

SECTION VII.

PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1. **Early Statistics.**—The live stock which Captain Phillip brought with him when establishing the first settlement in Australia, in January, 1788, is stated to have comprised seven horses, six cattle, twenty-nine sheep, twelve pigs, and a few goats. Later in the same year, in a letter from Captain Phillip to Lord Sydney, then Secretary of State for the Colonies, an enclosure signed by "Andrew Miller, Commissary," sets forth in detail the numbers of each kind of live stock in the colony on 1st May, 1788. A summary of the particulars supplied is as follows:—Horses, 7; cattle, 7; sheep, 29; pigs, 74; rabbits, 5; turkeys, 18; geese, 29; ducks, 35; fowls, 209. In view of the depredations since caused by rabbits their inclusion in this return as part of the live stock of the Commonwealth is of interest.

2. **Subsequent Development.**—During the years immediately succeeding the first settlement the growth of the number of live stock was slow, and notwithstanding importations from India and the Cape of Good Hope the total of the flocks and herds of Australia amounted in 1800 to only 203 horses, 1044 cattle, 6124 sheep, and 4017 pigs. During the next fifty years, however, the pastoral industry made rapid strides, and at the end thereof (1850) the totals reached were 159,951 horses, 1,894,834 cattle, 15,993,954 sheep, and 114,000 pigs.

The statistical records of live stock in Australia prior to the year 1860 are somewhat defective, but from that year onwards fairly complete particulars are available in most of the States. At the present time statistics of live stock are collected annually in all the States, principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, no such particulars were collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive, and 1901 to 1903. In order to obtain totals for the Commonwealth for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. **Increase in Numbers.**—Particulars concerning the numbers of each of the principal kinds of live stock in the Commonwealth at quinquennial intervals from 1860 to 1905, and thence onwards in single years, are given in the following table, and are shewn continuously in the graphs as given hereinafter.

During the fifty-one years covered by the table the live stock of the Commonwealth increased considerably, horses by 428 per cent., cattle 199 per cent., sheep 362 per cent., and pigs 216 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 3.32 per cent. per annum; cattle, 2.17 per cent.; sheep, 3.15 per cent.; and pigs, 2.38 per cent.

COMMONWEALTH LIVE STOCK, 1860 to 1911.

Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	431,525	3,957,915	20,135,286	351,096
1865	566,574	3,724,813	29,539,928	345,704
1870	716,772	4,276,326	41,593,612	543,388
1875	835,393	6,389,610	53,124,209	549,808
1880	1,061,078	7,523,000	62,176,027	815,776
1885	1,143,064	7,397,847	67,491,976	748,908
1890	1,521,588	10,299,913	97,881,221	891,138
1895	1,680,419	11,767,488	90,689,727	822,750
1900	1,609,654	8,640,225	70,602,995	950,349
1905	1,674,790	8,528,331	74,540,916	1,014,977
1906	1,765,186	9,349,409	83,687,655	813,569
1907	1,871,714	10,128,486	87,650,268	754,101
1908	1,927,729	10,547,679	87,043,266	695,691
1909	2,022,917	11,040,391	91,676,281	765,137
1910	2,165,866	11,744,714	92,047,015	1,025,850
1911	2,279,027	11,828,954	93,003,521	1,110,721

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of the droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1869, 1877, 1884, 1895 and subsequent years, 1902, and to some extent in 1908. The drought of 1902 was one of the most severe experienced in Australia, the number of sheep in the Commonwealth diminishing under its influence from 72,040,211 on 31st December, 1901, to 53,668,347 at the same date in 1902—a decrease of more than 25 per cent.

The extraordinary recuperative power of Australia is evidenced by the large increases in the numbers of stock which the good seasons, supervening on the various droughts, have witnessed. Thus, in the nine years from 1902 to 1911, horses increased by 754,426, cattle by 4,766,212, and sheep by 38,335,174, the corresponding increases per cent. per annum being horses 4.57 per cent., cattle 5.90 per cent., and sheep 6.30 per cent.

The numbers of horses and pigs in the Commonwealth at the end of 1911 were higher than for any previous year, the number of sheep higher than for any year since 1894, while the number of cattle has only been exceeded by that year's record. The years in which the numbers of live stock attained their maxima are as follows:—Horses, 1911, 2,279,027; cattle, 1894, 12,311,617; sheep, 1891, 106,421,068; and pigs, 1911, 1,110,721.

5. **Live Stock in Relation to Population.**—The number of each kind of live stock per head of the population of the Commonwealth has varied during the past fifty-one years in the manner shewn in the succeeding table:—

NUMBER OF LIVE STOCK PER HEAD OF POPULATION, 1860 to 1911.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860 ...	0.38	3.45	17.58	0.31	1900 ...	0.43	2.29	18.75	0.25
1865 ...	0.41	2.68	21.25	0.25	1905 ...	0.42	2.11	18.48	0.25
1870 ...	0.43	2.60	25.24	0.33	1906 ...	0.43	2.29	20.45	0.20
1875 ...	0.44	3.37	27.99	0.29	1907 ...	0.45	2.43	21.06	0.18
1880 ...	0.48	3.37	27.87	0.37	1908 ...	0.46	2.49	20.57	0.16
1885 ...	0.42	2.75	25.05	0.28	1909 ...	0.47	2.55	21.20	0.18
1890 ...	0.48	3.27	31.06	0.28	1910 ...	0.49	2.65	20.80	0.23
1895 ...	0.48	3.36	25.93	0.24	1911 ...	0.50	2.59	20.36	0.24

Considered in relation to population, the live stock attained its maximum in the period 1890-5, and its minimum in the year 1902. During the period of fifty-one

years under review, the number of horses varied but slightly in proportion to population, the range being from 0.38 to 0.50 per head. In the case of cattle, the limits of variation were 1.82 and 3.45; sheep, 13.85 and 31.06; and pigs, 0.16 and 0.37.

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of the Commonwealth on 31st December, 1911, were as follows:—

NUMBER OF LIVE STOCK PER SQUARE MILE, 31st DECEMBER, 1911.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales ...	2.22	10.29	144.51	1.20
Victoria ...	5.78	18.74	157.68	3.96
Queensland ...	0.92	7.57	30.93	0.26
South Australia...	0.68	1.04	16.24	0.25
Western Australia ...	0.14	0.86	5.55	0.06
Tasmania ...	1.60	8.29	69.54	2.57
Northern Territory ...	0.04	0.88	0.10	0.003
Federal Capital Territory ...	1.96	9.35	249.74	0.42
Commonwealth ...	0.77	3.98	31.27	0.37

7. **Minor Classes of Live Stock.**—The numbers of minor classes of live stock returned as at 31st December, 1911, were as follows:—Goats, 280,086; camels, 8403; mules and donkeys, 6272; and ostriches, 1939. Of these, goats were most numerous in Queensland, camels and donkeys in Western Australia, and mules and ostriches in South Australia. In the raising of goats, considerable attention has in recent years been devoted to the angora goat and its product—mohair, and upwards of 20,000 angora goats are included in the total of 280,086 goats shewn above. Of these, 8332 were in Queensland, while the quantity of mohair produced in that State in 1911 was set down at 5785 lbs., and the number of skins placed on the market was returned as 1047.

8. **Net Exports of Principal Pastoral Products.**—The quantities by which the exports of the principal pastoral products of the Commonwealth exceeded the imports for the years 1907 to 1911 are as follows:—

**QUANTITIES OF NET EXPORTS OF PRINCIPAL PASTORAL PRODUCTS
OF THE COMMONWEALTH, 1907 to 1911.**

Products.	Unit of Quantity.	1907.	1908.	1909.	1910.	1911.
Animals (living)—						
Cattle ...	No.	504	841	894	3,641	9,861
Horses ...	"	12,116	9,164	6,335	6,619	4,377
Sheep ...	"	—398	9,001	2,540	10,281	18,965
Bones ...	cwt.	4,459	11,008	13,070	14,145	17,151
Glue Pieces and Sinews ...	"	21,941	23,417	20,199	20,570	29,211
Glycerine ...	lb.	592,435	*	*	*	*
Hair ...	"	285,478	191,475	190,052	304,006	287,957
Hoofs ...	cwt.	6,784	5,972	4,666	7,677	8,617
Horns ...	"	15,944	*	*	*	*
Meats—						
Frozen Beef ...	lb.	52,050,592	40,707,121	71,130,972	109,421,146	108,774,397
" Mutton and Lamb ...	"	109,227,757	91,607,614	116,914,965	190,228,396	129,567,812
" Rabbits and Hares ...	pair	10,648,534	7,604,053	9,181,312	9,652,127	8,362,994
" Other... ..	lb.	815,559	659,719	1,114,536	2,640,275	4,025,715
Potted and Extract of ...	"	*	*	*	*	*
Preserved in Tins, etc. ...	"	7,820,511	11,979,606	23,877,569	33,556,048	40,347,183
Other... ..	"	64,370	—120,055	235,479	591,196	1,062,233
Sausage Casings ...	"	*	*	*	*	*
Skins—						
Hides ...	No.	33,623	219,798	286,973	286,639	452,942
Sheep ...	"	9,691,688	8,683,034	10,658,776	11,119,338	9,748,630
Rabbit and Hare ...	cwt.	100,802	65,391	62,180	86,930	92,587
Other, including Undressed Furs ...	No.	*	*	*	*	*
Tallow ...	cwt.	674,723	586,220	929,157	1,256,661	1,343,046
Wool—Greasy ...	lb.	512,086,100	471,540,092	528,368,349	586,883,111	578,622,185
" Scoured ...	"	72,295,353	70,883,847	73,569,380	77,042,042	69,223,301
" Tops ...	"	...	...	496,492	1,123,469	2,515,106

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

The values of the net exports for the same five years are furnished in the next table and amount to no less a total than £170,205,579 for the period, or an average of £34,041,116 per annum, of which wool represents nearly 75 per cent. Meats, skins, and tallow rank next in order of importance.

**VALUE OF NET EXPORTS OF PRINCIPAL PASTORAL PRODUCTS OF THE
COMMONWEALTH, 1907 to 1911.**

Products.	1907.	1908.	1909.	1910.	1911.
	£	£	£	£	£
Animals (living)—					
Cattle	—1,445	704	3,876	11,516	37,864
Horses	266,325	152,672	84,695	—51,267	—128,022
Sheep	—2,127	5,735	6,030	16,448	12,732
Bones	5,628	5,189	6,041	7,866	9,798
Glue Pieces and Sinews	17,458	12,679	11,800	11,037	13,645
Glycerine	6,963	3,179	2,316	10,169	15,926
Hair	21,086	16,739	22,584	25,879	24,967
Hoofs	2,064	2,024	1,622	2,804	3,169
Horns	18,969	18,270	18,729	25,532	25,673
Meats—					
Frozen Beef	575,732	451,503	733,028	1,179,060	1,101,914
„ Mutton and Lamb	1,377,502	1,219,107	1,231,027	2,161,495	1,633,597
„ Rabbits and Hares	472,816	336,093	423,679	486,592	407,034
„ Other	12,814	8,507	18,027	40,816	45,390
Potted and Extract of	19,891	22,108	57,061	70,504	57,356
Preserved in Tins, etc.	133,165	213,476	401,606	602,880	756,148
Other	673	—2,890	1,663	8,173	13,010
Sausage Casings	41,122	26,600	52,182	38,204	37,129
Skins—					
Hides	—10,079	86,310	239,539	286,274	467,364
Sheep	1,822,604	1,230,878	1,736,464	2,003,810	1,603,718
Rabbit and Hare	374,682	304,990	347,244	566,739	498,037
Other, including Undressed Furs	304,130	276,703	607,158	822,095	476,872
Tallow	1,014,870	785,910	1,229,541	1,888,796	1,984,009
Wool—Greasy	22,898,318	18,017,420	20,580,783	23,431,947	21,388,155
Scoured	5,962,599	4,883,605	4,820,092	5,202,683	4,398,126
Tops ... ..	...	...	58,638	134,874	275,406
Total Values	35,335,960	28,077,711	32,695,425	38,984,426	35,112,037

Note. — signifies net imports.

