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 process of manufacture, coupled with effective State supervision, the 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 materiel, 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 handmade butter was about 3 gallons, but separator butter requires only about 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 530 in 1912. These were distributed as regards the various States as follows:—New South Wales, 176; Victoria, 197; Queensland, 81; South Australia, 48; Western Australia, 3; Tasmania, 25.

§ 2. Milk, Butter, and Cheese.

1. Dairy Herds.—Since the drought year 1902 there has been a general 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, 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. In the tables which follow in this section, the returns for the Northern Territory and the Federal Territory are, unless shewn separately, included in South Australia and New South Wales respectively, the dairy products from the newly-acquired Commonwealth territories being small:—

| CATTLE AND DAIRY CATTLE, COMMONWEALTH, 1908 to 1912 | CATTLE AND | DAIRY | CATTLE. | COMMONWEALTH. | 1908 to | 1912. |
|---|------------|-------|---------|---------------|---------|-------|
|---|------------|-------|---------|---------------|---------|-------|

| Sta | ite. | | | 1908. | 1909. | 1910. | 1911. | 1912. |
|---|------|--|------|----------------------|----------------------|----------------------|-------------------------|-------------------------|
| New South Wales | | All Cattle | | 2,955,934 736,683 | 3,027,727 755,879 | 3.140,307 826,443 | 3,185,824 855,926 | 3,033,726 852,040 |
| Victoria | | Dairy Cows All Cattle Dairy Cows | | 1,574,162 | 1,549,640 625,063 | 1,547,569 | 1,647,127 699,555 | 1,508,089 655,939 |
| Queensland | ••• | All Cattle Dairy Cows | | 4,321,600 | 4,711,782 333,839 | 5,131,699 365,444 | 5,073,201 357,095 | 5,210,891 375,660 |
| South Australia | ••• | All Cattle Dairy Cows | | 040 000 | 344,034 110,757 | 384,862 119,628 | 393,566 121,803 | 383,418 114,734 |
| Western Australia | ••• | All Cattle Dairy Cows | ••• | 31,522 | 793,217 29,176 | 825,040 30,785 | 843,638 27,740 | 806,294 27,310 |
| Tasmania | ••• | All Cattle Dairy Cows | ••• | | 199,945 50,996 | 201,854 52,966 | 217,406 56,858 | 222,181 60,160 |
| Northern Territory Federal Territory | ••• | All Cattle Dairy Cows All Cattle | | 240 | 414,046 464 | 513,383 556 | 459,780 300 8,412 | 405,552 300 7.108 |
| receisi rezimory | ••• | Dairy Cows | | * | * | * | 1,192 | 742 |
| Commonwealth | ••• | All Cattle | | 10,547,679 | 11,040,391 | 11,744,714 | 11,828,954 | 11,577,259 |
| | | Dairy Cows | •••• | 1,839,398 | 1,906,174 | 2,064,599 | 2,120,469 | 2,086,885 |

^{*} 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, something under 300 gallons per annum. The best yields over a series of years appear to be in Victoria, New South Wales, South Australia, and Tasmania, while Western Australia is 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, 1908 to 1912.

| Heading. | N.S.W.* | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | C'wealth. |
|---|-------------------|-------------|------------|------------------------------|----------|------------------------------|-----------------------------------|
| 1908— | | | | | | | |
| Dairy cows I Production of milk ga Aver. yield per cow ga | ls. 188,518,562 | 148,122,200 | 63,934,402 | | | 50,931 13,520,000 265 | |
| 1909— Dairy cows Production of milk ga Aver. yield per cow ga | ls. 201,183,337 | 162,994,658 | | | | 50,996 11,600,000† 227 | |
| 1910— Dairy Cows Production of milk ga Aver. yield per cow ga | 1s. 235.577.702 | 196,674,373 | | 120,184 34,672,756 288 | | 52,966 13,300,000+ 251 | |
| Dairy Cows Production of milk ga Aver. yield per cow ga 1912— | ls. 237,623,000 | 238,149,700 | | | | | 2,120,169‡ 594,726,964† 280 |
| Dairy Cows I Production of milk ga Aver. yield per cow ga | ls. 225,446,209 | 199,296,920 | | 114,734 27,547,870 240 | | | 2,086,585‡ 555,524,508‡ 266 |

^{*}Including figures for Federal Territory, which in 1911 were 1192 dairy cows; 153,090 gallons of milk averaging 128 gallons per cow; and in 1312, 742 dairy cows; 106,647 gallons of milk, averaging 144 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 highest previous yields being in 1910 and 1906. The year 1910 marks the highest cheese production, the return being somewhat better than those for 1912 and 1911. In both butter and cheese a decrease took place in some of the States in 1907 and 1908, due to the dryness of the season. There was a recovery in 1909. For the five years from 1908 to 1912 the figures are:—

PRODUCTION OF BUTTER AND CHEESE, COMMONWEALTH, 1908 to 1912.

