

SECTION IX.

FARMYARD AND DAIRY PRODUCTION.

§ 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 previous issues of this work (see Official Year Book No. 6, pp. 430 *et seq.*). 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 pasturage and in the processes of manufacture, coupled with effective State supervision, the dairying industry has shewn 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 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. **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 less than 2½ gallons.

5. **Butter and Cheese Factories.**—The establishments in the Commonwealth where the manufacture of butter, cheese, and condensed milk was carried on, numbered 557 in 1916. These were distributed as regards the various States as follows:—New South Wales, 167; Victoria, 190; Queensland, 122; South Australia, 44; Western Australia, 3; Tasmania, 31.

§ 2. Milk, Butter, and Cheese.

1. **Dairy Herds.**—Following the drought year 1902 there was up to 1911 a general increase in the number of dairy cows; the returns for 1912 and the four years following, however, shew a decrease in all the States, with the exception of Western Australia. In New South Wales, Victoria, South Australia, and Tasmania—as will be seen from the table given below—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 last decade. The figures for the Northern Territory are rough estimates only:—

CATTLE AND DAIRY CATTLE, COMMONWEALTH, 1912 to 1916.

State.			1912.	1913.	1914.	1915.	1916.
New South Wales	...	All Cattle	3,033,726	2,815,113	2,472,631	2,400,104	2,757,713
	...	Dairy Cows	821,315	789,474	769,550	743,058	742,544
Victoria	...	All Cattle	1,508,089	1,528,553	1,362,542	1,043,604	1,175,098
	...	Dairy Cows	655,939	656,080	610,517	451,086	488,086
Queensland	...	All Cattle	5,210,891	5,322,033	5,455,943	4,780,893	4,765,657
	...	Dairy Cows	375,660	391,439	387,311	335,243	343,311
South Australia	...	All Cattle	383,418	352,905	300,579	226,565	288,887
	...	Dairy Cows	114,734	107,879	91,181	78,515	86,311
Western Australia	...	All Cattle	806,294	834,265	863,835	821,048	863,930
	...	Dairy Cows	27,310	30,680	28,106	28,342	33,788
Tasmania	...	All Cattle	222,181	205,743	176,524	169,575	179,360
	...	Dairy Cows	60,160	59,380	51,229	47,540	52,522
Northern Territory	...	All Cattle	405,552	417,643	414,558	483,961	420,362
	...	Dairy Cows	300	70	70	70	70
Federal Territory	...	All Cattle	7,108	7,627	4,961	5,666	8,230
	...	Dairy Cows	725	715	870	537	719
Commonwealth	...	All Cattle	11,577,259	11,483,882	11,051,573	9,931,416	10,459,237
	...	Dairy Cows	2,056,143	2,035,717	1,938,834	1,684,393	1,747,351

2. **Milk.**—The annual quantity of milk produced per dairy cow varies greatly with locality and season, probably reaching as high as 500 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. For 1916 the average yield in Victoria, South Australia and New South Wales was over that quantity, being 397; 363; and 304 gallons respectively, while the average for the Commonwealth as a whole for 1916 was 320 gallons. The best yields over a series of years appear to be in Victoria, New South Wales, and South Australia, while Queensland and Tasmania in normal years are above Western Australia. In the following table the annual average yields per cow for the last five years are taken from the number of dairy cows which were, during any part of the year, milking. The average given is considerably below that for cows which were yielding during the greater part of the year. It will be seen that the highest averages obtain in those States which have adopted more scientific methods of dairying, such as systematic breeding, culling of herds, milk testing, etc.

PRODUCTION OF MILK, COMMONWEALTH, 1912 to 1916.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W Aust.	Tas.	Fed. Ter.	C'with. †
1912—								
Dairy Cows* ... No.	838,620	677,747	366,378	118,268	27,525	58,509	959	2,088,006
Production 1000 gals.	225,339	199,297	82,978	27,549	5,216	15,040	107	555,525
Aver. per cow gals.	269	294	226	233	189	257	111	266
1913—								
Dairy Cows* ... No.	805,395	656,009	383,550	111,306	28,995	59,770	720	2,045,745
Production 1000 gals.	231,503	216,948	90,545	27,393	5,550	11,557	89	583,785
Aver. per cow gals.	287	331	236	248	191	193	124	285
1914—								
Dairy Cows* ... No.	779,512	633,298	389,375	99,530	29,393	55,305	792	1,987,205
Production 1000 gals.	237,856	193,653	100,190	22,220	5,589	11,568	74	571,150
Aver. per cow gals.	305	306	257	223	190	209	93	287
1915—								
Dairy cows* ... No.	756,304	530,802	361,277	84,848	28,224	49,385	704	1,811,544
Production 1000 gals.	183,935	142,115	70,094	22,185	6,059	10,300	79	434,767
Aver. per cow gals.	243	268	194	261	215	209	113	240
1916—								
Dairy cows* ... No.	742,801	469,587	339,277	82,413	31,065	50,031	628	1,715,802
Production 1000 gals.	225,920	186,593	86,938	29,954	6,825	13,364	84	549,679
Aver. per cow gals.	304	397	256	353	220	267	134	320

* Mean for the year.