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognised. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages were utilised to the fullest extent, all classes of horses being bred. As a consequence of this combination of advantages the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse has been found suitable for the army in India, and large numbers are obtained annually for remount purposes.

2. **Distribution throughout the Commonwealth.**—As regards numbers, the State of New South Wales, the earliest settled of the group, established a lead, which it has ever since retained. The figures for the several States for a series of years are as follows:—

**NUMBER OF HORSES IN STATES, TERRITORIES, AND COMMONWEALTH,
1860 to 1911.**

Year.	N.S.W.	Victoria.	Q'sland.	S. Aust.	W. Aust.	Tas.	N. T.	Fed. Cap. Terr.	Common- wealth.
1860 ...	251,497	76,536	23,504	49,399	9,555	21,034	...	...	431,525
1865 ...	282,587	121,051	51,091	73,993	15,700	22,152	...	...	566,574
1870 ...	337,597	167,220	83,358	83,744	22,174	22,679	...	...	716,772
1875 ...	357,696	196,184	121,497	107,164	29,379	23,473	...	...	835,393
1880 ...	395,984	275,516	179,152	148,219	34,568	25,267	*2,372	...	1,061,078
1885 ...	344,697	304,098	260,207	164,753	34,392	28,610	6,307	...	1,143,064
1890 ...	444,163	436,459	365,812	187,686	44,384	31,165	11,919	...	1,521,588
1895 ...	499,943	424,995	468,743	181,839	58,506	31,580	14,813	...	1,680,419
1900 ...	481,417	392,237	456,788	166,790	68,253	31,607	12,562	...	1,609,654
1905 ...	506,884	385,513	430,565	197,099	97,397	37,101	20,231	...	1,674,790
1906 ...	537,762	406,840	452,916	206,633	104,922	38,299	17,814	...	1,765,186
1907 ...	578,326	424,648	488,486	208,639	113,330	40,392	17,893	...	1,871,714
1908 ...	591,045	424,903	519,969	213,385	116,795	39,881	21,751	...	1,927,729
1909 ...	604,784	442,829	555,613	230,405	125,315	40,492	23,479	...	2,022,917
1910 ...	650,636	472,080	593,813	249,326	134,114	41,388	24,509	...	2,165,866
1911 ...	687,242	507,813	618,954	259,719	140,277	41,853	21,407	1,762	2,279,027

* Statistics not collected prior to 1880.

3. **Proportion in the Several States and Territories.**—The percentages of the numbers of horses in the several States and Territories on the totals for the Commonwealth for 1901 and the past five years are as follows:—

**PERCENTAGE OF HORSES IN EACH STATE AND TERRITORY ON TOTAL FOR
COMMONWEALTH, 1901 and 1907 to 1911.**

Year.	N.S.W.	Victoria.	Q'sland.	S. Aust.	W. Aust.	Tas.	North'n Terr.	Fed. Cap. Terr.	Common- wealth.
	%	%	%	%	%	%	%	%	%
1901 ...	30.03	23.90	28.52	10.20	4.55	2.00	0.80	...	100.00
1907 ...	30.90	22.69	26.10	11.15	6.05	2.16	0.95	...	100.00
1908 ...	30.66	22.04	26.97	11.07	6.06	2.07	1.13	...	100.00
1909 ...	29.90	21.89	27.47	11.39	6.19	2.00	1.16	...	100.00
1910 ...	30.04	21.80	27.42	11.51	6.19	1.91	1.13	...	100.00
1911 ...	30.15	22.28	27.16	11.40	6.15	1.84	0.94	0.08	100.00

During the period under review, the proportions in South Australia and Western Australia have increased, those in Victoria and Queensland have diminished, while in the case of New South Wales, Tasmania, and the Northern Territory the proportion in 1911 was practically identical with that in 1901.

4. **Oversea Export Trade in Horses.**—Australia's export trade in horses is a fairly considerable, though somewhat fluctuating, one. During the past five-years it has varied in number between 12,632 for the year 1907 and 7807 in 1909, and in value between £319,470 and £173,012 respectively for the same two years. The total number of horses exported during the five years amounted to 52,377, an average of 10,475 per annum. The total value of the exports for the period was £1,192,755, or £238,551 per annum.

The average export value per head for the period was £22 15s. 6d. The numbers exported to the principal countries concerned in this trade are as follows:—

**NUMBER AND DESTINATION OF HORSES EXPORTED FROM THE COMMONWEALTH
1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	No.	No.	No.	No.	No.	No.
India	9,168	6,296	6,136	9,187	7,416	38,203
Java	954	605	594	450	880	3,483
Straits Settlements	991	651	353	605	481	3,081
Philippine Islands	295	708	315	727	350	2,395
Ceylon	199	165	97	265	198	924
Mauritius ... ..	...	103	70	403	112	688
Fiji	57	88	114	190	180	629
German S.W. Africa ... ..	...	622	...	...	...	622
Japan	284	227	1	43	45	600
New Zealand	75	52	31	122	92	372
China	178	38	19	1	13	249
Papua	18	10	17	110	47	202
South African Union	167	19	3	1	12	202
Siam ... ..	...	...	...	...	165	165
Hong Kong	5	15	29	...	32	81
Other Countries	241	69	28	57	86	481
Total	12,632	9,668	7,807	12,161	10,109	52,377

The corresponding particulars relative to the value of the horses exported are given in the next table:—

VALUE OF HORSES EXPORTED FROM THE COMMONWEALTH, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	£	£	£	£	£	£
India	225,301	138,068	126,686	171,862	135,840	797,757
Java	25,502	16,457	19,598	10,424	19,235	91,216
Straits Settlements	26,952	15,491	10,339	21,185	12,939	86,906
Philippine Islands	4,949	12,134	5,303	14,971	7,795	45,152
Ceylon	4,886	3,418	2,201	7,486	3,622	21,613
Mauritius ... ..	...	2,385	480	7,191	2,371	12,427
Fiji	1,142	2,356	2,982	4,566	4,788	15,834
German S.W. Africa ... ..	...	13,255	...	...	...	13,255
Japan	11,715	12,234	60	1,860	2,115	27,984
New Zealand	4,020	3,436	2,847	12,403	17,322	40,028
China	3,299	892	295	60	390	4,936
Papua	337	163	936	2,055	920	4,411
South African Union	4,096	931	180	25	500	5,732
Siam ... ..	...	...	...	...	7,298	7,298
Hong Kong	205	545	888	...	800	2,438
Other Countries	7,066	2,453	217	2,016	4,016	15,768
Total	319,470	224,218	173,012	256,104	219,951	1,192,755

It will be seen from the foregoing tables that the export trade in horses with India, the Straits Settlements, and Java has been fairly uniform throughout the five years under review, but that the particulars for some of the other countries specified exhibit marked fluctuations.

The number of horses imported into the Commonwealth is comparatively small, consisting mainly of valuable animals introduced for breeding purposes, and imported principally from New Zealand and the United Kingdom. The average value per head of the horses imported during the five years was £63 1s. 7d., as compared with £22 15s. 6d. per head for the exports for the same period. The average number imported per annum was, however, only 2753, and the average annual value £173,670. The following table furnishes a comparison of imports and exports of horses during the five years 1907 to 1911:—

COMMONWEALTH IMPORTS AND EXPORTS OF HORSES, 1907 to 1911.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1907	516	53,145	12,632	319,470	12,116	266,325
1908	504	71,546	9,668	224,218	9,164	152,672
1909	1,472	88,317	7,807	173,012	6,335	84,695
1910	5,542	307,371	12,161	256,104	6,619	—51,267
1911	5,732	347,973	10,109	219,951	4,377	—128,022
Total for 5 years	13,766	868,352	52,377	1,192,755	38,611	324,403

Note. — signifies value of net imports.

5. Comparison with other Countries.—The numbers of horses in some of the leading horse-breeding countries of the world, according to the latest available returns, are as follows:—

NUMBER OF HORSES IN SOME OF THE LEADING HORSE-BREEDING COUNTRIES IN THE WORLD.

Country.	Date.	Number of Horses.	Country.	Date.	Number of Horses.
Russian Empire ...	1910	30,581,202	Uruguay ...	1908	556,307
Utd. States America	1909	21,040,000	Bulgaria ...	1905	538,271
Argentine Republic	1908	7,531,376	Denmark ...	1909	535,018
Germany... ..	1907	4,345,043	Spain	1910	519,665
Austria-Hungary ¹ ...	1909 & 1910	3,974,739	Chile	1908	516,764
France ²	1909	3,160,080	New Zealand ...	1910	404,284
Australia... ..	1911	2,279,027	Netherlands ...	1910	327,377
Canada ³	1910	2,213,199	Belgium... ..	1909	255,229
United Kingdom ⁴ ...	1911	2,033,216	Cape Colony ...	1904	255,060
British India ⁵ ...	1910	1,553,289	Algeria	1909	233,243
Japan ⁶	1909	1,551,156	Servia	1905	174,363
Italy	1908	906,820	Norway	1907	172,468
Rumania... ..	1900	864,324	Switzerland ...	1911	143,723
Mexico	1902	859,217	Orange River Col'ny	1909	132,574
Sweden	1909	581,441			

1. Austria 1910, Hungary 1909. 2. Employed on farms. 3. Exclusive of British Columbia.
4. Agricultural horses, unbroken horses, and breeding mares only. 5. Exclusive of Eastern Bengal. 6. Exclusive of Formosa.

6. Relation to Population.—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of the Commonwealth. Queensland is next in order, while Tasmania has the smallest number of horses per head. In all cases the number of horses per head of population was somewhat higher in 1911 than in 1901. Particulars for 1901 and the past five years are as follows :—

NUMBER OF HORSES PER HEAD OF POPULATION, 1901 and 1907 to 1911.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Federal Capital Terr.	C'wth.
1901	0.35	0.32	0.91	0.46	0.38	0.18	2.76	...	0.42
1907	0.38	0.34	0.89	0.56	0.45	0.21	4.79	...	0.45
1908	0.38	0.34	0.93	0.55	0.45	0.21	6.09	...	0.46
1909	0.37	0.35	0.96	0.59	0.47	0.21	6.70	...	0.47
1910	0.40	0.36	0.99	0.61	0.48	0.21	7.42	...	0.49
1911	0.41	0.37	0.99	0.62	0.48	0.22	6.59	0.92	0.50

§ 3. Cattle.

1. Purposes for which Raised.—In all the States of the Commonwealth cattle-raising is carried out on a more or less extensive scale, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry in the Commonwealth led to a considerable increase in the numbers and quality of the dairy herds of the States of Victoria, New South Wales, and Southern Queensland in particular, the sub-tropical portion of Australia being apparently the best adapted to this industry. On the other hand, by far the finest specimens of beef-producing cattle are those raised in the tropical districts of the Commonwealth, *i.e.*, in the northern parts of Queensland, in the Northern Territory, and in the Kimberley districts in the north of Western Australia.

2. Distribution throughout Commonwealth.—Until 1880 New South Wales occupied the leading position in the Commonwealth group as a cattle-raising State, but in that year Queensland forged ahead and obtained a lead which it has since maintained. The extent of this lead has, however, varied considerably, owing principally to the effects produced by the tick fever and droughts, from both of which causes the Queensland herds suffered more severely than those of the other States. In fact, during the period from 1894, when the number of cattle in Queensland attained its maximum of rather more than 7,000,000, to 1903, when the number recorded was less than 2,500,000, an uninterrupted decline was experienced. During the seven years ended 1910, however, a rapid improvement took place, and the total reached on 31st December, 1910, was over 5,100,000. The 1911 figures shew a slight decline, though still a very substantial increase as compared with those of 1909.

