

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 536 in 1915. These were distributed as regards the various States as follows:—New South Wales, 165; Victoria, 190; Queensland, 103; 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 three 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. Prior to 1913 the figures for the Northern Territory were unreliable, and those for subsequent years are estimates only:—

CATTLE AND DAIRY CATTLE, COMMONWEALTH, 1911 to 1915.

State.		1911.	1912.	1913.	1914.	1915.
New South Wales	All Cattle	3,185,824	3,033,726	2,815,113	2,472,631	2,400,104
	Dairy Cows	855,926	852,040	831,023	649,900	743,058
Victoria	All Cattle	1,647,127	1,508,089	1,523,553	1,362,542	1,043,504
	Dairy Cows	699,555	655,939	656,080	610,517	451,088
Queensland	All Cattle	5,073,201	5,210,691	5,392,033	5,455,943	4,780,893
	Dairy Cows	357,095	375,660	391,439	387,311	335,243
South Australia	All Cattle	393,566	383,418	352,005	300,579	226,565
	Dairy Cows	121,803	114,734	107,879	91,181	78,515
Western Australia	All Cattle	843,638	806,294	834,265	863,835	821,048
	Dairy Cows	27,740	27,310	30,680	28,106	28,342
Tasmania	All Cattle	217,406	222,181	205,743	176,524	169,575
	Dairy Cows	56,858	60,160	59,380	51,229	47,540
Northern Territory	All Cattle	459,780	405,552	417,643	414,558	483,561
	Dairy Cows	300	300	70	70	70
Federal Territory	All Cattle	8,412	7,108	7,627	4,961	5,666
	Dairy Cows	1,192	742	744	1,057	537
Commonwealth	All Cattle	11,828,954	11,577,259	11,483,882	11,051,573	9,931,416
	Dairy Cows	2,120,469	2,086,835	2,068,195	2,019,371	1,684,393

* Included under New South Wales.

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, considerably under 300 gallons per annum. The best yields over a series of years appear to be in Victoria, New South Wales, and South Australia, while Western Australia and Tasmania in normal years are below Queensland. 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, 1911 to 1915.

Heading.	N.S.W.*	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. †
1911—							
Dairy Cows ... No.	857,118	699,555	357,095	121,803	27,740	56,858	2,120,169
Production of milk gals.	237,623,000	238,149,700	71,770,148	27,952,612	5,017,004	14,214,500†	594,726,964
Aver. yield per cow gals.	277	340	200	230	181	250	280
1912—							
Dairy Cows ... No.	852,782	655,939	375,660	114,734	27,310	60,160	2,086,585
Production of milk gals.	225,446,209	199,296,920	82,977,730	27,547,870	5,215,779	15,040,000†	555,524,508
Aver. yield per cow gals.	264	304	221	240	191	250	266
1913—							
Dairy Cows ... No.	822,667	656,060	391,439	107,879	30,680	59,390	2,068,125
Production of milk gals.	231,592,000	216,947,170	90,545,516	27,593,023	5,550,197	11,557,309	583,785,215
Aver. yield per cow gals.	282	331	231	256	181	195	282
1914—							
Dairy cows ... No.	850,957	610,517	387,311	91,181	28,106	51,292	2,019,301
Production of milk gals.	237,930,000	193,653,330	100,189,876	22,219,509	5,589,184	11,568,364	571,150,263
Aver. yield per cow gals.	280	317	259	244	199	226	283
1915—							
Dairy cows ... No.	743,595	451,098	335,243	78,515	28,342	47,540	1,684,323
Production of milk gals.	184,014,000	142,115,480	70,093,674	22,185,072	6,058,963	10,300,271	434,767,460
Aver. yield per cow gals.	247	315	209	283	214	217	258

* Including figures for Federal Territory, which in 1911 were 1192 dairy cows; 153,090 gallons of milk, averaging 128 gallons per cow; in 1912, 742 dairy cows; 106,647 gallons of milk, averaging 144 gallons per cow; in 1913, 744 dairy cows; 89,410 gallons of milk, averaging 120 gallons per cow; in 1914, 1057 dairy cows; 73,500 gallons of milk, averaging 70 gallons per cow; and in 1915, 537 dairy cows; 79,420 gallons of milk, averaging 148 gallons per cow. † Estimated.

