

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 depredation 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 kind of live stock in the Commonwealth from 1860 to 1900 at quinquennial intervals, and thence onwards in single years, are given in the following table, and are shewn continuously in the graphs as given hereinafter.

During the forty-seven years covered by the table on the next page the live stock of the Commonwealth increased considerably, horses by 334 per cent., cattle 157 per cent., sheep 335 per cent., and pigs 115 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 3.17 per cent. per annum; cattle, 2.03 per cent.; sheep, 3.18 per cent.; and pigs, 1.64 per cent.

COMMONWEALTH LIVE STOCK, 1860 to 1907.

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	1,068,402	7,527,142	62,186,702	815,776
1885	1,143,064	7,397,947	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
1901	1,620,420	8,493,678	72,040,211	931,309
1902	1,524,601	7,067,242	53,668,347	777,289
1903	1,546,054	7,254,258	56,932,705	837,368
1904	1,595,256	7,849,520	65,823,918	1,062,703
1905	1,673,805	8,525,025	74,403,704	1,014,853
1906	1,765,186	9,349,409	83,687,655	813,569
1907	1,871,714	10,180,214	87,650,263	754,101

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, and in 1902. The last-mentioned 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 five years from 1902 to 1907, horses increased by 347,113, cattle by 3,112,972, and sheep by 33,981,916, the corresponding increases per cent. being horses 22.77 per cent., cattle 44.05 per cent., and sheep 63.32 per cent.

The number of horses in the Commonwealth at the end of 1907 was higher than for any previous year. The number of cattle was higher than for any year since 1898, and the number of sheep higher than for any year since 1896. The years in which the numbers of live stock attained their maxima are as follows:—Horses, 1907, 1,871,714; cattle, 1894, 12,311,617; sheep, 1891, 106,421,068; and pigs, 1904, 1,062,703.

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 forty-seven years in the manner shewn in the succeeding table:—

NUMBER OF LIVE STOCK PER HEAD OF POPULATION, 1860 to 1907.

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	1901 ...	0.42	2.22	18.83	0.24
1870 ...	0.43	2.60	25.24	0.33	1902 ...	0.39	1.82	13.82	0.20
1875 ...	0.44	3.37	27.99	0.29	1903 ...	0.39	1.85	14.50	0.21
1880 ...	0.48	3.37	27.87	0.37	1904 ...	0.40	1.97	16.52	0.27
1885 ...	0.42	2.75	25.05	0.28	1905 ...	0.41	2.10	18.36	0.25
1890 ...	0.48	3.27	31.06	0.28	1906 ...	0.43	2.27	20.31	0.20
1895 ...	0.48	3.36	25.93	0.24	1907 ...	0.45	2.43	20.88	0.18

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 forty-seven years under review, the number of horses varied but slightly in proportion to population, the range being from 0.38 to 0.48 per head. In the case of cattle, the limits of variation were 1.82 and 3.45; sheep, 13.82 and 31.06; and pigs, 0.18 and 0.37.

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States of the Commonwealth on 31st December, 1907, were as follows:—

NUMBER OF LIVE STOCK PER SQUARE MILE, 31st DECEMBER, 1907.

State.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.86	8.86	143.26	0.70
Victoria	4.83	20.97	160.97	2.40
Queensland	0.73	5.80	24.96	0.20
South Australia...	0.25	0.78	7.61	0.10
Western Australia	0.12	0.79	3.78	0.05
Tasmania	1.54	8.22	66.56	1.78
Commonwealth	0.63	3.42	29.47	0.25

7. **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 1901 to 1907 are as follows:—

QUANTITIES OF NET EXPORTS OF PRINCIPAL PASTORAL PRODUCTS OF THE COMMONWEALTH, 1901 to 1907.

Products.	Unit of Quantity.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Animals (living)—								
Cattle	No.	2,299	1,560	778	625	258	391	504
Horses	"	32,228	17,249	9,346	12,812	20,487	10,346	12,116
Sheep	"	11,541	23,358	13,384	5,132	6,569	6,477	—398
Bones	cwt.	13,921	13,186	29,341	4,719	8,745	1,570	4,459
Hoofs	"	24,027	21,085	19,832	16,952	19,396	4,897	6,784
Horns	"	19,420	17,812	19,832	21,912	19,355	15,973	15,944
Glue Pos. & Sinews	cwt.	21,062	19,420	17,812	19,832	21,912	19,355	21,941
Glycerine	lb.	*	*	600,022	760,282	1,217,175	921,828	592,435
Hair	"	364,692	432,900	400,173	244,649	235,161	337,933	313,275
Meats—								
Frozen Beef	lb.	90,707,274	77,510,532	59,999,559	37,072,455	43,460,360	41,561,252	52,050,592
Frozen Mutton †	"	66,288,326	42,535,383	34,965,939	46,472,597	86,764,222	90,684,899	109,227,757
Skins—								
Hides	No.	111,826	206,469	86,724	38,900	67,123	1,556	33,623
Sheep	"	*	*	6,537,308	4,164,063	7,237,303	7,696,930	9,691,688
Rabbit and Hare	cwt.	*	*	34,595	60,190	73,417	105,569	100,802
Other, including Undressed Furs	"	*	*	*	*	*	*	*
Tallow	"	571,680	328,289	241,286	512,684	693,117	689,178	674,723
Wool—Greasy	lb.	385,087,467	286,499,002	263,241,958	339,137,226	380,257,165	415,141,932	512,036,100
Scoured	"	66,358,262	49,362,423	61,135,654	55,897,173	56,758,160	64,882,602	72,295,353

* Quantity not available. † Including lamb. Note. — signifies net imports.

The values of the net exports for the same seven years are furnished in the table on the next page and amount to no less a total than £162,813,452 for the period, or an average of £23,259,065 per annum, of which wool represents about 80 per cent. Skins, meats, and tallow, rank next in order of importance.

**VALUES OF NET EXPORTS OF PRINCIPAL PASTORAL PRODUCTS
OF THE COMMONWEALTH, 1901 to 1907.**

Products.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Animals (living)—	£	£	£	£	£	£	£
Cattle ...	18,497	—30,229	—267	—788	4,860	—1,389	—1,445
Horses ...	418,647	218,386	149,946	188,542	327,447	206,006	266,325
Sheep ...	—30	—50,484	14,628	—1,837	—6,834	—2,704	—2,127
Bones ...	4,061	4,030		2,022	3,585	3,503	5,628
Hoofs ...	25,934	25,525	22,159	22,468	24,262	2,335	2,064
Horns ...						22,870	18,969
Glue Pcs. & Sinews	12,952	10,669	9,135	11,010	11,253	13,948	17,458
Glycerine ...	8,538	10,184	9,567	10,624	15,513	9,186	6,983
Hair ...	13,967	17,293	15,519	14,192	20,650	28,754	22,767
Meats—							
Frozen Beef ...	1,175,144	1,024,098	807,072	442,110	441,210	434,455	575,732
Frozen Mutton*	726,296	516,839	479,076	637,476	1,111,421	1,094,984	1,377,502
Other ...	451,969	431,701	143,503	222,384	236,442	147,725	166,421
Sausage Casings ...	—16,104	2,614	4,321	—8,690	2,552	1,478	41,122
Skins—							
Hides ...	102,941	151,338	35,842	26,633	71,209	—9,764	—10,079
Sheep ...	685,562	1,065,105	1,050,413	820,319	1,321,021	1,587,579	1,822,604
Rabbit and Hare ...	117,329	139,111	137,259	208,884	297,222	476,972	374,882
Other, including Undressed Furs	299,820	518,230	385,909	183,695	308,408	445,201	304,130
Tallow ...	662,094	454,854	298,496	549,459	783,396	876,748	1,014,870
Wool—Greasy	11,671,210	9,593,234	9,595,586	13,137,837	15,568,290	17,539,836	22,898,318
Scoured	3,560,767	3,146,938	4,396,214	3,974,502	4,246,634	5,098,195	5,962,599
Total Values ...	19,939,594	17,249,436	17,554,378	20,440,842	24,788,541	27,975,938	34,864,723

* Including lamb.