| State. | 1908. | 1909. | 1910. | 1911. | 1912. |
|---|--|---|--|---|---|
| | | BUTTER. | | | |
| New South Wales* Victoria Queensland South Australia Western Australia Tasmania† | 48,461,398 23,838,357 8,130,560 365,593 | 1bs. 62,865,608 55,166,555 24,592,711 8,482,168 414,453 2,751,757 | 1bs. 76,624,830 70,603,787 31,258,333 10,717,486 641,491 3,365,982 | 1bs. 83,204,568 86,500,474 27,858,535 9,694,666 498,047 3,817,455 | 1bs. 76,609,528 67,655,834 30,307,339 8,394,557 448,799 3,778,104 |
| Commonwealth | . 145,317,357 | 154,273,252 | 193,211,909 | 211,573,745 | 187,194,161 |
| | | CHEESE. | | | |
| New South Wales Victoria Queensland South Australia Western Australia Tasmania† | 4,328,644 3,199,510 1,556,894 980 | 1bs. 4,775,268 5,025,834 3,662,497 1,578,378 1,570 731,290 | 1bs. 5,191,089 4,530,893 4,146,661 1,796,281 3,306 868,781 | 1bs. 5,460,652 4,549,843 3,718,257 1,526,930 900 630,130 | 1bs. 5,454,685 4,176,778 3,947,615 1,958,027 623,386 |
| Commonwealth | 14,759,788 | 15,774,837 | 16,537,011 | 15,886,712 | 16,160,491 |

^{*} Including Federal Territory, where 27,630 lbs. of butter were produced in 1911; and 16,561 lbs. in 1912. † Estimated

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 were made prior to 1911, in which year the output for the Commonwealth was nearly doubled. In 1912 there was a further notable increase, the figures for Victoria for these years shewing a marked expansion. There is still a considerable import of milk, as will be seen from the tables hereunder; but in 1912, for the first time, 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 quantities are returned for the last five years:-

CONDENSED AND CONCENTRATED MILK MADE, 1908 to 1912.

| Y | ear. | | N.S.W. | Victoria. | Queensland | Commonwealth. |
|------|-------|-----|-------------------|-------------------|------------------|---------------|
| 1908 | • • • | | lbs. 2,399,673 | lbs. 3.308.854 | lbs 3,935,024 | lbs. |
| 1909 | |] | 2,400,687 | 3,487,312 | 7.038.202 | 9,643,551 |
| 1910 | | | 1,940,481 | 2,707,110 | 7,843,670 | 12,491,261 |
| 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 |

5. Oversea Trade in Milk, Butter, and Cheese.—The tables following give the imports, exports, and net exports or imports of butter, cheese, and milk. In each of the fiveyears exports of butter exceeded imports; in three the cheese import was heavier than the export; and this was the case in all except the last year with milk.

IMPORTS, EXPORTS, AND NET IMPORTS OF BUTTER, CHEESE AND MILK, COMMONWEALTH, 1908 to 1912.

IMPORTS.

| | | Product | s. | | 1908. | 1909. | 1910. | 1911. | 1912. |
|-----------------------------|---------------------|------------------|------------------|--|--|---|---|--|---|
| Butter Cheese Milk—co | oncenta | ated and | preserve | lbs. £ lbs. £ d¹ lbs. | 40,874 2,368 566,808 20,433 9,145,306 180,194 | 80,111 4,078 367,504 14,720 7,439,232 145,736 | 71,695 3,570 303,155 13,772 8,543,158 135,297 | 22,607 1,081 318,891 14,461 4,166,117 74,278 | 44,142 1,989 443,847 19,988 1,215,351 25,949 |
| | | | | | EXPOR | TS. | | | |
| Butter Cheese Milk—co | oncenta | ated and | | lbs. £ lbs. £ d¹ lbs. £ | 51,206,359 2,387,450 153,589 5,237 309,789 7,013 | 55,700,987 2,402,619 203,477 5,771 360,821 7,852 | 87,928,151 3,952,808 921,583 22,178 517,634 10,289 | 101,722,136 4,637,362 1,159,363 27,243 1,260,323 21,990 | 66,685.056 3,342,642 146,022 5,760 1,821,583 37,876 |
| | | | | | NET EXP | ORTS.2 | - | | |
| Butter Cheese Milk—co | oncentr | ated and | | Ibs. £ Ibs. £ d' Ibs. | 51,165,485 2,385,082 — 413,219 — 15,196 — 8,835,517 — 173,181 | 55,620,876 2,398,541 — 164,027 — 8,949 — 7,078,411 — 137,884 | 87,856,456 3,949,238 618,428 8,406 — 8,025,524 — 125,008 | 101,699,529 4,636,281 840,472 12,782 — 2,905,794 — 52,288 | 66,610,914 3,340,653 — 297,825 — 14,228 606,232 11,927 |

^{1.} See definition above. 2. - signifies net imports.