‡ 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 1914 marks the highest cheese production, the return being over 7½ per cent. advance on that of 1913, the next highest record, which was upwards of 20 per cent. advance on 1910, 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 season. For the five years from 1911 to 1915 the figures are:—

PRODUCTION OF BUTTER AND CHEESE, COMMONWEALTH, 1911 to 1915.

State.	1911.	1912.	1913.	1914.	1915.
BUTTER.					
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales* ...	83,204,568	76,609,528	77,779,197	84,134,280	59,631,543
Victoria ...	86,500,474	67,655,894	73,361,567	62,431,288	42,345,113
Queensland ...	27,858,535	30,307,339	35,199,387	37,230,240	25,456,714
South Australia ...	9,694,666	8,394,557	8,036,274	6,252,961	6,317,613
Western Australia ...	498,047	448,799	518,566	451,112	716,408
Tasmania ...	3,817,455	3,778,104	3,843,247	3,480,531	3,204,922
Commonwealth ...	211,573,745	187,194,161	198,758,238	193,970,412	137,672,313
CHEESE.					
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales ...	5,460,652	5,454,685	6,620,648	6,356,627	5,979,636
Victoria ...	4,549,843	4,176,778	4,856,321	4,395,502	3,497,278
Queensland ...	3,718,257	3,947,615	5,395,050	7,931,869	4,383,410
South Australia ...	1,526,930	1,958,027	2,216,985	2,000,547	1,412,692
Western Australia ...	900	...	...	1,675	835
Tasmania ...	630,130	623,386	654,411	554,191	555,375
Commonwealth ...	15,886,712	16,160,491	19,743,415	21,240,411	15,829,226

* Including Federal Territory, where 27,630 lbs. of butter were produced in 1911; 16,561 lbs. in 1912; 12,494 lbs. in 1913; 7387 lbs. in 1914; and 7,658 lbs. in 1915.

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, however, a considerable falling-off was in evidence in each of the three States. There is still a considerable import of milk, as will be seen from the tables hereunder; but in 1912-13 and 1914-15, 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, 1911 to 1915.

Year.	N.S.W.	Victoria.	Queensland.	Commonwealth.
	lbs.	lbs.	lbs.	lbs.
1911	3,058,497	13,697,691	6,227,519	22,983,707
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

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 the cheese import was greater than the export, while there was a net import of milk in 1911 and 1915.

**IMPORTS, EXPORTS, AND NET EXPORTS OF BUTTER, CHEESE, AND MILK,
COMMONWEALTH, 1911 to 1915-16.**

IMPORTS.

Products.	1911.	1912.	1913.	1914-15.	1915-16.
Butter lbs.	22,607	44,142	13,844	2,378,893	4,577,332
" " " " " £	1,081	1,989	565	180,557	349,110
Cheese lbs.	318,891	443,847	364,699	230,348	1,532,336
" " " " " £	14,461	19,988	17,334	10,554	66,936
Milk—concentrated and preserved* lbs.	4,166,117	1,215,351	1,150,715	2,596,964	4,191,493
" " " " " £	74,278	25,949	26,579	90,146	152,051

EXPORTS.