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, STATES AND COMMONWEALTH, 1860 to 1907.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Commonwealth.
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	157,915	34,568	25,267	1,068,402
1885 ...	344,697	304,098	260,207	171,060	34,392	28,610	1,143,064
1890 ...	444,163	436,459	365,812	199,605	44,384	31,165	1,521,588
1895 ...	499,943	424,995	468,743	196,652	58,506	31,580	1,680,419
1900 ...	481,417	392,237	456,788	179,352	68,253	31,607	1,609,654
1901 ...	486,716	387,277	462,119	178,199	73,710	32,399	1,620,420
1902 ...	450,125	382,317	399,122	179,413	80,158	33,466	1,524,601
1903 ...	458,014	377,357	401,984	192,411	82,747	33,541	1,546,054
1904 ...	482,663	372,397	413,165	200,241	90,225	36,565	1,595,256
1905 ...	506,884	385,513	430,565	216,345	97,397	37,101	1,673,805
1906 ...	537,762	406,840	452,916	224,447	104,922	38,299	1,765,186
1907 ...	578,326	424,648	488,486	226,532	113,330	40,392	1,871,714

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

**PERCENTAGE OF HORSES IN EACH STATE ON TOTAL FOR COMMONWEALTH,
1901 TO 1907.**

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Commonwealth.
	%	%	%	%	%	%	%
1900 ...	29.91	24.37	28.38	11.14	4.24	1.96	100.00
1901 ...	30.03	23.90	28.52	11.00	4.55	2.00	100.00
1902 ...	29.52	25.08	26.18	11.77	5.26	2.19	100.00
1903 ...	29.62	24.41	26.00	12.45	5.35	2.17	100.00
1904 ...	30.26	23.34	25.90	12.55	5.66	2.29	100.00
1905 ...	30.28	23.03	25.72	12.93	5.82	2.22	100.00
1906 ...	30.47	23.05	25.66	12.71	5.94	2.17	100.00
1907 ...	30.90	22.69	26.10	12.10	6.05	2.16	100.00

During the period under review, the proportions in New South Wales, South Australia, Western Australia and Tasmania have increased, while those in Victoria and Queensland have diminished.

4. **Export Trade in Horses.**—Australia's export trade in horses is a fairly considerable, though somewhat fluctuating, one. During the past seven years it has varied in number between 9527 for the year 1903 and 32,474 in 1901, and in value between £164,224 and £438,248 respectively for the same two years. The total number of horses exported during the seven years amounted to 116,752, an average of 16,679 per annum. The total value of the exports for the period was £2,015,374 or £287,911 per annum. The average export value per head for the period was £17 5s. 3d. The numbers exported to the principal countries concerned in this trade are as follows:—

NUMBER AND DESTINATION OF HORSES EXPORTED, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	No.	No.	No.	No.	No.	No.	No.
India ...	5,391	5,590	5,894	8,801	7,706	7,931	9,136
Natal ...	10,939	7,078	684	141	232	413	165
Cape of Good Hope ...	14,054	3,382	42	367	58	51	2
Hong Kong ...	54	71	1	34	8,248	6	5
Straits Settlements ...	923	530	416	592	702	903	991
Java ...	104	272	308	587	326	501	954
Mauritius ...	109	120	708	1,207	56	127	...
Japan ...	2	...	25	69	1,754	51	284
New Zealand ...	276	96	556	659	184	80	75
Philippine Islands ...	19	13	290	165	773	118	295
China ...	219	102	22	38	112	298	178
Other Countries ...	384	183	581	442	657	293	547
Total ...	32,474	17,437	9,527	13,102	20,808	10,772	12,632

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

VALUE OF HORSES EXPORTED FROM THE COMMONWEALTH, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£	£	£	£	£	£	£
India ...	76,485	78,867	81,251	141,682	144,802	185,254	224,341
Natal ...	161,028	99,714	14,555	3,303	6,550	8,193	4,026
Cape of Good Hope ...	159,094	37,413	2,610	3,830	1,190	1,030	70
Hong Kong ...	775	1,765	14	1,023	119,504	160	205
Straits Settlements ...	15,513	7,530	8,618	11,195	15,107	18,022	26,952
Java ...	2,105	5,745	6,330	11,373	4,440	12,296	25,502
Mauritius ...	1,034	2,400	5,195	7,786	1,140	1,791	...
Japan ...	100	...	715	8,095	30,215	1,990	11,715
New Zealand ...	6,934	2,786	22,051	19,310	13,206	8,261	4,020
Philippine Islands ...	190	369	8,087	3,827	10,151	2,603	4,949
China ...	4,460	2,330	440	851	2,671	5,942	3,299
Other Countries ...	10,530	3,747	14,358	13,505	17,754	12,714	14,391
Total ...	438,248	242,666	164,224	225,780	366,730	258,256	319,470

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 seven years under review, but that the particulars for some of the other countries specified exhibit marked fluctuations. Thus in the case of Natal and Cape of Good Hope a large export trade took place in 1901 and 1902, which, on the cessation of the South African war, dropped to comparative insignificance. The exports to Hong Kong and Japan also were exceptionally large in 1905.

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 seven years was £110 14s. 9d., as compared with £17 5s. 3d. per head for the exports for the same period. The average number imported per annum was, however, only 310, and the average annual value £34,296. The following table furnishes a comparison of imports and exports of horses during the seven years 1901 to 1907:—

COMMONWEALTH IMPORTS AND EXPORTS OF HORSES, 1901 to 1907.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1901 ...	246	19,601	32,474	438,248	32,228	418,647
1902 ...	188	24,280	17,437	242,666	17,249	218,386
1903 ...	181	14,278	9,527	164,224	9,346	149,946
1904 ...	290	37,238	13,102	225,780	12,812	188,542
1905 ...	321	39,283	20,808	366,730	20,487	327,447
1906 ...	426	52,250	10,772	258,256	10,346	206,006
1907 ...	516	53,145	12,632	319,470	12,116	266,325
Total for 7 years	2,168	240,075	116,752	2,015,374	114,584	1,775,299

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 :—

Country.	Date.	Number of Horses.	Country.	Date.	Number of Horses.
Russian Empire ...	1906	28,785,338	Uruguay ...	1902	659,726
Utd. States America	1906	19,746,583	Sweden ...	1905	554,999
Argentine Republic	1895	4,446,859	Denmark ...	1903	486,935
Germany ...	1904	4,267,403	Spain ...	1891	397,172
Austria-Hungary ¹ ...	1895 & 1900	4,024,945	Bulgaria ...	1893	343,946
France ² ...	1905	3,169,224	New Zealand ...	1906	342,608
United Kingdom ³ ...	1907	2,088,932	Holland ...	1904	295,277
Australia...	1907	1,871,714	Cape of Good Hope	1904	255,060
Canada ...	1901	1,577,493	Belgium...	1905	245,212
Japan ⁴ ...	1905	1,367,615	Algeria ...	1905	221,140
British India ⁵ ...	1905	1,280,679	Servia ...	1900	184,849
Rumania...	1900	864,324	Norway ...	1900	172,999
Mexico ...	1902	859,217	Transvaal ...	1905	150,000
Italy ⁶ ...	1900	741,739	Switzerland ...	1906	135,091

1. Austria, 1900; Hungary, 1895. 2. Employed on farms and in Paris. 3. Agricultural horses, unbroken horses, and breeding mares only. 4. Exclusive of Formosa. 5. Exclusive of Bengal. 6. Exclusive of cavalry horses and horses for the Royal household.

