

## SECTION IX.

## FARMYARD AND DAIRY PRODUCTION.

## § 1. Introductory.

1. **General.**—The live stock which accompanied Captain Phillip in 1788 included one bull, four cows, one calf, and seven pigs, these being established at Farm Cove when Port Jackson was settled. The greater part of the early shipments of cattle was slaughtered to relieve the necessity of early colonists in the famines which several times threatened the existence of the young community. The existing herds have sprung not only from the original stud, but have been steadily improved by the introduction of stud cattle and pigs, continually increasing attention being paid thereto, especially perhaps of late years. Stock-raising with regard to the special requirements of dairying, etc., has in fact been properly considered only in recent times. The technical advances made in the manufacture of butter, cheese, etc., in Europe, and the necessity of having regard thereto in connection with the export trade of Australia, demanded in Australian stock-raising a judicious crossing of strains with a view to increasing the essential contents in the milk for the production of butter or cheese; the eradication of grasses of little or no use, and the planting in lieu thereof of leguminosæ, grasses, and other plants, so as to amplify the nutrient qualities of the natural herbage, which, however, it may be said, is very often excellent. The importation of British and other cattle for breeding purposes is ordinarily under private enterprise. Government supervision has at times been found necessary in order to prevent the introduction of diseases and pests, with the result that there is but little disease among Australian herds. Recently some of the State Governments have made considerable importations for stud purposes. Permanent structures for the shelter of dairy herds, etc., as a rule are not required anywhere in the Commonwealth. State nurseries, however, supply to settlers, gratis, trees for making shelter belts, and these are found to be sufficient. Owing to the mildness of the Australian climate the heavy expenses for housing, stall-feeding, etc., are unnecessary. Where winter fodder must be grown it is given to the cattle in the fields, and consists mostly of lucerne, oats, maize, barley, and rye. Ensilage is highly recommended by dairy experts, and, when necessary, increasing use is made thereof. Continued expansion of the dairying industry, and particularly its extension into non-coastal districts, will involve a more general use of the silo.

Australian grasses are particularly suitable for dairy cattle, since they possess milk-producing, as well as fattening, properties. The area of land devoted to green food and permanent artificially-sown grasses is constantly increasing, its produce being, for the most part, devoted to the depasturing of dairy herds. The opinion, long held, that only heavily-grassed country with good rainfall was profitable for dairying has been controverted by experience, it being shown that more lightly clad regions yield good milk results.

2. **State Supervision of Industry.**—Each of the State Agricultural Departments exercises considerable supervision in regard to the industry. Dairy experts are employed to give instruction in approved methods of production, to examine animals, to inspect

the buildings used for milking and separating, and to examine the marketable produce. A high standard of dairy hygiene, cleanliness of *personnel* and *matériel*, and purity of the article and freedom from adulteration have also been insisted upon under State laws.

To meet complaints of the British consumer regarding tainted butter, and under the operation of the Federal Commerce Act, the Commonwealth Government issued the following standard for the classification of butter intended for export:—

Superfine pure creamery butter, containing not more than 14 per cent. of water, and classified at 95 to 100 points.

First grade pure creamery butter, classified at 90 to 94 points.

Second grade pure butter, classified at 83 to 89 points.

Third grade pure butter, classified at 75 to 82 points.

Pastry butter (branded as such), classified at less than 75 points.

In the first, second, and third grades not more than 16 per cent. of water is allowed.

The recent Butter Act of the British Legislature, designed to put a stop to adulteration, has brought about an increased demand for Australian butter in the United Kingdom.

In general, the method of State butter grading is as follows:—A percentage of the boxes of a consignment is selected and the brands and dates of churning registered. A sample of the full depth of the box is then taken out with the trier. The flavour, texture, colour, salting, finish, and condition of boxes are noted, and, in some States, the boxes are stamped according to grade. The margin in the number of points for flavour for superfine is from 45 to 50; for first grade, 40 to 44; for second grade, 33 to 39; and for third grade, 25 to 32. Under 25 the butter is condemned for table use.

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 removed 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 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 steadily diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires only about 2.6 gallons.

5. **Butter and Cheese Factories.**—The establishments in the Commonwealth where the manufacture of butter, butterine, margarine, and cheese was carried on, numbered 579 in 1907. These were distributed as regards the various States as follows:—New South Wales, 190; Victoria, 224; Queensland, 83; South Australia, 57; Western Australia, 2; Tasmania, 23.

## § 2. Milk, Butter, and Cheese.

1. **Dairy Herds.**—Since the drought year 1902, there has been in each State, almost without exception, a yearly increase in the number of dairy cows. In New South Wales, Victoria, South Australia proper, and Tasmania—as will be seen from the table of cattle and dairy cattle given below—the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory of South Australia, and Western Australia, there is a greatly preponderating number of other cattle, dairying not having been established in the tropical regions of the Continent:—