† Exclusive of Northern Territory.

3. **Butter and Cheese.**—The butter output shews, in general, a tolerably steady increase since the drought year 1902, the most marked development being in Queensland. The production of butter reached its highest figures in 1911, the next highest yields being in 1913 and 1914. The year 1916 marks the highest cheese production, the return being nearly 20 per cent. in advance of that of 1914, the next highest record, which was 7½ per cent. in advance of 1913, the previous highest record. In both butter and cheese a decrease took place in some of the States in 1907, 1908, 1914 and 1915, due to the dryness of the seasons. For the five years from 1912 to 1916 the figures are:—

PRODUCTION OF BUTTER AND CHEESE, COMMONWEALTH, 1912 to 1916.

State.	1912.	1913.	1914.	1915.	1916.
--------	-------	-------	-------	-------	-------

BUTTER.

	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales ...	76,592,967	77,766,703	*84,126,893	*59,623,885	*79,355,639
Victoria ...	67,655,834	73,381,567	62,421,288	42,345,113	*59,568,771
Queensland ...	30,307,339	35,199,387	37,230,240	25,456,714	28,967,279
South Australia ...	8,394,557	8,036,274	6,252,061	6,317,613	9,798,142
Western Australia ...	448,799	518,565	451,112	716,408	1,080,466
Tasmania ...	3,778,104	3,843,247	3,450,531	3,204,922	3,691,649
Federal Territory ...	16,561	12,494	*7,387	*7,658	*8,832
Commonwealth ...	187,194,161	198,758,238	193,970,412	137,672,313	182,470,778

CHEESE.

	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales ...	5,454,685	6,620,648	*6,356,627	*5,979,636	*7,830,239
Victoria ...	4,176,778	4,856,321	4,395,502	3,497,278	*5,869,562
Queensland ...	3,947,615	5,395,050	7,931,869	4,383,410	8,495,825
South Australia ...	1,953,027	2,216,985	2,000,547	1,412,692	*2,476,081
Western Australia ...	...	...	1,675	835	665
Tasmania ...	623,386	654,411	554,191	555,375	736,500
Commonwealth ...	16,160,491	19,743,415	21,240,411	15,829,226	25,408,873

* For year ended 30th June of year following.

4. **Concentrated Milk.**—"Condensed" or "concentrated" milk denotes milk the bulk of which is reduced by evaporation. Small quantities of such milk were made prior to 1911, in which year the output for the Commonwealth was nearly doubled. In 1912 there was a further large increase, which was well maintained during the two following years. During 1915 a considerable falling-off was in evidence in each of the three States; this, however, was more than compensated for during the following year, a substantial increase occurring in each State, the Victorian returns shewing an increase of nearly 100 per cent. on the 1915 output. There is still a considerable import of milk, as will be seen from the tables hereunder; but in each year, with the exception of 1915-16, the balance of trade was in favour of exports. No condensed or concentrated milk is made in South Australia, Western Australia, or Tasmania. In New South Wales, Victoria, and Queensland the following are the returns for the last five years:—

CONDENSED AND CONCENTRATED MILK, 1912 to 1916.

Year.	N.S.W.	Victoria.	Queensland.	Commonwealth..
	lbs.	lbs.	lbs.	lbs.
1912	3,636,519	18,500,011	7,923,381	30,059,911
1913	3,682,812	20,942,620	8,059,051	32,684,483
1914	*5,991,458	19,093,750	6,967,486	32,052,694
1915	*4,918,064	16,690,426	5,368,510	26,977,000
1916	*5,829,990	*33,280,635	6,584,272	45,694,897

* For year ended 30th June of year following.

5. **Oversea Trade in Milk, Butter, and Cheese.**—The following tables give the imports, exports, and net exports or imports of butter, cheese, and milk. In each of the five years, exports of butter exceeded imports, but in 1912 and 1915-16 the cheese import was greater than the export, while there was a net import of milk in 1915-16.

IMPORTS, EXPORTS, AND NET EXPORTS OF BUTTER, CHEESE, AND MILK, COMMONWEALTH, 1912 to 1916-17.

IMPORTS.