6. **Relation to Population.**—In proportion to population, horses are much more numerous in Queensland than in any of the other States. South Australia is next in order, while Tasmania has the smallest number of horses per head. In all the States except Queensland the number of horses per head of population was somewhat higher in 1907 than in 1900. Particulars for the past eight years are as follows :—

**NUMBER OF HORSES PER HEAD OF POPULATION, COMMONWEALTH AND STATES,
1900 TO 1907.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
1900 ...	0.35	0.33	0.92	0.50	0.38	0.18	0.43
1901 ...	0.35	0.32	0.91	0.49	0.38	0.19	0.42
1902 ...	0.32	0.32	0.78	0.49	0.38	0.19	0.39
1903 ...	0.32	0.31	0.78	0.52	0.36	0.19	0.39
1904 ...	0.33	0.31	0.79	0.54	0.37	0.20	0.40
1905 ...	0.34	0.32	0.82	0.57	0.38	0.20	0.41
1906 ...	0.35	0.33	0.85	0.58	0.40	0.21	0.43
1907 ...	0.37	0.34	0.90	0.58	0.43	0.22	0.45

7. **Value of Australian Horses.**—An accurate valuation of the horses in Australia cannot readily be obtained, but the following estimate may be taken as furnishing a rough approximation to the values as at 31st December, 1907 :—

ESTIMATED VALUE OF HORSES IN AUSTRALIA, 31st DECEMBER, 1907.

State ...	N.S.W.	Victoria.	Q'nsland.	S. Aust.	W. Aust.	Tas.	C'wealth.
	£	£	£	£	£	£	£
Value...	5,780,000	5,100,000	3,910,000	2,270,000	1,360,000	480,000	18,900,000

§ 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 States 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 and New South Wales 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 of South Australia, 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 past four years, however, a rapid improvement has taken place, and the total reached on 31st December, 1907, was nearly 3,900,000.

The numbers of cattle in the several States at quinquennial intervals from 1860 to 1900 and thence onwards for each year are as follows:—

NUMBER OF CATTLE IN STATES AND COMMONWEALTH, 1860 to 1907.

Year.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Tasmania.	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	307,177	63,719	127,187	7,527,142
1885	1,317,315	1,290,790	4,162,652	418,140	70,408	138,642	7,397,947
1890	2,091,229	1,782,978	5,558,264	574,032	130,970	162,440	10,299,913
1895	2,150,057	1,795,314	6,822,401	636,824	200,091	162,801	11,767,488
1900	1,983,116	1,602,384	4,078,191	472,428	338,590	165,516	8,640,225
1901	2,047,454	1,625,532	3,772,707	480,777	398,547	168,661	8,493,678
1902	1,741,226	1,648,680	2,543,471	519,163	437,136	177,566	7,067,242
1903	1,880,578	1,671,828	2,481,717	536,580	497,617	185,938	7,254,258
1904	2,149,129	1,694,976	2,722,340	520,379	561,490	201,206	7,849,520
1905	2,337,973	1,737,690	2,963,695	647,631	631,825	206,211	8,525,025
1906	2,549,944	1,804,323	3,413,919	680,095	690,011	211,117	9,349,409
1907	2,749,193	1,842,807	3,892,232	709,352	771,107	215,523	10,180,214

3. Proportion in each State.—During the period elapsing between 1900 and 1907 the proportion of cattle in the several States has varied considerably, as shewn hereunder:—

**PERCENTAGE OF CATTLE IN EACH STATE ON TOTAL FOR COMMONWEALTH,
1900 TO 1907.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
	%	%	%	%	%	%	%
1900 ...	22.95	18.55	47.20	5.47	3.92	1.91	100.00
1901 ...	24.10	19.14	44.42	5.66	4.69	1.99	100.00
1902 ...	24.64	23.33	35.99	7.35	6.18	2.51	100.00
1903 ...	25.92	23.05	34.21	7.40	6.86	2.56	100.00
1904 ...	27.38	21.59	34.68	6.63	7.15	2.57	100.00
1905 ...	27.42	20.38	34.77	7.60	7.41	2.42	100.00
1906 ...	27.27	19.30	36.52	7.27	7.38	2.26	100.00
1907 ...	27.00	18.10	38.23	6.97	7.58	2.12	100.00

A comparison of the positions of the several States in 1900 and 1907 shows that, while Queensland's proportion of the Commonwealth herds has suffered a marked diminution, and that of Victoria a slight diminution, the Tasmanian proportion was slightly higher in the latter than in the former year, and fairly large increases were in evidence in New South Wales, South Australia and Western Australia. The most noticeable increase in proportion is that of Western Australia, from 3.92% in 1900 to 7.58% in 1907.

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. One effect of this is that although more than twice as many cattle were exported during the past seven years as were imported, the value of imports exceeded the value of exports by no less than £10,761. Details are as follows :—

COMMONWEALTH IMPORTS AND EXPORTS OF CATTLE, 1901 to 1907.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.*
		£		£		£
1901 ...	114	3,591	2,413	22,088	2,299	18,497
1902 ...	2,929	49,231	4,489	19,002	1,560	30,229
1903 ...	161	9,569	939	9,302	778	267
1904 ...	145	7,903	770	7,115	625	788
1905 ...	1,022	10,591	1,280	15,451	258	4,860
1906 ...	161	6,762	552	5,373	391	1,389
1907 ...	183	10,204	687	8,759	504	1,445
	4,715	97,851	11,130	87,090	6,415	10,761

* — Signifies net imports.

The comparatively large export figures for 1901 and 1902 were due to exports to Natal and Cape of Good Hope.

5. Cattle Slaughtered.—Complete returns of the number of cattle slaughtered annually in the Commonwealth are not obtainable, as these particulars are collected in Tasmania for Hobart and Launceston only, and were collected in South Australia for

the first time in 1908. Estimates for the missing years for these States have, however been made, as shewn in the following table :—

**CATTLE (INCLUDING CALVES) SLAUGHTERED, COMMONWEALTH AND STATES,
1901 TO 1907.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
1901 ...	335,823	251,477	377,433	72,000	39,424	34,000	1,110,157
1902 ...	288,131	233,206	344,731	72,000	43,882	34,000	1,015,950
1903 ...	275,199	235,284	262,423	73,000	40,501	35,000	921,407
1904 ...	299,089	243,937	210,715	73,000	44,199	35,000	905,940
1905 ...	320,857	249,454	214,462	74,000	51,758	35,000	945,531
1906 ...	358,877	261,034	223,469	75,000	55,034	35,000	1,008,414
1907 ...	395,370	289,709	227,814	60,527	56,000	36,000	1,065,420

For Hobart and Launceston only, the figures for the years 1901 to 1907 were, respectively, 8815, 10,193, 9842, 10,708, 12,035, 10,503, and 12,037.