Butter lbs.	101,722,136	66,685,056	75,802,303	54,105,777	18,036,317
" " " " " £	4,637,362	3,342,642	3,565,282	2,664,975	1,117,629
Cheese lbs.	1,159,363	146,022	1,609,452	2,547,857	159,003
" " " " " £	27,243	5,760	42,421	72,828	9,347
Milk—concentrated and preserved* lbs.	1,260,323	1,821,583	2,875,030	5,066,169	939,680
" " " " " £	21,990	37,876	75,165	126,556	31,340

NET EXPORTS.†

Butter lbs.	101,699,529	66,640,914	75,788,459	51,726,884	13,458,985
" " " " " £	4,636,281	3,340,653	3,564,717	2,484,418	768,519
Cheese lbs.	840,472	297,825	1,244,753	2,317,509	1,373,333
" " " " " £	12,782	14,328	25,087	62,274	57,589
Milk—concentrated and preserved* lbs.	2,905,794	606,232	1,724,315	2,469,205	3,251,933
" " " " " £	52,288	11,927	48,586	36,410	120,711

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

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, 1911 to 1915.

Product.		1911.	1912.	1913.	1914.	1915.
		lbs.	lbs.	lbs.	lbs.	lbs.
Butter	... Total ...	109,874,216	120,500,247	122,969,779	137,820,074	124,213,328
..	... Per head of mean population ...	24.5	25.9	25.6	28.0	25.1
Cheese	... Total ...	15,046,240	16,458,316	18,498,662	19,194,818	17,202,564
..	... Per head of mean population ...	3.4	3.5	4.8	3.9	3.5

The quantity available for consumption in 1915 averaged 25 lbs. of butter and 3.5 lbs. of cheese per head of mean population, an amount probably unsurpassed anywhere. The consumption of butter and cheese in the United Kingdom is given as about 20 lbs. per head.

§ 3. Pigs, Bacon, etc.

1. **Pigs.**—Great attention has been paid, both privately and by the various State Governments, to the improvement in the marketable qualities of pigs. The number of pigs in the Commonwealth from 1911 to 1915 is shewn below :—

NUMBER OF PIGS, COMMONWEALTH, 1911 to 1915.

•State.	1911.	1912.	1913.	1914.	1915.
New South Wales ...	370,700	293,450	287,896	*286,478	*280,869
Victoria ...	348,069	240,072	221,277	243,196	192,002
Queensland ...	173,902	143,695	140,045	166,638	117,787
South Australia ...	93,130	69,832	64,119.	69,893	66,237
Western Australia ...	55,635	47,351	47,966	59,816	58,231
Tasmania ...	67,392	49,152	37,990	34,960	37,778
Northern Territory ...	1,500	1,500	1,018	1,240	500
Federal Territory ...	393	203	194	*226	*289
Commonwealth ...	1,110,721	845,255	800,505	862,447	753,693

* As on 30th June of year following.

Prior to 1911 the number of pigs was highest 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. With the exception of Tasmania (and the Federal Territory) there was a general decrease in the several States during 1915. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, pages 291 and 292.

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 years 1913 and 1914 the production again fell away, and a considerable decline was recorded in 1915.

PRODUCTION OF BACON AND HAM, COMMONWEALTH, 1911 to 1915.

State.	1911.	1912.	1913.	1914.	1915.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales* ...	16,102,827	16,526,376	15,192,263	15,327,048	13,576,641
Victoria ...	19,546,772	20,043,706	19,289,258	18,774,497	13,659,974
Queensland ...	11,667,654	12,437,019	13,709,716	13,339,131	12,363,939
South Australia ...	4,311,497	3,771,064	3,265,773	3,409,372	2,432,485
Western Australia ...	97,136	114,950	100,143	112,421	202,824
Tasmania† ...	1,538,766	1,299,060	1,116,535	1,612,433	895,020
Commonwealth ...	53,264,652	54,192,175	52,673,688	52,574,902	43,130,883

* Including Federal Territory, where 22,670 lbs. of bacon and ham were produced in 1911; 15,196 lbs. in 1912; 11,885 lbs. in 1913; 3520 lbs. in 1914; and 7619 lbs. in 1915. † Estimated prior to 1913.

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, 1911 to 1915-16.