Products.	1912.	1913.	1914-15.	1915-16.	1916-17.
Butter lbs.	44,142	13,844	2,378,893	4,577,332	517,091
" " " " " £	1,989	565	180,557	349,110	38,749
Cheese lbs.	443,847	364,699	230,348	1,532,336	86,035.
" " " " " £	19,988	17,334	10,554	66,936	5,536
Milk—concentrated and preserved* lbs.	1,215,351	1,150,715	2,596,964	4,191,493	1,607,445
" " " " " £	25,949	26,579	90,146	152,051	63,713.

EXPORTS.

Butter lbs.	66,685,056	75,802,303	54,105,777	18,036,317	75,361,869.
" " " " " £	3,342,642	3,565,282	2,664,975	1,117,629	5,338,848
Cheese lbs.	146,022	1,609,452	2,547,857	159,003	10,586,456
" " " " " £	5,760	42,421	72,828	9,347	420,600.
Milk—concentrated and preserved* lbs.	1,821,583	2,875,030	5,066,169	939,660	16,453,839
" " " " " £	37,876	75,165	126,556	31,340	553,993.

NET EXPORTS.†

Butter lbs.	66,640,914	75,788,459	51,726,884	13,458,985	74,844,778.
" " " " " £	3,340,653	3,564,717	2,494,418	768,519	5,300,099
Cheese lbs.	— 297,825	1,244,753	2,317,509	— 1,373,333	10,500,421
" " " " " £	— 14,228	25,087	62,274	— 57,589	415,064
Milk—concentrated and preserved* lbs.	606,232	1,724,315	2,469,205	— 3,251,833	14,346,394.
" " " " " £	11,927	43,586	36,410	— 120,711	490,280

* See definition above. † i.e., excess of exports over imports. The minus sign — signifies net imports.

6. **Local Consumption of Butter and Cheese.**—The total production of butter and cheese, with the net export or import for the corresponding period subtracted or added, gives approximately the quantity available for consumption in the Commonwealth. In the period considered hereunder, with the exception of the years 1912 and 1915, the local supply of cheese was adequate :—

BUTTER AND CHEESE FOR LOCAL CONSUMPTION, 1912 to 1916.

Product.			1912.	1913.	1914.	1915.	1916.
			lbs.	lbs.	lbs.	lbs.	lbs.
Butter	... Total	...	120,500,247	122,969,779	137,820,074	124,213,328	107,626,000
"	... Per head of mean population	...	25.9	25.6	28.0	25.1	21.93
Cheese	... Total	...	16,458,316	18,498,662	19,194,818	17,202,559	14,908,451
"	... Per head of mean population	...	3.5	4.8	3.9	3.5	3.04

The quantity available for consumption in 1916 averaged nearly 22 lbs. of butter and over 3 lbs. of cheese per head of mean population, an amount probably unsurpassed anywhere. The consumption of butter and cheese in the United Kingdom in normal times is given as about 20 lbs. per head per annum.

§ 3. Pigs, Bacon, etc.

1. **Pigs.**—Attention has been paid, both privately and by the various State Governments, to improving the breed, and consequently the market value of pigs. The number of pigs in the Commonwealth from 1912 to 1916 is shewn below :—

NUMBER OF PIGS, COMMONWEALTH, 1912 to 1916.

State.	1912.	1913.	1914.	1915.	1916.
New South Wales ...	293,450	287,896	*286,478	*280,869	*359,504
Victoria† ...	240,072	221,277	243,196	192,002	254,436
Queensland ...	143,695	140,045	166,638	117,787	129,733
South Australia ...	69,832	64,119	69,893	66,237	*118,542
Western Australia ...	47,351	47,966	59,816	58,231	90,756
Tasmania† ...	49,152	37,990	34,960	37,778	53,033
Northern Territory ...	1,500	1,018	1,240	500	500
Federal Territory ...	203	194	*226	*289	*259
Commonwealth ...	845,255	800,505	862,447	753,693	1,006,763

* As on 30th June of year following.

† As on 1st March of year following.

The number of pigs in Australia was highest in 1911, and the next to that was in 1904, when for the first time it was over a million. An examination of the returns shews remarkable fluctuations. There was a general decrease in 1906 and the two following years, followed by an increase in 1909-10-11, a heavy decline in 1912 and 1913, an increase in 1914 and again a heavy falling-off during 1915, followed by a very substantial rise in all the States in 1916. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, pages 306 and 307.

2. **Bacon and Ham.**—From 1905 to 1908 the production of bacon and ham in the Commonwealth shewed little annual variation. In 1909, however, there was a considerable falling-off, but a large increase took place in subsequent years up to 1912. During

the succeeding three years the production again fell away, more especially in 1915, but a satisfactory increase was recorded in 1916 in all the States with the exception of Queensland.

PRODUCTION OF BACON AND HAM, COMMONWEALTH, 1912 to 1916.