6. Export of Frozen Beef.—A large export trade in beef preserved by cold process is carried on by the Commonwealth, mainly with South Africa, the United Kingdom, and the Philippine Islands. The quantities so exported during the seven years 1901 to 1907 are as follows:—

QUANTITY OF FROZEN BEEF EXPORTED FROM AUSTRALIA, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Cape of Good Hope ...	27,444,815	31,452,143	29,494,957	16,596,558	6,117,907	5,419,763	10,695,660
Natal ...	8,353,519	22,096,398	14,459,823	6,437,661	18,632,290	8,881,485	8,657,618
Philippine Islands ...	11,090,789	7,154,841	6,848,594	7,448,649	12,804,318	10,453,286	9,626,173
United Kingdom ...	40,964,214	14,258,593	7,779,859	3,668,850	1,603,195	1,706,386	8,360,147
Russia ...	...	...	...	...	...	10,247,609	10,551,438
Malta ...	944,673	794,414	1,375,152	1,887,526	947,363	...	781,382
Egypt ...	359,977	96,864	758,136	392,804	1,372,096	1,979,830	1,540,290
Straits Settlements ...	...	1,578,628	...	719,981	736,796	972,507	972,507
Gibraltar ...	759,052	166,721	19,372	...	119,272	1,247,683	345,374
Mauritius ...	...	1,495,430	409,058	455,602	371,077	391,664	...
Other countries ...	790,335	359,216	31,279	203,295	837,587	496,750	520,003
Total ...	90,707,374	79,453,248	61,176,230	37,090,945	43,525,086	41,561,252	52,050,592

The value of the frozen beef exported from the Commonwealth during the same years is as follows:—

VALUE OF FROZEN BEEF EXPORTED FROM AUSTRALIA, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£	£	£	£	£	£	£
Cape of Good Hope ...	338,207	421,529	370,714	220,249	56,220	63,185	125,204
Natal ...	116,012	293,622	204,007	70,593	179,342	83,694	90,884
United Kingdom ...	545,072	178,379	123,193	35,432	16,788	15,896	87,903
Philippine Islands ...	137,540	102,522	93,751	84,287	140,350	112,546	108,505
Russia ...	...	...	...	...	...	105,445	112,098
Malta ...	12,323	9,944	18,852	20,318	10,540	...	8,852
Egypt ...	5,132	1,710	10,724	3,954	16,861	22,027	19,135
Straits Settlements ...	...	22,716	...	...	7,553	8,080	11,515
Gibraltar ...	10,361	2,090	242	...	1,490	12,204	4,432
Mauritius ...	...	22,350	5,541	4,748	3,296	4,665	...
Other countries ...	10,498	4,966	477	2,656	9,485	6,713	7,204
Total ...	1,175,145	1,050,828	827,501	442,437	441,925	434,455	575,732

During the seven years under review the most consistent of Australia's leading customers for frozen beef has been the Philippine Islands. Cape of Good Hope and Natal are the countries to which the largest export took place during the period, while the United Kingdom was third in this respect. A considerable trade with Russia has also sprung into existence during the last few years.

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 ...	1904-5	90,597,053	Spain ...	1891	2,217,659
United States of America	1906	72,533,996	Cape of Good Hope ...	1904	1,954,390
Russian Empire ...	1906	43,203,711	New Zealand ...	1906	1,851,750
Argentine Republic ...	1895	21,701,526	Denmark ...	1903	1,840,466
Germany ...	1904	19,331,568	Belgium ...	1905	1,788,328
Austria-Hungary ³ ...	1895 & 1900	16,249,535	Bulgaria ² ...	1893	1,767,974
France ...	1905	14,315,552	Holland ...	1904	1,690,463
United Kingdom ...	1907	11,628,483	Ceylon ...	1906	1,542,909
Australia ...	1907	10,180,214	Switzerland ...	1906	1,497,904
Uruguay ...	1902	7,029,078	Japan ⁴ ...	1905	1,167,610
Canada ...	1901	5,576,451	Algeria ...	1905	1,066,404
Mexico ...	1902	5,142,457	Servia ...	1900	956,661
Italy ...	1890	5,000,000	Norway ...	1900	950,201
Rumania ...	1900	2,588,526	Transvaal ...	1905	800,000
Sweden ...	1905	2,549,928	Natal ...	1905	783,887
			Orange River Colony	1905	525,372

1. Exclusive of Bengal. 2. Inclusive of buffaloes. 3. Austria 1900, Hungary 1895. 4. 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 the past eight years are as follows :—

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

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	C'wealth.
1900 ...	1.46	1.34	8.26	1.30	1.88	0.96	2.29
1901 ...	1.49	1.34	7.46	1.31	2.05	0.97	2.22
1902 ...	1.24	1.37	4.98	1.42	2.05	1.00	1.82
1903 ...	1.32	1.38	4.81	1.45	2.19	1.04	1.85
1904 ...	1.47	1.40	5.22	1.40	2.32	1.12	1.97
1905 ...	1.57	1.43	5.61	1.71	2.48	1.14	2.10
1906 ...	1.67	1.46	6.38	1.77	2.64	1.17	2.27
1907 ...	1.75	1.48	7.18	1.81	2.95	1.17	2.43

For the Commonwealth as a whole the ratio of cattle to population is slightly greater for 1907 than for 1900. This excess of the 1907 figures over those for 1900 is in evidence in all the States except Queensland, and is most marked in the case of Western Australia. In Queensland also the ratio has increased very rapidly during the past four years.

9. **Value of Australian Cattle.**—The value of the cattle in the several States of the Commonwealth on the 31st December, 1907, was approximately as follows :—

VALUE OF CATTLE IN AUSTRALIA, 31st DECEMBER, 1907.

State.	N.S.W.	Victoria.	Q'sland.	S. Aust.	W. Aust.	Tasmania.	C'wealth.
	£	£	£	£	£	£	£
Value	16,500,000	11,980,000	17,520,000	4,260,000	5,010,000	1,620,000	56,890,000

§ 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, represented more than half the total for the Commonwealth.

