

CHAPTER XVIII. 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 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 sets forth the numbers of each kind of live stock in the colony on 1st May, 1788. These details together with those of later enumerations are shown in the following table :—

LIVE STOCK : AUSTRALIA.

Date.	Horses.	Cattle.	Sheep.	Pigs.	Goats.
1st May, 1788	7	7	29	74	19
10th November, 1791	4	18	57	37	(c)
1st July, 1794	(a) 20	40	576	(c)	522
15th June, 1795	(b) 49	176	832	(c)	985
1st September, 1796	57	227	1,531	1,869	1,427
15th August, 1800	203	1,044	6,124	4,026	2,182

(a) Not including three asses.

(b) Not including seven asses.

(c) Not stated.

The return for the year 1788 includes, in addition to poultry, five rabbits.

2. **Subsequent Statistics.**—The statistical returns of live stock in Australia subsequent to the year 1800 referred mainly to those in possession of the Government, omitting those owned by individuals. Doubtless the growth of population, the expansion of the area settled and the increase of private ownership made it difficult in those early times to secure accurate returns. The figures continued to be somewhat defective up to 1860, but from that year onwards fairly complete information is available for 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, these particulars were not 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 Australia 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 Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1930, and from 1931 onwards in single years are given in the following table, and are shown continuously on the graph on page 570.

During the seventy-seven years covered by the table the live stock of Australia increased considerably, horses, 305 per cent.; cattle, 230 per cent.; sheep, 463 per cent.; and pigs, 213 per cent. The average annual increases which these aggregates represent are as follows :—Horses, 1.84 per cent.; cattle, 1.56 per cent.; sheep, 2.27 per cent.; and pigs, 1.49 per cent.

LIVE STOCK : AUSTRALIA.

31st December.		Horses.	Cattle.	Sheep.	Pigs.
1860	..	431,525	3,957,915	20,135,286	351,096
1870	..	716,772	4,276,326	41,593,612	543,388
1880	..	1,068,774	7,527,142	62,184,252	815,776
1890	..	1,521,598	10,299,816	97,881,221	891,138
1900	..	1,609,654	8,640,225	70,602,995	950,349
1910	..	2,165,866	11,744,714	98,066,046	1,025,850
1920	..	2,415,510	13,499,737	117,957,727	764,406
1930	..	1,792,734	11,720,916	110,568,279	1,071,679
1931	..	1,775,550	12,260,955	110,618,893	1,167,845
1932	..	1,765,437	12,783,137	112,926,931	1,162,407
1933	..	1,763,225	13,512,486	109,921,053	1,046,867
1934	..	1,767,758	14,048,671	113,048,037	1,158,274
1935	..	1,764,430	13,911,659	108,875,801	1,293,964
1936	..	1,762,750	13,491,072	110,242,704	1,202,752
1937	..	1,746,513	13,078,356	113,372,518	1,100,082

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26 and 1927-28.

The years in which the numbers of live stock attained their maxima are as follows :—Horses, 1918, 2,527,149; cattle, 1921, 14,441,309; sheep, 1937, 113,372,518; and pigs, 1935, 1,293,964.

5. **Live Stock in Relation to Population.**—The number of each kind of live stock per head of the population of Australia has varied during the past seventy-seven years in the manner shown in the succeeding table :—

LIVE STOCK PER HEAD OF POPULATION : AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	0.38	3.45	17.58	0.31	1930	0.28	1.81	17.07	0.17
1870	0.43	2.60	25.24	0.33	1932	0.27	1.95	17.23	0.18
1880	0.48	3.37	27.87	0.37	1933	0.26	2.03	16.52	0.16
1890	0.48	3.17	31.06	0.28	1934	0.27	2.11	16.97	0.17
1900	0.43	2.29	18.75	0.25	1935	0.26	2.06	16.13	0.19
1910	0.49	2.65	22.16	0.23	1936	0.26	1.98	16.20	0.18
1920	0.44	2.49	15.11	0.14	1937	0.26	1.91	16.59	0.16

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table :—

LIVE STOCK PER SQUARE MILE, 1937.

State or Territory.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.71	9.76	166.64	1.15
Victoria	4.09	21.40	214.65	3.24
Queensland	0.66	8.89	33.55	0.42
South Australia	0.52	0.85	23.43	0.18
Western Australia	0.15	0.76	8.95	0.07
Tasmania	1.20	9.72	96.16	1.64
Northern Territory	0.06	1.70	0.05	0.00
Australian Capital Territory	1.30	8.86	280.50	0.44
Australia	0.59	4.40	38.11	0.37

7. **Minor Classes of Live Stock.**—Excluding Victoria, where the details are not available, the numbers of minor classes of live stock returned for 1937 were as follows:—Goats, 84,577; camels, 3,004; mules and donkeys, 11,867; and ostriches, 12. Of these, goats were most numerous in Queensland, camels, mules and donkeys in Western Australia, and ostriches in South Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and 6,504 angora goats are included in the total of 84,577 goats shown above. Of these, 1,717 were in New South Wales, 1,000 in Queensland, 2,490 in South Australia, 844 in Western Australia, and 451 in Tasmania.