## CATTLE AND DAIRY CATTLE, AUSTRALIAN COMMONWEALTH, 1901 to 1907.

State.		1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W.*	All Cattle	2,047,454	1,741,226	1,880,578	2,149,129	2,337,973	2,549,044	2,749,193
	Dairy Cows	417,835	351,287	523,438	591,936	644,164	713,049	755,916
Victoria	All Cattle	1,625,532 †	1,648,690 †	1,671,828 †	1,694,976	1,737,690	1,804,323	1,842,807
	Dairy Cows	483,650	510,546	515,179	632,493	649,100	701,300	709,279
Q'land	All Cattle	3,772,707	2,543,471	2,481,717	2,722,340	2,963,695	3,413,919	3,892,232
	Dairy Cows	136,000 †	108,800 †	119,000 †	144,000 †	172,000 †	215,000 †	282,883
S. Aust.	All Cattle	225,256	213,343	244,610	272,459	300,721	325,724	334,669
	Dairy Cows	74,995	75,011	83,348	88,156	93,069	97,843	100,743
N. Ter.	All Cattle	255,521	305,820	291,970	247,920	346,910	354,371	374,199
	Dairy Cows	894	627	902	670	756	680	489
W. Aust.	All Cattle	398,547	437,136	497,617	561,490	631,825	690,011	771,107
	Dairy Cows	34,111	24,324	27,232	27,724	35,011	34,822	31,489
Tas.	All Cattle	168,661	177,566	185,938	201,206	206,211	211,117	215,523
	Dairy Cows	40,933	43,316	45,018	50,230	49,618	49,132	54,245
C'wealth*	All Cattle	8,493,678	7,067,242	7,254,258	7,849,520	8,525,025	9,343,409	10,179,730
	Dairy Cows	1,188,418	1,113,911	1,314,117	1,535,209	1,643,718	1,811,835	1,935,044

† Statistics not collected : figures supplied by interpolation.

‡ Statistics not collected : figures estimated.

\* In New South Wales, up to 1902 the figures include only the cows actually in milk at the time the returns were taken. The figures for subsequent years are made up as follows :—

Year.	Milch Cows.	Cows at Present Dry.	Heifers within 3 M'ths of Calving.	Total Dairy Cows.
1903	362,429	117,679	43,330	523,438
1904	424,936	131,335	35,405	591,936
1905	442,950	154,635	46,559	644,164
1906	494,820	172,888	45,341	713,049
1907	505,395	206,828	43,693	755,916

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, something under 250 gallons per annum. The best yields over a series of years appear to be in South Australia, New South Wales, Victoria, and Tasmania, while Western Australia is below Queensland. In the following table the average yield per cow for 1907 is taken from the number of dairy cows who 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.

## PRODUCTION OF MILK, 1907.

Heading.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tas.	C'wealth.
Dairy cows... No.	712,223	709,279	282,883	101,232	31,489	54,245	1,891,351
Production of milk... gals.	183,303,474	181,813,600	60,895,582	*29,743,828	4,604,148	...	...
Aver. yield per cow... gals.	257	256	215	*294	146	...	...

\* Estimated. Exact yield not obtainable.

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 and cheese reached their highest figures in 1906. In both these products a falling-off is shewn in some of the States in 1907, due to the dryness of the season. For the seven years from 1901 to 1907 the figures are :—

## PRODUCTION OF BUTTER AND CHEESE, AUSTRALIAN COMMONWEALTH,

1901 TO 1907.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	W. Aust.	Tasmania.*	Total for C'wealth.†
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
<b>BUTTER.</b>							
1901 ...	39,066,878	46,857,572	9,741,882	4,954,523	336,440	723,771	101,671,066
1902 ...	29,950,977	39,227,754	4,851,362	4,521,246	321,462	699,526	79,572,327
1903 ...	38,727,107	46,685,727	7,717,325	5,905,756	351,885	854,442	100,332,242
1904 ...	53,591,243	61,002,841	17,538,473	6,836,170	441,103	845,378	140,255,208
1905 ...	53,040,250	57,606,821	20,319,976	8,226,805	423,270	1,281,604	140,898,726
1906 ...	58,877,182	68,088,168	22,746,593	8,873,632	380,157	904,930	159,870,662
1907 ...	60,041,449	63,746,354	22,789,158	8,519,340	436,529	847,860	156,380,690
<b>CHEESE.</b>							
1901 ...	3,838,835	3,974,668	2,436,912	1,053,160	3,578	268,539	11,575,692
1902 ...	4,148,038	3,849,561	952,013	705,969	1,592	348,614	10,005,787
1903 ...	4,748,176	5,681,515	1,479,651	972,584	8,039	533,709	13,423,674
1904 ...	4,223,621	4,747,851	2,607,475	851,800	350	204,160	12,635,257
1905 ...	4,625,980	4,297,350	2,682,069	1,174,867	4,831	369,913	13,155,030
1906 ...	5,389,345	4,877,593	2,921,140	1,398,785	1,314	190,481	14,778,658
1907 ...	4,568,857	4,397,909	2,684,588	1,385,790	580	381,930	13,419,654

\* Tasmanian statistics of the production of butter and cheese relate only to the quantities made in factories.

† The totals for the Commonwealth here given are exclusive of Tasmanian butter and cheese made elsewhere than in factories.

4. **Concentrated Milk.**—"Condensed" or "concentrated" milk denotes milk the bulk of which is reduced by evaporation, no sweetening agent being added. When a sweetening agent is added it is called "preserved" milk. Small quantities of such milk have been made, but the industry is at present by no means a large one. No condensed or concentrated milk is made in South Australia, Western Australia, or Tasmania. In New South Wales, Victoria, and Queensland the following quantities are returned for 1907:—

## CONDENSED AND CONCENTRATED MILK MADE, 1907.

Year.	New South Wales.	Victoria.	Queensland.
	lbs.	gallons.	lbs.
1907 ...	1,526,471	390,388	2,323,472

5. **Overseas Trade in Milk, Butter, and Cheese.**—The tables following give the import, export, or net export or import of butter, cheese, and milk. In each of the seven years exports of butter exceeded imports; in only two did this occur with regard to cheese, and in none with regard to milk.