The number of sheep in the several States at quinquennial intervals from 1860 to 1900, and for each year onwards to 1907, are as follows :—

NUMBER OF SHEEP IN AUSTRALIA, 1860 to 1907.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	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	10,360,285	6,935,967	6,463,897	1,231,717	1,796,715	62,186,702
1885	37,820,906	10,681,837	8,994,322	6,643,565	1,702,719	1,648,627	67,491,976
1890	55,986,431	12,692,843	18,007,234	7,050,544	2,524,913	1,619,256	97,881,221
1895	47,617,687	12,791,084	19,856,959	6,604,319	2,295,832	1,523,846	90,689,727
1900	40,020,506	10,841,790	10,339,185	5,283,247	2,434,311	1,683,956	70,602,995
1901	41,857,099	10,673,265	10,030,971	5,060,540	2,625,855	1,792,481	72,040,211
1902	26,649,424	10,504,741	7,213,985	4,922,662	2,704,880	1,672,655	53,668,347
1903	28,656,501	10,336,216	8,392,044	5,350,258	2,600,633	1,597,053	56,932,705
1904	34,526,894	10,167,691	10,843,470	5,874,979	2,853,424	1,557,460	65,823,918
1905	39,506,764	11,455,115	12,535,231	6,202,330	3,120,703	1,583,561	74,403,704
1906	44,132,421	12,937,440	14,886,438	6,661,217	3,340,745	1,729,394	83,687,655
1907	44,461,839	14,146,734	16,738,047	6,873,869	3,684,974	1,744,800	87,650,263

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

**PERCENTAGE OF SHEEP IN EACH STATE ON TOTAL FOR COMMONWEALTH,
1900 TO 1907.**

Year.	N.S.W.	Vic.	Q'nsland.	S. Aust.	W. Aust.	Tas.	C'wealth.
	%	%	%	%	%	%	%
1900 ...	56.68	15.36	14.64	7.48	3.45	2.39	100.00
1901 ...	58.10	14.82	13.92	7.02	3.65	2.49	100.00
1902 ...	49.66	19.57	13.44	9.17	5.04	3.12	100.00
1903 ...	50.33	18.16	14.74	9.40	4.57	2.80	100.00
1904 ...	52.45	15.45	16.47	8.93	4.33	2.37	100.00
1905 ...	53.10	15.40	16.85	8.33	4.19	2.13	100.00
1906 ...	52.73	15.46	17.79	7.96	3.99	2.07	100.00
1907 ...	50.73	16.14	19.10	7.84	4.20	1.99	100.00

During 1907 the New South Wales proportion of total Commonwealth flocks declined considerably, smaller decreases being also in evidence in the cases of South Australia and Tasmania. In the other three States an advance in proportion was experienced, being most marked in the case of Queensland.

4. **Imports and Exports of Sheep.**—As in the case of cattle, the 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 Natal, Cape of Good Hope, Straits Settlements, and New Caledonia. The following are the particulars of the imports and exports for the past seven years :—

COMMONWEALTH IMPORTS AND EXPORTS OF SHEEP, 1901 to 1907.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1901 ...	553	12,134	12,094	12,104	11,541	—30
1902 ...	47,654	66,042	24,296	15,558	—23,358	—50,484
1903 ...	4,727	9,840	18,111	24,468	13,384	14,628
1904 ...	2,614	13,056	7,746	11,219	5,132	—1,837
1905 ...	5,521	24,263	12,090	17,429	6,569	—6,834
1906 ...	11,502	51,403	17,979	48,699	6,477	—2,704
1907 ...	11,759	42,167	11,361	40,040	—398	—2,127
Total for 7 years	84,330	218,905	103,677	169,517	19,347	—49,388

Note. — signifies net imports.

5. **Sheep Slaughtered.**—The numbers of sheep slaughtered in those States for which slaughtering statistics are available, are as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED, 1901 to 1907.

Year.	N.S.W.	Victoria.	Q'sland.	Sth. Aust. ¹	West Aust.	Tasmania. ²	C'wealth.
1901	4,519,133	2,469,797	554,705	678,000	428,534	322,000	8,972,169
1902	4,635,850	2,827,938	715,443	681,000	482,882	325,000	9,668,113
1903	3,277,120	2,652,569	453,666	684,000	412,549	332,000	7,811,904
1904	3,058,536	2,305,729	400,688	691,000	499,585	334,000	7,289,538
1905	4,283,631	2,576,316	587,406	700,000	476,010	335,000	8,958,363
1906	4,482,055	2,826,144	449,547	710,000	468,759	335,000	9,271,505
1907	6,304,692	3,226,141	642,730	1,020,355	470,000	336,000	11,999,918

1. Estimated for years 1901 to 1906.

2. Estimated.

For Hobart and Launceston only the figures for the years 1901 to 1907 were respectively:—101,627, 114,900, 122,223, 109,992, 101,863, 104,081, and 107,859.

6. Exports of Frozen Mutton and Lamb.—Australia's export trade in mutton and lamb preserved by cold process is one which has, in recent years, advanced rapidly, and at the present time amounts to nearly £1,400,000 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 customers in this trade are the United Kingdom and South Africa, while in Egypt and Canada a demand for Australian frozen mutton and lamb has developed in recent years, the exports to Canada for 1907 reaching a total of over £30,000. A regular, though not very extensive, trade is also done with the Philippine Islands. The quantities exported to various countries are as follows:—

**QUANTITY OF FROZEN MUTTON AND LAMB EXPORTED FROM AUSTRALIA,
1901 TO 1907.**

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ...	45,562,565	19,063,120	18,202,206	35,069,929	62,767,593	67,251,672	88,676,913
Natal ...	6,250,816	12,667,264	10,350,121	6,980,584	14,011,235	13,349,876	11,038,858
Cape of Good Hope ...	11,435,804	9,475,714	4,577,341	3,625,294	6,524,229	5,974,671	3,406,989
Philippine Islands ...	1,107,499	870,264	720,284	749,378	677,221	552,233	791,154
Malta ...	534,439	416,204	1,229,867	763,909	639,171	...	864,062
Egypt ...	66,832	160,346	223,483	186,348	744,377	1,125,423	589,210
Canada ...	124,544	154,000	...	...	196,331	969,352	2,215,533
Hong Kong ...	358,860	147,056	273,810	161,535	302,077	166,059	270,325
Gibraltar ...	115,248	118,100	292,138	76,396	225,659	285,510	168,453
Ceylon ...	281,264	320,492	5,200	119,684	145,078	151,549	172,504
Mauritius ...	...	497,422	...	90,545	58,651	...	...
Straits Settlements ...	...	...	...	...	382,101	243,508	511,813
Other Countries ...	450,355	215,618	9,453	39,930	164,621	622,532	521,993
Total ...	66,288,326	44,105,600	35,883,903	47,863,532	86,858,344	90,692,385	109,227,757

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

**VALUES OF FROZEN MUTTON AND LAMB EXPORTED FROM AUSTRALIA,
1901 to 1907.**

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£	£	£	£	£	£	£
United Kingdom...	467,013	234,385	268,697	488,830	834,629	839,360	1,141,718
Natal ...	80,139	162,032	131,152	91,388	156,950	142,031	119,667
Cape of Good Hope ...	142,027	111,467	58,109	50,037	79,294	65,801	39,631
Philippine Islands ...	13,047	10,881	9,199	9,680	7,442	6,309	8,674
Malta ...	6,783	4,143	14,492	8,741	7,276	...	9,497
Egypt ...	993	2,278	2,945	2,144	8,580	12,674	7,760
Canada ...	1,244	965	...	...	2,792	12,260	30,216
Hong Kong ...	3,022	1,923	3,991	2,234	3,473	1,906	3,011
Gibraltar ...	1,770	1,230	3,273	955	2,765	2,974	1,955
Ceylon ...	4,706	4,542	70	1,613	1,774	1,713	2,802
Mauritius ...	...	6,205	...	1,214	672	...	...
Straits Settlements ...	...	...	...	...	4,514	2,579	5,711
Other Countries ...	5,552	3,371	186	525	1,808	7,513	6,920
Total ...	726,296	543,422	492,114	657,361	1,111,969	1,095,120	1,377,502