State.	1912.	1913.	1914.	1915.	1916.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales ...	16,511,180	15,180,378	*15,323,528	*13,569,022	*15,779,369
Victoria ...	20,043,706	19,289,258	18,774,497	13,659,974	*18,115,028
Queensland ...	12,437,019	13,709,716	13,339,131	12,363,939	10,427,649
South Australia ...	3,771,064	3,265,773	3,409,372	2,442,485	*3,993,137
Western Australia ...	†114,950	†100,143	†112,421	†202,824	†2,058,027
Tasmania† ...	1,299,060	1,116,535	1,612,433	895,020	992,779
Federal Territory ...	15,196	11,885	3,520	7,619	*8,787
Commonwealth ...	54,192,175	52,673,688	52,574,902	43,130,883	51,374,776

* For year ended 30th June of year following. † Made on farms only. ‡ A portion only from pigs slaughtered in the State, balance imported and subsequently cured.

3. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products is shewn in the following tables:—

IMPORTS, EXPORTS, AND NET EXPORTS OF BACON AND HAM, FROZEN PORK, PIGS, AND LARD, COMMONWEALTH, 1912 to 1916-17.

Particulars.	1912.	1913.	1914-15.	1915-16.	1916-17.
BACON AND HAM.					
Imports ...	lbs. 294,130	126,692	107,520	425,277	90,626
" ...	£ 11,962	6,301	5,412	20,643	4,787
Exports ...	lbs. 2,174,114	1,866,894	1,220,426	590,788	1,006,431
" ...	£ 68,503	74,718	58,900	35,278	60,414
Net Exports ...	lbs. 1,879,984	1,740,202	1,112,906	165,511	915,805
" ...	£ 56,541	68,417	53,488	14,635	55,627
FROZEN PORK.					
Imports ...	lbs. 79,052	...	74,337	862,768	73,294
" ...	£ 2,592	...	2,601	32,249	2,680
Exports ...	lbs. 897,929	215,175	48,791	2,783	32,681
" ...	£ 16,661	5,259	1,400	108	1,341
Net Exports ...	lbs. 818,877	215,175	— 25,546	— 859,985	— 40,613
" ...	£ 14,069	5,259	— 1,201	— 32,141	— 1,339
PIGS.					
Imports ...	No. 14	20	52	12	6
" ...	£ 198	54	535	63	23
Exports ...	No. 609	440	168	64	19
" ...	£ 1,025	1,336	511	582	146
Net Exports ...	No. 595	420	116	52	13
" ...	£ 827	1,282	— 24	519	123

Note. — signifies net imports.

IMPORTS, EXPORTS, AND NET EXPORTS OF BACON AND HAM, FROZEN PORK, PIGS, AND LARD, COMMONWEALTH, 1912 to 1916-17—Continued.

Particulars.	1912.	1913.	1914-15.	1915-16	1916-17.
LARD.					
Imports lbs.	794,961	884,312	268,043	3,873,248	408,552
" £	22,096	23,900	7,433	108,985	12,225
Exports lbs.	2,092,422	4,299,987	1,491,119	342,593	1,796,821
" £	37,063	85,194	31,542	13,736	59,205
Net Exports lbs.	1,297,461	3,415,175	1,223,106	-3,530,655	1,588,269
" £	14,967	61,294	24,109	-95,249	46,980

Note. — signifies net imports.

From 1901 to 1903 there was a considerable net import of bacon and ham, but for the following years, up to 1916-17, with the exception of 1915-16 when the figure was small, there was a large net export. The local production of pork and lard for each of the years 1911 to 1913 was more than sufficient for the local demand; during 1914-15, 1915-16, and 1916-17, however, the imports of frozen pork exceeded the exports by 25,546 lbs., 859,985 lbs. and 40,613 lbs. respectively. The net export of pig products was considerably greater in 1910 and 1911 than in previous years, but there was a decline in 1912, and a further falling-off in the three subsequent years, followed by an increase during 1916-17.

4. Local Consumption of Bacon and Ham.—From 1904 to 1916 the production of bacon and ham was sufficient to meet the local demand, and there was a surplus for export.

BACON AND HAM AVAILABLE FOR LOCAL CONSUMPTION, 1912 to 1916.

Consumption.	1912.	1913.	1914.	1915.	1916.
	lbs.	lbs.	lbs.	lbs.	lbs.
Total	52,312,191	50,933,486	51,181,876	42,965,372	50,458,971
Per head of mean population ...	11.3	10.6	10.4	8.7	10.3

5. Total Dairy Production.—The total dairy production of the Commonwealth in 1916 is shewn below:—

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1916.