Particulars.	1911.	1912.	1913.	1914-15.	1915-16.
BACON AND HAM.					
Imports ...	... lbs. 201,309	294,130	126,692	107,520	425,277
" ...	... £ 8,566	11,962	6,301	5,412	20,643
Exports ...	... lbs. 2,340,612	2,174,114	1,866,894	1,220,426	590,788
" ...	... £ 74,178	68,503	74,718	58,900	35,278
Net Exports ...	... lbs. 2,139,303	1,879,984	1,740,202	1,112,906	165,511
" ...	... £ 65,612	56,541	68,417	53,488	14,635
FROZEN PORK.					
Imports ...	... lbs. ...	79,052	...	74,337	862,768
" ...	... £ ...	2,592	...	2,601	32,249
Exports ...	... lbs. 1,641,013	897,929	215,175	48,791	2,783
" ...	... £ 33,639	16,661	5,259	1,400	108
Net Exports ...	... lbs. 1,641,013	818,877	215,175	* 25,546	— 859,985
" ...	... £ 33,639	14,069	5,259	— 1,201	— 32,141
PIGS.					
Imports ...	... No. 35	14	20	52	12
" ...	... £ 539	198	54	535	63
Exports ...	... No. 385	609	440	168	64
" ...	... £ 748	1,025	1,336	511	582
Net Exports ...	... No. 350	595	420	116	52
" ...	... £ 209	827	1,282	— 24	519

— signifies net imports.

IMPORTS, EXPORTS, AND NET EXPORTS OF BACON AND HAM, FROZEN PORK, PIGS, AND LARD, COMMONWEALTH, 1911 to 1915-16—Continued.

Particulars.	1911.	1912.	1913.	1914-15.	1915-16.
LARD.					
Imports lbs.	387,626	794,961	884,812	268,043	3,873,248
" £.	9,870	22,096	23,900	7,433	108,985
Exports lbs.	3,399,386	2,092,422	4,299,987	1,491,149	342,593
" £.	57,861	37,063	85,194	31,542	13,736
Net Exports* lbs.	3,011,760	1,297,461	3,415,175	1,223,106	3,530,655
" £.	47,991	14,967	61,294	24,109	—95,249

* — signifies net imports.

From 1901 to 1903 there was a considerable net import of bacon and ham, but for the following years, up to 1915-16 when the figure was small, there was a large net export. The local production of frozen pork and lard for each of the years 1911 to 1913 was more than sufficient for the local demand; during 1914-15 and 1915-16, however, the imports of frozen pork exceeded the exports by 25,488 lbs. and 859,985 lbs. respectively. The net export of pig products was considerably greater in 1910 and 1911 than in previous years. There was a decline in 1912, and a further falling off in the three following years.

4. **Local Consumption of Bacon and Ham.**—From 1904 to 1915 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, 1911 to 1915.

Consumption.	1911.	1912.	1913.	1914.	1915.
	lbs.	lbs.	lbs.	lbs.	lbs.
Total	51,125,349	52,312,191	50,933,486	51,181,876	42,965,372
Per head of mean population ...	11.4	11.3	10.6	10.4	8.7

5. **Total Dairy Production.**—The total dairy production of the Commonwealth in 1915 is shown below:—

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1915.

Where Produced.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
MILK.							
On Dairy & other Farms	gallons. 184,014,000	gallons. 142,115,480	gallons. 70,093,674	gallons. 22,185,072	gallons. 6,058,963	gallons. 10,300,271	gallons. 434,773,360†
BUTTER.							
In Factories	lbs. 55,351,991	lbs. 37,594,247	lbs. 23,742,209	lbs. 2,982,731	lbs. 162,253	lbs. 1,831,128	lbs. 121,664,559
On Dairy & other Farms	4,279,552*	4,750,866	1,714,505	3,334,882	554,155	1,373,794	16,007,754
Total	59,631,543*	42,345,113	25,456,714	6,317,613	716,408	3,204,922	137,672,313

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1915—Continued.