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 ...	1907	87,650,263	Bulgaria ...	1893	6,868,291
Argentine Republic ...	1895	74,379,562	Rumania ...	1900	5,655,444
Russian Empire ¹ ...	1906	61,549,251	Orange River Colony	1905	4,194,247
United States of America	1906	53,240,282	Mexico ...	1902	3,424,430
United Kingdom ...	1907	30,011,219	Servia ...	1900	3,061,759
New Zealand ...	1906	20,108,471	Canada ...	1901	2,510,239
Uruguay ...	1902	17,927,071	Transvaal ...	1905	1,200,000
France ...	1905	17,783,209	Sweden ...	1905	1,074,386
British India ² ...	1904-5	17,578,623	Norway ...	1900	998,819
Spain ...	1891	13,359,473	Denmark ...	1903	876,830
Cape of Good Hope	1904	11,818,829	Natal ...	1905	769,601
Austria-Hungary ³ ...	1895 1900	10,743,707	Falkland Islands	1905	700,894
Algeria ...	1905	9,062,636	Netherlands ...	1904	606,785
Germany ...	1904	7,907,173	Belgium ...	1895	235,722
Italy ...	1890	6,900,000	Switzerland ...	1906	209,243

1. Including goats. 2. Exclusive of Bengal. 3. Austria 1900, Hungary 1895.

8. **Relation to Population.**—The relation of the flocks of the several States to the populations at the end of each of the past eight years is as follows :—

NUMBER OF SHEEP PER HEAD OF POPULATION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
1900 ...	29.42	9.06	20.94	14.59	13.53	9.74	18.75
1901 ...	30.44	8.81	19.83	13.84	13.53	10.28	18.83
1902 ...	18.99	8.67	14.12	13.43	12.68	9.43	13.82
1903 ...	20.08	8.55	16.28	14.51	11.46	8.90	14.50
1904 ...	23.69	8.40	20.79	15.76	11.78	8.64	16.52
1905 ...	26.48	9.40	23.74	16.40	12.25	8.74	18.36
1906 ...	28.91	10.50	27.82	17.35	12.76	9.60	20.31
1907 ...	28.34	11.33	30.90	17.51	14.09	9.48	20.88

9. **Value of Australian Sheep.**—The total value on the 31st December, 1907, of the sheep in the Commonwealth and its several States is approximately as follows :—

ESTIMATED VALUE OF AUSTRALIAN SHEEP, 31st DECEMBER, 1907,

State ...	N.S.W.	Victoria.	Q'nsland.	Sth. Aust.	W. Aust.	Tasmania.	C'wealth.
Value ... £	22,230,000	8,490,000	7,530,000	3,440,000	2,210,000	1,050,000	44,950,000

§ 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 1907 being about £29,000,000. 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 only $1\frac{1}{4}$ 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 shewn as “greasy,” or as “scoured and washed,” but for the purposes 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 usually only about 25 per cent. of the total clip. The ratio of loss of weight in scouring, however, 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 least effect.

3. **Total Production.**—In the following tables, relative to the production of wool in the several States for the seven years 1901 to 1907, 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.” On this basis the estimated total production of wool (in the grease) in the several States of the Commonwealth for the years 1901 to 1907 may be said to be as in the following table:—

PRODUCTION OF WOOL, ESTIMATED AS “GREASY,” COMMONWEALTH AND STATES, 1901 TO 1907.

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales	311,318,648	218,505,670	228,173,045	252,194,736	298,490,955	326,999,426	369,130,784
Victoria	81,227,029	71,109,528	55,044,659	80,036,363	66,118,195	67,426,109	109,555,748
Queensland	70,872,670	42,100,238	53,908,667	66,037,701	70,393,840	86,363,630	102,396,272
South Australia	40,415,378	37,285,621	37,766,673	36,727,324	37,262,504	44,602,680	53,547,076
Western Australia	14,290,156	13,380,181	13,312,326	12,513,185	17,732,597	15,405,132	20,465,045
Tasmania	9,805,154	9,167,911	5,731,783	11,539,735	10,666,430	11,359,760	9,840,944
Commonwealth	527,929,035	391,549,149	393,937,153	459,049,044	500,664,521	552,156,737	664,935,869

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

QUANTITY OF WOOL, ESTIMATED AS “GREASY,” COMMONWEALTH AND STATES, 1901 TO 1907.

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales	1,343,070	1,358,920	1,293,600	726,900	729,470	836,730	963,408
Victoria	3,408,526	3,473,635	3,772,390	4,027,080	4,493,041	4,765,687	5,600,873
Queensland	312,000	219,292	164,234	185,802	224,860	253,842	211,362
South Australia	184,846	201,657	271,285	311,469	376,615	387,264	603,848
Western Australia	...	...	...	...	...	...	...
Tasmania	776,000	780,000	812,000	811,500	1,067,050	1,005,628	929,572
Commonwealth	6,024,442	6,033,704	6,313,509	6,062,751	6,891,036	7,249,151	8,309,063

5. **Exports of Wool.**—Nearly half of the exports of wool from the Commonwealth are 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 1901 to 1907, the quantities of "greasy" wool exported from the Commonwealth to the principal countries of destination :—

COMMONWEALTH EXPORTS OF WOOL IN THE GREASE, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom	234,671,708	171,255,911	131,981,041	170,961,234	167,675,702	193,740,722	227,246,663
France	54,651,054	48,207,243	52,700,279	71,302,579	95,812,717	85,755,279	130,937,517
Germany	51,223,381	40,659,728	45,946,327	48,954,745	62,727,286	56,479,224	71,423,340
Belgium	33,176,804	20,302,265	21,579,126	28,318,161	35,213,749	53,972,671	56,605,510
U.S. of America	8,162,316	4,439,461	8,461,508	17,023,952	14,996,174	21,090,888	18,401,395
Italy	2,674,495	1,312,711	2,208,104	2,245,207	3,065,474	1,184,080	1,546,395
Japan	157,514	162,607	266,398	290,491	453,645	2,465,742	5,907,962
New Zealand	483,844	84,827	101,880	101,029	197,948	183,845	55,208
India	62,157	156,659	275,637	96,736	91,431	162,724	212,759
Canada	...	...	24,000	53,513	138,416	173,944	264,513
Other Countries	17,151	40,157	2,352	47,003	27,882	144,471	157,633
Total	385,280,424	286,621,569	263,546,652	339,394,650	380,420,424	415,353,590	512,756,895

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

COMMONWEALTH EXPORTS OF "SCoured AND WASHED WOOL," 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom	49,176,041	31,387,903	38,789,131	30,108,654	28,469,808	35,301,652	38,037,138
France	7,321,775	7,229,229	10,354,637	8,578,307	13,816,332	11,290,425	13,607,538
Germany	5,606,254	5,325,117	7,531,339	8,682,885	6,897,390	6,905,990	8,649,996
Belgium	3,175,954	4,512,635	3,431,979	3,992,454	5,556,547	9,098,036	9,288,704
Japan	776,322	765,866	827,041	4,235,144	1,579,164	2,106,820	2,490,953
Italy	187,276	68,176	82,359	40,651	165,444	99,663	85,937
India	81,262	65,531	108,804	85,199	64,198	68,007	151,851
New Zealand	21,870	...	4,560	19,631	6,266	18,624	1,770
Canada	...	...	12,750	5,841	781	...	...
Other Countries	22,101	...	720	162,280	216,493	138	4,178
Total	66,368,855	49,374,477	61,143,320	55,911,046	56,775,423	64,889,295	72,318,065

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

TOTAL VALUE OF WOOL EXPORTED FROM THE COMMONWEALTH, 1901 to 1907.