Where Produced.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Terr.	C'wealth.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gals.	gallons.
Butter	178,709,835	137,282,655	67,378,415	21,865,757	2,652,216	9,228,897	25,064	417,142,839
Cheese	8,033,900	5,722,855	8,395,320	2,463,466	1,775	738,521	...	25,355,839
Condensing and concentrating ...	1,693,340	10,888,950	1,964,278	...	...	...	...	14,546,568
Other purposes... ..	37,482,513	32,698,446	9,200,367	5,624,780	4,171,579	3,396,422	59,348	92,639,455
Total	225,919,588	186,592,906	86,938,360	29,954,005	6,825,570	13,363,840	84,412	549,684,701
BUTTER.								
In Factories	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
On Dairy & other Farms	75,064,394	54,488,363	26,924,423	6,067,508	357,600	2,136,649	...	165,038,927
	4,291,255	5,080,408	2,042,856	3,730,634	722,866	1,555,000	8,832	17,431,851
Total	79,355,639	59,568,771	28,967,279	9,798,142	1,080,466	3,691,649	8,832	182,470,778

* For year ended 30th June, 1917.

† Including 6000 gallons, Northern Territory.

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1916—Continued.

Where Produced.	N.S.W. *	Victoria. *	Q'land.	S. Aust. *	W. Aust.	Tas.	F. Ter. *	C'wealth.
CHEESE.								
In Factories ...	lbs. 5,672,428	lbs. 4,188,633	lbs. 8,423,920	lbs. 2,474,309	lbs. ...	lbs. 448,671	lbs. ...	lbs. 21,207,961
On Dairy & other Farms	2,157,811	1,680,929	71,905	1,772	665	287,929	...	4,200,911
Total ...	7,830,239	5,869,562	8,495,825	2,476,081	665	736,500	...	25,408,872

CONDENSED OR CONCENTRATED MILK.

In Factories ...	lbs. 5,829,990	lbs. 33,280,635	lbs. 6,584,272	lbs. 45,694,897
------------------	-------------------	--------------------	-------------------	-----	-----	-----	-----	--------------------

BACON AND HAM.

In Factories ...	lbs. 13,560,366	lbs. 15,376,600	lbs. 9,738,283	lbs. 2,597,711	lbs. 1,851,704	lbs. 641,217	lbs. ...	lbs. 43,765,881
On Dairy & other Farms	2,219,003	2,738,428	689,366	1,395,426	206,323	351,562	8,787	7,608,895
Total ...	15,779,369	18,115,028	10,427,649	3,993,137	2,058,027	992,779	8,787	51,374,776

* For year ended 30th June, 1917. † A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured.

§ 4. Poultry Farming.

1. **Development of the Industry.**—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, and poultry experts engaged by the State Governments give lectures and instruction. Poultry for consumption is extensively reared, and the egg-producing qualities of the birds have also 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. **Production of Poultry.**—There is some difficulty in obtaining correct figures for the yield of poultry products. The following values are returned:—

ESTIMATED VALUE OF POULTRY AND EGGS, COMMONWEALTH, 1912-13 to 1916-17.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. *	Fed. Ter.	C'wealth.
	£	£	£	£	£	£	£	£
1912-13 ...	1,432,120	1,825,010	188,000	541,489	183,689	230,000	1,880	4,402,188
1913-14 ...	1,578,000	1,706,700	219,400	569,254	223,713	230,000	1,600	4,528,667
1914-15 ...	1,597,000	1,743,860	234,994	524,347	204,591	230,000	1,180	4,535,972
1915-16 ...	2,144,000	1,747,000	107,370	518,808	184,360	200,000	2,000	4,903,538
1916-17 ...	1,905,500	1,714,770	324,958	618,441	201,284	250,000	2,500	5,017,453

* Estimated.

3. **Oversea Trade in Poultry Products.**—The imports and exports of eggs shew a considerable balance on the side of imports in each of the years 1901 to 1906 and during the last eight years. In 1907 the export greatly exceeded the import, and in 1908 the

imports were greater in quantity, but less in value, than the exports. During 1915-16, 303,300 dozen eggs were imported from Hong Kong, 240,167 dozen from China, and 99,372 dozen from Japan. Of the 35,762 dozen imported during 1916-17, 31,388 came from Hong Kong, and 2521 dozen from Straits Settlements. There is at present only a small oversea trade in either live or frozen poultry, the values of the net exports during 1916-17 being £2396 and £3767 respectively.

IMPORTS, EXPORTS, AND NET EXPORTS OF EGGS AND OF LIVE AND FROZEN POULTRY, COMMONWEALTH, 1912 to 1916-17.