## IMPORTS, EXPORTS, AND NET IMPORTS OF BUTTER, CHEESE, AND MILK,

AUSTRALIAN COMMONWEALTH, 1901 TO 1907.

## IMPORTS.

Products.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Butter ... lbs.	1,342,338	6,901,779	1,887,148	43,873	592,201	70,143	20,885
" ... £	61,581	357,244	88,754	1,636	25,509	3,133	910
Cheese ... lbs.	2,777,464	2,318,110	1,141,300	375,642	394,718	304,951	299,711
" ... £	66,006	59,674	33,071	12,349	12,494	11,533	12,371
Milk—concent'd & pres'v'd <sup>1</sup> lbs.	10,778,775	13,331,341	13,664,776	11,196,926	10,943,788	10,672,265	9,379,091
" " £	190,836	241,199	238,632	197,254	196,471	189,316	170,478

1. See definition above.

## IMPORTS, EXPORTS AND NET IMPORTS OF BUTTER, CHEESE &amp; MILK.—Continued.

Products.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
<b>EXPORTS.</b>							
Butter ... lbs.	34,607,397	9,661,925	32,124,709	64,807,962	56,477,536	75,802,856	66,076,915
" ... £	1,451,168	472,772	1,267,411	2,461,450	2,354,399	3,240,063	2,890,261
Cheese ... lbs.	293,381	253,615	243,176	514,576	193,608	252,115	495,530
" ... £	7,982	7,623	7,077	11,216	5,291	6,832	12,896
Milk—concent'd & pres'v'd' lbs.	1,059,169	876,909	709,549	659,937	495,089	311,540	322,119
" " £	17,582	15,360	14,183	11,857	9,319	6,375	6,305

NET EXPORTS.<sup>2</sup>

Butter ... lbs.	33,265,059	2,760,146	30,237,561	64,764,089	55,885,335	75,732,713	66,056,030
" ... £	1,389,587	115,528	1,178,657	2,459,814	2,328,890	3,236,930	2,889,351
Cheese ... lbs.	2,484,083	2,064,495	898,124	138,934	191,110	52,836	195,819
" ... £	58,024	52,051	25,994	1,133	7,203	4,701	525
Milk—concent'd & pres'v'd' lbs.	9,719,606	12,454,432	12,955,227	10,536,989	10,448,699	10,360,725	8,956,972
" " £	173,254	225,839	224,449	185,397	187,152	182,941	164,173

1. See definition on page 451.

2. — signifies net imports.

The large quantities of milk imported for local use indicate room for development in the preserving industry.

6. Interstate Trade in Milk, Butter, and Cheese.—The extent of interstate trade in dairy products, naturally of considerable magnitude, is worthy of statistical presentation. That for butter, cheese, and milk is as follows:—

## INTERSTATE TRADE IN BUTTER AND CHEESE, 1907.

State.	Imports from other States of the C <sup>w</sup> wealth.		Exports to other States of the Commonwealth.		Net Interstate Exports. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

## BUTTER.

New South Wales ...	lbs. 2,809,336	£ 125,222	lbs. 2,905,196	£ 132,536	lbs. 95,860	£ 7,314
Victoria ...	1,932,986	82,672	7,881,576	373,074	5,948,590	290,402
Queensland ...	21,943	855	1,313,791	53,693	1,291,848	52,838
South Australia ...	990,422	45,827	1,624,255	73,247	633,833	27,420
Western Australia ...	7,219,263	339,738	420	18	7,218,843	339,720
Tasmania ...	1,331,987	62,485	580,699	24,231	751,288	38,254

## CHEESE.

New South Wales ...	lbs. 766,640	£ 22,107	lbs. 203,131	£ 5,574	lbs. 563,509	£ 16,533
Victoria ...	216,771	5,341	1,378,838	38,233	1,162,067	32,892
Queensland ...	55,168	1,667	229,438	6,189	174,270	4,522
South Australia ...	56,979	1,643	322,946	8,777	265,967	7,134
Western Australia ...	1,188,225	31,473	1,147	45	1,187,078	31,428
Tasmania ...	78,411	2,102	226,694	5,515	148,283	3,413

1. — signifies net imports.

It will be observed from the column of net exports that Victoria occupies the leading position as supplier, and Western Australia the chief position as interstate importer of these products.