8. **Net Exports of Principal Pastoral Products.**—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1933-34 to 1937-38 were as follows:—

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	Unit of Quantity.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
QUANTITIES.						
Animals (living)—						
Cattle	No.	115	63	76	—665	184
Horses	"	3,249	4,123	3,783	4,674	3,549
Sheep	"	42,914	58,182	64,340	49,896	67,808
Bones	cwt.	8,737	10,207	17,188	16,603	17,895
Glue-pieces and Sinews	"	225	1,251	379	(a)	—1,945
Glycerine	lb.	—288,222	—9,282	—1,193,982	—1,163,777	—1,023,406
Hair	"	—119,775	—559,673	—962,875	—1,152,954	—1,820,795
Hoofs	cwt.	(a)	(a)	(a)	(a)	(a)
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef (b)	lb.	173,076,002	212,099,109	196,818,221	233,851,658	293,802,831
" Mutton and Lamb	"	171,106,849	196,192,828	178,005,079	208,457,576	201,800,129
" Rabbits and Hares	pair	(a)	(a)	(a)	(a)	(a)
" Other	lb.	12,214,574	15,012,149	15,098,299	18,498,278	20,737,142
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	4,620,270	5,941,584	6,418,202	9,197,093	12,230,650
Other (excluding Bacon and Ham)	"	466,613	408,396	561,341	637,509	398,085
Sausage Casings	cwt.	19,361	14,543	8,938	12,502	11,973
Skins—						
Hides	No.	(a)	(a)	(a)	(a)	(a)
Sheep	"	(a)	(a)	(a)	(a)	(a)
Rabbit and Hare	cwt.	99,339	84,744	91,443	66,446	43,946
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	471,591	822,751	445,358	624,521	524,170
Wool—						
Greasy	lb.	728,676,211	782,278,901	742,738,515	755,610,976	708,509,619
Scoured	"	72,670,544	66,408,783	68,053,803	66,594,446	61,314,071
Tops	"	2,923,974	3,104,232	3,144,411	3,746,779	3,746,779
Wool	"	1,911,741	1,303,616	1,647,629	1,219,681	1,219,681
Waste	"	837,184	1,067,598	880,045	621,324	621,324

NOTE.—The minus sign (—) signifies net imports.

(a) Quantity not available.

(b) Including chilled beef

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 £324,359,242 for the period, or an average of £64,871,848 per annum, of which wool represents 79.02 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS: AUSTRALIA.

Product.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
VALUES. (a)					
	£	£	£	£	£
Animals (living)—					
Cattle	-27,300	-26,491	-30,244	-24,921	-11,131
Horses	35,646	-15,631	3,473	-9,385	-16,276
Sheep	14,440	39,118	36,062	16,605	47,458
Bones	6,058	7,406	9,911	9,804	10,919
Glue-pieces and Sinews	1,128	2,908	4,812	317	-1,618
Glycerine	1,172	4,962	-34,937	-38,748	-41,326
Hair	-58,098	-81,902	-115,077	-120,245	-177,266
Hoofs	5,755	6,092	5,935	(c)	8,560
Horns	14,301	18,083	16,721	19,762	21,811
Meats—					
Frozen Beef (b)	2,020,049	2,559,605	2,481,803	3,035,943	4,367,049
" Mutton and Lamb	3,575,827	4,475,665	4,465,691	5,233,626	5,339,832
" Rabbits and Hares	425,665	443,484	243,023	(c)	172,225
" Other	216,428	266,167	286,475	385,061	406,748
Potted, and Extract of	-29,452	-29,507	-32,925	-38,916	-25,391
Preserved in Tins, etc.	130,996	152,880	191,316	295,172	390,535
Other (excluding Bacon and Ham)	10,881	7,649	9,885	10,407	7,459
Sausage Casings	184,373	106,210	9,206	60,582	125,366
Skins—					
Hides	119,344	147,782	450,577	976,227	929,687
Sheep	2,624,990	1,753,908	2,808,267	3,785,748	3,435,260
Rabbit and Hare	949,819	867,068	1,732,715	1,623,046	1,033,519
Other (including Undressed Furs)	99,772	-32,942	-110,180	165,265	-238,123
Tallow	476,309	922,505	653,353	812,828	611,844
Wool—					
Greasy	49,463,224	34,095,191	45,806,287	54,921,808	40,531,631
Scoured	6,646,248	4,598,459	5,548,336	6,659,952	
Tops	434,472	331,833	404,644	532,121	
Noils	121,445	75,950	123,481	112,969	
Waste	32,220	39,935	48,848	32,780	
Total Values	67,495,712	50,727,387	65,017,998	78,458,168	62,659,977

NOTE.—The minus sign (-) signifies net imports. (a) Australian currency values.
 (b) Including chilled beef. (c) Not recorded separately.