Particulars.				1912.	1913.	1914-15.	1915-16.	1916-17.
EGGS.								
Imports	...	...	... doz.	45,160	53,577	63,065	649,399	35,762
"	...	...	... £	1,464	1,748	2,431	27,791	1,485
Exports	...	...	... doz.	6,211	4,872	12,119	3,541	8,651
"	...	...	... £	518	377	735	262	585
Net Exports	...	...	... doz.	— 38,949	— 48,705	— 50,946	— 645,858	— 27,111
"	"	...	... £	— 946	— 1,371	— 1,696	— 27,529	— 900
EGG CONTENTS.								
Imports	...	...	... lbs.	13,969	13,712	9,665	37,421	20,452
"	...	...	... £	1,206	1,110	1,138	4,486	3,480
Exports	...	...	... lbs.	*	*	*	*	*
"	...	...	... £	4	15	31	481	14,259
Net Exports	...	...	... lbs.	*	*	*	*	*
"	...	...	... £	— 1,202	— 1,095	— 1,107	— 4,005	10,779
LIVE POULTRY.								
Imports	...	...	... No.	1,720	1,725	1,262	931	480
"	...	...	... £	1,460	913	1,857	1,107	1,127
Exports	...	...	... No.	3,859	2,480	1,164	1,959	3,105
"	...	...	... £	1,231	1,074	603	781	3,523
Net Exports	...	...	... No.	2,139	755	— 98	1,028	2,625
"	"	...	... £	— 229	161	— 1,254	— 326	2,396
FROZEN POULTRY.								
Imports	...	...	... lbs.	2,102	10,328	1,193	6,643	3,096
"	...	...	... £	64	475	53	293	137
Exports	...	...	... pair	23,390	25,520	14,765	2,155	5,400
"	...	...	... £	10,144	10,979	12,496	1,050	3,904
Net Exports	...	...	...	*	*	*	*	*
"	"	...	... £	10,080	10,504	12,443	757	3,767

Note. — signifies net imports. * Quantity not available.

§ 5. Bee Farming.

1. **The Bee-farming Industry.**—Bee farming, like poultry farming, is ordinarily an adjunct to agricultural or dairying industries. The returns of honey from productive hives during 1916-17 gave an average of just under 50 lbs. per hive, while the average quantity of wax was about three-quarters of a pound per hive.

The value of the export of honey from Australia was only £1924 in 1912, £4094 in 1913, £2589 in 1914-15, and £1045 in 1915-16, but in 1916-17 the value aggregated £9526. It is believed that this export could be considerably increased. Australian honey exhibited at the Franco-British Exhibition in London in 1908 obtained the highest award.

2. **Production of Honey and Beeswax.**—The particulars of honey and beeswax production are as given in the following table:—

NUMBER OF HIVES AND PRODUCTION OF HONEY AND BEESWAX, SEASON 1916-17.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Productive	Un-productive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lbs.	£	lbs.	£
New South Wales	33,239	7,421	40,660	1,660,518	31,013	29,387	1,897
Victoria	26,238	10,323	36,561	1,547,023	32,230	22,131	1,890
Queensland	9,062	5,283	14,345	352,099	5,680	7,042	441
South Australia	17,049	3,147	20,196	961,723	18,032	9,793	632
Western Australia	5,807	1,526	7,333	184,910	2,736	3,985	249
Tasmania	4,650	2,485	7,135	84,121	2,213	2,059	146
Federal Territory	78	33	111	4,780	87	47	3
Commonwealth	96,123	30,218	126,341	4,795,174	91,991	74,444	5,258

QUANTITY OF HONEY AND BEESWAX PRODUCED, 1912-13 to 1916-17.

Season	N. S. Wales.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania	Fed.Ter.	C'wealth.
--------	--------------	-----------	---------	----------	----------	----------	----------	-----------

HONEY.

	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1912-13	2,390,355	3,277,590	581,228	1,446,364	292,515	*	19,645	8,007,697†
1913-14	1,862,471	1,961,746	754,760	876,395	156,162	180,472	4,364	5,796,370
1914-15	1,138,925	700,672	542,679	1,033,556	344,054	37,858	4,680	3,802,424
1915-16	1,585,634	933,933	460,599	358,469	122,125	56,468	4,750	3,521,978
1916-17	1,660,518	1,547,023	352,099	961,723	184,910	84,121	4,780	4,795,174

BEESWAX.

1912-13	49,267	45,354	11,744	18,054	6,073	*	467	130,959†
1913-14	39,060	37,323	12,059	11,607	3,910	4,630	184	108,773
1914-15	26,483	20,017	10,859	14,365	5,471	1,354	193	78,742
1915-16	29,874	18,707	8,890	7,410	4,584	1,397	45	70,907
1916-17	29,387	22,131	7,042	9,793	3,985	2,059	47	74,444

* Not available. † Exclusive of Tasmania.