The numbers of cattle in the several States and the Northern Territory at quinquennial intervals from 1860 to 1905 and thence onwards for each year are as follows :—

**NUMBER OF CATTLE IN STATES, TERRITORIES AND COMMONWEALTH,
1860 to 1911.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	C'wealth.
1860	2,408,586	722,332	432,890	278,265	32,476	83,366	...	...	3,957,915
1865	1,961,905	621,337	848,346	158,057	45,148	90,020	...	...	3,724,813
1870	2,195,096	721,096	1,076,630	136,832	45,213	101,459	...	...	4,276,326
1875	3,134,086	1,054,598	1,812,576	219,240	50,416	118,694	...	...	6,389,610
1880	2,580,040	1,286,267	3,162,752	283,315	63,719	127,187	*19,720	...	7,523,000
1885	1,317,315	1,290,790	4,162,652	271,478	70,408	138,642	146,562	...	7,397,847
1890	2,091,229	1,782,978	5,558,264	359,938	130,970	162,440	214,094	...	10,299,913
1895	2,150,057	1,795,314	6,822,401	355,867	200,091	162,801	280,957	...	11,767,488
1900	1,983,116	1,602,384	4,078,191	214,761	338,590	165,516	257,667	...	8,640,225
1905	2,337,973	1,737,690	2,963,695	304,027	631,825	206,211	346,910	...	8,528,331
1906	2,549,944	1,804,323	3,413,919	325,724	690,011	211,117	354,371	...	9,349,409
1907	2,751,193	1,842,807	3,892,232	334,671	717,377	215,523	374,683	...	10,128,486
1908	2,955,934	1,574,162	4,321,600	340,376	741,788	205,827	407,992	...	10,547,679
1909	3,027,727	1,549,640	4,711,782	344,034	793,217	199,945	414,046	...	11,040,391
1910	3,140,307	1,547,569	5,131,699	384,862	825,040	201,854	513,383	...	11,744,714
1911	3,185,824	1,647,127	5,073,201	393,566	843,638	217,406	459,780	8,412	11,828,954

* Statistics not collected prior to 1880.

3. Proportion in each State.—During the period elapsing between 1901 and 1911 the proportion of cattle in the several States and the Northern Territory has varied considerably, as shewn hereunder :—

**PERCENTAGE OF CATTLE IN EACH STATE AND TERRITORY ON TOTAL FOR
COMMONWEALTH, 1901, and 1907 to 1911.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Federal Capital Territory.	C'wealth.
	%	%	%	%	%	%	%	%	%
1901 ...	24.11	19.12	44.43	2.65	4.69	1.99	3.01	...	100.00
1907 ...	27.16	18.20	38.43	3.30	7.08	2.13	3.70	...	100.00
1908 ...	28.02	14.92	40.97	3.23	7.04	1.95	3.87	...	100.00
1909 ...	27.42	14.04	42.68	3.12	7.18	1.81	3.75	...	100.00
1910 ...	26.74	13.18	4 3.69	3.28	7.02	1.72	4.37	...	100.00
1911 ...	26.93	13.92	4 2.89	3.33	7.14	1.84	3.89	0.07	100.00

A comparison of the positions of the several States in 1901 and 1911 shews that, while Victoria's proportion of the Commonwealth herds suffered considerable diminution, and those for Queensland and Tasmania a falling off to a slighter extent, fairly large increases are in evidence in New South Wales and Western Australia; South Australia, and the Northern Territory also shew an upward tendency.

4. **Imports and Exports of Cattle.**—Although the various products of the cattle-raising industry bulk largely in the export trade of the Commonwealth, the export of live cattle from Australia has never been considerable. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for breeding. Details are as follows:—

COMMONWEALTH IMPORTS AND EXPORTS OF CATTLE, 1901 and 1907 to 1911.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1901 ...	114	3,591	2,413	22,088	2,299	18,497
1907 ...	183	10,204	687	8,759	504	— 1,445
1908 ...	112	11,020	953	11,724	841	704
1909 ...	81	5,710	975	9,586	894	3,876
1910 ...	104	8,665	3,745	20,181	3,641	11,516
1911 ...	103	7,806	9,964	45,670	9,861	37,864

Note. — signifies net imports.

The average value of the cattle imported into the Commonwealth during the last five years was £74 9s. 0d. per head, while the average value of the cattle exported during the same period was £5 17s. 6d.

The comparatively large exports for 1911 were due to shipments to Java and Philippine Islands valued at £21,090 and £13,850 respectively. The bulk of these cattle were exported from Western Australia.

5. **Cattle Slaughtered.**—Complete returns of the number of cattle slaughtered annually in the Commonwealth are not obtainable, as these particulars were collected in Tasmania for Hobart and Launceston only prior to 1911, and were collected in South Australia for the first time in 1908 in respect of the year 1907. Estimates for the missing data for these States have, however, been made, as shewn in the following table:—

CATTLE (INCLUDING CALVES) SLAUGHTERED IN STATES, TERRITORIES AND COMMONWEALTH, 1901 and 1907 to 1911.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. C. Ter.	C'wealth.
1901	335,823	251,477	377,433	*72,000	39,424	34,000	...	...	1,110,157
1907	380,042	289,709	228,457	60,527	53,505	36,000	...	...	1,048,240
1908	376,574	281,087	243,069	67,369	46,975	36,000	†3,759	...	1,054,833
1909	412,066	287,548	305,026	82,460	49,716	37,000	3,975	...	1,177,791
1910	483,947	319,665	378,514	84,164	55,723	37,000	4,061	...	1,363,074
1911	548,651	347,926	444,264	87,293	75,084	38,000	†4,061	269	1,545,548

* Estimated. † Not available for previous years. ‡ 1910 figures, those for 1911 not available.

For Hobart and Launceston only, the figures for the years 1901 and 1907 to 1910 were, respectively, 8815, 12,037, 11,907, 10,059 and 11,569.

6. **Export of Beef Preserved by Cold Process.**—A large export trade in beef preserved by cold process is carried on by the Commonwealth, mainly with the United Kingdom, the Philippine Islands and the South African Union. The quantities so exported during the five years 1907 to 1911 are as follows:—

**QUANTITY OF BEEF PRESERVED BY COLD PROCESS EXPORTED FROM THE
COMMONWEALTH, 1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom	8,360,147	12,384,176	52,777,113	91,250,736	81,501,060	246,273,232
Philippine Islands	9,626,173	12,826,444	11,260,779	10,020,181	10,336,535	54,070,112
South African Union	19,353,278	4,316,387	1,698,046	3,784,637	7,337,652	36,490,000
Russia	10,551,438	6,821,701	...	...	...	17,373,139
Egypt	1,540,290	1,707,355	2,525,097	1,362,686	1,905,595	9,041,023
Straits Settlements	972,507	841,413	1,092,263	1,073,889	1,646,590	5,626,662
Malta	781,382	752,761	856,599	862,148	1,526,389	4,779,279
Italy	50,456	7,179	90,609	327,056	2,509,466	2,984,766
Hong Kong... ..	286,499	354,934	220,919	385,895	618,688	1,866,935
Gibraltar	345,374	...	130,703	70,908	403,626	950,611
Japan	5,283	408,141	102,723	22,119	77,223	615,489
Ceylon	86,688	87,948	56,509	99,564	151,104	481,813
Hawaiian Islands	4,257	...	105,403	71,606	272,559	453,825
Other countries	86,820	203,077	225,532	96,103	499,930	1,111,462
Total	52,050,592	40,711,516	71,142,295	109,427,528	108,786,417	382,118,348

The value of the beef preserved by cold process exported from the Commonwealth during the same years is as follows:—

**VALUE OF BEEF PRESERVED BY COLD PROCESS EXPORTED FROM THE
COMMONWEALTH, 1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	£	£	£	£	£	£
United Kingdom	87,903	134,014	533,044	967,662	813,393	2,536,016
Philippine Islands	108,505	151,076	125,052	126,719	114,989	626,341
South African Union	216,088	46,181	18,251	36,559	67,940	386,019
Russia	112,098	70,358	...	...	...	182,456
Egypt	19,135	19,770	26,747	14,582	19,308	99,542
Straits Settlements	11,515	9,820	11,899	12,452	21,065	66,751
Malta	8,852	7,987	8,690	9,790	15,412	50,731
Italy	553	120	1,002	3,866	26,497	32,038
Hong Kong... ..	3,950	3,873	2,144	3,826	6,370	20,163
Gibraltar	4,432	...	1,157	517	3,751	9,857
Japan	32	4,494	1,139	205	694	6,564
Ceylon	1,422	1,507	601	1,035	1,315	5,880
Hawaiian Islands	96	...	1,067	690	4,413	6,266
Other countries	1,151	2,351	2,417	1,243	6,985	14,147
Total	575,732	451,551	733,210	1,179,146	1,102,132	4,041,771

During the five years under review, the largest of Australia's customers for beef preserved by cold process has been the United Kingdom, while the most consistent and the second largest customer has been the Philippine Islands; the South African Union, Russia and Egypt ranked next in order of importance. The exporting States during 1911 were: Queensland, 97,285,595 lbs., valued at £980,799; New South Wales, 7,294,830 lbs., valued at £76,180; and Victoria, 4,205,992 lbs., valued at £45,153.

7. **Comparison with other Countries.**—In the following comparison of the herds of Australia with those of some of the principal cattle-raising countries of the world, the latest available figures have been inserted in each case :—

NUMBER OF CATTLE IN VARIOUS COUNTRIES.

Country.	Date.	No. of Cattle.	Country.	Date.	No. of Cattle.
British India ¹ ...	1910	119,379,293 ³	Denmark ...	1909	2,253,982
U. S. of America ...	1909	69,080,000	Bulgaria ...	1905	2,172,405 ²
Russian Empire ...	1910	45,762,247	Netherlands ...	1910	2,026,943
Argentine Republic...	1908	29,116,625	New Zealand ...	1910	2,020,171
Germany ...	1907	20,630,544	Cape Colony ...	1904	1,954,390
Austria-Hungary ³ ...	1909-10	16,312,376	Belgium ...	1909	1,865,883
France ...	1909	14,297,570	Ceylon ...	1909	1,509,554 ²
United Kingdom ...	1911	11,866,111	Switzerland ...	1911	1,443,371
Australia ...	1911	11,828,954	Japan ⁵ ...	1909	1,350,404
Uruguay ...	1908	8,192,602	Egypt ...	1910	1,347,483
Canada ⁴ ...	1910	7,114,914	Algeria ...	1909	1,100,586
Italy ...	1908	6,218,227 ²	Norway ...	1907	1,094,101
Mexico ...	1902	5,142,457	Transvaal ...	1910	989,018
Sweden ...	1909	2,729,887	Servia ...	1905	969,953 ²
Rumania ...	1900	2,588,526 ²	British East Africa ...	1909	750,000
Spain ...	1910	2,368,767	Orange River Colony	1909	721,258
Chile ...	1908	2,303,659	Natal ...	1909	502,212

1. Exclusive of Eastern Bengal. 2. Including buffaloes. 3. Austria 1910, Hungary 1909.
4. Exclusive of British Columbia. 5. Exclusive of Formosa.