9. Value of Pastoral Production.—Particulars of the gross, local and net values of pastoral production for each State are shown in the following table for the year 1937-38 together with the totals for the preceding four years. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXVIII. "Miscellaneous". It should be noted, however, that maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net value of production is inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1937-38.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used and Fodder for Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales	38,923,000	3,666,000	35,257,000	986,000	332,000	33,939,000
Victoria	21,147,151	1,603,518	19,543,633	375,000	635,410	18,533,223
Queensland	18,062,000	1,809,000	16,253,000	667,000	222,000	15,364,000
South Australia	5,721,643	594,812	5,126,831	131,819	138,383	4,856,629
Western Australia	4,973,257	519,210	4,454,047	294,961	155,776	4,003,310
Tasmania	1,697,200	130,550	1,566,650	57,830	38,240	1,470,580
Total 1937-38	90,524,251	8,323,090	82,201,161	2,512,610	1,521,809	78,166,742
1936-37	95,429,294	7,952,997	87,476,297	1,737,541	1,317,480	84,421,276
1935-36	83,224,102	7,506,983	75,717,119	1,505,633	983,754	73,227,732
1934-35	64,647,128	6,986,693	57,660,435	1,314,516	587,420	55,758,499
1933-34	84,302,489	7,634,309	76,618,180	1,205,686	545,903	74,806,591

(a) No deduction has been made for depreciation and maintenance.

Although depreciation has not been deducted in arriving at the net value of production this item was compiled in each State for 1937-38 and amounted in the aggregate to £456,000.

10. **Consumption of Meats.**—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with details for certain other countries. The figures here in each case have been obtained from official sources, although it is not definitely known that they are all on a similar basis.

The average consumption in Australia is slightly lower than that of New Zealand, but it is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded for both Australia and New Zealand.

The world's supply of beef, mutton and lamb is obtained chiefly from countries situated in the Southern Hemisphere of which Argentine Republic, Australia, New Zealand and Uruguay are the main contributors. Argentine Republic furnishes the largest export of beef and New Zealand that of mutton and lamb, while Australia occupies second place in both commodities. Supplies of pork and pork products are largely drawn from countries in the Northern Hemisphere. It is to be expected, therefore, that the per capita consumption of beef, mutton and lamb will be greatest in the southern producing countries, and pig meat in the northern.

ESTIMATED PER CAPITA CONSUMPTION OF MEAT: AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1937-38.	New Zealand.	Great Britain, 1937.	Canada, 1937.	United States of America, 1936.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal	150.60	125-150	69.00	58.89	65.50
Mutton and Lamb	76.31	90.00	30.00	6.16	6.50
Pork and Bacon and Ham .. .	17.58	21.00	42.00	62.35	54.80
Total All Meats	244.49	..	141.00	127.40	126.80

§ 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 recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. 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 is highly regarded by the military authorities in India and considerable numbers are purchased each year for remount purposes, although the demand is not so great as in former years.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture more than 76 per cent. of the total number of horses in Australia. In the following table figures are given for each State and Territory during each of the last five years:—

HORSES : NUMBER.

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Total.
1933	532,028	361,005	448,918	196,789	159,646	30,299	33,590	950	1,763,225
1934	534,853	357,877	447,804	198,765	161,636	30,662	35,094	1,067	1,767,758
1935	542,862	356,106	441,075	197,368	160,181	30,626	35,152	1,060	1,764,430
1936	545,829	357,158	440,568	200,870	155,177	30,971	31,056	1,121	1,762,750
1937	528,625	359,106	445,916	197,334	151,067	31,578	31,662	1,225	1,746,513

(a) 31st March year following.

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded; in the same year the United States of America made its highest recording, and Canada reported likewise in 1921. The number in Australia has declined considerably since 1918 as the result of the development in motor transportation and the increasing use of petrol-driven cultivating and other machinery on farms.

During the past five years, however, the returns have been practically stationary probably due to the halt in the use of power-driven machinery on farms owing to depressed prices.

The number of horses in Australia from 1860 onwards may be ascertained from the graph on page 570.

3. **Proportions in the Several States and Territories.**—The percentages of the numbers of horses in the several States and Territories on the total for Australia for the year 1937 were:—New South Wales, 30.27; Victoria, 20.56; Queensland, 25.53; South Australia, 11.30; Western Australia, 8.65; Tasmania, 1.81; Northern Territory, 1.81; and Australian Capital Territory, 0.07 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

4. **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 Australia. Queensland is next in order, while the Australian Capital Territory has the smallest number of horses per head. The number per head of population has declined in all the statistical divisions since 1927. For the year 1937 the relative numbers were.—New South Wales, 0.20; Victoria, 0.19; Queensland, 0.45; South Australia, 0.33; Western Australia, 0.33; Tasmania, 0.13; Northern Territory, 5.85; Australian Capital Territory, 0.12; and Australia, 0.26.