## INTERSTATE TRADE IN MILK AND CREAM, 1907.

State.	Imports from other States of the Commonwealth.		Exports to other States of the Commonwealth.		Net Interstate Exports. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

MILK AND CREAM—CONCENTRATED.<sup>2</sup>

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	4,862	46	84,843	1,393	79,981	1,347
Victoria ...	77,269	1,249	552,120	8,902	474,851	7,653
Queensland ...	1,600	46	14,448	271	12,848	225
South Australia ...	700	23	...	...	700	23
Western Australia ...	385,453	6,166	...	...	385,453	6,166
Tasmania ...	181,527	3,036	...	...	181,527	3,036

MILK AND CREAM—PRESERVED.<sup>2</sup>

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	1,680,698	33,213	460,557	9,051	1,220,141	24,162
Victoria ...	84,413	1,599	2,327,319	46,641	2,242,906	45,042
Queensland ...	282,546	5,564	767,089	14,230	484,543	8,666
South Australia ...	572,342	12,104	628,465	13,169	56,123	1,065
Western Australia ...	1,338,682	25,997	11,460	246	1,327,222	25,751
Tasmania ...	242,859	4,988	6,650	128	236,209	4,860

1. — signifies net imports.

2. See definition on page 451.

The remarks relating to the positions of Victoria and Western Australia in the case of butter and cheese apply also to concentrated and preserved milk and cream. New South Wales is a large importer of preserved milk from other States of the Commonwealth. There was no interstate trade in fresh milk and cream in 1907.

**7. Local Consumption of Butter and Cheese.**—The total production of butter and cheese, with the net export or import subtracted or added, gives approximately the consumption in the Commonwealth. In the period considered, 1904 and 1907 were the only years in which the local supply of cheese was adequate:—

## BUTTER AND CHEESE LOCALLY CONSUMED, 1901 to 1907.

Product.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Butter ... Total	68,406,007	76,812,181	70,004,681	75,491,119	85,013,391	84,137,949	90,324,660
.. .. Per head	18.0	19.9	17.9	19.1	21.2	20.6	21.7
Cheese ... Total	14,059,775	12,070,282	14,321,798	12,496,323	13,346,140	14,831,494	13,233,835
.. .. Per head	3.7	3.1	3.7	3.2	3.3	3.6	3.3

The consumption in 1907 was, therefore, equal to 21.7 lbs. of butter and 3.2 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 19 lbs. per head, and is therefore only equal to about four-fifths of that of the Commonwealth.

### § 3. Pigs, Bacon, etc.

1. **Pigs.**—The pigs in Australasia numbered 43 in 1792; 4017 in 1800; 8992 in 1810; 33,906 in 1821; 66,086 in 1842; and 121,035 in 1851. The figures for the States in subsequent census years, and in the last five years, were:—

NUMBER OF PIGS, AUSTRALIAN COMMONWEALTH, 1861 to 1907.

State.	1861.	1871.	1881.	1891.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	146,091	213,193	213,916	253,189	265,730	193,097	221,592	339,666	310,702	243,370	216,145
Victoria ...	43,480	177,447	239,926	286,780	334,295*	318,220*	302,145*	286,070	273,682	220,452	211,002
Queensland	7,465	32,707	56,438	122,672	121,641	77,202	117,553	185,141	164,087	138,282	133,246
South Aust.	69,286	95,542	120,718	83,797	89,875	83,791	89,331	112,584	119,005	112,277	93,605
West. Aust.	11,984	14,265	22,530	25,330	61,052	52,883	50,209	70,293	74,567	56,203	53,399
Tasmania ...	40,841	52,863	49,660	73,520	58,716	52,096	56,538	77,943	72,810	42,965	46,704
C'wealth ...	319,147	566,017	703,188	845,888	931,309	777,289	837,368	1,062,703	1,014,853	813,569	754,101

\* Statistics not collected. Figures supplied by interpolation.

The number of pigs was highest in 1904, when for the first time it was over a million; prior to 1899 it had never reached 900,000. That year, the two immediately following, and 1904 and 1905 mark the highest totals. An examination of the States' returns shews remarkable fluctuations. It will be noticed that in no State was the number as high in 1906 as in the preceding year, and in Tasmania alone was the figure for 1907 higher than that for 1906. In several States the falling off over the two years is very marked. In Tasmania it exceeded 35 per cent.; in New South Wales it was 30 per cent.; in Western Australia 28 per cent.; in South Australia and Victoria 22 per cent.; and in Queensland 19 per cent.; while for the Commonwealth the decrease was 25 per cent. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, page 356.

2. **Bacon and Ham.**—With the exception of Tasmania, the production of bacon and ham increased in the years 1903 to 1906. In 1907, however, there was a general falling off.

PRODUCTION OF BACON AND HAM, AUSTRALIAN COMMONWEALTH, 1901 to 1907.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.*	Total for Commonwealth.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1901 ...	11,080,891	15,011,616	7,064,714	+	333,393	530,015	34,020,629†
1902 ...	8,995,856	14,438,370	6,512,952	+	246,827	414,340	30,608,345†
1903 ...	7,864,771	12,504,851	4,145,900	+	178,557	401,417	25,095,496†
1904 ...	10,680,532	14,851,944	6,514,852	+	250,264	574,781	32,872,373†
1905 ...	11,652,440	16,433,665	10,500,335	+	401,447	446,714	39,434,601†
1906 ...	11,843,595	18,051,166	10,846,959	+	272,494	151,700	41,165,914†
1907 ...	10,358,526	17,545,720	10,015,008	2,311,004	209,419	279,504	40,719,181

\* Tasmanian statistics of the production of bacon and ham from 1901 to 1906 relate only to quantities made in factories.

† The totals for the Commonwealth here given are exclusive of Tasmanian bacon and ham made elsewhere than in factories, and also of all South Australian bacon and ham.

‡ Information not available.