8. **Relation to Population.**—The number of cattle per head of population differs considerably in the several States, and is also subject to marked variation from year to year in the same State. Particulars for 1901 and the past five years are as follows :—

NUMBER OF CATTLE PER HEAD OF POPULATION, 1901 and 1907 to 1911.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territ'y.	F. C. Terr.	C'wealth.
1901 ...	1.49	1.34	7.44	0.63	2.06	0.96	54.68	...	2.22
1907 ...	1.81	1.49	7.13	0.90	2.82	1.14	98.03	...	2.43
1908 ...	1.89	1.26	7.76	0.88	2.86	1.08	111.63	...	2.49
1909 ...	1.88	1.21	8.15	0.88	2.99	1.04	117.03	...	2.55
1910 ...	1.91	1.21	8.57	0.95	2.98	1.04	150.86	...	2.65
1911 ...	1.43	1.24	8.26	0.96	2.94	1.14	138.53	4.73	2.63

For the Commonwealth as a whole the ratio of cattle to population is 18 per cent. greater for 1911 than for 1901, and has exhibited a continuous increase from 1902 to 1910, while the proportion for 1911 is approximately the same as for the previous year. The excess of the 1911 figures over those for 1901 is in evidence in all the States except Victoria, and is most marked in the case of the Northern Territory. In Queensland the ratio has increased very rapidly during the past eight years, the ratio per head of population for 1911 being 72 per cent. greater than for 1903. In Victoria the ratios for the last three years are the lowest for the period under review.

§ 4. Sheep.

1. **The Founding of the Commonwealth Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool was, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and though it would appear that the introduction of the Merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. **Distribution throughout Commonwealth.**—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of the mother State, New South Wales has maintained amongst the Commonwealth group the lead in sheep production which naturally attached to it as the portion of the Commonwealth in which settlement was first effected. From 1878 onwards, the number of sheep in New South Wales has, in every year except 1902, 1903, 1910, and 1911, represented more than half the total for the Commonwealth, and even in these years it fell but little short of half the total.

The number of sheep in the several States and Territories at quinquennial intervals from 1860 to 1905, and for each year onwards to 1911, is as follows:—

NUMBER OF SHEEP IN STATES, TERRITORIES, AND COMMONWEALTH, 1860 to 1911.

Year.	New South Wales.	Victoria.	Queens- land.	South Aust.	Western Aust.	Tas- mania.	Northern Territory	Fed. Cap. Territory.	Total C' wealth.
1860	6,119,163	5,780,896	3,449,350	2,824,811	260,136	1,700,930	...	...	20,135,286
1865	8,132,511	8,835,380	6,594,966	3,779,308	445,044	1,752,719	...	...	29,539,928
1870	16,308,585	10,761,887	8,163,818	4,400,655	608,892	1,349,775	...	...	41,593,612
1875	25,353,924	11,749,532	7,227,774	6,179,395	881,861	1,731,723	...	...	53,124,209
1880	35,398,121	10,360,255	6,935,967	6,443,904	1,231,717	1,796,715	*9,318	...	62,176,027
1885	37,820,906	10,681,837	8,994,322	6,593,648	1,702,719	1,648,627	49,917	...	67,491,976
1890	55,986,431	12,692,843	18,007,234	7,004,642	2,524,913	1,619,256	45,902	...	97,881,221
1895	47,617,687	12,791,084	19,856,959	6,531,006	2,295,532	1,523,846	73,713	...	90,689,727
1900	40,020,586	10,841,790	10,339,185	5,235,220	2,434,311	1,683,956	48,027	...	70,602,995
1905	39,506,764	11,455,115	12,535,231	6,277,812	3,120,703	1,583,561	61,730	...	74,540,916
1906	44,132,421	12,937,440	14,886,438	6,624,941	3,340,745	1,729,394	36,276	...	83,687,655
1907	44,461,839	14,146,734	16,738,047	6,829,637	3,634,974	1,744,800	44,232	...	87,650,263
1908	43,370,797	12,545,742	18,348,851	6,898,451	4,097,324	1,728,053	54,048	...	87,043,266
1909	46,202,578	12,937,983	19,593,791	6,432,038	4,731,737	1,734,761	43,393	...	91,676,281
1910	45,560,969	12,882,665	20,331,858	6,267,477	5,158,516	1,788,310	57,240	...	92,047,015
1911	44,722,523	13,857,804	20,740,981	6,171,907	5,411,542	1,823,017	50,983	224,764	93,003,521

* Statistics not collected prior to 1880.

3. **Proportion in the Several States and Territories.**—Particulars concerning the relative positions of the several States and Territories with respect to the total flocks of Australia during the years 1901 and 1907 to 1911, and the variations in such positions which have taken place during those years are as hereunder.

During the period the proportion of total Commonwealth flocks declined considerably in the case of New South Wales, and in a less marked degree in South Australia, Tasmania, and the Northern Territory, while in the case of Queensland a marked advance in proportion was experienced, and in Western Australia to a minor extent; Victoria's proportion in 1911 was practically identical with that in 1901.

**PERCENTAGE OF SHEEP IN EACH STATE AND NORTHERN TERRITORY ON TOTAL
FOR COMMONWEALTH, 1901 and 1907 to 1911.**

Year.	N.S.W. C	Vic.	Q'sland.	S. Aust.	W. Aus.	Tas.	N. T.	Fed. Cap. Terr.	C'wealth.
	%	%	%	%	%	%	%	%	%
1901 ...	58.10	14.82	13.92	6.95	3.65	2.49	0.07	...	100.00
1907 ...	50.73	16.14	19.10	7.79	4.20	1.99	0.05	...	100.00
1908 ...	49.83	14.41	21.08	7.93	4.71	1.98	0.06	...	100.00
1909 ...	50.40	14.11	21.37	7.02	5.16	1.89	0.05	...	100.00
1910 ...	49.50	14.00	22.09	6.81	5.60	1.94	0.06	...	100.00
1911 ...	48.09	14.90	22.30	6.64	5.82	1.96	0.05	0.24	100.00

4. Oversea Imports and Exports of Sheep.—As in the case of cattle, the overseas exports of live sheep from Australia are of comparatively small importance. The principal countries to which such exports have been consigned during recent years are the South African Union, Straits Settlements, and Papua. The following are the particulars of the imports and exports for the years 1901 and 1907 to 1911 :—

COMMONWEALTH IMPORTS AND EXPORTS OF SHEEP, 1901 and 1907 to 1911.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1901 ...	553	12,134	12,094	12,104	11,541	—30
1907 ...	11,759	42,167	11,361	40,040	—398	—2,127
1908 ...	4,020	18,717	13,021	24,452	9,001	5,735
1909 ...	2,775	14,213	5,315	20,243	2,540	6,030
1910 ...	2,863	14,008	13,144	30,456	10,281	16,448
1911 ...	5,254	25,997	24,219	38,724	18,965	12,727

Note. — signifies net imports.

5. Sheep Slaughtered.—The numbers of sheep slaughtered in the several States during 1901 and 1907 to 1911 are as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED, 1901 and 1907 to 1911.

Year.	N.S.W.	Victoria.	Q'land.	Sth. Aust.	W. Aust.	Tas.†	N.T.	Fed. Cap. Terr.	C'wealth.
1901	4,519,133	2,469,797	554,705	*678,000	428,534	322,000	...	...	8,972,169
1907	5,185,057	3,226,141	642,740	1,020,355	465,196	336,000	...	...	10,875,489
1908	5,201,492	3,309,865	705,776	1,212,868	423,056	340,000	300	...	11,193,357
1909	6,430,486	3,708,512	1,076,718	1,335,514	491,103	344,000	523	...	13,386,856
1910	7,470,002	4,245,881	1,751,151	1,316,888	549,977	346,000	516	...	15,679,915
1911	6,539,579	4,348,363	981,153	1,275,734	764,636	350,000	‡516	7,346	14,267,327

* Estimated. † Estimated prior to 1911. ‡ Figures for 1910, those for 1911 not available.

For Hobart and Launceston only the figures for the years 1901 and 1907 to 1910 were respectively :—101,627, 107,859, 115,560, 111,445 and 119,456.

6. Exports of Mutton and Lamb Preserved by Cold Process.—Australia's export trade in mutton and lamb preserved by cold process is one which has, in recent years, advanced rapidly, and for the last two years has averaged £1,898,000 per annum. In all the States considerable attention is now being paid to the breeding of a class of sheep that will best meet the requirements of consumers. Crosses between the Merino and the Lincoln, or between the Merino and the Leicester breeds, have proved exceedingly valuable, as they furnish both a good quality of wool and also an excellent carcase for export purposes. The breeding of Shropshire and Southdown sheep with a view to combining meat production with that of wool is also on the increase. Special attention is being paid to the raising of lambs for the home markets, as it is becoming very widely recognised that with suitable breeds, the export trade in lambs is a very profitable one.

Australia's principal customer in this trade is the United Kingdom, which has absorbed 91.5 per cent. of the total quantity exported from the Commonwealth during the past five years. The South African Union and Canada took 2.1 and 1.6 per cent. respectively, while the balance of about five per cent. was principally absorbed by the Philippine Islands, Malta, and the Straits Settlements. An increasing trade is being done with Hong Kong and Ceylon. The quantities exported to various countries are as follows:—

QUANTITY OF MUTTON AND LAMB PRESERVED BY COLD PROCESS EXPORTED FROM THE COMMONWEALTH, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ...	88,676,913	82,341,131	110,138,905	181,556,597	120,757,079	583,470,625
South African Union ...	14,445,797	5,323,602	2,458,029	2,720,584	2,657,853	27,605,865
Canada ...	2,215,533	719,336	1,138,974	2,309,441	2,077,802	8,461,086
Philippine Islands ...	791,154	673,867	682,116	788,577	859,022	3,794,736
Malta ...	864,062	487,586	630,313	838,871	699,514	3,520,346
Straits Settlements ...	511,813	471,634	568,684	713,836	845,079	3,111,046
Egypt ...	589,210	610,269	455,569	369,611	447,411	2,472,100
Hong Kong ...	270,325	319,382	323,113	318,584	417,316	1,648,726
Ceylon ...	172,504	156,291	117,141	254,212	332,011	1,032,159
Hawaiian Islands ...	196,505	234,412	255,051	145,246	102,361	933,575
Gibraltar ...	168,453	...	67,190	52,590	99,501	387,734
Japan ...	35,690	89,805	22,789	18,681	19,885	186,850
Other Countries ...	289,798	180,299	57,735	142,494	254,461	924,787
Total ...	109,227,757	91,607,614	116,915,639	190,229,330	129,569,235	637,549,63

The corresponding particulars concerning the values of the exports are:—

**VALUES OF FROZEN MUTTON AND LAMB EXPORTED FROM THE COMMONWEALTH,
1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 years.
	£	£	£	£	£	£
United Kingdom ...	1,141,718	1,115,908	1,161,475	2,069,932	1,529,633	7,018,666
South African Union ...	159,298	55,293	23,578	28,935	28,365	295,469
Canada ...	30,216	10,257	14,646	23,132	28,027	106,278
Philippine Islands ...	8,674	8,056	6,059	7,878	9,282	39,949
Malta ...	9,437	5,526	6,262	10,140	8,274	39,639
Straits Settlements ...	5,711	5,261	5,488	7,407	9,781	33,648
Egypt ...	7,760	7,801	4,987	4,385	6,248	31,181
Hong Kong ...	3,011	3,487	2,997	3,288	4,581	17,364
Ceylon ...	2,802	1,722	1,096	2,649	3,910	12,179
Hawaiian Islands ...	3,275	2,927	2,994	1,783	1,549	12,528
Gibraltar ...	1,955	...	700	329	829	3,813
Japan ...	384	891	195	240	202	1,912
Other Countries ...	3,261	1,978	558	1,415	2,941	10,153
Total ...	1,377,502	1,219,107	1,231,035	2,161,513	1,633,622	7,622,779

7. Comparison with other Countries.—As regards the size of its flocks and the quantity and quality of wool produced, Australia occupies the foremost position amongst the sheep-raising countries of the world. The following comparison gives the latest available figures relative to the number of sheep in the principal wool-producing countries:—

NUMBER OF SHEEP IN VARIOUS COUNTRIES.