6. 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 hereunder, 1910 and 1911 were the years in which the local supply of cheese was adequate:—

BUTTER AND CHEESE LOCALLY CONSUMED, 1908 to 1912.

| | | Product. | 1908 | 1909. | 1910 | 1911. | 1912. |
|------------------|-----|---|------|--|------|-------|-------|
| Butter Cheese | ••• | Total Per head of mean population Total Per head of mean population | 22.4 | 98,652,376 23.1 007 15,938,864 | 24.2 | 24.5 | 25.9 |

The consumption in 1912 averaged 25.9 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 of marketable qualities in pigs. The number of pigs in the Commonwealth from 1908 to 1912 is shewn below:—

NUMBER OF PIGS, COMMONWEALTH, 1908 to 1912.

| State. | | 1908. | 1909. | 1910. | 1911. | 1912. |
|--------------------|--|---------|---------|-----------|-----------|---------|
| New South Wales | | 215,822 | 237,849 | 321,632 | 370,700 | 293,450 |
| Victoria | | 179,358 | 217,921 | 333,281 | 348,069 | 240,072 |
| Queensland | | 124,749 | 124,803 | 152,212 | 173,902 | 143,695 |
| South Australia | | 78,454 | 80,410 | 96,386 | 93,130 | 69,832 |
| Western Australia | | 46,652 | 47,062 | 57,628 | 55,635 | 47,351 |
| Tasmania | | 47,945 | 55,705 | 63,715 | 67,392 | 49,152 |
| Northern Territory | | 2,711 | 1.387 | 996 | 1,500 | 1,500 |
| Federal Territory | | ť | † î. | † | 393 | 203 |
| Commonwealth | | 695,691 | 765,137 | 1,025,850 | 1,110,721 | 845,255 |

[†] Included in New South Wales.

Prior to 1911 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, 1905, 1910 and 1911 mark the highest totals. An examination of the returns shews remarkable fluctuations. There was a general decrease in 1906 and the two following years. Recovery began in 1909, and continued through 1910 and 1911; but 1912 shews a heavy fall. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, pages 275 and 276.

2. Bacon and Ham.—From 1905 to 1908 the production of bacon and ham in the Commonwealth shewed little annual variation. In 1909 there was a considerable falling-off, but large increases in the last three years. It will be noticed from the table above that the number of pigs in Australia in 1908 was much below the average.

PRODUCTION OF BACON AND HAM, COMMONWEALTH, 1908 to 1912.

| State. | | 1908. | 1909. | 1910. | 1911. | 1912. |
|-------------------|---------|------------|------------|------------|------------|------------|
| N. C. (1. W.). * | | lbs. | 1bs. | lbs. | lbs. | lbs. |
| New South Wales* | •••• | 9,488,299 | 9,931,377 | 12,620,067 | 16,102,827 | 16,526,376 |
| Victoria | • • • • | 14,411,401 | 13,620,485 | 16,438,837 | 19,546,772 | 20,043,706 |
| Queensland | | 11,324,323 | 9,228,317 | 10,758,963 | 11,667,654 | 12,437,019 |
| South Australia | | 3,392,162 | 3,348,050 | 3,741,942 | 4,311,497 | 3,771,064 |
| Western Australia | | 152,896 | 120,623 | 121,154 | 97,136 | 114,950 |
| Tasmania† | | 1,333,856 | 1,526,115 | 1,468,789 | 1,538,766 | 1,299,060 |
| | | | | | | |
| Commonwealth | | 40,102,937 | 37,774,967 | 45,149,752 | 53,264,652 | 54,192,175 |

^{*}Including Federal Territory, where 22,670 lbs. of bacon and ham were produced in 1911; and 15,196 lbs. in 1912. † Estimated.

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, 1908 to 1912.

| | | В | ACON AND | | | | |
|-----|-----|---------|---|---|---|--|--|
| | | | | HAM. | | | |
| | | lbs. | 273,922 | 244,903 | 204,488 | 201,309 | 294,130 |
| | | £ | 10,013 | 9,384 | 8,687 | 8,566 | |
| | | lbs. | 391,820 | | | | |
| | | £ | | 18,979 | | | 68,503 |
| | | lbs. | 117,898 | | | | |
| ••• | | £ | 8,347 | 9,595 | 48,373 | 65,612 | |
| | | '.' | ROZEN P | ORK. | ¹ | 1 | |
| | | lbs. | 110.647 | 109,620 | 106,757 | | 79,052 |
| | | £ | | 3,301 | | | 2,592 |
| | | lbs. | 826,102 | 394,559 | | 1.641.013 | |
| | | £ | 20,446 | 9,318 | 17,087 | | 16,661 |
| | | lbs. | 715,455 | 284,939 | 634,653 | | |
| ••• | | £ | 17,117 | 6,017 | 13,860 | 33,639 | 14,069 |
| | | • | Pigs. | | | <u> </u> | 7-1 |
| | | No | 30 | 91 | 50 | 25 | 14 |
| ••• | ••• | | | | | | 198 |
| ••• | | | | | | | 609 |
| | ••• | | | | | | 1,025 |
| | ••• | | | | | | 595 |
| | | £ | — 671 | — 717 | -322 | 209 | 827 |
| | | | £ lbs £ | ## 18,360 117,898 117,898 8,347 FROZEN P | £ 18,360 18,979 lbs. 117,898 158,898 £ 8,347 9,595 FROZEN PORK. lbs. 110,647 109,620 £ 3,329 3,301 lbs. 826,102 394,559 £ 20,446 9,318 lbs. 715,455 284,939 £ 17,117 6,017 PIGS. No. 39 31 £ 968 1,177 No. 117 229 £ 297 460 No. 78 198 | £ 18,360 18,979 57,060 lbs. 117,898 158,898 1,401,211 £ 8,347 9,595 48,373 FROZEN PORK. lbs. 110,647 109,620 106,757 £ 3,329 3,301 3,227 lbs. 826,102 394,559 741,410 £ 20,446 9,318 17,087 lbs. 715,455 284,939 634,653 £ 17,117 6,017 13,860 PIGS. No. 39 31 50 £ 968 1,177 799 No. 117 229 303 £ 297 460 477 No. 78 198 253 £ 297 460 477 No. 78 198 253 £ -671 -717 -322 | £ 18,360 18,979 1,57,060 74,178 lbs. 117,898 158,898 1,401,211 2,139,303 £ 8,347 9,595 48,373 65,612 FROZEN PORK. lbs. 110,647 109,620 3,301 3,227 741,410 1,641,013 £ 20,446 9,318 17,087 33,639 lbs. 715,455 284,939 634,653 1,641,013 £ 17,117 6,017 13,860 733,639 PIGS. No. 39 31 50 33,639 PIGS. £ 968 1,177 799 539 No. 117 229 303 385 £ 297 460 477 748 No. 78 198 253 350 £ 297 460 477 748 No. 78 198 253 350 £ 297 460 477 748 No. 78 198 253 350 £ 297 460 477 748 No. 78 198 253 350 £ 297 460 477 748 |