Country to which Exported.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£	£	£	£	£	£	£
United Kingdom	9,797,001	7,610,114	7,366,423	8,498,648	8,750,240	10,706,181	12,933,800
France	2,013,197	2,133,975	2,676,562	3,419,045	5,053,870	4,577,034	7,004,581
Germany	1,852,053	1,755,053	2,342,619	2,569,677	3,143,614	2,962,586	4,117,394
Belgium	1,146,349	924,447	1,044,297	1,390,561	1,905,822	3,113,778	3,417,193
United States of America	273,933	198,588	388,247	783,908	647,236	912,679	815,254
Italy	90,842	55,367	92,377	94,268	143,985	58,971	77,413
Japan	48,653	55,802	71,582	332,602	140,704	279,860	461,771
India	5,915	6,483	13,671	10,518	7,928	12,064	20,115
New Zealand	17,461	3,784	3,950	4,992	5,218	8,565	2,860
Canada	...	...	1,756	2,620	5,459	8,215	11,903
Other Countries	2,050	850	95	15,338	18,070	5,816	9,546
Total	15,237,454	12,744,463	14,001,599	17,122,270	19,822,216	22,645,769	28,891,830

6. Care needed in Comparing Clips.—The Customs returns, from which statistics of wool production are usually compiled, 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 is 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.

7. Wool-producing Countries in Southern Hemisphere.—The next table, compiled by Messrs. Helmut Schwartz 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.

Year.	Commonwealth and New Zealand.	Cape of Good Hope.	River Plate.	Total
	Bales.	Bales.	Bales.	Bales.
1901	1,745,000	217,000	532,000	2,494,000
1902	1,699,000	234,000	512,000	2,445,000
1903	1,451,000	234,000	558,000	2,243,000
1904	1,371,000	201,000	476,000	2,048,000
1905	1,633,000	209,000	488,000	2,330,000
1906	1,833,000	238,000	487,000	2,558,000
1907	2,103,000	287,000	478,000	2,868,000

It will be seen that of the total importations shewn in this table, the Commonwealth of Australia and the Dominion of New Zealand account for about 70 per cent.

8. England's Importation of Wool.—The quantity and value of wool imported into the United Kingdom during the year 1907 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, 1907.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	lbs.	£		lbs.	£
Australia	321,470,554	14,587,701	Uruguay	5,592,538	251,113
New Zealand	158,406,255	7,657,013	China	3,905,062	134,713
Cape of Good Hope ...	73,469,469	2,736,989	Falkland Islands ...	3,650,475	136,752
British India	46,683,905	1,449,955	Egypt	3,502,747	96,257
Argentine Republic ...	40,554,965	1,689,639	Peru	2,371,447	102,695
France	24,486,763	1,188,060	Portugal	2,042,997	69,213
Chile	20,704,208	715,289	U.S. of America ...	1,957,512	84,746
Natal	18,136,669	570,598	Morocco	1,294,988	49,389
Turkey	8,893,460	303,995	Italy	1,281,704	46,207
Belgium	7,720,075	335,574	Other Countries ...	2,829,881	102,102
Russia	6,385,272	224,320			
Germany	3,896,299	160,691	Total	759,237,245	32,693,011

It will be seen that of the total importations of wool into the United Kingdom, Australian wool represented about 42 per cent. of the quantity and nearly 46 per cent. of the value.

9. **The Wool Market.**—The clip of 1906 was an exceptional one from two points of view—the number of bales of wool exceeded 2,000,000 for the first time in the history of Australia, and the prices realised were on the average considerably higher than have been touched for many years, with the result that the wool season of 1906-7 was one of the most prosperous experienced in the Commonwealth.

Notwithstanding the variations in shearing time in 1906 and 1907 previously referred to, the clip for 1907 was an excellent one, and has been estimated to have fallen short of that for 1906 by only about 3 per cent. The prices realised for the clip, however, were not nearly so satisfactory, owing largely to the world-wide influence of the disastrous financial crisis which occurred in America during the latter portion of 1907.

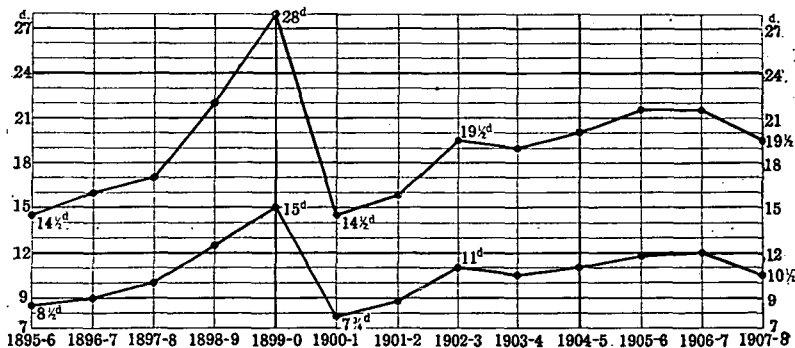
The following particulars concerning the prices of greasy Merino wool which ruled in the Australian markets in June, 1908, at the close of the wool season 1907-8 are taken from Dalgety's *Review* for July, 1908 :—

GREASY MERINO WOOL, 1907-8.

Class of Wool.	State.				
	N.S.W.	Victoria.	Queensland.	South Aust.	Tasmania.
	d.	d.	d.	d.	d.
Super	10 — 11	12 — 14	10 — 11½	11½ — 12½	11 — 11½
Good	8½ — 9½	10½ — 11½	8½ — 9½	7½ — 9	8½ — 9½
Inferior	5 — 7	5½ — 9	5½ — 7	5 — 6	6 — 6½

The fluctuations in the prices of greasy and scoured wool of good average quality from 1895-6 to 1907-8, shewn by the graphs hereinunder, are in agreement with the results given in Dalgety's *Review* for 1908 :—

AVERAGE PRICES OF AUSTRALIAN WOOL, 1895-6 to 1907-8.



The upper line and lower line shew respectively the average prices of scoured and greasy Merino fleece of good average quality.

§ 6. Graphical Representation of Pastoral Production.

1. **General.**—(See *graphs, page 375.*) The figures for the total number of horses, cattle, sheep and pigs being known with considerable accuracy only from 1860 onwards, the graphs are restricted to the period indicated. It will be observed on a general survey of these that up to 1890 there was a fairly uniform increase in the number of each class of animals, or, more exactly, the number of horses increased up to 1895, of cattle to 1894, of sheep to 1891, of pigs say up to 1904. This, however, was followed by diminutions, a small one of horses till 1902—followed by a rapid recovery, and enormous ones also till 1902 in the number of cattle and sheep—again followed by very rapid recovery.

It is worthy of notice that the rate of recovery is very satisfactory. There has never been a quadrennium in Australian history when the number of sheep increased as it did from 1903 to 1907; the increases of cattle and of horses for the same period are similar to the very remarkable increases between 1889 and 1892 and 1888 and 1891 respectively. The year 1902 shews a great falling-off in all four classes, due to the prolonged drought conditions which culminated in that year. The fact that after so prolonged an adverse condition the numbers should increase as rapidly as they have, points to the elasticity of the natural resources of Australia, and its great recuperative power.