Country.	Date.	No. of Sheep	Country.	Date.	No. of Sheep.
Australia ...	1911	93,003,521	Rumania ...	1900	1,655,444
Argentine Republic ...	1908	67,211,754	British East Africa ...	1909	5,105,000
Russian Empire ¹ ...	1910	62,877,685	Chile ...	1908	4,224,266
United States of America ...	1909	57,216,000	Mexico ...	1902	3,424,430
United Kingdom ...	1911	30,479,807	Transvaal ...	1910	3,169,708
Uruguay ...	1908	26,286,296	Servia ...	1905	3,160,166
New Zealand ...	1910	23,996,126	Canada ⁴ ...	1910	2,593,470
British India ² ...	1910	23,235,176	Norway ...	1907	1,393,488
Cape Colony ...	1909	18,807,168	Natal ...	1909	1,068,996
France ...	1909	17,357,640	Sweden ...	1909	1,021,719
Spain ...	1910	15,117,105	Netherlands ...	1910	889,036
Italy ...	1908	11,162,926	Denmark ...	1909	726,879
Austria-Hungary ³ { 1909 } 10,333,220			Falkland Islands ...	1909	715,651
	1910		Iceland ...	1904	495,190
Algeria ...	1909	9,066,916	Uganda ...	1909	471,297
Bulgaria ...	1905	8,130,997	Belgium ...	1895	235,722
Germany ...	1907	7,703,710	Switzerland ...	1911	159,727
Orange River Colony ...	1909	7,481,251			

1. Including goats. 2. Exclusive of Eastern Bengal. 3. Austria 1910, Hungary 1909. 4. Exclusive of British Columbia.

8. Relation to Population.—The relation of the flocks of the several States and Territories to the populations at the end of each year 1901 and 1907 to 1911 is as follows:—

NUMBER OF SHEEP PER HEAD OF POPULATION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	C'wealth
1901	30.43	8.82	19.80	13.95	13.56	10.23	10.34	...	18.83
1907	29.22	11.48	30.67	18.28	14.48	9.20	11.84	...	21.06
1908	27.99	10.03	32.94	17.88	15.78	9.01	15.13	...	20.57
1909	28.63	10.13	33.91	16.37	17.81	8.98	12.39	...	21.20
1910	27.72	9.90	33.94	15.40	18.63	9.23	17.34	...	20.80
1911	26.74	10.17	33.34	14.76	18.40	9.42	15.70	117.00	20.36

§ 5. Wool.

1. **Importance of Wool Production.**—The chief contributing factor to the pastoral wealth of Australia is the production of wool, the value of the output for the year 1911 being about £28,400,000. Most of the wool produced in the Commonwealth is exported, but with the increased activity of the local woollen mills there has, in recent years, been an increasing quantity used in Australia, although even now the quantity so used represents little more than $1\frac{1}{2}$ per cent. of the whole clip.

2. **Greasy and Scoured Wool.**—In the returns of imports and exports of wool furnished to the Customs Department the quantities are usually shewn as "greasy," or as "scoured and washed," but for the purpose of comparing the clips of the several States or of the Commonwealth as a whole for a series of years, it is convenient to have the total production expressed in terms of greasy wool.

The total quantity of Australian wool scoured and washed before export is, on the average of the last five years, about $20\frac{1}{2}$ per cent. of the total clip. The ratio of loss of weight in scouring varies largely with season, locality, breed, and condition. It seems preferable to express "scoured and washed" wool in terms of "greasy" rather than *vice versa*, since the absolute error arising from any uncertainty as to the average loss of weight has thus the less effect.

3. **Total Production.**—In the following tables, relative to the production of wool for the five calendar years 1907 to 1911, wool returned as "scoured and washed" has been converted into the estimated equivalent amount of "greasy" on the assumption that two pounds of "greasy" wool are on the average required to produce one pound of "scoured and washed" wool. An allowance has also been made for the quantity of wool exported on sheepskins. On this basis the estimated total production of wool (in the grease) for the years 1907 to 1911 may be said to be as in the following table:—

**PRODUCTION OF WOOL, ESTIMATED AS "GREASY," COMMONWEALTH AND STATES,
FOR CALENDAR YEARS 1907 and 1911.**

State.	1907.	1908.	1909.	1910.	1911.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales	375,224,448	344,550,707	379,388,356	}	}
Victoria	120,017,787	93,999,156	112,102,445		
Queensland	104,173,964	115,283,309	127,531,834		
South Australia	57,830,794	52,040,731	56,415,539		
Western Australia	22,013,541	22,450,624	30,048,360		
Tasmania	10,878,478	13,859,755	12,550,598		
Commonwealth	690,139,012	642,184,282	718,037,132	792,368,466	768,572,533

* Details for individual States not available owing to discontinuance by Customs Department of statistics of Interstate trade.

The estimated production of wool in the several States, formerly based on customs returns, being no longer available from that source, an effort has been made to arrive at approximate figures from data collected by the State Statisticians from growers and fellmongers, etc. The following table gives the estimates so obtained in reference to the past two seasons ended 30th June, 1911 and 1912 :—

ESTIMATED QUANTITY OF WOOL AS IN THE GREASE, SHORN, FELLMONGERED OR ON SKINS SHIPPED DURING THE SEASONS ENDED 30th JUNE, 1911-12.

State.	1910-11.	1911-12.
	lbs.	lbs.
New South Wales*	374,907,068	371,546,415
Victoria	101,803,644	110,463,041
Queensland	139,250,802	142,382,269
South Australia	68,613,781	60,056,470
Western Australia	29,984,453	30,833,837
Tasmania	11,338,540	10,726,593
Northern Territory	400,000	400,000
Commonwealth	721,298,288	726,408,625

* Including Federal Capital Territory.

It is to be noted that an evident shortage has occurred in the collection of these statistics, the estimates falling considerably below the approximate quantities obtained from oversea shipments of wool and skins, together with quantity used in local manufactories. The Commonwealth total so obtained represented 758,090,676 lbs. for the season 1910-11, and 785,753,099 lbs. for 1911-12.

4. Wool Locally Used.—Of this production the quantity used in the manufactories of the several States of the Commonwealth was approximately as follows:—

LOCALLY USED WOOL, ESTIMATED AS "GREASY," COMMONWEALTH AND STATES, 1907 to 1911.

State.	1907.	1908.	1909.	1910.	1911.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales	963,408	1,020,456	1,095,136	1,594,712	2,401,920
Victoria	5,600,873	6,152,250	5,239,806	5,309,730	5,774,868
Queensland	211,362	224,460	301,078	270,246	336,486
South Australia	603,848	672,112	634,250	564,432	634,238
Western Australia ... ..	...	...	...	...	...
Tasmania	929,572	1,044,879	991,388	1,087,400	986,000
Commonwealth	8,309,063	9,114,157	8,261,658	8,826,520	10,133,512

5. Bounties on Combed Wool or Tops Exported.—Under the Bounties Act 1907, bounties are payable on combed wool or tops exported from the Commonwealth, provided they were produced therein. The maximum amount to be paid may not exceed the rate of £10,000 per annum; any unexpended sum may be carried forward and be available for the years following. For the three years commencing 1st January, 1909, the rate of bounty granted is 1½d. per lb.; and for the two years commencing 1st January, 1912, 1d. per lb. is payable. During the year 1908-9, an amount of £326 was paid

in bounties, in 1909-10 £4933, in 1910-11 £8522, while in 1911-12 the amount so distributed was £16,898. The quantities of wool on which these amounts were paid were 52,085, 789,216, 1,363,520 and 3,122,244 lbs. respectively.

Figures shewing the exports of wool tops for the calendar years 1909 to 1911 inclusive will be found at the foot of this page.

6. Exports of Wool.—About forty-five per cent. of the exports of wool from the Commonwealth is despatched to the United Kingdom, the other leading consignees being France, Germany, Belgium, and the United States of America. The following table shews for the years 1907 to 1911 the quantities of "greasy" wool exported from the Commonwealth to the principal countries of destination:—

COMMONWEALTH EXPORTS OF WOOL IN THE GREASE, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ...	227,246,663	225,336,019	210,353,060	222,880,179	230,013,473	1,115,829,394
France ...	130,937,517	104,210,690	128,402,229	154,091,890	155,347,112	672,989,438
Germany ...	71,423,340	80,073,180	102,160,121	122,297,188	105,674,113	481,627,942
Belgium ...	56,605,510	37,557,258	47,381,739	63,305,855	58,469,298	263,319,660
United States of America ...	18,401,395	20,430,274	32,846,145	11,079,242	10,154,171	92,911,227
Japan ...	5,905,962	1,972,449	5,320,455	7,869,785	6,583,686	27,652,337
Italy ...	1,546,395	1,548,760	1,915,544	3,710,785	5,644,235	14,365,719
Austria-Hungary ...	49,057		23,030		5,836,992	5,908,079
India ...	212,759	394,236	271,030	485,990	478,353	1,842,368
New Zealand ...	55,208	62,775	135,954	1,122,446	154,193	1,530,576
Canada ...	264,513	254,300	157,263	208,269	52,299	936,644
Other Countries ...	108,576	6,168	54,643	41,640	415,698	626,725
Total...	512,756,895	471,846,109	529,020,213	587,093,269	578,823,623	2,679,540,109

Similar particulars concerning the exports of "scoured and washed" wool are as follows:—

COMMONWEALTH EXPORTS OF "SCOURED AND WASHED WOOL",*

1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ...	39,037,138	46,401,114	34,168,844	35,571,404	35,940,841	190,119,341
France ...	13,607,538	9,833,368	16,651,577	15,861,390	13,989,442	69,493,315
Germany ...	8,649,996	9,104,503	14,583,296	14,145,596	12,148,316	58,631,707
Belgium ...	9,288,704	5,157,465	7,661,482	11,418,895	7,629,001	41,155,547
Japan ...	2,490,953	722,217	635,722	887,292	1,602,747	6,338,531
Italy ...	85,937	65,361	148,695	212,661	397,004	909,658
India ...	151,851	70,828	74,876	41,962	33,321	372,838
United States of America ...		645	151,309	5,319		157,273
New Zealand ...	1,770	5,871	3,972	32,488	2,934	47,035
Austria-Hungary ...	4,178			1,113	16,734	22,025
Other Countries ...		4,122	2,646	190	10,300	17,248
Total...	72,318,065	70,915,494	74,082,419	78,178,300	71,770,640	367,264,918

*Including "tops." See hereunder.

The figures for "scoured and washed wool" for 1909 include for the first time an export of tops, amounting to 496,492 lbs. and valued at £58,638. In 1910 the corresponding export was 1,123,469 lbs., valued at £134,874, and in 1911, 2,513,106 lbs, valued at £275,406.

The total value of the wool exported from the Commonwealth to each of the various countries during the five years under review was:—

TOTAL VALUE OF WOOL EXPORTED FROM THE COMMONWEALTH, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	£	£	£	£	£	£
United Kingdom	12,933,800	12,022,541	10,562,929	11,447,359	11,159,335	58,125,964
France	7,004,581	4,407,940	5,594,983	6,905,177	6,016,293	29,928,974
Germany	4,117,394	3,632,708	5,006,623	6,053,873	4,851,785	23,662,383
Belgium	3,417,193	1,742,639	2,230,206	3,084,847	2,552,282	13,027,167
United States of America	815,254	881,172	1,691,389	579,605	500,015	4,467,435
Japan	481,771	125,408	264,630	420,622	459,000	1,751,431
Italy	77,413	67,021	97,756	181,457	245,804	669,451
Austria-Hungary	2,892	...	1,025	55	242,461	246,433
India	20,115	21,708	16,657	24,268	21,290	104,038
New Zealand	2,860	1,669	6,637	67,219	6,199	84,584
Canada	11,903	10,873	7,748	10,695	2,824	44,043
Other Countries	6,654	557	2,527	2,106	13,905	25,749
Total	28,891,830	22,914,236	25,483,110	28,777,283	26,071,193	132,137,652

7. **Care needed in Comparing Clips.**—The Customs returns do not furnish a reliable indication of increase or decrease in successive clips, since in each case they relate to the year ended 31st December. Ordinarily, therefore, they include for any year imports and exports of wool belonging to two distinct clips. A further defect in the comparability of successive clips arises as follows:—Owing to climatic or other conditions, the time of shearing may be so far delayed that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth. An instance of this occurred in some portions of the Commonwealth in connection with the clips of 1906 and 1907. The shearing in the former case was somewhat late, while in the latter it took place at the usual time, the result being that the 1906 clip was above and that of 1907 below the normal.