^{1. -} signifies net imports.

IMPORTS, EXPORTS, AND NET EXPORTS OF BACON AND HAM, FROZEN PORK, PIGS, AND LARD, COMMONWEALTH, 1908 to 1912—Continued.

| Pa | rticulars. | | 1908. | 1909. | 1910. | 1911. | 1912. |
|-------------|------------|------------|---------|-----------|-----------|-----------|----------|
| | | | LARD |). | | | |
| Imports | | lbs. | 313,060 | 358,213 | 198,897 | 387,626 | 794.96 |
| · · | | £ | 7,681 | 9,148 | 5,573 | 9,870 | 22,09 |
| Exports | ••• | lbs. ' | 511,774 | 1,618,995 | 3,112,190 | 3,399,386 | 2,092,42 |
| -,, | | £ | 10,906 | 28,948 | 62,664 | 57,861 | 37,06 |
| Net Exports | | lbs. | 198,714 | 1,260,782 | 2,913,293 | 3,011,760 | 1,297,46 |
| ,, | ••• | £ | 3,225 | 19,800 | 57,091 | 47,991 | 14,96 |

From 1901 to 1903 there was a considerable net import of bacon and ham, but for the following years there was a large net export. The local production of frozen pork and lard was for each of the years shewn more than sufficient for the local demand. The net export of pig products was considerably greater in 1910 and 1911 than in previous years, but there was a decline in 1912.

4. Local Consumption of Bacon and Ham.—From 1904 to 1912 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, 1908 to 1912.

| Consumption. | 1908. | 1909. | 1910. | 1911. | 1912. |
|-----------------------------------|------------|------------|------------|------------|------------|
| Total Per head of mean population | 1bs. | 1bs. | lbs. | 1bs. | 1bs. |
| | 39,985,039 | 37,616,069 | 43,748,541 | 51,125,349 | 52,312,191 |
| | 9.5 | 8.8 | 10.0 | 11.4 | 11.3 |

5. Total Dairy Production.—The total dairy production of the Commonwealth in 1912 is shewn below:—

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1912.

| Where Produced. | 'N.S.W | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | C'wealth. |
|---------------------------------------|--|---------------------------------|---------------------------------|------------------------|----------------------------|---------------------------------|---------------------------------------|
| | ······································ | • | MILK. | | | | · · · · · · · · · · · · · · · · · · · |
| On Dairy & other Farms | gallons. • 225,446,209 | gallons. 199,296,920 | .gallons. 82,977,730 | gallons. 27,547,870 | gallons. 5,215,779 | gallons. 15,040,000† | gallons. 555,594,508‡ |
| | | В | UTTER. | | | | |
| In Factories On Dairy & other Farm | lbs. 72,421,770 s, 4,187,758* | lbs. 62,227,144 5,428,690 | lbs. 28,184,832 2,122,507 | | lbs. 120,906 327,893 | 1 lbs. 3,278,104 500,000† | 1bs. 171,042,044 16,152,117 |
| Total | 76,609,528* | 67,655.834 | 30,307,339 | 8,394,557 | 448,799 | 3,778,104† | 187,194,161 |

TOTAL DAIRY PRODUCTION, COMMONWEALTH, 1912—Continued.

| Where Produced. | n.s.w. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | C'wealth. |
|--|----------------------------------|---------------------------------|---------------------------------|--------------------------------|-----------------|-----------------------------|---------------------------------|
| | | C | HEESE. | | | | |
| In Factories On Dairy & other Farms | lbs. 3,463,036 1,991,649 | 1bs. 2,171,913 2,004,865 | 1bs. 3,833,116 114,499 | lbs. 1,954,770 3,257 | 1bs | 1bs. 523,386 100,000† | 1bs. 11,946,221 4,214,270 |
| Total | 5,454,685 | 4,176,778 | 3,947,615 | 1,958,027 | | 623,386† | 16,160,491 |
| In Factories | lbs. 3,636,519 | 1bs. 18,500,011 | | RATED I | MILK. | | 1bs. 30,059,911 |
| | ····· | BACON | AND H | AM. | <u> </u> | 1 | |
| In Factories On Dairy & other Farms | lbs. 13,766,482 2,759,894* | 1bs. 16,044,228 3,999,478 | lbs. 11,410,781 1,026,238 | lbs. 2,672,256 1,098,808 | 1bs. 114,950 | 1bs. 799,060 500,000† | 1bs. 44,692,807 9,499,368 |
| Total | 16,526,376* | 20,043,706 | 12,437,019 | 3,771,064 | 114,950 | 1,299,060† | 54,192,175 |