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, AUSTRALIAN COMMONWEALTH, 1901 to 1907.

Particulars	1901.	1902	1903.	1904.	1905.	1906.	1907.
BACON AND HAM.							
Imports ...lbs.	905,164	730,699	626,791	371,354	162,715	194,059	237,644
„ ... £	29,516	27,738	24,152	13,425	5,807	7,171	9,625
Exports ...lbs.	286,699	204,266	231,570	382,580	492,076	532,851	420,819
„ ... £	10,424	8,106	9,756	12,596	15,262	18,467	17,579
Net Exp. <sup>1</sup> lbs.	—618,465	—526,433	—395,221	11,226	329,361	338,792	183,175
„ ... £	—19,092	—19,632	—14,396	—829	9,455	11,296	7,954

FROZEN PORK.

Imports ...lbs.	106	211,678	2,467,782	211,803	154,052	139,363	187,479
„ ... £	2	6,840	65,136	4,287	4,039	3,717	5,312
Exports ...lbs.	303,899	647,923	277,310	521,331	2,824,016	3,472,224	1,446,758
„ ... £	5,971	14,654	7,174	9,346	47,596	60,936	28,406
Net Exp. <sup>1</sup> lbs.	303,793	436,242	—2,190,472	309,528	2,669,964	3,332,861	1,259,279
„ ... £	5,969	7,814	—57,962	5,059	43,557	57,219	23,094

PIGS.

Imports ...No.	39	50	21	73	64	24	7
„ ... £	765	513	121	832	814	1,269	69
Exports ...No.	164	31	77	247	322	220	185
„ ... £	234	119	106	276	399	263	383
Net Exp. <sup>1</sup> No.	125	—19	56	174	258	196	178
„ ... £	531	—394	—15	556	—415	—1,006	314

LARD.

Imports ...lbs.	79,956	461,046	698,793	89,652	45,702	64,561	36,625
„ ... £	1,716	12,459	17,703	1,736	924	1,294	980
Exports ...lbs.	93,929	64,430	426,507	952,088	1,064,562	551,268	458,327
„ ... £	1,791	1,361	7,770	15,311	16,163	8,373	8,554
Net Exp. <sup>1</sup> lbs.	13,973	—396,616	—272,286	862,436	1,018,860	486,707	421,702
„ ... £	75	—11,098	—9,933	13,575	15,239	7,079	7,574

1. — signifies net imports.

It will be seen that in the first three years shewn in the table there was a considerable net import of bacon and ham, while for the last three years, there was a large net export. The local production of frozen pork was each year more than sufficient for the local demand, excepting only in 1903. The production of lard was in excess of the local demand in each of the seven years, except 1902 and 1903.

4. Interstate Trade in Pig Products.—The interstate trade in pigs, bacon and hams, frozen pork, lard, etc., in 1907 was as follows:—



## INTERSTATE TRADE IN PIG PRODUCTS, 1907.

State.	Imports from other States of the C'wealth.		Exports to other States of the Commonwealth.		Net Interstate Exports. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
PIGS.						
	No.	£	No.	£	No.	£
New South Wales ...	949	1,313	5,667	6,289	4,718	4,976
Victoria ...	5,652	6,236	72	144	5,580	6,092
Queensland ...	25	107	2	6	23	101
South Australia ...	6	35	894	1,275	888	1,240
Western Australia ...	...	...	...	...	...	...
Tasmania ...	3	23	...	...	3	23

## BACON AND HAMS.

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	2,859,184	97,601	256,629	8,263	2,602,555	89,338
Victoria ...	83,288	2,607	4,387,540	154,454	4,304,252	151,847
Queensland ...	117,777	4,190	2,013,989	67,596	1,896,212	63,406
South Australia ...	100,963	3,593	681,515	21,413	580,552	17,820
Western Australia ...	3,421,470	120,571	644	22	3,420,826	120,549
Tasmania ...	779,378	23,910	21,743	724	757,635	23,186

## FROZEN PORK.

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	10,205	157	297,216	6,112	287,011	5,955
Victoria ...	...	...	88,431	1,737	88,431	1,737
Queensland ...	...	...	12,145	195	12,145	195
South Australia ...	...	...	...	...	...	...
Western Australia ...	387,587	7,887	...	...	387,587	7,887
Tasmania ...	...	...	...	...	...	...

## LARD AND REFINED ANIMAL FATS.

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	716,744	14,390	156,403	3,030	560,341	11,360
Victoria ...	205,742	3,353	390,379	6,726	124,637	3,373
Queensland ...	45,036	751	937,786	18,791	892,750	18,040
South Australia ...	43,966	891	392,098	7,171	348,132	6,280
Western Australia ...	622,969	12,676	1,685	27	621,284	12,649
Tasmania ...	195,907	3,808	12,013	124	183,894	3,684

1. — signifies net imports

5. **Local Consumption of Bacon and Ham.**—From 1904 to 1907 the production of bacon and ham was sufficient to meet the local demand, and there was a surplus for export, but in 1901, 1902, and 1903 this was otherwise, and considerable quantities were imported.