5. **Comparison with other Countries.**—The numbers of horses in the leading horse-breeding countries of the world are as follows:—

HORSES : NUMBERS IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union ..	1937	16,200	Dutch East Indies ..	1936	656
U.S. of America ..	1937	11,163	Uruguay ..	1930	623
Argentine Republic ..	1937	8,527	Sweden ..	1937	620
Brazil ..	1935	6,052	Cuba ..	1934	569
China ..	1935	4,080	Spain ..	1933	568
Poland ..	1937	3,888	Lithuania ..	1937	552
Germany ..	1937	3,430	Denmark ..	1937	552
Canada ..	1937	2,883	Chile ..	1936	528
France ..	1937	2,742	Bulgaria ..	1926	482
India (British and Native)	1935	2,379	Peru ..	1931	432
Rumania ..	1935	2,167	Eire ..	1937	429
Mexico ..	1931	1,888	Haiti ..	1935	400
Manchuria ..	1936	1,840	Latvia ..	1937	392
Australia ..	1937	1,747	Bolivia ..	1931	390
Japan ..	1936	1,432	Siam ..	1936	374
Yugoslavia ..	1936	1,216	Finland ..	1936	369
United Kingdom ..	1935	1,103	Greece ..	1936	359
Colombia ..	1934	972	Netherlands ..	1937	300
Union of South Africa	1930	868	New Zealand ..	1937	278
Hungary ..	1937	798	Belgium ..	1937	265
Italy ..	1937	796	Austria ..	1934	261
Turkey ..	1937	723	Paraguay ..	1935	237
Czechoslovakia ..	1936	704	French Morocco ..	1937	210
			Estonia ..	1937	209

6. **Oversea Trade in Horses.**—(i) Exports. Australia's export trade in horses has fluctuated considerably since the war, and is now far below that of earlier years. For instance, during the period 1901–5 the average number exported was over 18,000, whereas during the last five years the figure was 4,222. The total number of horses exported during the latter period amounted to 21,110, valued at £678,400, equal to an annual average of 4,222 for £135,680. The average export price was £32 2s. 9d. The horses exported to India, where they are largely used for army remounts, numbered 3,420 or 81 per cent. of the average exports for the quinquennium.

(ii) Imports. The number of horses imported into Australia is comparatively small, consisting mainly of valuable stud animals from the United Kingdom and racehorses from New Zealand. The average value per head of the horses imported during the last

five years was £393. The average number imported per annum was, however, only 346, and the average annual value, £136,115. The following table gives the imports, exports and net exports of horses during each of the years from 1933-34 to 1937-38:—

HORSES: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	367	61,627	3,616	97,273	3,249	35,646
1934-35 ..	388	150,703	4,511	135,072	4,123	-15,631
1935-36 ..	352	132,645	4,135	136,118	3,783	3,473
1936-37 ..	352	180,686	5,026	171,301	4,674	-9,385
1937-38 ..	273	154,912	3,822	138,636	3,549	-16,276

(a) Australian currency values.

NOTE.—The minus sign (-) signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, 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 led to a considerable increase in numbers and an improvement in quality of the dairy herds in Victoria, New South Wales and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland occupied the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year the herds were gradually built up, and, despite recurring droughts, they continued to increase until the maximum number of 14,441,300 cattle was attained in 1921. After that year the numbers dropped continuously to 1929, largely owing to the decline in the overseas demand for frozen beef. They recovered with the expansion of dairying during the depression years, but are again declining, the loss during the last three years amounting to 1,000,000 head.

The numbers of cattle, beef and dairy, in the several States and Territories during each of the last five years are as follows.—

CATTLE: NUMBER.

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter. (a)	Total.
1933	3,361,771	2,002,235	5,781,170	352,728	885,669	262,256	859,867	6,790	13,512,486
1934	3,482,831	2,085,080	6,052,641	346,479	911,940	261,588	899,679	8,433	14,048,671
1935	3,388,538	2,091,246	6,033,004	335,354	882,761	270,035	900,535	10,186	13,911,659
1936	3,288,169	2,004,959	5,950,572	328,013	792,508	261,597	855,398	9,856	13,491,072
1937	3,019,581	1,880,429	5,959,165	324,163	740,241	254,812	891,640	8,325	13,078,356

(a) 31st March, year following.

Although the proportion is not as high as it has been in the past, Queensland was carrying 45.57 per cent. of the cattle in Australia in 1937.

The largest relative gain since 1930 occurred in the Australian Capital Territory followed by Victoria, South Australia and the Northern Territory; increases were also recorded in the remaining States. The percentage in each of the States and Territories during 1937 was:—New South Wales, 23.09; Victoria, 14.38; Queensland, 45.57; South Australia, 2.48; Western Australia, 5.66; Tasmania, 1.95; Northern Territory, 6.81; Australian Capital Territory, 0.06.