^{*} Including Federal Territory, where there was produced 106,647 gallons of milk; also 16,561 lbs. of butter on farms; also 15,196 lbs. of bacon and hams (on farms). † Estimated. ‡ Including 70,000 gallons estimated for Northern Territory.

§ 4. Poultry Farming.

- 1. Development of the Industry.—Poultry stocks are usually maintained by farmers and furnish a considerable addition to the annual agricultural or dairying returns. During recent years the poultry industry has assumed an independent position among rural industries. It is also carried on in conjunction with pig farming. Special poultry farms have been instituted for scientific breeding. Poultry experts engaged by the States 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.—Figures for the yield of poultry products are difficult to obtain. The following values are returned:—

ESTIMATED VALUE OF POULTRY AND EGGS, COMMONWEALTH, 1908-9 to 1912-13.

| Year. | n.s.w. | Victoria. | Q'land. | S. Aust. | W. Aust | Tasmania. | C'wealth. |
|-------------------------------|--|-----------|---|---|--|---|--|
| 1909-10 1910-11 1911-12 | £ 1,202,000 1,309,000 1,170,000 1,200,000§ 1,434,000§ | | £ 185,000 204,000 195,000 188,000 | £ 399,349 431,575 496,311 533,941 541,489 | £ 133,544 160,562 168,251 175,890 183,689 | £ * 227,000 230,000 230,000 | £ 3,281,893† 3,656,137‡ 3,857,562 3,953,331 4,402,188 |

^{*} Not available. † Excluding Queensland and Tasmania. ‡ Excluding Tasmania.

^{\$} Including Federal Territory, where the estimated value was £1800 in 1911-12; and £1880 in 1912-13.

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 in 1909, 1910, 1911 and 1912. In 1907 the export greatly exceeded the import, and in 1908 the imports were greater in quantity, but less in value, than the exports. The figures for frozen poultry indicate a considerable oversea export.

IMPORTS, EXPORTS, AND NET EXPORTS OF EGGS AND LIVE AND FROZEN POULTRY, COMMONWEALTH, 1908 to 1912.

| Par | ticulars. | | | 1908. | 1909. | 1910. | 1911. | 1912. | |
|--------------|-----------|---------|-----------|----------|-----------------|----------------|---------|---------|--|
| | | | | Eggs. | | | | | |
| Imports | | | doz. | 31,247 | 38,931 | 39,330 | 40,969 | 45,160 | |
| _ ,, | ••• | ••• | £ | 856 | 1,007 | 1,111 | 1,209 | 1,464 | |
| Exports | ••• | ••• | doz. | 17,261 | 10,527 | 3,853 | 5,734 | 6,211 | |
| ,, | ••• | ••• | £ | 1,082 | 713 | 326 | 1,124 | 518 | |
| Net exports1 | ••• | ••• | doz. £ | — 13,986 | — 28,404 | -35,477 | -35,235 | -38,949 | |
| " | ••• | ••• | æ | 226 | — 294 <u> </u> | — 785 <u> </u> | - 85 | - 946 | |
| | | | I | AVE POUI | TRY. | | | | |
| Imports | ••• | ••• | No. | 2,372 | 1,862 | 1,274 | 2,398 | 1,720 | |
| -,, | ••• | ••• | £ | 633 | 944 | 663 | 964 | 1,460 | |
| Exports | ••• | ••• | No. | 2,290 | 4,708 | 3,251 | 2,218 | 3,859 | |
| ,, | ••• | ••• | _ £ | 1,043 | 1,475 | 1,057 | 1,068 | 1,231 | |
| Net exports1 | ••• | • • • • | No. | - 82 | 2,846 | 1,977 | — 180 | 2,139 | |
| ", | ••• | ••• | £ | 410 | 531 | 394 | 104 | 229 | |
| | | | FI | ROZEN PO | ULTRY. | | | | |
| Imports | | | lbs. | 2,242 | 3,565 | 4,811 | 5,653 | 2,102 | |
| -,, | ••• | | £ | 75 | 100 | 131 | 257 | 64 | |
| Exports | ••• | ••• | pair | 22,444 | 5,828 | 7,680 | 16,869 | 23,390 | |
| | ••• | ••• | £ | 7,335 | 3,127 | 4,171 | 7,470 | 10,144 | |
| Net exports | ••• | ••• | | , | 2 | 2 | 2 | | |
| ", | ••• | | £ | 7,260 | 3,027 | 4,040 | 7,213 | 10,080 | |

^{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 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 £3361 in 1908, £2675 in 1909, £2439 in 1910, £4414 in 1911, and £1924 in 1912. 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, thus evidencing the purity of its flavour.