Similar circumstances operated to make the 1909 clip somewhat higher and the 1910 clip somewhat lower than would have been the case had the interval between successive shearings been exactly a year.

8. **Wool-producing Countries in Southern Hemisphere.**—The next table, compiled by Messrs. Helmuth Schwartze and Co., the well-known firm of English wool brokers, furnishes interesting evidence of the relative importance of the three great wool-producing countries of the Southern Hemisphere. The figures given represent for the respective years the imports of wool into Europe and North America:—

IMPORTS OF WOOL INTO EUROPE AND NORTH AMERICA, 1901 and 1907 to 1911.

Year.	Commonwealth and New Zealand.	Cape Colony.	River Plate.	Total.
	Bales.	Bales.	Bales.	Bales.
1901	1,745,000	217,000	532,000	2,494,000
1907	2,103,000	287,000	478,000	2,868,000
1908	2,072,000	276,000	484,000	2,832,000
1909	2,296,000	380,000	571,000	3,247,000
1910	2,411,000	377,000	461,000	3,249,000
1911	2,524,000	376,000	499,000	3,399,000
1912	2,463,010	463,000	497,000	3,423,000

As the River Plate is much larger than the Australian or Cape bale, a comparison of the number of bales would be somewhat misleading. Allowing approximately for the difference in size of the several bales, it may be said that during the last five years the importations from Australia and the Dominion of New Zealand represent about 65 per cent. of the total.

9. **United Kingdom Importation of Wool.**—The quantity and value of wool imported into the United Kingdom during the year 1911 from the principal wool-producing countries, furnish evidence of the important position which the Commonwealth occupies in the supply of wool to the mother country. This is shewn in the following table:—

IMPORTS OF WOOL INTO THE UNITED KINGDOM, 1911.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	lbs.	£		lbs.	£
Australia ...	323,990,858	14,510,323	Peru ...	2,980,529	118,919
New Zealand ...	174,120,629	7,476,011	Russia ...	2,856,249	109,126
Cape Colony ...	72,342,862	2,764,247	Egypt ...	3,329,271	91,786
France ...	22,544,786	1,406,967	Portugal ...	1,467,416	48,150
British India ...	56,587,549	1,553,035	China ...	2,983,312	100,968
Argentine Republic	50,139,416	1,966,848	Netherlands ...	334,544	11,915
Natal ...	29,509,761	1,047,029	Canada ...	205,068	5,414
Chile ...	20,519,024	649,135	Italy ...	940,385	39,223
Turkey ...	11,939,496	327,876	Persia ...	450,010	12,569
Belgium ...	3,214,902	174,178	Spain ...	303,460	8,778
Germany ...	2,380,076	124,201	Other Countries ...	1,414,804	47,705
U.S. of America ...	1,762,668	71,291			
Falkland Islands	2,577,140	86,423			
Uruguay ...	5,620,685	225,162	Total ...	794,514,850	32,977,782

It will be seen that of the total importations of wool into the United Kingdom, Australian wool represented about 41 per cent. of quantity and 44 per cent. of value.

10. The Wool Market.—The market for wool, which had been for some years steadily improving, received a severe set-back in the early portion of the season 1907-8 by the disastrous financial crisis which occurred in America soon after the commencement of that season. The result was that buying was restricted, prices fell, and a considerable quantity of wool was withdrawn from sale and held over until the succeeding season. The season 1908-9 consequently opened rather inauspiciously, but, although prices did not reach the high level attained in 1906-7, the demand, particularly in the latter part of the season, was much more spirited than in 1907-8, and the sales must be regarded as having been very satisfactory. The season 1909-10 opened favourably and prices exhibited a distinctly upward tendency, with the result that the price averaged over 20 per cent. more than was obtained during the preceding year. The 1910-11 season opened with a fall of 10 per cent. on the closing rates of the previous season; values gradually recovered before the middle of the series, when wool was selling almost as well as at any period of the previous year; prices again declined $7\frac{1}{2}$ to 10 per cent., but made a good recovery towards the close of the season, the average for the year being 8 per cent. below that of the previous year. At the commencement of the 1911-12 season values were fully 10 per cent. lower than those ruling at the close of the previous sales. The strained international relationship existing among the European powers was mainly responsible for this. Early in October the market experienced a further decline of $2\frac{1}{2}$ per cent. on good wools and of about 5 per cent. on inferior sorts. Towards the end of that month a hardening tendency was manifested, the increased American demand having a material effect in hastening the improvement. During the middle of the season a further advance on prices was in evidence, and this, with a few slight fluctuations was well maintained throughout the rest of the season. The level of prices throughout 1911-12 was some $7\frac{1}{2}$ per cent. lower than during the previous season.

During the sales of 1911-12 the prices realised for greasy merino wool ranged up to 18 $\frac{1}{2}$ d. per lb. for a few lines of extra super. Western District (Victoria) wool, super. to 14 $\frac{1}{2}$ d., good to 12 $\frac{1}{2}$ d., average to 12d., and inferior from 6 $\frac{1}{2}$ d. to 8d. Amongst other classes of wool extra super. comebacks brought as high as 14 $\frac{1}{2}$ d., and super. 13d. Super. crossbreds sold up to 12 $\frac{1}{2}$ d., fine to 11 $\frac{1}{2}$ d., medium to 9d., and coarse to 9 $\frac{1}{2}$ d. Scoured wool ranged from 15d. to 24 $\frac{1}{2}$ d.

The average values per lb. of Australian greasy wool according to the export returns for the past ten years have been as follows:—

EXPORT VALUE PER LB. OF AUSTRALIAN GREASY WOOL, 1902 to 1911.

Year	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Average value per lb. ...	d. 8.04	d. 8.75	d. 9.30	d. 9.83	d. 10.14	d. 10.73	d. 9.17	d. 9.35	d. 9.58	d. 8.87

(i.) *Exports of Wool from each State and Quantity sold Locally.* Over 84 per cent. of the wool grown in Australia is now sold in the local markets prior to export from the Commonwealth. Buyers from the United Kingdom, France, Germany, and other European countries, also from America, Japan, China, and India attend the sales conducted in Sydney, Melbourne, Geelong, Brisbane, Adelaide, Fremantle, Hobart, and Launceston. The concentration of the trade being a feature decidedly to be desired, it is doubtful whether the tendency towards the multiplication of the Australian markets can be viewed with entire satisfaction; the effect of dividing the buying power must be detrimental to the best interests of both growers and buyers.

The following table shews the number of bales of wool exported overseas from each State during the season ended 30th June, 1912, and the proportion sold at the local sales prior to shipment. It must be noted that considerable quantities of wool grown in some States are sold in or shipped from others, these figures therefore do not shew actual local production, but total overseas shipments and sales. The estimated quantity of wool produced in each State is given in page 346.

**EXPORTS OF WOOL TO PLACES OUTSIDE THE COMMONWEALTH, AND THE
QUANTITY SOLD LOCALLY IN THE SEVERAL STATES, DURING THE
SEASON ENDED 30th JUNE, 1912.**

State.	Overseas Exports.		Sold at Local Sales prior to Export.		Ratio of Local Sales to	
					Overseas Exports from each State.	Total Ex- ports from C'wealth.
	Bales.	%	Bales.	%	%	%
New South Wales	897,551	44.42	773,991	45.52	86.23	38.31
Victoria	562,287	27.83	523,219	31.06	93.94	26.14
Queensland	288,515	14.28	229,345	13.49	79.49	11.35
South Australia	176,985	8.76	147,375	8.67	83.27	7.29
Western Australia	76,874	3.80	1,247	0.07	1.62	0.06
Tasmania... ..	18,335	0.91	20,317	1.19	110.81	1.01
Commonwealth	2,020,547	100.00	1,700,494	100.00	84.16	84.16

It will be seen that in regard to the ratio of local sales to exports, Victoria's sales represent nearly 94 per cent. of her exports, New South Wales about 86, South Australia 83, and Queensland 79½ per cent. In Tasmania some of the wool sold locally was subsequently shipped to interstate ports. Of the total quantity sold in the Commonwealth, New South Wales and Victoria disposed of 45.52 and 31.06 per cent. respectively; Queensland, South Australia, Tasmania, and Western Australia following next in the order named.

During the season under review 2,020,547 bales of wool were shipped from the Commonwealth, of which 84.16 per cent. was sold in the Australian markets. Of this ratio New South Wales and Victoria are represented by nearly 64½, Queensland and South Australia 18½, while Tasmania and Western Australia account for the balance.

(ii.) *Exports of Wool from Commonwealth and Quantity sold Locally.* The number of bales of wool exported from the Commonwealth and sold at local sales prior to shipment during 1895, 1900, 1905, and the five past seasons is shewn in the following table :—

**EXPORTS OF WOOL FROM THE COMMONWEALTH, AND THE QUANTITY SOLD
LOCALLY, FROM 1895 to 1912.**

Year ended 30th June.					Oversea Ex- ports.	Sold prior to Export.	Ratio of Wool sold to Exports.
					Bales.	Bales.	%
1895	...	...	...	...	1,595,652	817,333	51.22
1900	...	...	...	...	1,221,163	807,031	66.09
1905	...	...	...	...	1,218,969	926,940	76.04
1908	...	...	...	...	1,620,890	1,218,772	75.19
1909	...	...	...	...	1,796,347	1,449,917	80.71
1910	...	...	...	...	1,921,705	1,624,561	84.54
1911	...	...	...	...	1,975,378	1,642,555	83.15
1912	...	...	...	...	2,020,547	1,700,494	84.16

The steady development of the Australian wool market is clearly shewn in this table. In seventeen years the quantity sold has more than doubled, and the ratio of wool sold to that exported has increased from 51 per cent. in 1895 to over 84 per cent. in the season ended 30th June, 1912.

The first auction sale of wool in Australia took place in Sydney on 23rd September, 1843, and was held by the late Mr. T. S. Mort; it comprised a catalogue of 2 bales.

For many years Melbourne was the chief wool centre of Australia; it was not till the early eighties that Sydney attained the leading position.

During the early history of the wool trade the bulk of the wool sold was purchased on commission for a few Bradford, Scotch, or Continental woollen mills, or by speculators for re-sale in the London market.

The late Mr. Richard Goldsbrough, a man of marked ability, thoroughly trained in the handling of wool, and of unbounded energy and business acumen, perhaps did more than any other man to bring Australia's potentialities as a wool market prominently before the world's buyers and to induce the growers to sell their wool in the Melbourne and Sydney markets.

Numerous French, German, and American houses were attracted to Australia in the early seventies. The American buyers who in 1867-8 shipped only 1200 from Australia, purchased 18,659 bales four years later, while in 1885-6 no less than 20,161 bales went to the United States. The American demand gave a general firmness to the market. French and German buyers competed against them for the best lots. Every year more growers realised the advantage of having a reliable market at their door, and the quantity of wool offering soon assumed large proportions.