## BACON AND HAM LOCALLY CONSUMED, 1901 to 1907.

Con- sumption. <sup>1</sup>	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Total ...	lbs. 34,639,094	lbs. 31,134,778	lbs. 25,490,717	lbs. 32,861,147	lbs. 39,105,240	lbs. 40,827,122	lbs. 40,536,006
Per head ...	10.1	8.9	7.2	9.2	10.7	11.0	9.8

1. This excludes South Australia from 1901 to 1906, for which no figures of production were available.

### § 4. Poultry Farming.

1. **Development of the Industry.**—Until recently, poultry farming as a well organised industry could scarcely be said to exist, although in metropolitan and suburban districts poultry has of course long been kept for the table and egg supplies. The aggregate output, though considerable, represented relatively little value beyond the cost of production, owing to imperfect management. Many farmers also, both wheat-growers and dairymen, have maintained a large poultry stock, erecting poultry yards constructed on modern principles, and feeding from the stubble fields and waste grain with a minimum expenditure in tending. This brought about a considerable addition to the net agricultural or dairying return. The poultry industry during recent years has assumed an independent position among rural industries, notwithstanding that large numbers of poultry runs on wheat and dairy farms are still maintained; poultry farming is also carried on in conjunction with pig farming. In special poultry farms, breeding on scientific principles and a proper arrangement of the runs is secured, and feeding and reproduction are technically attended to, and proper shelter is provided either by means of trees or sheds. Poultry experts are engaged by the State Governments to instruct in matters that will amplify the returns. Poultry for consumption are extensively reared, and the egg-producing qualities of the birds have also been greatly improved by careful breeding.

2. **Production of Poultry.**—Figures for the yield of poultry products are difficult to obtain. The following values are returned :—

#### ESTIMATED VALUE OF POULTRY AND EGGS, 1907.

N.S.W.	Victoria.*	Queensland.	S. Australia.	W. Australia.	Tasmania.
£ 1,035,000	£ 1,525,000	£ †	£ 414,696	£ †	£ †

\* For year 1907-8. † Not available.

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. In 1907, however, the export considerably exceeded the import. The introduction of valuable poultry for breeding is evidenced by the fact that although the exports in 1903, 1904 and 1905 exceeded the imports in number, the imports were of greater value. The figures for frozen poultry shew that a considerable oversea trade is carried on:—

#### IMPORTS, EXPORTS AND NET EXPORTS OF EGGS AND LIVE AND FROZEN POULTRY, AUSTRALIAN COMMONWEALTH, 1901 TO 1907.

Particulars.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
EGGS.							
Imports ... doz.	123,597	136,163	161,099	249,379	84,517	83,925	60,114
„ ... £	3,833	4,077	3,748	4,437	1,943	2,184	1,791
Exports ... doz.	65,924	84,133	46,973	29,841	23,041	38,090	88,684
„ ... £	3,319	4,078	2,292	1,245	1,199	1,718	3,421
Net exp. <sup>1</sup> doz.	57,673	52,030	114,126	219,538	61,476	45,835	28,570
„ „ £	514	1	1,456	3,192	744	466	1,630
LIVE POULTRY.							
Imports ... No.	“	“	577	1,454	1,417	3,220	2,883
„ ... £	1,462	1,305	1,167	2,079	1,984	1,747	957
Exports ... No.	“	“	1,388	2,062	4,000	2,806	3,280
„ ... £	470	1,190	371	1,086	1,863	1,767	1,248
Net exp. <sup>1</sup> No.	“	“	811	608	2,583	414	397
„ „ £	992	115	796	993	121	20	291

1. — signifies net imports.

2. Quantity not available.

## IMPORTS, EXPORTS, ETC., OF EGGS AND LIVE AND FROZEN POULTRY.—Continued.

Particulars.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
<b>FROZEN POULTRY.</b>							
Imports ... lb.	2	2	23,601	15,833	22,628	8,949	1,452
" ... £	209	5,270	963	673	899	331	43
Exports ... pair	2	2	53,123	9,936	46,987	34,655	31,261
" ... £	26,738	41,283	10,364	3,509	11,765	9,506	8,556
Net exp. <sup>1</sup> pair							
" " £	26,529	36,013	9,401	2,836	10,866	9,175	8,513

1. — signifies net imports.      2. Quantity not available.

4. **Interstate Trade in Poultry Products.**—South Australia is the largest supplier to the other States of the Commonwealth of poultry products generally, but Victoria has the largest interstate market for frozen poultry.

**INTERSTATE TRADE IN POULTRY AND POULTRY PRODUCTS, 1907.**

State	Imports from other States of the Commonwealth.		Exports to other States of the Commonwealth.		Net Interstate Exports. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

**LIVE POULTRY.**

	No.	£	No.	£	No.	£
New South Wales	59,266	5,977	2,427	634	56,839	5,343
Victoria	1,382	288	2,253	582	871	294
Queensland	948	255	975	123	27	132
South Australia	294	102	57,074	6,073	56,780	5,971
Western Australia	875	568	42	27	833	541
Tasmania	461	389	455	140	6	249

**FROZEN POULTRY.**

	lbs.	£	lbs.	£	lbs.	£
New South Wales	30,114	972	14,043	489	16,071	483
Victoria	2,637	77	120,457	4,342	117,820	4,265
Queensland	...	...	5,361	186	5,361	186
South Australia	1,147	43	1,090	41	57	2
Western Australia	107,053	3,966	...	...	107,053	3,966
Tasmania	...	...	...	...	...	...

