629	28,041	6,555	1,465	162	128,291

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 10,342,511 lb. of honey and 146,649 lb. of beeswax, while the Victorian figures amounted to 15,714,523 lb. and 193,200 lb. respectively for honey and beeswax. These two States together accounted for 62.47 per cent. of the total production of honey, and 64.10 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 £26,488, or an annual average of £5,208, 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, 1924-25 TO 1928-29.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
HONEY.					
Imports .. .. lb.	1,008	4,684	657	922	11,142
" .. .. £	33	211	20	43	349
Exports .. .. lb.	137,116	113,401	402,745	281,090	83,413
" .. .. £	3,807	3,756	9,157	6,912	2,856
Net Exports .. lb.	136,108	108,717	402,088	280,168	72,276
" .. .. £	3,774	3,545	9,137	6,869	2,507

BEE SWAX.

Imports .. .. lb.	109,816	22,937	75,104	96,101	82,261
" .. .. £	8,288	2,195	6,951	8,413	8,118
Exports .. .. lb.	1,956	1,577	326	3,596	1,659
" .. .. £	187	131	29	346	149
Net Exports .. lb.	-107,860	-21,360	-74,778	-92,505	-80,602
" .. .. £	- 8,101	- 2,064	- 6,922	- 8,067	- 7,969

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 1928-29 was as follows:—

FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1928-29.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	2,944,720	2,580,085	671,044	434,609	407,574	312,675	..	11,097	7,361,804
Butter ..	7,455,168	7,682,218	6,362,160	1,026,613	425,479	615,124	..	789	23,566,756
Cheese ..	288,938	330,364	641,279	110,953	..	39,609	..	..	1,411,938
Condensed & concentrated milk	1,507,421	1,705,310	1,275,124	316,142	168,942	118,128	..	..	6,236,488
Bacon and ham	..	1,145,348	241,143	150,667	125,362	117,485	534	1,243	1,631,883
Pork ..	521,190	474,259	41,137	7,085	5,194	4,833	..	..	118,923
Lard ..	22,274	38,400	17,863	..	..	4,914	173	..	55,984
Live Stock ..	9,786	23,248	619,329	1,053,939	456,242	300,000	..	3,185	10,109,695
Poultry and eggs	8,329,000	4,348,000	14,499	52,778	8,514	2,390	..	268	223,479
Honey and wax	48,800	96,232	..	..	..	..	..	..	..
Total ..	16,127,297	18,423,464	9,883,578	3,152,784	1,597,307	1,515,158	707	16,655	50,716,950

(a) Includes other Milk Products made.

(b) Includes casein £81,196, and milk sugar £12,157.

## § 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,  
1924-25 TO 1928-29.**

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>QUANTITY.</b>					
Beeswax .. .. .	lb. 782	1,577	326	3,596	1,659
Butter .. .. .	145,281,326	97,899,824	76,516,497	99,164,946	102,442,843
Cheese .. .. .	10,353,950	6,872,761	3,643,832	6,926,691	8,330,972
Egg albumen and yolk .. .. .	(a)	(a)	(a)	(a)	(a)
Eggs .. .. .	doz. 691,740	1,531,744	3,151,965	1,104,005	2,916,338
Feathers, undressed .. .. .	(a)	(a)	(a)	(a)	(a)
Honey .. .. .	lb. 137,116	113,401	402,745	281,090	83,418
Lard .. .. .	1,523,530	1,953,796	1,315,831	1,359,746	1,599,050
Meats—					
Bacon and Ham .. .. .	1,664,556	1,678,643	1,833,468	1,533,967	1,461,313
Frozen Poultry .. .. .	pair 10,898	22,381	19,980	9,570	12,419
Frozen Pork .. .. .	lb. 61,393	88,058	481,330	158,327	158,975
Milk, concentrated and preserved .. .. .	29,165,694	23,626,795	17,752,506	20,622,779	25,385,174
Pigs, living .. .. .	No. 65	320	418	328	201
Poultry, living .. .. .	2,057	3,418	1,833	2,569	2,116
<b>VALUE.</b>					
	£	£	£	£	£
Beeswax .. .. .	69	131	29	346	149
Butter .. .. .	10,006,081	7,006,830	5,447,224	6,905,933	7,545,430
Cheese .. .. .	363,757	270,712	131,168	260,235	329,700
Egg albumen and yolk .. .. .		95	56	13	9
Eggs .. .. .	53,518	116,081	233,670	85,844	218,929
Feathers, undressed .. .. .	1,112	1,089	774	457	396
Honey .. .. .	3,807	3,756	9,157	6,912	2,856
Lard .. .. .	42,744	56,630	37,995	37,318	41,373
Meats—					
Bacon and Ham .. .. .	124,891	139,864	147,861	129,073	122,742
Frozen Poultry .. .. .	14,141	25,242	30,259	8,930	15,341
Frozen Pork .. .. .	2,749	3,579	16,608	6,152	6,773
Milk, concentrated and preserved .. .. .	1,694,230	1,261,417	1,080,963	1,188,504	1,424,313
Pigs, living .. .. .	676	1,951	2,506	1,294	934
Poultry, living .. .. .	1,527	2,311	1,281	1,817	1,757
<b>Total .. .. .</b>	<b>12,309,302</b>	<b>8,890,288</b>	<b>7,139,551</b>	<b>8,632,828</b>	<b>9,710,702</b>