Australia was now firmly established as a formidable rival to London for the premier position as a wool distributing centre. Buyers, who had formerly confined their operations to the home markets, realised that a progressive system of auction selling was rapidly being inaugurated in Melbourne and Sydney, and that by buying in Australia they could not only secure their supplies much earlier, but could have the additional advantage of gaining a first selection of the famous Port Phillip and other Australian clips. During the past season 1,700,494 bales of wool were sold in Australia and 226,432 bales in New Zealand, representing the total value of £22,682,000. This enormous quantity far exceeds the sales of any other country in the world.

(iii.) *Distribution of Wool sold in Australian Markets.* The estimated approximate distribution of wool sold in the local markets during the season 1911-12 is shewn in the following table, and exhibits the world-wide representation of buyers at the Australian sales :—

**ESTIMATED APPROXIMATE DISTRIBUTION OF WOOL SOLD LOCALLY IN THE
SEVERAL STATES OF THE COMMONWEALTH DURING THE SEASON
ENDED 30th JUNE, 1912.**

Destination.	N. S. W.	Victoria.	Q'land.	S. Aust. (a)	Tas.	C'wealth.
	Bales.	Bales.	Bales.	Bales.	Bales.	Bales.
United Kingdom	92,528	197,008	30,993	62,770	9,220	392,519
France, Belgium, and Holland	311,629	187,298	103,742	50,648	4,858	658,175
Germany	263,088	68,362	75,508	12,018	1,812	420,788
Austria, Italy and other Euro- pean Countries	51,666	14,424	3,128	102	375	69,695
America	10,090	38,100	3,102	906	1,052	53,250
Japan, China and India	20,002	1,570	4,135	...	...	25,707
Local Woollen Mills	24,988	21,457	8,737	22,178	3,000	32,060
Scourers and Speculators						48,300
Total Sales	773,991	528,219	229,345	148,622	20,317	1,700,494

PERCENTAGE DISTRIBUTION.

	%	%	%	%	%	%
United Kingdom	11.95	37.30	13.51	42.23	45.38	23.08
France, Belgium and Holland	40.26	35.46	45.23	34.08	28.91	38.70
Germany	33.99	12.94	32.92	8.09	8.92	24.75
Austria, Italy and other Euro- pean Countries	6.68	2.73	1.37	0.07	1.85	4.10
America	1.30	7.21	1.35	0.61	5.18	3.13
Japan, China, India	2.59	0.30	1.81	...	...	1.51
Local Woollen Mills	3.23	4.06	3.81	14.92	14.76	1.89
Scourers and Speculators						2.84
Total Sales	100.00	100.00	100.00	100.00	100.00	100.00

(a) Including Western Australia, 1,247 bales.

Of the total quantity sold, amounting to 1,700,494 bales, 1,148,658 were purchased for the Continent of Europe, 392,519 for the United Kingdom, 53,250 for America, 25,707 for Asiatic countries, 48,300 by scourers and speculators, while 32,060 bales went for consumption in the local woollen mills. Of the Continental purchases nearly 57 per cent. went to France, Belgium and Holland, 37 per cent. to Germany, and 6 per cent. to Austria, Italy and other European countries.

(iv.) *Quantities of Various Descriptions of Wool Sold in each State.* The quantities and ratios of the various descriptions of wool marketed in each State are shown in the following tables:—

**PROPORTIONS OF THE VARIOUS DESCRIPTIONS OF WOOL SOLD LOCALLY IN
THE SEVERAL STATES OF THE COMMONWEALTH DURING THE SEASON
ENDED 30th JUNE, 1912.**

Description of Wool.			N S.W.	Vic.	Q'land.	S. Aust. (a)	Tas.	Common- wealth.
			Bales.	Bales.	Bales.	Bales.	Bales.	Bales.
Greasy	...	...	688,500	515,620	186,173	146,781	20,317	1,557,391
Scoured	...	...	85,491	12,599	43,172	1,841	...	143,103
Total	...	...	773,991	528,219	229,345	148,622	20,317	1,700,494
Fleece, etc.	...	...	743,031	492,053	220,632	139,328	19,573	1,614,617
Lambs	...	...	30,960	36,166	8,713	9,294	744	85,877
Total	...	...	773,991	528,219	229,345	148,622	20,317	1,700,494
Merino	...	...	727,552	289,353	226,675	131,090	8,736	1,383,406
Crossbred and all strong breeds	...	...	46,439	238,866	2,670	17,532	11,581	317,088
Total	...	...	773,991	528,219	229,345	148,622	20,317	1,700,494
			%	%	%	%	%	%
Greasy	...	...	89	98	81	99	100	91.6
Scoured	...	...	11	2	19	1	...	8.4
Total	...	...	100	100	100	100	100	100.0
Fleece	...	...	96	93	96	94	96	94.9
Lambs	...	...	4	7	4	6	4	5.1
Total	...	...	100	100	100	100	100	100.0
Merino	...	...	94	55	99	88	43	81.4
Crossbred and all strong breeds	...	...	6	45	1	12	57	18.6
Total	...	...	100	100	100	100	100	100.0

(a) Including 1247 bales sold in Western Australia.

Wool in the grease represented 91½ per cent. of total sales during the period under review. Of fleece and lambs, the former shews about 95, and the latter 5 per cent. The class of wool principally produced is merino, which is almost exclusively grown in

the northern and central parts of the continent, the bulk of the merino wool sold in Victoria coming from Riverina and other parts of New South Wales. Victoria, the southern parts of South Australia and of New South Wales, and Tasmania, produce nearly every bale of crossbred and other strong bred wools.

(v.) *Percentages in each State of Various Descriptions of Wool Sold.* The following table gives the percentages of each description of wool sold in the several States during the season 1911-12 :—

PERCENTAGE OF BALES OF EACH DESCRIPTION OF WOOL SOLD IN THE SEVERAL STATES TO THE TOTAL SOLD IN THE COMMONWEALTH, 1911-12.

Description of Wool.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	Tas.	Common- wealth.
	%	%	%	%	%	%
Greasy ...	44.21	33.11	11.95	9.42	1.31	100.00
Scoured ...	59.74	8.80	30.17	1.29	...	100.00
Fleece, etc. ...	46.02	30.47	13.66	8.64	1.21	100.00
Lambs ...	36.05	42.11	10.15	10.82	0.87	100.00
Merino ...	52.59	20.92	16.38	9.48	0.63	100.00
Crossbred and all strong breeds	14.65	75.33	0.84	5.53	3.65	100.00

§ 6. Hides and Sheepskins.

1. **Extent of Trade.**—In addition to the hides and sheepskins treated in the tanneries of the several States, a very considerable export trade is carried on, the total value of the hides and sheepskins exported from Australia during the five years 1907 to 1911 being no less a sum than £10,472,823, or an average of £2,094,565 per annum.

2. **Sheepskins with Wool.**—By far the largest item included in the amount mentioned in the preceding paragraph arises from the value of sheepskins with wool exported, which are shipped principally to France and the United Kingdom. Details concerning the number so exported during the five years 1907 to 1911 are as follows :—

COMMONWEALTH EXPORTS OF SHEEPSKINS WITH WOOL, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	No.	No.	No.	No.	No.	No.
France ...	3,561,771	3,265,111	3,140,764	4,325,337	4,322,505	18,615,488
United Kingdom	2,711,346	3,522,791	3,968,494	3,763,002	3,306,567	17,272,200
Belgium ...	957,819	710,902	1,100,023	1,282,942	1,020,847	5,072,533
Germany ...	57,909	124,465	57,041	106,534	109,621	455,570
U.S. of America...	27,833	11,041	86,664	155,782	39,811	321,131
Italy ...	6,906	44,083	27,565	29,575	26,140	134,269
Canada ...	4,268	...	...	10,446	...	14,714
New Zealand ...	...	225	...	100	...	325
Other Countries ...	152	...	234	...	6,869	7,255
Total ...	7,328,004	7,678,618	8,380,785	9,673,718	8,832,360	41,893,485

The next table furnishes corresponding particulars as to value:—

**VALUE OF SHEEPSKINS WITH WOOL EXPORTED FROM THE COMMONWEALTH,
1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	£	£	£	£	£	£
France ...	760,421	508,477	598,172	884,450	735,259	3,486,779
United Kingdom ...	628,318	515,937	737,592	710,229	568,618	3,160,694
Belgium ...	243,988	123,456	274,823	316,958	253,995	1,213,220
Germany ...	10,446	23,338	9,566	16,720	13,195	73,265
U.S. of America...	5,981	1,058	9,836	16,978	3,706	37,559
Italy ...	2,244	10,621	10,244	9,630	4,075	36,814
Canada...	634	...	...	1,071	...	1,705
New Zealand ...	...	25	...	25	...	50
Other Countries ...	26	...	63	...	697	786
Total ...	1,652,058	1,182,912	1,640,296	1,956,061	1,579,545	8,010,872

3. Sheepskins without Wool.—In the case of sheepskins without wool the principal countries to which export takes place are the United Kingdom and the United States of America. Particulars concerning the quantities exported are as follows:—

COMMONWEALTH EXPORTS OF SHEEPSKINS WITHOUT WOOL, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	No.	No.	No.	No.	No.	No.
United Kingdom ...	2,370,759	1,086,103	1,140,338	875,994	459,252	5,932,446
United States of America ...	219,296	167,460	1,285,946	710,001	590,582	2,973,285
France ...	2,804	101,767	3,315	23,863	21,666	153,415
New Zealand ...	2,522	5,040	9,840	15,552	9,484	42,438
Germany ...	684	2,812	...	14,447	...	17,943
Belgium ...	1,080	...	...	8,428	331	9,839
Canada ...	600	...	1,068	1,956	...	3,624
Italy ...	72	...	...	...	...	72
Other Countries ...	1,020	475	...	...	...	1,495
Total ...	2,598,837	1,363,657	2,440,507	1,650,241	1,081,815	9,134,557

Corresponding details concerning value are given hereunder:—

**VALUE OF SHEEPSKINS WITHOUT WOOL EXPORTED FROM THE
COMMONWEALTH, 1907 to 1911.**

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	£	£	£	£	£	£
United Kingdom ...	176,484	62,605	50,077	37,015	17,138	343,319
United States of America ...	19,191	7,390	57,795	22,544	16,295	123,215
France ...	210	7,477	312	1,711	1,225	10,935
New Zealand ...	248	272	422	514	196	1,652
Germany ...	22	184	...	538	...	744
Belgium ...	103	...	...	396	12	511
Canada ...	37	...	50	115	...	202
Italy ...	8	...	...	...	...	8
Other Countries ...	72	38	...	...	...	110
Total ...	196,375	77,966	108,656	62,833	34,866	480,696

4. **Hides.**—The Commonwealth trade in hides has now assumed considerable proportions, and during 1911 the total value of hides exported amounted to £611,257. The exports took place principally to the United Kingdom, Belgium, Germany, Italy, the United States of America, and France. Large quantities of hides are also imported into the Commonwealth, mainly from New Zealand and the Pacific Islands. The total value of hides imported during 1911 was £143,893.

Particulars concerning the export of hides during the past five years are as follows:—

COMMONWEALTH EXPORTS OF HIDES, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	No.	No.	No.	No.	No.	No.
United Kingdom	78,603	152,107	196,827	253,442	245,993	926,972
Belgium ...	52,507	63,377	79,977	41,326	80,453	317,640
Germany ...	22,098	99,745	47,335	21,810	64,536	255,524
Italy ...	36,749	43,156	11,316	45,541	68,991	205,753
U.S. of America...	10,118	15,012	56,131	21,318	29,232	131,811
France ...	2,841	20,971	20,546	11,938	15,790	72,086
Canada ...	4,586	1,050	3,737	4,000	33,519	46,892
Japan ...	5,867	1,670	6,598	4,697	6,486	25,268
Austria-Hungary	3,363	5,998	515	...	103	9,979
Sth. African Union	100	50	200	...	...	350
Other Countries ...	469	24	166	1,975	5,815	8,449
Total ...	217,301	403,160	423,348	406,047	550,868	2,000,724

In the next table are given particulars relative to the value of hides exported:—

VALUE OF HIDES EXPORTED FROM THE COMMONWEALTH, 1907 to 1911.