**EGGS.**

	Dozen.	£	Dozen.	£	Dozen.	£
New South Wales	1,383,764	48,914	20,306	859	1,363,458	48,055
Victoria	547,810	18,796	61,095	2,773	486,715	16,023
Queensland	765	42	247,525	8,212	246,760	8,170
South Australia	1,910	70	3,076,655	120,211	3,074,745	120,141
Western Australia	1,423,751	62,095	6,001	244	1,417,750	61,851
Tasmania	57,233	2,501	3,651	119	53,582	2,382

1. — signifies net imports.

**§ 5. Bee Farming.**

1. **The Bee-farming Industry.**—Bee farming, like poultry farming, has ordinarily been an adjunct to agricultural or dairying industries, and can hardly yet be said to have been organised as a distinct industry. The returns collected shew that, while production varies greatly, there is on the whole a steady improvement, to which the large increase in the Western Australian product since 1902 has largely contributed. The annual average returns of honey from the hives range between 20 lbs. and 600 lbs. per hive.

2. **Honey and Beeswax.**—The particulars of honey production, available up to 1907 for only three States, are as given below :—

**NUMBER OF HIVES AND PRODUCTION OF HONEY AND BEESWAX, 1901 to 1907.**

Particulars.			1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	Hives ...	No.	58,954	53,089	46,243	58,330	64,730	48,632	...
" ...	Honey ...	lbs.	2,397,698	2,259,177	1,815,480	2,147,235	3,023,468	1,841,236	1,907,744
" ...	Beeswax ...	lbs.	49,337	51,735	37,207	49,589	58,610	39,620	34,690
Victoria ...	Hives ...	No.	21,412	22,083	32,126	40,759	49,120	41,780	48,005
" ...	Honey ...	lbs.	957,020	572,477	1,199,331	833,968	1,906,188	1,209,144	2,965,299
" ...	Beeswax ...	lbs.	15,269	13,530	23,061	18,979	28,653	21,844	46,780
W. Aust. ...	Hives ...	No.	3,880	4,939	7,109	8,705	12,837	12,825	...
" ...	Honey ...	lbs.	138,787	42,082	262,968	179,271	287,498	555,079	382,584
" ...	Beeswax ...	lbs.	3,158	2,978	3,478	4,533	6,211	9,303	8,302

The figures for 1908 for all States except Tasmania, where the information was not collected, are :—

**HIVES, etc., 1908.**

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Productive	Un-productive.	Total.	Quantity.	Value.	Quantity.	Value.
				lbs.	£	lbs.	£
New South Wales	No. 53,240	No. 15,148	No. 68,388	2,660,363	27,700	48,427	2,700
Victoria ...	27,505	15,707	43,212	1,138,992	13,050	24,521	1,330
Queensland ...	10,366	3,956	14,322	442,827	3,993	8,554	402
South Australia ...	18,529	5,101	23,630	953,395	8,938	12,854	696
Western Australia	9,881	2,140	12,021	255,489	3,726	6,454	565
Commonwealth*	119,521	42,052	161,573	5,451,066	57,407	100,810	5,698

\* Exclusive of Tasmania.

3. **Oversea Trade in Bee Products.**—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,**

**AUSTRALIAN COMMONWEALTH, 1901 TO 1907.**

Particulars.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
<b>HONEY.</b>							
Imports ...	lbs. 71	415	205	1,233	12,036	2,618	2,716
" ...	£ 2	12	5	10	138	27	35
Exports ...	lbs. 189,048	85,774	21,995	77,452	112,039	58,297	102,047
" ...	£ 2,543	1,644	446	875	1,333	1,001	1,541
Net exports ...	lbs. 188,977	85,359	21,790	76,219	100,003	55,679	99,331
" ...	£ 2,541	1,632	441	865	1,195	974	1,506
<b>BEESWAX.</b>							
Imports ...	lbs. 11,301	3,135	12,851	12,520	9,767	13,725	14,070
" ...	£ 413	180	652	694	593	787	978
Exports ...	lbs. 64,139	68,570	63,421	39,795	86,720	30,570	27,086
" ...	£ 3,439	3,135	3,375	2,144	4,863	1,768	1,618
Net exports ...	lbs. 52,838	65,435	50,570	27,275	76,953	16,845	13,016
" ...	£ 3,026	2,955	2,723	1,450	4,270	981	640

4. **Interstate Trade in Bee Products.**—The interstate trade in honey and beeswax in 1907 is given below:—

**INTERSTATE TRADE IN BEE PRODUCTS, 1907.**

State.	Imports from other States of the C <sup>w</sup> wealth.		Exports to other States of the Commonwealth.		Net Interstate Exports. <sup>1</sup>	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

**HONEY.**

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	180,050	2,175	35,011	452	145,039	1,723
Victoria ...	102,354	1,235	144,357	2,671	42,003	1,436
Queensland ...	8,335	124	28,137	369	19,802	245
South Australia ...	1,128	10	269,720	3,336	268,592	3,326
Western Australia ...	90,238	1,830	4,480	66	85,758	1,764
Tasmania ...	99,936	1,524	336	4	99,600	1,520

**BEESWAX.**

	lbs.	£	lbs.	£	lbs.	£
New South Wales ...	9,306	554	3,235	198	6,071	416
Victoria ...	3,340	138	3,129	199	211	61
Queensland ...	774	48	4,735	277	3,961	229
South Australia ...	507	39	2,021	120	1,514	81
Western Australia ...	1,322	74	896	55	426	19
Tasmania ...	142	10	1,375	74	1,233	64

1. — signifies net imports.