2. Production of Honey and Beeswax.—The particulars of honey production are as given below:—

^{2.} Quantity not available.

NUMBER OF HIVES AND PRODUCTION OF HONEY AND BEESWAX, 1909 to 1913.

| State | | Bee Hives. | | Honey Pro | duced. | Beeswax Produced | | |
|-------------------------------|------------|--------------------|----------|--------------|-----------------|------------------|--------------|--|
| State. | Productive | Un- productive. | Total. | Quantity. | Value. | Quantity. | Value. | |
| 1909. | No. | No. | No. | lbs. | £ | lbs. | £ | |
| New South Wales | 53,602 | 16,344 | 69,946 | 3,064,526 | 31,920 | 58,697 | 3,420 | |
| Victoria | + | † | 40,595 | 2,373,628 | 26,544 | 38,674 | 1,934 | |
| Queensland | 10,999 | 3,283 | 14,282 | 445,432 | 4,119 | 9,707 | 492 | |
| South Australia | 19,549 | 4.471 | 24,020 | 1,007,717 | 10,497 | 12,063 | 603 | |
| Western Australia | | 2,631 | 16,559 | 309,109 | 3,122 | 6,217 | 466 | |
| Commonwealth. | † | † . | 165,402 | 7,200,412 | 76,202 | 125,358 | 6,915 | |
| 1910. | | | · | | | | | |
| New South Wales | 46,813 | 17,986 | 64,799 | 2,066,330 | 25,800 | 53,006 | 3,100 | |
| Victoria | 32,914 | 9,718 | 42,632 | 1,611,284 | 18,463 | 22,369 | 1,305 | |
| Queensland | 11,322 | 3,135 | 14,457 | 548,171 | 5,224 | 11,849 | 605 | |
| South Australia | 17,551 | 6,450 | 24,001 | 812,487 | 8,463 | 10,059 | 503 | |
| Western Australia | 10,902 | 2,837 | 13,739 | 409,345 | 4,264 | 9,841 | 574 | |
| Commonwealth* | 119,502 | 40,126 | 159,628 | 5,447,617 | 62,214 | 107,124 | 6,087 | |
| 1911. | | | | | | !! | | |
| New South Wales | 55,958 | 14,308 | 70,266 | 2,765,618 | 37,700 | 72,617 | 3,700 | |
| Victoria | 37,541 | 15,221 | 52,762 | 2,308,405 | 24.046 | 34,695 | 1,880 | |
| Queensland | 11,271 | 4,104 | 15,375 | | | 11,798 | 595 | |
| | | 4,104 ~ 004 | | 517,565 | 5,100 | | | |
| South Australia | 22,786 | 5,204 | 27,990 | 996,376 | 10,379 | 10,608 | 552 | |
| Western Australia | 8,686 | 1,934 | 10,620 | 338,507 | 4,231 | 7,215 | 541 | |
| Commonwealth* | 136,242 | 40,771 | 177,013 | 6,926,471 | 81,456 | 136,933 | 7,268 | |
| 1912. | 90.054 | | | 0 000 070 | 07.000 | 07.050 | | |
| New South Wales § | | 11,801 | 74,055 | 3,363,253 | 35,000 | 67,358 | 4,000 | |
| Victoria | 37,052 | 16,659 | 53,711 | 1,635,260 | 20,441 | 28,405 | 1,420 | |
| Queensland | 11,857 | 3,088 | 14,945 | 574,973 | 5,750 | 11,419 | 570 | |
| South Australia | 18,015 | 10,029 | 28,044 | 760,094 | 8,709 | 9,745 | 528 | |
| Western Australia Tasmania | 8,686 | 2,032 † | 10,718 | 416,823 † | 5,210 3,000‡ | 13,730 | 1,030 300 | |
| , | | | | | | | | |
| Commonwealth | 137,864* | 43,609* | 181,473* | 6,750,403* | 78,110 | 130,657* | 7,848 | |
| 1913. | o | | 00.110 | | | | | |
| New South Wales§ | 50,272 | 12,844 | 63,116 | 2,409,795 | 30,750 | 49,734 | 3,060 | |
| Victoria | 42,317 | 10,406 | 52,723 | 3,277,590 | 40,560 | 45,354 | 2,807 | |
| Queensland | 12,037 | 3,804 | 15,841 | 581,228 | 5,918 | 11,744 | 613 | |
| South Australia | 24,274 | 2,954 | 27,228 | 1,446,364 | 18,080 | 18,054 | 1,053 | |
| Western Australia | 7,047 | 1,486 | 8,533 | 292,515 | 3,656 | 6,073 | 455 | |
| Tasmania | + | Ť | † | † | 3,000‡ | | 300‡ | |
| Commonwealth | 135,947* | 31,494* | 167,441* | 8,007,492* | 101,964 | 130,959* | 8,288 | |

^{*} Exclusive of Tasmania.

[†] Not available.

[‡] Estimated.

[§] Including Federal Territory, where in 1912 the hives numbered 552, of which 524 were productive; 38,764 lbs. of honey, valued £400, and 672 lbs. of beeswax, valued at £38. were produced. In 1913, the hives numbered 364, of which 357 were productive; 19,645 lbs. of honey, valued at £250;, and 467 lbs. of beeswax, valued at £30, were produced.