The quantity of honey and beeswax produced from year to year naturally varies considerably according to the conditions of the seasons. During the past five years, New South Wales has been the largest producer, accounting for 33 per cent. of the total honey produced in the Commonwealth, and 37½ per cent. of the beeswax; Victoria, the next in importance, produced about 32½ per cent. of the honey, and 31 per cent. of the beeswax; South Australia, Queensland, and Western Australia coming next in the order named.

3. **Oversea Trade in Bee Products.**—In normal years honey is produced in the Commonwealth in sufficient quantities to supply all local requirements, and a considerable quantity is sent oversea. The more general use of frame hives in recent years has affected the production of wax, and as a result the quantity imported has exceeded that exported during each of the past three years.

**IMPORTS, EXPORTS, AND NET EXPORTS OF HONEY AND BEESWAX,
COMMONWEALTH, 1912 to 1916-17.**

Particulars.				1912.	1913.	1914-15.	1915-16.	1916-17.
HONEY.								
Imports	...	...	... lbs.	5,024	636	1,790	59,324	491
"	...	...	... £	89	19	51	692	18
Exports	...	...	... lbs.	135,318	284,322	151,405	25,162	333,407
"	...	...	... £	1,924	4,094	2,589	1,045	9,526
Net Exports	...	...	... lbs.	130,294	283,686	149,615	34,162	332,916
"	"	...	... £	1,835	4,075	2,538	353	9,508
BEESWAX.								
Imports	...	...	... lbs.	7,212	6,059	13,048	38,807	19,195
"	...	...	... £	536	480	1,013	2,868	1,544
Exports	...	...	... lbs.	9,453	10,455	2,173	3,506	7,234
"	...	...	... £	581	657	154	234	548
Net Exports	...	...	... lbs.	2,241	4,396	10,875	35,301	11,961
"	"	...	... £	45	177	859	2,634	996

Note. — signifies net imports.

§ 6. Summary of Australian Farmyard and Dairy Products.

The value of the principal farmyard and dairy products raised in the Commonwealth in 1916 was as follows :—

**VALUE OF THE PRINCIPAL FARMYARD AND DAIRY PRODUCTS IN THE
COMMONWEALTH DURING THE YEAR 1916.**

Produce.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aus.	Tas.	N. T.	Fed. Ter.	C'wealth.
	£	£	£	£	£	£	£	£	£
Milk, cons'm'd									
as such ...	1,250,000	1,090,000	307,000	187,000	139,000	113,000	*	2,000	3,088,000
Butter ...	5,137,287	4,224,910	1,857,488	677,792	77,560	226,587	*	550	12,202,174
Cheese ...	288,525	222,977	303,545	77,391	25	28,874	...	...	921,337
C'condensed milk	125,120	766,160	175,902	...	...	...	...	...	1,067,182
Bacon & ham	745,952	1,057,660	553,704	200,886	118,670	50,575	*	450	2,727,897
Poultry & eggs	1,905,500	1,714,770	324,958	618,441	201,284	250,000	*	2,500	5,017,453
Honey & wax	32,910	34,120	6,121	18,664	2,985	2,359	*	90	97,249

* Information not available.

† Estimate.

§ 7. Summary of Australian Farmyard and Dairy Products Exported, 1912 to 1916-17.

The quantities and values of Australian farmyard and dairy products exported from the Commonwealth during each of the last five years are shown below:—

QUANTITIES OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING EACH OF THE YEARS 1912 to 1916-17.

Products.	1912.	1913.	1914-15.	1915-16.	1916-17.
Beeswax lbs.	9,347	10,455	2,173	3,506	7,234
Butter "	66,679,120	75,795,642	54,021,523	16,722,010	74,878,634
Cheese "	136,452	1,602,609	2,542,478	128,229	10,569,279
Egg albumen and yolk "					
Eggs doz.	6,163	4,872	12,119	3,469	8,386
Feathers, undressed "					
Honey lbs.	135,318	284,322	151,381	25,162	333,407
Lard "	2,090,477	4,279,440	1,487,536	342,569	1,681,918
Meats—					
Bacon and ham "	2,172,880	1,846,966	1,219,103	556,251	1,005,171
Frozen poultry pair	23,390	25,520	14,765	2,131	5,400
" pork lbs.	897,929	215,175	48,791	2,783	32,681
Milk, concentrated & preserved "	1,646,414	2,779,963	4,907,395	708,643	15,777,333
Pigs, living No.	609	440	168	64	19
Poultry, living "	3,849	2,480	1,154	1,939	3,105

* Quantity not available.

VALUE OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING THE YEARS 1912 to 1916-17.