**§ 6. Summary of Australian Farmyard and Dairy Products Exported, 1901 to 1907.**

The quantities and values of Australian farmyard and dairy products exported from the Commonwealth during each of the years 1901 to 1907 are shown below:—

**QUANTITIES OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING EACH OF THE YEARS 1901 to 1907.**

Products.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Beeswax ... .. lb.	64,139	68,570	63,421	39,744	85,541	30,471	27,058
Butter ... .. "	34,536,277	7,777,971	30,901,910	64,788,542	55,904,151	75,765,536	66,076,915
Cheese ... .. "	269,624	140,624	183,257	507,343	172,896	246,631	491,209
Eggs ... .. doz.	65,924	66,632	7,430	21,194	21,293	37,900	88,615
Feathers, undressed	*	*	*	*	*	*	*
Honey ... .. lb.	189,048	85,774	21,851	77,452	112,039	58,297	102,047
Lard ... .. "	91,759	61,997	415,635	862,828	1,062,966	550,021	458,059
Meats—							
Bacon and ham ..	285,247	187,739	223,930	369,083	484,616	530,459	415,251
Frozen game ...	*	*	984	1,150	11,049	2,722	6,534
" Poultry pair	*	*	53,123	9,936	45,767	33,833	31,261
" Pork ... lb.	313,824	647,320	277,310	420,783	2,824,016	3,472,224	1,446,758
Milk, concentrated and preserved ...	868,530	708,983	504,108	474,777	310,797	171,639	162,367
Pigs, living ... No.	164	31	77	247	322	220	185
Poultry, living ... "	*	*	1,388	2,060	3,993	2,806	3,280

\* Quantity not available.

**VALUE OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING EACH OF THE YEARS 1901 to 1907.**

Products.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£	£	£	£	£	£	£
Beeswax ... ..	3,499	3,135	3,375	2,141	4,791	1,761	1,617
Butter ... ..	1,447,682	379,244	1,213,177	2,460,664	2,331,595	3,238,304	2,890,261
Cheese ... ..	6,951	4,290	5,218	11,018	4,703	6,682	12,733
Eggs ... ..	3,319	3,493	437	1,025	1,138	1,710	3,419
Feathers, undressed	1,830	206	874	1,426	3,332	1,002	2,610
Honey ... ..	2,543	1,644	444	875	1,333	1,001	1,541
Lard ... ..	1,733	1,271	7,461	13,747	16,120	8,346	8,547
Meats—							
Bacon and ham ... ..	10,405	7,721	9,419	12,068	14,943	18,374	17,348
Frozen game ... ..			40	58	410	79	216
" poultry ... ..	*42,613	*48,031	{ 10,364	3,509	11,515	9,291	8,556
" pork ... ..	5,971	14,654	7,174	7,875	47,506	60,936	29,406
Milk, concentrat'd & preserv'd	13,605	11,602	10,003	7,839	5,296	3,386	2,924
Pigs, living ... ..	234	113	106	276	399	263	383
Poultry, living ... ..	470	1,115	371	1,077	1,851	1,787	1,248
<b>Total ... ..</b>	<b>1,540,995</b>	<b>476,519</b>	<b>1,268,463</b>	<b>2,523,598</b>	<b>2,445,022</b>	<b>3,352,882</b>	<b>2,979,909</b>

\* Poultry and game.

### § 7. British Imports of Dairy Products.

1. **Butter.**—Australia stands third in the value of butter imported into the United Kingdom, but the import of other Australian dairy products is inconsiderable.

#### IMPORTS OF BUTTER INTO THE UNITED KINGDOM, 1907.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ... ..	1,818,811	10,192,587	Argentine Republic	51,122	273,433
Russia ... ..	657,649	3,086,821	Canada ... ..	34,753	175,537
Australia ... ..	598,986	3,008,225	Norway ... ..	23,465	122,535
France ... ..	281,306	1,651,137	Belgium ... ..	22,120	121,673
New Zealand ... ..	313,863	1,599,226	Other Countries ...	12,845	60,644
Sweden ... ..	226,740	1,269,820			
Netherlands ... ..	168,496	856,288	<b>Total ... ..</b>	<b>4,210,156</b>	<b>22,417,926</b>

2. **Cheese.**—The value of the British cheese import in 1907 was £6,900,000, of which nearly five million pounds worth was received from Canada. The import from Australia was practically *nil*.

3. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1907 at £18,080,000, Great Britain received goods to the value of £8,430,000 from the United States; £5,390,000 from Denmark; and £4,000,000 from Canada. The British import from Australia was *nil*.

4. **Pork.**—The total value of British imports of fresh pork (including refrigerated and frozen) was £1,338,000 in 1907. Of this the value of Australian products was only £12,000, whilst from the Netherlands pork valued at £1,000,000 was imported.

5. **Other Products.**—There is practically no British import from Australia of honey, beeswax, poultry, game, lard, or eggs, but rabbits to the value of £558,000 were received from the Commonwealth in 1907.

### § 8. Graphical Representation.

Two graphs shewing respectively the increase in dairy production and in the exports of butter will be found on page 376.