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, COMMONWEALTH, 1908 to 1912.

| | Partic | ılars. | | 1908. | 1909. | 1910. | 1911. | 1912 |
|-------------|--------|--------|------|---------|---------|---------|---------|---------|
| | | | . I | IONEY. | | | | |
| Imports | | | lbs. | 9,315 | 9,842 | 872 | 2,477 | 5,024 |
| ,, | ••• | | £ | 98 | 249 | 23 | 93 | 89 |
| Exports | ••• | | lbs. | 226,465 | 168,953 | 182,083 | 353,367 | 135,318 |
| -,, | | | £ | 3,361 | 2,675 | 2,439 | 4,414 | 1,924 |
| Net Exports | ••• | | lbs. | 217,150 | 159,111 | 181,211 | 350,890 | 130,294 |
| ,, ,, | ••• | . ••• | £ | 3,263 | 2,426 | 2,416 | 4,321 | 1,835 |
| | | | Ві | EESWAX. | | · | | |
| Imports | | | lbs. | 7,527 | 19,041 | 7,821 | 8,335 | 7,212 |
| -,, | | | £ | 460 | 1,112 | 505 | 564 | 536 |
| Exports | | | lbs. | 41,177 | 35,540 | 26,408 | 12,691 | 9,459 |
| ,, | ••• | | £ | 2,479 | 2,064 | 1,587 | 751 | 581 |
| Net Exports | | | lbs. | 33,650 | 16,499 | 18,587 | 4,356 | 2,241 |
| ,, ,, | | ••• | £ | 2,019 | 952 | 1,082 | 187 | 45 |

§ 6. Summary of Australian Farmyard and Dairy Products.

The value of the principal farmyard and dairy products raised in the Commonwealth in 1912 was:—

VALUE OF THE PRINCIPAL FARMYARD AND DAIRY PRODUCTS IN THE COMMONWEALTH DURING THE YEAR 1912.

| Produce. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aus. | Tas. | N. T. | Fed. Ter. | C'wealth. |
|--------------------------|-----------|-----------|---------|----------|---------|---------|-------|--------------|-----------|
| Mills sound mid | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Milk,cons'm'd as such | COE GOO | 731.000 | 173 800 | 158,600 | 84 000 | 79 200 | 2.500 | 1 100 | 1.855.400 |
| | | 3,478,800 | | | | 191,000 | | | 9,536,500 |
| Cheese | 173,300 | | | 58,400 | | 18,000 | | | 494,100 |
| C'densd & con- | , | | - | | | | | | |
| cen'ted milk | 49,408 | 362,480 | 167,273 | | | | | | 579,161 |
| Bacon & ham | 481,500 | 747,100 | 375,400 | 125,100 | 3,800 | 42,500 | | 500 | 1,775,900 |
| Poultry & eggs | 1,432,120 | 1,825,010 | 188,000 | 541,489 | 183,689 | 230,000 | | 1,880 | 4,402,188 |
| Honey & wax | 33,530 | 43,367 | 6,531 | 19,133 | 4,111 | 3,300 | | 280 | 110,252 |
| | 1 | ' | • | ļ , | | ļ | 1 | | İ |

§ 7. Summary of Australian Farmyard and Dairy Products Exported, 1907 to 1912.

The quantities and values of Australian farmyard and dairy products exported from the Commonwealth during each of the years 1907 to 1912 are shewn below:—

QUANTITIES OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING EACH OF THE YEARS 1907 to 1912.

| Products. | | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. |
|---|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Beeswax | lbs. | 27,058 | 41,177 | 35,540 | 26,408 | 12,671 101,722,136 | |
| Butter Cheese | ,, | 66,076,915 491,209 | 51,193,311 131,001 | 55,644,925 193,204 | 87,894,943 911,760 | 1,149,134 | |
| Egg albumen and yolk Eggs Feathers, undressed | doz. | 88 ,6 15 | 17,113 | 10,359 | 3,753 | 5,542 * | 6,163 |
| Honey Lard | lbs. | 102,047 458,059 | 226,465 511,016 | 168,953 1,617,442 | 182,023 3,105,307 | 353,367 3,399,209 | |
| Meats— Bacon and ham | ,, | 415,251 | 389,718 | 396,342 | 1,604,362 | 2,338,299 | |
| Frozen poultry | pair lbs. | 31,261 1,446,758 | 22,444 826,102 | 5,828 394,559 | 7,680 741,410 | 16,869 1,641,013 | 23,390 |
| Milk, concentrated & prese | erved ,, No. | 162,367 | 139,165 117 | 169,310 229 | 266,904 303 | 1,017,072 385 | 1,646,414 |
| Poultry, living | ,, | 3,280 | 2,290 | 4,708 | 3,251 | 2,198 | |

^{*} Quantity not available.