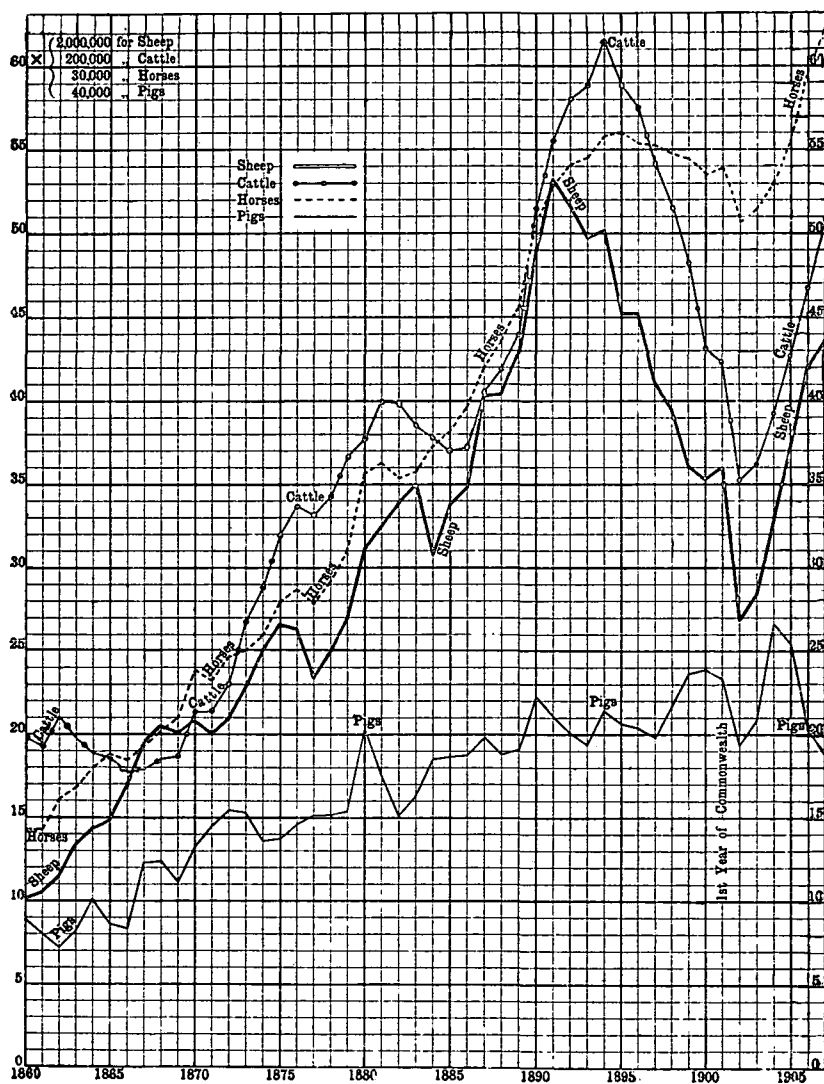
2. **Graph for Cattle.**—For the Commonwealth, the number of cattle declined from 1862 to 1866, from 1881 to 1885, and again from 1894 to 1901, but increased very rapidly for the intermediate periods and since. Among the States the increases for Queensland are the most remarkable, and the figures for that State have a predominating influence on the result.

3. **Graph for Horses.**—For the Commonwealth, the graph shews that the number of horses increased with considerable regularity practically from 1860 to 1895, and then again from 1902 onwards. No one State's figures have a predominating influence on the graph for the Commonwealth, since the largest, viz., those of New South Wales, Queensland, and Victoria, are all comparable in magnitude.

4. **Graph for Sheep.**—For the Commonwealth, the figures for the total number of sheep shew a fairly steady and rapid progression from 1860 to 1891, a decline from 1891 to 1902, and again a rapid progression from that last date onwards. The figures for New South Wales have a predominating influence.

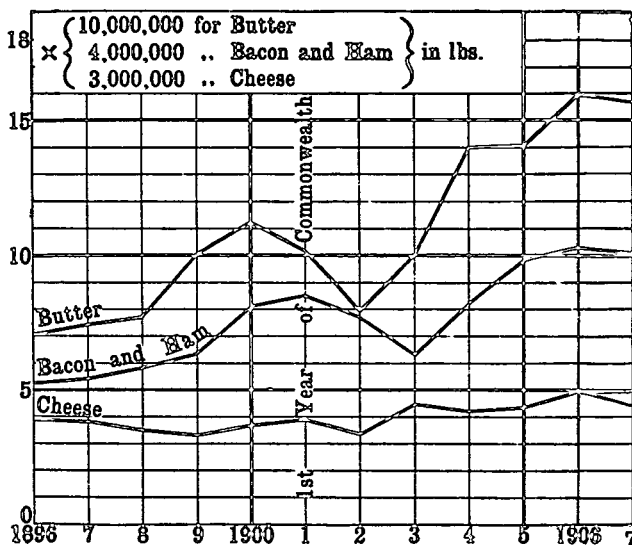
5. **Graph for Pigs.**—The graph for the Commonwealth, while shewing marked fluctuations every two or three years, shews also a steady increase on the whole. The form of this graph is profoundly influenced by the numbers for New South Wales and Victoria.

GRAPHS SHEWING NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS IN AUSTRALIA
FROM 1860 TO 1907.



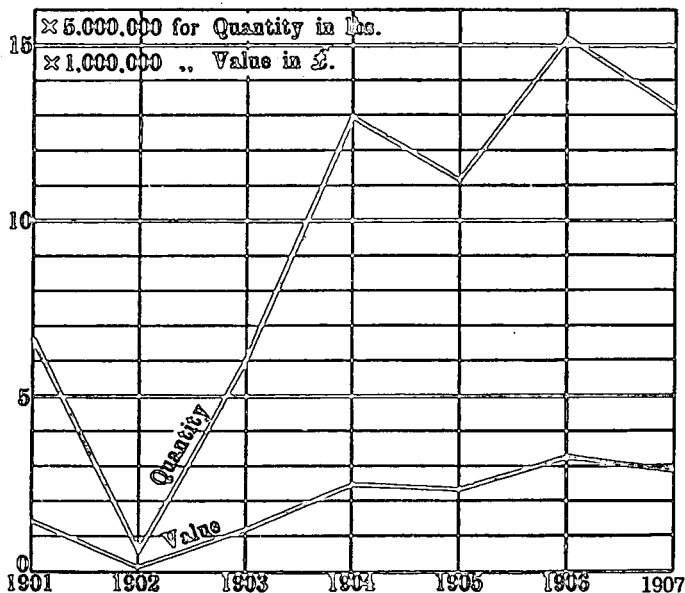
EXPLANATION OF GRAPH.—The base of each small square represents an interval of one year. The total of the sheep, cattle, horses, and pigs for the Commonwealth is indicated by the several curves or graphs, the vertical side of a small square representing 2,000,000 in the case of sheep; 200,000 for cattle; 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 1907.



EXPLANATION OF GRAPH.—The base of each small rectangle represents an interval of one year, and the vertical height of each 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 1907.



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.