3. Comparison with other Countries.—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date:—

CATTLE : NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native) ..	1935	161,381	Tanganyika Territory	1936	4,837
U.S. of America ..	1937	65,930	French Equatorial and West Africa	1935	4,734
Soviet Union ..	1937	50,900	Cuba ..	1935	4,651
Brazil ..	1935	40,514	Dutch East Indies ..	1936	4,402
Argentine Republic	1937	33,101	New Zealand ..	1937	4,389
China ..	1935	22,647	Rumania ..	1935	4,327
Germany ..	1937	20,469	Yugoslavia ..	1936	4,074
France ..	1937	15,755	Eire ..	1937	3,955
Australia ..	1937	13,078	Spain ..	1933	3,570
Union of South Africa	1936	11,081	Denmark ..	1937	3,084
Poland ..	1937	10,569	Sweden ..	1937	2,962
Mexico ..	1930	10,083	Paraguay ..	1935	2,920
Canada ..	1937	8,841	Rhodesia ..	1936	2,907
United Kingdom ..	1937	8,639	Venezuela ..	1929	2,750
Colombia ..	1935	8,337	Nigeria ..	1936	2,750
Uruguay ..	1932	7,372	Sudan (Anglo-Egyptian)	1937	2,700
Italy ..	1937	7,287	Netherlands ..	1937	2,627
Turkey ..	1937	6,551	Uganda ..	1937	2,509
Siam ..	1937	5,618	Chile ..	1937	2,460
Kenya ..	1935	5,233	Austria ..	1934	2,349
Madagascar ..	1936	4,990	Bolivia ..	1931	2,064
Czechoslovakia ..	1937	4,930			

4. Imports and Exports of Cattle.—The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details are as follows:—

CATTLE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	208	33,983	323	6,683	115	— 27,300
1934-35 ..	161	30,382	224	3,891	63	— 26,491
1935-36 ..	164	33,527	240	3,283	76	— 30,244
1936-37 ..	946	32,276	281	7,355	— 665	— 24,921
1937-38 ..	164	16,913	348	5,782	184	— 11,131

(a) Australian currency values.

NOTE.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £89 10s. 5d. per head, while the average value of the cattle exported during the same period was £19 1s. 3d. As previously stated, the imported cattle were required principally for stud purposes.

5. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1933 to 1937 is given hereunder:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Aus. Cap. Ter. (a)	Total.
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363	1,616	2,205,190
1934	974,749	593,248	851,393	140,170	110,124	37,581	4,358	1,791	2,713,414
1935	1,100,472	774,395	866,410	153,686	120,123	39,588	1,531	1,620	3,057,825
1936	1,186,476	904,389	1,040,980	166,468	124,214	46,718	4,814	2,339	3,476,898
1937	1,223,320	971,338	1,266,412	167,451	145,375	48,451	2,456	2,693	3,827,496

(a) For year ended 30th June of year following.

6. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1937-38 was estimated at 1,336,813,000 lb. The requirements of the local market absorbed 1,033,767,000 lb. or approximately 77 per cent., leaving a balance of 303,046,000 lb. or 23 per cent., which was exported as frozen, chilled or canned beef. (See also § 1 par. 10 *ante*.)

7. **Exports of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade has grown considerably, the quantities and values exported during the past five years being as follows:—1933-34, 173,076,092 lb., £2,020,050; 1934-35, 212,099,109 lb., £2,559,605; 1935-36, 196,823,248 lb., £2,481,896; 1936-37, 233,854,189 lb., £3,036,239; and 1937-38, 293,803,532 lb., £4,367,064. Since 1932-33 chilled beef to the extent mentioned hereunder has been included in the foregoing. (See Table in § 1 par. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1937-38 took £4,027,714 worth, or about 92.2 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Malaya (British), Japan, Malta and the Philippine Islands; these countries, together with the United Kingdom, accounted for 98.5 per cent. of the total value of export.

Hitherto owing to the distance from the chief markets of the world it was possible to export meat from Australia in a frozen condition only, which circumstance placed the beef industry in Australia at a serious disadvantage in view of the preference for chilled beef. Investigations conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England proved, however, that chilled beef could be successfully transported from Australia to the United Kingdom. Trial shipments of 254,000 lb. were made during 1932-33 and 1,515,000 lb. in 1933-34. The success of these shipments indicated the practicability of Australia entering the chilled beef trade and exports increased during subsequent years in the following manner:—1934-35, 21,570,928 lb., £322,239; 1935-36, 23,193,737 lb., £348,047; 1936-37, 41,869,695 lb., £608,175; and 1937-38, 58,690,559 lb., £972,341.

8. **Agreements Regarding Meat at the Ottawa Conference.**—A stimulus to the Australian meat industry was provided by the agreement at the Imperial Economic Conference at Ottawa in August, 1932, under the terms of which the Government of the United Kingdom undertook to regulate importations of foreign meat from 1st January, 1932.

This matter is more specifically referred to in § 2, par. 6 of Chapter XVI. "Trade".

9. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1934 to 1938:—

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
CHILLED—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	509,103	508,512	508,653	496,818	517,374
Uruguay	560,997	561,500	545,283	583,689	558,384
Argentine Republic	6,942,113	6,937,141	7,108,768	6,993,075	6,881,441
Other Foreign Countries .. .. .	..	..	..	..	..
British Countries	238,445	478,336	616,981	896,117	1,005,252
Total Chilled	8,250,658	8,485,549	8,779,685	8,969,699	8,962,451

CHILLED—VALUE.					
	£	£	£	£	£
Brazil	798,693	793,741	809,936	909,703	981,920
Uruguay	937,456	907,452	839,141	1,046,813	1,046,274
Argentine Republic	11,695,034	11,529,888	12,001,446	13,449,779	13,772,817
Other Foreign Countries .. .. .	..	..	..	..	..
British Countries	380,422	728,673	900,359	1,651,332	1,870,670
Total Chilled	13,811,605	13,959,754	14,550,882	17,057,627	17,671,681

FROZEN—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	5,473	11,245	3,421	7,900	3,879
Uruguay	40,950	41,971	36,090	53,974	72,208
Argentine Republic	97,234	93,933	113,479	111,798	158,048
Other Foreign Countries .. .. .	..	..	..	1	..
Australia	1,322,855	1,104,511	1,055,162	1,325,749	1,191,278
New Zealand	697,146	464,758	277,904	246,999	207,482
Other British Countries	4,866	4,509	4,248	12,413	1,454
Total Frozen	2,168,524	1,720,927	1,490,304	1,758,834	1,634,349
Grand Total (Chilled and Frozen)	10,419,182	10,206,476	10,269,989	10,728,533	10,596,800

FROZEN—VALUE.					
	£	£	£	£	£
Brazil	7,635	17,417	5,230	12,199	6,768
Uruguay	63,800	78,018	62,610	94,434	134,511
Argentine Republic	153,758	159,524	172,338	199,506	288,742
Other Foreign Countries .. .. .	..	..	..	2	..
Australia	1,660,554	1,481,103	1,316,743	1,969,902	1,892,477
New Zealand	824,611	606,849	344,012	363,996	313,337
Other British Countries	5,578	6,134	5,143	18,792	2,054
Total Frozen	2,715,936	2,349,045	1,906,076	2,658,831	2,637,889
Grand Total (Chilled and Frozen)	16,527,541	16,308,799	16,456,958	19,716,458	20,309,570

§ 4. Sheep.

1. **Initiation of the Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool were, 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, while 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 Australia.**—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 occupied the premier position in sheep-raising, and practically one-half of the sheep of Australia are in this State.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 570. Five marked periods of decline depleted the numbers at successive intervals, but these losses were made up rapidly. In every year since 1925 the sheep flocks have exceeded 100 millions, reaching 113,372,518 in 1937, the greatest number ever recorded in Australia. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an average annual slaughter of approximately nineteen million sheep and lambs for the mutton and lamb trade.

The numbers of sheep in the several States and Territories for each year from 1933 to 1937, together with an estimate of the numbers at the 31st December, 1938, are shown in the table hereunder.

SHEEP : NUMBER.

31st Dec.	New South Wales. (a)	Victoria. (a)	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Aust. Cap. Ter. (a)	Total.
1933	52,104,000	17,195,969	20,072,804	7,941,060	10,322,350	2,035,052	18,076	231,742	109,921,053
1934	53,327,000	16,783,631	21,574,182	7,884,919	11,197,156	2,038,450	23,356	219,343	113,048,037
1935	51,936,000	17,457,291	18,060,093	7,945,745	11,082,972	2,139,900	25,483	228,317	108,875,801
1936	53,166,010	17,663,103	20,011,749	7,905,112	9,007,535	2,233,655	11,162	244,378	110,242,704
1937	51,563,181	18,863,467	22,497,970	8,904,402	8,732,076	2,520,950	26,856	263,616	113,372,518
1938	648,000,000	17,007,352	22,500,000	9,936,586	9,165,000	2,500,000	25,000	245,540	109,347,178

(a) 31st March year following.

(b) Estimate as at 31st December, 1938.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative numbers of sheep depastured in the different States remain fairly constant. The flocks of Western Australia which were depleted in 1936 by drought declined further in 1937, but the total for Australia increased by 3 million owing to gains in the other States. The forecast for 1938 indicates a decline of $4\frac{1}{2}$ million compared with the previous year, and is a reflection of the severity of the drought experienced in Victoria and in parts of New South Wales.

The percentage distribution in 1937 was:—New South Wales, 45.48; Victoria, 16.64; Queensland, 19.84; South Australia, 7.85; Western Australia, 7.71; Tasmania, 2.23; Northern Territory, 0.02; Australian Capital Territory, 0.23 per cent.