Where Produced.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
CHEESE.							
In Factories ...	lbs. 3,950,891	lbs. 2,130,035	lbs. 4,262,529	lbs. 1,410,058	lbs. 835	lbs. 355,446	lbs. 12,108,959
On Dairy & other Farms	2,028,745	1,367,243	120,881	2,634		199,929	3,720,267
Total ...	5,979,636	3,497,278	4,383,410	1,412,692	835	555,375	15,829,226
CONDENSED OR CONCENTRATED MILK.							
In Factories ...	lbs. 4,918,064	lbs. 16,690,426	lbs. 5,368,510	...	...	...	lbs. 26,977,000
BACON AND HAM.							
In Factories ...	lbs. 11,637,895	lbs. 11,451,031	lbs. 11,745,795	lbs. 1,736,080	lbs. † 202,824	lbs. 589,039	lbs. 37,159,840
On Dairy & other Farms	1,938,746*	2,208,943	618,144	696,405		305,981	5,971,043
Total ...	13,576,641*	13,659,974	12,363,939	2,432,485	202,824	895,020	43,130,883

* Including Federal Territory, which produced 79,420 gallons of milk, also 7,658 lbs. of butter on farms; and 7,619 lbs. of bacon and hams on farms. † Including 5,900 gallons, Northern Territory. ‡ Not available for publication.

§ 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, 1911-12 to 1915-16.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.
	£	£	£	£	£	£	£
1911-12 ...	1,200,000	1,618,500	195,000	533,941	175,890	230,000	3,953,331
1912-13 ...	1,434,000	1,825,010	188,000	541,489	183,689	230,000	4,402,188
1913-14 ...	1,579,600	1,706,700	219,400	569,254	223,713	230,000	4,528,667
1914-15 ...	1,598,180	1,743,860	234,994	524,347	204,591	230,000	4,535,972
1915-16 ...	2,146,000	1,747,000	107,370	518,808	184,360	200,000	4,903,538

* Including Federal Territory, where the estimated value was £1800 in 1911-12; £1880 in 1912-13; £1600 in 1913-14; £1180 in 1914-15; and £2,000 in 1915-16. † 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 seven 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. There is a considerable oversea export of frozen poultry.

**IMPORTS, EXPORTS, AND NET EXPORTS OF EGGS AND LIVE AND FROZEN
POULTRY, COMMONWEALTH, 1911 to 1915-16.**

Particulars.	1911.	1912.	1913.	1914-15.	1915-16.
EGGS.					
Imports doz.	40,969	45,160	53,577	63,065	649,399
" £	1,209	1,464	1,748	2,431	27,791
Exports doz.	5,734	6,211	4,872	12,119	3,541
" £	1,124	518	377	735	262
Net Exports* doz.	-35,235	-38,949	-48,705	-50,946	-645,858
" " £	- 85	- 946	- 1,371	- 1,696	-27,529
EGG CONTENTS.					
Imports lbs.	13,160	13,969	13,712	9,665	37,421
" £	1,301	1,206	1,110	1,138	4,486
Exports lbs.	†	†	†	†	†
" £	681	4	15	31	481
Net Exports lbs.	†	†	†	†	†
" £	- 620	- 1,202	- 1,095	- 1,107	-4,005
LIVE POULTRY.					
Imports No.	2,398	1,720	1,725	1,262	931
" £	964	1,460	913	1,857	1,107
Exports No.	2,218	3,859	2,480	1,164	1,959
" £	1,068	1,231	1,074	603	781
Net Exports* No.	- 180	2,139	755	- 98	1,028
" " £	104	- 229	161	- 1,254	- 326
FROZEN POULTRY.					
Imports lbs.	5,653	2,102	10,328	1,193	6,643
" £	257	64	475	53	293
Exports pair	16,869	23,390	25,520	14,765	2,155
" £	7,470	10,144	10,979	12,496	1,050
Net Exports	†	†	†	†	†
" " £	7,213	10,080	10,504	12,443	757

* — 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 annual returns of honey from the hives range between 20 lbs. and 60 lbs. per hive.