Country to which Exported.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
	£	£	£	£	£	£
United Kingdom	72,693	106,619	177,738	294,702	279,474	931,226
Belgium ...	57,242	54,674	89,547	48,343	91,110	340,916
Germany ...	21,251	68,413	42,710	23,947	79,530	235,851
Italy ...	28,702	24,891	8,333	41,983	62,047	165,956
U.S. of America...	7,969	12,079	56,639	21,988	28,772	127,447
France ...	2,782	15,205	22,805	11,073	17,988	69,853
Canada ...	4,795	1,127	3,591	4,049	35,320	48,882
Japan ...	11,327	2,235	10,315	7,873	11,060	42,810
Austria-Hungary	3,137	5,360	627	...	161	9,285
Sth. African Union	100	42	260	...	...	402
Other Countries...	497	23	225	2,087	5,795	8,627
Total ...	210,495	290,668	412,790	456,045	611,257	1,981,255

From the above tables it may be seen that the value per hide exported has increased from 19s. 4½d. in 1907 to 22s. 2d. in 1911, an increase of over 14½ per cent.

The number and value of hides imported into the Commonwealth during the five years 1907 to 1911 are as follows:—

HIDES IMPORTED INTO THE COMMONWEALTH, 1907 to 1911.

Particulars.	1907.	1908.	1909.	1910.	1911.	Total for 5 Years.
No. ...	183,678	183,362	186,375	119,408	97,926	720,749
Value ... £	220,574	204,358	173,251	169,771	143,893	911,847

§ 7. Graphical Representation of Pastoral Production.

1. **General.**—As comparatively complete statistics relative to the number of horses, cattle, sheep and pigs are available from 1860, the graphical representation of the increase in numbers for the Commonwealth as a whole, shewn on page 359, covers the period from 1860 to 1911.

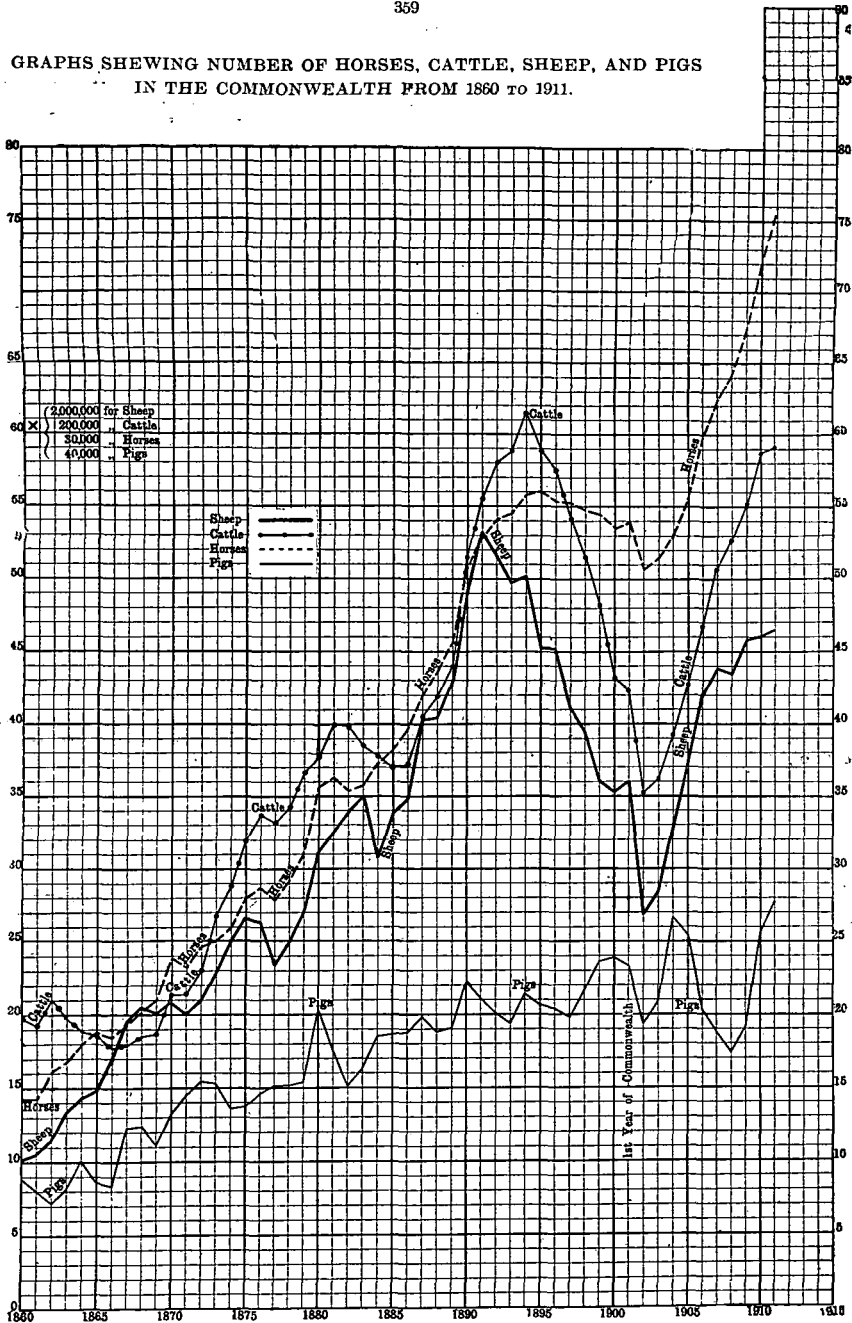
2. **Horses.**—With relatively unimportant fluctuations the number of horses in the Commonwealth increased at a fairly consistent rate until 1895, when a decline set in, culminating in the losses of the disastrous drought of 1902. At this latter point the number was practically identical with that for 1890. From 1902 onwards a rapid improvement has been experienced, and in 1906 the previous maximum attained in 1895 was passed. Previous periods of decline were experienced in 1866, 1871, 1877 and 1882.

3. **Cattle.**—The graph for cattle furnishes evidence of rapid increase in number, interrupted by three marked periods of decline, of which the first extended from 1862 to 1866, the second from 1881 to 1885, and the third from 1894 to 1902. So extensive was this last-mentioned decline that the number receded to that of 1879. Since 1902 a rapid recovery has taken place, and the total for 1911 exceeds that existing at the end of the year 1895, though still short of the maximum attained in 1894.

4. **Sheep.**—In the case of sheep the graph furnishes evidence of four periods in which the upward movement in number has been arrested or reversed. The first of these occurred between 1868 and 1871, the second between 1875 and 1877, the third during 1884, and the fourth, by far the most serious, between 1891 and 1902. From 1902 to 1907 a rapid increase took place, succeeded by a slight decline in 1908, and a rapid advance in 1909, 1910 and 1911. The point now reached is the highest since 1894.

5. **Pigs.**—The graph for pigs exhibits more numerous fluctuations than that for either of the other classes of live stock represented, and from 1904 to 1908 furnished evidence of a persistent decline. In 1909, however, an upward movement took place; and this was well maintained during the two succeeding years, the 1911 returns exceeding all previous records.

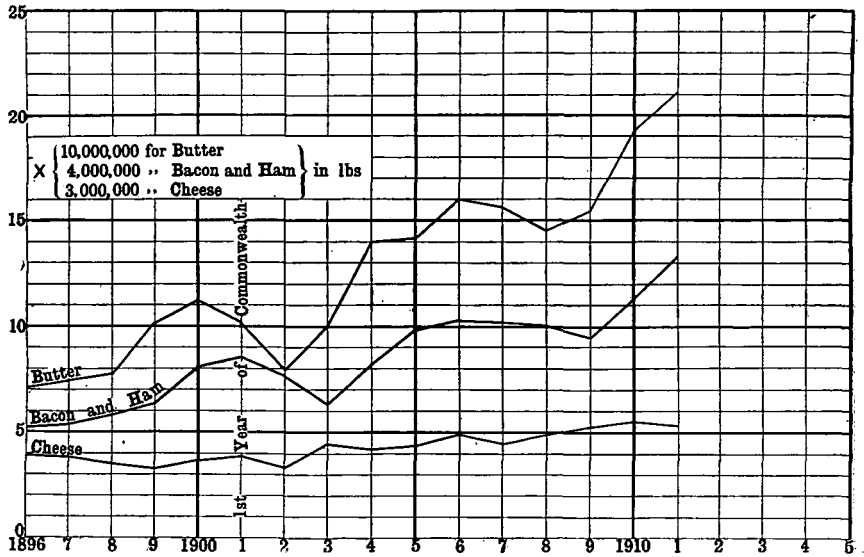
GRAPHS SHEWING NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS
IN THE COMMONWEALTH FROM 1860 TO 1911.



(See pages 334, 338, 342, and 436.)

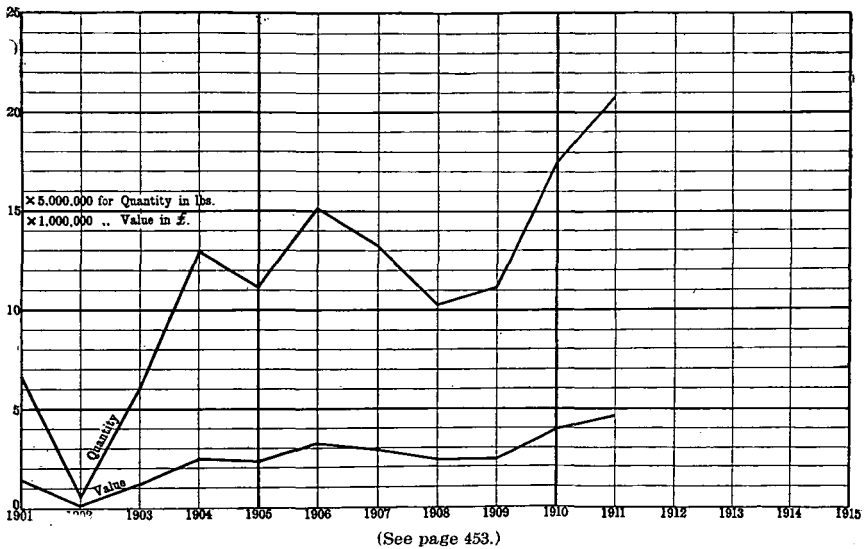
EXPLANATION OF GRAPH.—The base of each small square represents an interval of one year. The totals of the sheep, cattle, horses, and pigs for the Commonwealth are indicated by the several curves or graphs, the vertical side of a small square representing 2,000,000 in the case of sheep; 200,000 for cattle; 30,000 for horses; 40,000 for pigs.

GRAPHS SHEWING THE PRODUCTION OF BUTTER AND CHEESE, AND BACON AND HAM, IN THE COMMONWEALTH, FROM 1896 TO 1911.



EXPLANATION OF GRAPH.—The base of each small rectangle represents an interval of one year, and the vertical height of each small rectangle denotes in the case of butter 10,000,000 lbs.; in the case of bacon and ham, 4,000,000 lbs.; and in the case of cheese 3,000,000 lbs.

GRAPHS SHEWING THE QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM THE COMMONWEALTH, FROM 1901 TO 1911.



EXPLANATION OF GRAPH.—The base of each small rectangle represents an interval of one year, and the vertical height of each small rectangle represents 5,000,000 lbs. in weight, or £1,000,000 in value.