Products.	1912.	1913.	1914-15.	1915-16.	1916-17.
	£	£	£	£	£
Beeswax	575	657	154	234	548
Butter	3,342,320	3,564,925	2,659,030	1,022,742	5,301,273
Cheese	5,303	42,030	72,527	7,915	419,628
Egg albumen and yolk		3		4	8,327
Eggs	516	377	735	259	573
Feathers, undressed	2,926	1,576	607	45	
Honey	1,924	4,094	2,588	1,045	9,526
Lard	37,007	84,737	31,433	13,735	56,126
Meats—					
Bacon and ham	68,439	73,982	58,823	33,583	60,358
Frozen poultry	10,144	10,979	12,496	1,033	3,904
" pork	16,661	5,259	1,400	108	1,341
Milk, concentrated and preserved	34,317	72,950	122,613	24,589	531,976
Pigs, living	1,025	1,336	511	582	146
Poultry, living	1,209	1,074	591	766	3,523
Total	3,522,366	3,863,979	2,963,508	1,106,640	6,397,249

§ 8. British Imports of Dairy Products.

1. Value of Britain's Imports of Dairy Products.—From 1912 to 1914 Great Britain paid £24,000,000 annually for imported butter, the value of the imports in 1912, 1913, and 1914 being £24,354,000, £24,034,000, and £24,014,000 respectively, while for 1915 the value was £27,023,000, and for 1916 £18,964,000. For imported cheese the amounts in the years named were respectively £7,414,000, £7,035,000, £7,966,000, £11,107,000 and £12,946,000; for bacon and ham, £17,276,000, £20,497,000, £21,289,000, £30,722,000, and £41,223,000 respectively; and for pork, £1,101,000, £1,665,000, £2,663,000, £1,010,000 and £1,303,000 respectively.

2. **Butter.**—Australia in 1911 stood second, in 1912, 1913, 1914 and 1916 third, and in 1915 fourth, in regard to value of butter imported into the United Kingdom; but the import of other Australian dairy products was inconsiderable.

IMPORTS OF BUTTER INTO THE UNITED KINGDOM, 1916.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ...	1,134,801	10,378,050	Iceland and Greenland ...	1,443	12,568
New Zealand ...	331,162	2,727,645	Sweden ...	992	7,585
Australia ...	145,065	1,239,861	British India ...	948	6,096
United States ...	131,618	1,179,670	British Possessions n.e.i. ...	4,852	47,932
France ...	130,249	974,743	Foreign Countries n.e.i. ...	5	18
Argentine Republic ...	117,597	940,409			
Canada ...	101,531	855,536			
Netherlands ...	36,202	336,478			
Russia ...	31,918	199,338			
Norway ...	7,032	58,073	Total ...	2,175,415	18,964,002

In January, 1910, the average price of Australian butter in London was 111s. After a fall in 1911, 134s. was reached in the middle of January, 1912. This high average was followed by a rapid decline. Higher prices were again in evidence as 1913 advanced, 128s. being obtained for best unsalted butter in October and November of that year; from that time till the middle of 1914 prices gradually fell to 108s., when an upward movement commenced, which continued through the latter half of 1914 and, with slight variation, throughout 1915; in December of that year 168s. was obtained for best unsalted. A slight fall in January, 1916, was followed by a gradual rise throughout the year, 210s. being obtained for best unsalted in December. Quotations for London prices are only available to end of August, 1917, on which date best Australian butter was listed at 212s. per cwt. At the commencement of March in the same year the price was 220s., this being the highest recorded price for Australian butter. Prices in London during the last nine years have been considerably higher than the average of any previous year since the Australian export trade was instituted over twenty years ago. A marked approach to Danish values has lately been made in the prices of Australian butter, Danish choice at the close of 1916 being 224s., or only three halfpence per pound over Australian.

3. **Cheese.**—The value of the British cheese imports in 1916 was £12,946,000, of which nearly seven and a-half million pounds' worth was received from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realised. In 1915, the value of the imports from Australia was £91,700.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1916 at £41,223,000, Great Britain received imports to the value of £9,088,000 from Denmark; £23,421,000 from the United States; and £7,708,000 from Canada. The British import from Australia was small, experimental shipments only having been made during recent years.

5. **Pork.**—The total value of British imports of pork (including refrigerated, frozen and salted) was £1,303,000 in 1916. There was no import from Australia, the chief supplying countries being the United States, £1,129,000; and China, £47,000.

6. **Other Products.**—There is practically no British import from Australia of honey, beeswax, poultry, game, lard, or eggs, but frozen rabbits to the value of £1,086,000 were received from the Commonwealth in 1916.

§ 9. Graphical Representation of Dairy Production.

Two graphs shewing respectively the increase in dairy production and in the exports of butter will be found on page 322.