The value of the export of honey from Australia was only £4414 in 1911, £1924 in 1912, £4094 in 1913, £2589 in 1914-15, and £1045 in 1915-16. It is believed that this export could be considerably increased. Australian honey exhibited in 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 1915-16.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Productive	Un-productive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lbs.	£	lbs.	£
New South Wales	31,893	5,794	37,687	1,585,634	31,382	29,874	2,116
Victoria	20,514	10,719	31,233	933,933	16,100	18,707	1,160
Queensland	10,011	3,707	13,718	460,599	6,053	8,890	541
South Australia	9,596	7,166	16,762	358,469	7,841	7,410	494
Western Australia	3,773	1,912	5,685	122,125	1,659	4,584	268
Tasmania	3,073	1,657	4,730	56,468	1,647	1,397	87
Federal Territory	81	9	90	4,750	94	45	3
Commonwealth	78,941	30,964	109,905	3,521,978	64,776	70,907	4,669

QUANTITY OF HONEY AND BEESWAX PRODUCED, 1911-12 to 1915-16.

Season.	N. S. Wales.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania	Fed.Ter.	'O'wealth.
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HONEY.

	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1911-12	3,394,489	1,635,260	574,973	760,094	416,823	*	38,764	6,820,403†
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

BEESWAX.

1911-12	66,686	28,405	11,419	9,745	13,730	*	672	130,657†
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

* 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 37 per cent. of the total honey produced in the Commonwealth, and over 40 per cent. of the beeswax; Victoria, the next in importance, produced about 30½ per cent. of the honey, and 28½ 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 both honey and beeswax are produced in the Commonwealth in sufficient quantities to supply all local requirements, and a considerable quantity of each is sent oversea.

**IMPORTS, EXPORTS, AND NET EXPORTS OF HONEY AND BEESWAX,
COMMONWEALTH, 1911 to 1915-16.**

Particulars.	1911.	1912.	1913.	1914-15.	1915-16.
HONEY.					
Imports lbs.	2,477	5,024	636	1,790	59,324
" " " " £	93	89	19	51	692
Exports lbs.	353,367	135,318	284,322	151,405	25,162
" " " " £	4,414	1,924	4,094	2,539	1,045
Net Exports* lbs.	350,890	130,294	283,686	149,615	34,162
" " " " £	4,321	1,835	4,075	2,538	353

BEESWAX.

Imports lbs.	8,335	7,212	6,059	13,048	38,807
" " " " £	564	536	480	1,013	2,868
Exports lbs.	12,691	9,453	10,455	2,173	3,506
" " " " £	751	581	657	154	234
Net Exports* lbs.	4,356	2,241	4,396	10,875	35,301
" " " " £	187	45	177	859	2,634

* — 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 1915 was:—

**VALUE OF THE PRINCIPAL FARMYARD AND DAIRY PRODUCTS IN THE
COMMONWEALTH DURING THE YEAR 1915.**

Produce.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aus.	Tas.	N. T.	Fed. Ter.	C'wealth.
	£	£	£	£	£	£	£	£	£
Milk, cons'm'd as such ...	1,126,604	1,136,200	248,200	192,000	132,600	54,200	1,200	1,769	2,892,773
Butter ...	3,539,955	2,528,862	1,744,136	448,083	48,825	177,099	(a)	520	8,487,480
Cheese ...	211,524	129,115	168,935	52,326	31	15,633	...	...	577,564
C'condens'd & concen'ted milk	91,704	383,155	122,100	...	...	...	...	...	596,959
Bacon & ham	659,244	846,483	563,359	126,120	31,000	37,122	...	475	2,263,803
Poultry & eggs	2,144,000	1,747,000	107,370	518,808	184,360	200,000	...	2,000	4,903,538
Honey & wax	33,498	17,260	6,594	8,335	1,927	1,734	...	97	69,445

(a) Information not available.

(b) Estimate.

§ 7. Summary of Australian Farmyard and Dairy Products Exported, 1911 to 1915-16.

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 1911 to 1915-16.