VALUE OF AUSTRALIAN FARMYARD AND DAIRY PRODUCTS EXPORTED FROM THE COMMONWEALTH DURING THE YEARS 1907 to 1912.

| Product | is. | | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. |
|------------------------|-------|---------|---------------|-----------|-----------|-----------|-------------|-----------|
| | | | £ | £ | £ | £ | £ | £ |
| | | | 1,617 | 2,479 | 2,064 | 1,587 | 749 | 575 |
| | | | 2,890,261 | 2,386,548 | 2,399,693 | 3,951,131 | 4,637,362 | 3,342,320 |
| | | | 12,733 | 4,305 | 5,337 | 21,730 | 26,754 | 5,303 |
| Egg albumen and yolk | | | | 535 | 4 | 724 | 651 | |
| Eggs | | | 3,419 | 1.074 | 706 | 320 | 437 | 516 |
| Feathers, undressed | | • • • • | 2,610 | 2,636 | 2,244 | 2,021 | 2,971 | 2,926 |
| Honey | | | 1,541 | 3,361 | 2,675 | 2,435 | 4,414 | 1,924 |
| Lard | • • • | | 8,547 | 10.884 | 28,876 | 62,474 | 57.854 | 37,007 |
| Meats— | | | | | | | | |
| Bacon and ham | | | 17,348 | 18,258 | 18,682 | 56,995 | 74,065 | 68,439 |
| Frozen poultry | ••• | | 8,556 | 7,335 | 3,127 | 4,171 | 7,470 | 10,144 |
| pork | | | 28,406 | 20,446 | 9,318 | 17,087 | 33,639 | 16,661 |
| Milk, concentrated and | pres | served | 2,924 | 3,139 | 3,319 | 4,865 | 16,675 | 34,317 |
| Dieta limina | | | 383 | 297 | 460 | 477 | 748 | 1,025 |
| Poultry, living | | ••• | 1,248 | 1,043 | 1,475 | 1,057 | 1,038 | 1,209 |
| | | | | l | | | | |
| Total | | | 2,979,593 | 2,462,340 | 2,477,980 | 4,127,074 | 4,864,827 | 3,522,366 |

§ 8. British Imports of Dairy Products.

1. Value of Britain's Imports of Dairy Products.—Great Britain has paid annually since 1908, considerably more than £20,000,000 for imported butter, the value of the imports in 1908, 1909, 1910, 1911 and 1912, being £24,081,000, £22,425,000, £24,493,000, £24,600,000 and £24,354,000 respectively; for imported cheese the amounts in the years

named were respectively £6,684,000, £6,830,000, £6,810,000, £7,140,000 and £7,414,000; for bacon and ham, £17,565,000, £16,914,000, £15,918,000, £17,391,000 and £17,276,000 respectively; and for pork, £1,660,000, £1,336,000, £1,500,000, £1,413,000 and £1,101,000 respectively.

2. Butter.—Australia in 1911 stood second, and in 1912 third, in the value of butter imported into the United Kingdom; but the import of other Australian dairy products was inconsiderable.

| Country from which Imported. | | Quantity. | Value. | Country from which Imported. | Quantity. | • Value. | |
|------------------------------|--|-----------|------------|---------------------------------|-----------|------------|--|
| | | Cwt. | £ | | Cwt. | £ | |
| Denmark | | 1,618,048 | 10,356,001 | Argentine Republic | 67,244 | 396,964 | |
| Russia | | 683,650 | 3,656,742 | Norway | 30,634 | 192,183 | |
| Australia | | 549,396 | 3,225,886 | United States | 2,596 | 15,250 | |
| New Zealand | | 349,012 | 2,148,192 | Other Countries | 9,197 | 48,014 | |
| Sweden | | 335,014 | 2,113,871 | 1 | | ĺ | |
| France | | 246,652 | 1,559,452 | | | | |
| Netherlands | | 113,716 | 641,638 | Total | 4,005,159 | 24,354,193 | |

IMPORT OF BUTTER INTO THE UNITED KINGDOM, 1912.

In October, 1907, a falling-off of imports of Australian butter into Great Britain was noticed, with the result that, three months later, there was a heavy shortage, accompanied by rapidly rising prices, until a limit was reached with 156s. per cwt., the highest recorded for Australasian butter. After a short period of high values in February, 1908, prices steadied at 116s., and then gradually fell to 104s. in the middle of May, when European grass-fed butter was ready for the British market. In January, 1910, the average price was 111s. After a fall in 1911, 134s. was reached in the middle of January, 1912. These high values were followed by a rapid deline. Prices in London during the last five years have been considerably higher than the average of any previous year since the Australian export trade was instituted twenty years ago. A marked approach to Danish values has lately been made in the prices of Australian butter.

- 3. Cheese.—The value of the British cheese import in 1912 was £7,414,000, of which nearly four and a half million pounds' worth was received from Canada. Small experimental shipments from Australia were made in 1908 and following years, a fair price being realised. In 1911, the value of the import from Australia was £37,000; but in 1912 it was under £5000.
- 4. Bacon and Ham.—Of a total import of bacon and ham valued in 1912 at £17,276,000, Great Britain received goods to the value of £7,839,000 from Denmark; £7,340,000 from the United States; and £1,407,000 from Canada. The British import from Australia was small, but experimental shipments have been made during recent years.
- 5. Pork.—The total value of British imports of pork (including refrigerated, frozen and salted) was £1,101,000 in 1912. Of this the value of Australian produce was nil, whilst from the Netherlands pork valued at £706,000 was imported into Great Britain.
- 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 £395,000 were received from the Commonwealth in 1912.

§ 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 306.