(a) Quantity not available.

## § 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 1924 to 1928 :—

**DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM, 1924 TO 1928.**

Products.	1924.	1925.	1926.	1927.	1928.
Butter .. .. .	cwt. 5,287,244	5,853,245	5,818,840	5,818,611	6,112,972
" .. .. .	£ 49,647,492	53,204,417	48,283,312	48,204,721	52,044,506
Cheese .. .. .	cwt. 2,887,413	3,098,702	3,014,055	2,949,082	3,005,237
" .. .. .	£ 13,552,406	15,696,800	13,940,648	13,493,668	14,997,173
Milk, concentrated and preserved .. .. .	cwt. 2,333,701	2,413,350	2,556,890	2,684,019	2,907,225
" .. .. .	£ 6,183,530	5,756,372	5,420,167	5,561,728	5,978,958
Bacon and ham .. .. .	cwt. 9,509,399	9,002,912	8,666,467	9,370,696	9,794,909
" .. .. .	£ 45,050,619	50,774,719	50,146,958	43,333,082	44,957,403
Pork (a) .. .. .	cwt. 238,206	262,998	303,234	234,248	289,114
" .. .. .	£ 952,057	1,133,648	1,396,714	912,271	1,014,253

(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 1928 amounted to 872,885 cwt., or 14½ per cent. of the total importation. The Australian contribution was valued at £6,861,515, and was exceeded only by that shipped from Denmark and New Zealand.

## BUTTER IMPORTS.—UNITED KINGDOM, 1928.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ..	2,016,045	18,613,677	Germany ..	3,033	25,188
New Zealand ..	1,222,277	10,228,352	United States of America ..	2,151	17,154
<b>Australia ..</b>	<b>872,885</b>	<b>6,861,515</b>	Canada ..	1,646	13,805
Irish Free State ..	559,167	4,529,496	Norway ..	428	4,126
Argentine Republic	366,015	2,894,473	Union of South Africa ..	..	..
Soviet Republics	336,252	2,656,372	British Possessions, n.e.i. ..	618	3,551
Finland ..	198,883	1,737,023	Foreign Countries, n.e.i. ..	2,548	19,012
Sweden ..	175,570	1,549,557			
Netherlands ..	129,445	1,094,863	<b>Total ..</b>	<b>6,112,972</b>	<b>52,044,506</b>
Estonia ..	77,557	628,426			
France ..	69,460	543,713			
Latvia ..	50,012	397,264			
Poland (including Dantzig) ..	28,980	226,939			

(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, 1917 TO 1928.

Year.	Average Top Price per cwt.	Year.	Average Top Price per cwt.
	s. d.		s. d.
1917	(a) 206 0	1923	184 6
1918	(b) 252 0	1924	189 6
1919	(b) 252 0	1925	184 0
1920	(b) 299 9	1926	169 6
1921	234 0	1927	169 6
1922	183 0	1928	171 0

(a) Proclaimed price. (b) 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 1928 was £14,997,173, of which £7,586,336 was received from New Zealand, and £4,904,247 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 1928 amounted to £368,117.

4. Bacon and Ham.—Of a total import of bacon and ham valued in 1928 at £44,957,403, the United Kingdom received imports to the value of £25,295,846 from Denmark, £5,874,712 from the United States, and £1,945,515 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 £1,014,253 in 1928. 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 £367,835 and eggs to the value of £233,589 were received from Australia in 1928.