Products.	1911.	1912.	1913.	1914-15.	1915-16.
Beeswax lbs.	12,671	9,347	10,455	2,173	3,506
Butter "	101,722,136	66,679,120	75,795,642	54,021,523	16,722,010
Cheese "	1,149,134	136,452	1,602,609	2,542,478	128,229
Egg albumen and yolk "					
Eggs doz.	5,542	6,163	4,872	12,119	3,469
Feathers, undressed "					
Honey lbs.	353,367	135,318	284,322	151,381	25,162
Lard "	3,399,209	2,090,477	4,279,440	1,487,536	342,569
Meats—					
Bacon and ham "	2,338,299	2,172,850	1,846,966	1,219,103	556,251
Frozen poultry pair	16,869	23,390	25,520	14,765	2,131
" " pork lbs.	1,641,013	897,929	215,175	48,791	2,783
Milk, concentrated & preserved "	1,017,072	1,646,414	2,779,963	4,907,365	708,643
Pigs, living No.	385	609	440	168	64
Poultry, living "	2,198	3,849	2,480	1,154	1,939

* Quantity not available.

VALUE OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING THE YEARS 1911 to 1915-16.

Products.	1911.	1912.	1913.	1914-15.	1915-16.
	£	£	£	£	£
Beeswax	749	575	657	154	234
Butter	4,637,362	3,342,320	3,564,925	2,659,030	1,022,742
Cheese	26,754	5,303	42,030	72,527	7,915
Egg albumen and yolk	651		3		4
Eggs	437	516	377	735	259
Feathers, undressed	2,971	2,926	1,576	607	45
Honey	4,414	1,924	4,094	2,588	1,045
Lard	57,854	37,007	84,737	31,433	13,735
Meats—					
Bacon and ham	74,065	68,439	73,982	58,823	33,583
Frozen poultry	7,470	10,144	10,979	12,496	1,033
" " pork	33,639	16,661	5,259	1,400	108
Milk, concentrated and preserved	16,675	34,317	72,950	122,613	24,589
Pigs, living	748	1,025	1,336	511	582
Poultry, living	1,038	1,209	1,074	591	766
Total	4,864,827	3,522,366	3,863,979	2,963,508	1,106,640

§ 8. British Imports of Dairy Products.

1. Value of Britain's Imports of Dairy Products.—From 1911 to 1914 Great Britain paid £24,000,000 annually for imported butter, the value of the imports in 1911, 1912, 1913, and 1914 being £24,600,000, £24,354,000, £24,084,000, and £24,014,000 respectively, while for 1915 the value was £27,023,000. For imported cheese the amounts in the years named were respectively £7,140,000, £7,414,000, £7,035,000, £7,966,000 and £11,107,000; for bacon and ham, £17,391,000, £17,276,000, £20,497,000, £21,289,000 and £30,722,000 respectively; and for pork, £1,413,000, £1,101,000, £1,665,000, £2,663,000 and £1,010,000 respectively.

2. **Butter.**—Australia in 1911 stood second, in 1912, 1913, and 1914 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.

IMPORT OF BUTTER INTO THE UNITED KINGDOM, 1915.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ...	1,327,100	10,221,398	United States ...	77,130	529,200
Russia ...	1,017,507	6,371,012	Norway ...	49,796	338,891
New Zealand ...	374,898	2,693,808	Netherlands ...	44,544	313,868
Australia ...	371,685	2,551,214	Canada ...	24,401	167,442
France ...	352,090	2,275,676	Other Countries ...	3,463	21,646
Sweden ...	128,294	969,538			
Argentine Republic	82,947	569,052	Total ...	3,853,855	27,022,745

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, this being the highest recorded price for Australian butter. Prices in London during the last eight 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 import in 1915 was £11,107,000, of which over five and a quarter 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 import from Australia was £91,700.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1915 at £30,722,000, Great Britain received imports to the value of £9,130,000 from Denmark; £17,613,000 from the United States; and £3,743,000 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 £1,010,000 in 1915. There was no import from Australia, the chief supplying countries being the United States, £458,000; Netherlands, £458,000.

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 £755,000 were received from the Commonwealth in 1915.

§ 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 316.