4. **Comparison with other Countries.**—As regards the size of its flocks and the quantity and quality of wool produced Australia has long occupied a leading position amongst the sheep-raising countries of the world. The following figures taken mainly from the *Year Book of the International Institute of Agriculture* represent the latest returns available in regard to the number of sheep in the principal wool-producing countries. The leading position is held by Australia, with 113 million, followed by the Soviet Union with 67 million, the United States of America with 53 million and India (British and Native), 43 million. On account of drought the number of sheep in the Union of South Africa dropped from 46 million in 1933 to 36 million in 1935, but rose to 40 million in 1936. In Argentine Republic sheep flocks also declined from 44.4

million in 1930 to 38 million in 1935, and likewise increased to 40 million in 1936. During the years 1925 to 1929 the sheep flocks of the Soviet Union exceeded those of Australia. The maximum number recorded was 130 million in 1928, but after that year a remarkable decline took place and the number depastured in 1934 was only 46,848,000. It was proposed under the second Five Year Plan to increase the number to 85 million by 1937, but the total grew to only 66,600,000 inclusive of goats. Russian sheep are almost entirely coarse-wooled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve the quality of the wool and the quantity shorn per fleece by cross-breeding with merinos. In 1928-29 and 1929-30, 2,031 and 5,006 sheep, valued at £6,017 and £13,606 respectively, were exported from Australia to the Soviet Union for breeding purposes. As pointed out in par. 5 following, however, the export of stud sheep is subject to control. Production of wool in the Soviet Union apparently amounted to about 259 million lb. only during the year 1937. This represents an average weight of fleece shorn of about 3 lb., which is considerably less than half of that obtained in Australia:—

SHEEP : NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia ..	1937	113,373	Italy ..	1937	9,095
Soviet Union (a) ..	1937	66,600	Bulgaria ..	1926	8,740
United States of America ..	1937	52,918	Greece ..	1936	8,440
Argentine Republic ..	1937	43,790	Algeria ..	1936	6,268
India (British and Native) ..	1935	42,624	Chile ..	1936	5,752
Union of South Africa ..	1937	43,100	Bolivia ..	1931	5,232
New Zealand ..	1937	31,306	Iraq ..	1937	4,976
United Kingdom ..	1937	25,541	Germany ..	1937	4,684
China ..	1935	20,957	Mexico ..	1930	3,674
Spain ..	1933	19,093	Tunis ..	1936	3,532
Turkey ..	1937	16,449	Canada ..	1937	3,340
Iran ..	1934	16,019	Portugal ..	1934	3,274
Uruguay ..	1932	15,406	Kenya ..	1930	3,243
Brazil ..	1935	12,645	Poland ..	1937	3,182
Rumania ..	1935	11,838	Eire ..	1937	3,000
Peru ..	1929	11,209	Manchuria ..	1936	3,000
French Morocco ..	1937	10,373	Somaliland ..	1936	2,500
France ..	1937	9,994	Sudan (Anglo-Egyptian) ..	1937	2,500
Yugoslavia ..	1936	9,568	Syria and Lebanon ..	1937	2,274
French Equatorial and West Africa ..	1935	9,488	Nigeria ..	1936	1,993
			Tanganyika Territory ..	1936	1,862

(a) Including goats.

5. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by buyers from New Zealand, South Africa, Soviet Union and Japan at the Australian Stud Sheep Sales in previous years opened up a regular export trade with these countries in stud sheep. On the 27th November, 1929, however, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Consequently exports declined during 1931-32 and amounted to 297 sheep only, valued at £1,702, as compared with 6,389 valued at £32,933 in 1929-30. In 1937-38 exports of stud sheep amounted to 10,461 valued at £41,054, of which 9,405 sheep valued at £28,239 were shipped to Japan.

The ordinary flock sheep exported from Australia are, for the most part, consigned to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and flock sheep for the years 1933-34 to 1937-38 :—

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	1,522	12,906	44,436	27,346	42,914	14,440
1934-35 ..	1,377	15,233	59,559	45,351	58,182	30,118
1935-36 ..	2,167	18,917	66,507	54,979	64,340	36,062
1936-37 ..	5,903	46,371	55,799	62,976	49,896	16,605
1937-38 ..	4,241	41,712	72,049	89,170	67,808	47,458

(a) Australian currency values.

6. **Sheep Slaughtered.**—The numbers of sheep slaughtered in the several States during each of the years from 1933 to 1937 were as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Aus. Cap. Ter.(a)	Total.
1933..	7,180,612	7,773,289	1,299,285	1,495,127	1,092,222	366,156	900	25,367	19,232,958
1934..	6,829,477	7,646,070	1,275,936	1,591,054	1,079,516	349,044	..	22,207	18,793,304
1935..	6,054,749	7,691,488	972,458	1,642,550	1,160,663	351,684	..	21,948	17,895,540
1936..	6,428,027	7,914,433	1,024,519	1,697,498	1,106,107	341,586	..	24,230	18,536,400
1937..	6,875,496	8,128,544	1,120,729	1,588,507	1,227,843	372,547	..	25,375	19,339,041

(a) Year ended 30th June, year following.

7. **Production and Consumption of Mutton and Lamb.**—The production of mutton and lamb during the year 1937-38 amounted to 728,730,000 lb., of which 523,848,000 lb. or 72 per cent. was consumed locally, leaving a balance of 204,882,000 lb. or 28 per cent. for exportation. (See also § 1 par. 10.)

8. **Exports of Frozen Mutton and Lamb.**—The export trade of mutton and lamb preserved by cold process expanded rapidly until 1913 when 205 million lb. were dispatched. Progress was interrupted during the war years and exports declined thereafter to a very low figure. The high wool prices which prevailed during the post war years were no doubt a factor in causing this decline. In 1919-20 and in 1922-23 large shipments were made aggregating 247 million lb. and 168 million lb. respectively, but these were isolated cases. Prior to 1923-24 the shipments consisted mainly of frozen mutton, but from that year onwards lamb supplanted mutton and there has been an almost uninterrupted increase in the quantity of lamb shipped overseas each year.

The quantity and value of the shipments of mutton and lamb during each of the last five years were as follows :—Lamb, 1933-34, 124,755,938 lb., £2,893,138 ; 1934-35, 135,879,651 lb., £3,515,230 ; 1935-36, 151,377,838 lb., £4,020,163 ; 1936-37, 162,885,887 lb., £4,466,801 ; 1937-38, 159,556,221 lb., £4,645,624. Mutton, 1933-34, 46,351,359 lb., £682,705 ; 1934-35, 60,314,351 lb., £960,479 ; 1935-36, 26,629,544 lb., £445,589 ; 1936-37, 45,572,359 lb., £766,851 ; 1937-38, 42,246,245 lb., £694,357.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed 97 per cent. of the total quantity exported from Australia during the year 1937-38.

9. **Resolutions at Ottawa Conference.**—Reference has already been made to the agreement reached at the Imperial Economic Conference at Ottawa regarding the regulation of imports of meat into the United Kingdom. (See § 3 par. 8 ante.)

10. Imports of Frozen Mutton and Lamb into the United Kingdom.—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ended 1938 are given in the following table:—

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
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MUTTON—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	82,258	89,326	95,759	94,201	96,594
Uruguay	13,690	6,232	8,240	16,553	23,713
Argentine Republic	137,748	150,423	121,908	110,907	98,897
Other Foreign Countries	2,895	2,870	2,063	4,871	1,424
Total, Foreign	236,591	248,851	227,970	226,532	220,628
Australia	461,259	424,050	227,097	405,929	367,078
New Zealand	898,965	1,041,563	888,864	862,182	1,014,873
Other British Countries .. .. .	..	..	350	4,582	2,605
Total, British	1,360,224	1,465,613	1,116,311	1,272,693	1,384,556
Grand Total	1,596,815	1,714,464	1,344,281	1,499,225	1,605,184

MUTTON—VALUE.

	£	£	£	£	£
Chile	163,574	129,856	177,128	163,122	166,009
Uruguay	23,260	10,635	13,945	28,128	43,859
Argentine Republic	261,398	223,070	219,406	202,384	192,276
Other Foreign Countries	4,744	3,984	3,204	8,762	2,500
Total, Foreign	452,976	367,545	413,683	402,396	404,644
Australia	845,228	693,878	421,720	727,408	622,939
New Zealand	1,716,799	1,754,720	1,616,742	1,638,107	1,779,394
Other British Countries .. .. .	..	..	613	8,482	4,194
Total, British	2,562,027	2,448,598	2,039,075	2,373,997	2,406,527
Grand Total	3,015,003	2,816,143	2,452,758	2,776,393	2,811,171

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—
continued.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
LAMB—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	124,067	118,554	111,209	115,682	99,199
Uruguay	124,702	130,176	118,055	148,876	147,633
Argentine Republic ..	783,868	754,827	777,996	778,943	794,736
Other Foreign Countries ..	27,641	28,561	37,230	38,006	42,949
Total, Foreign ..	1,060,278	1,032,118	1,044,490	1,081,507	1,084,517
Australia	1,165,848	1,360,158	1,268,909	1,476,615	1,532,034
New Zealand	2,655,611	2,591,399	2,641,494	2,740,202	2,660,949
Other British Countries ..	242	18	558	4,174	7,312
Total, British ..	3,821,701	3,951,575	3,910,961	4,220,991	4,200,295
Grand Total ..	4,881,979	4,983,693	4,955,451	5,302,498	5,284,812
LAMB—VALUE.					
	£	£	£	£	£
Chile	365,115	271,858	316,386	312,972	287,386
Uruguay	311,953	327,257	316,870	419,469	411,699
Argentine Republic ..	2,051,554	1,898,688	2,091,387	2,179,470	2,245,353
Other Foreign Countries ..	67,008	77,642	101,194	108,090	113,258
Total, Foreign ..	2,795,630	2,575,445	2,825,837	3,020,001	3,057,696
Australia	3,320,964	3,934,693	3,698,058	4,349,418	4,572,915
New Zealand	8,414,183	8,063,996	8,264,409	8,753,793	8,744,555
Other British Countries ..	674	51	1,529	11,704	17,831
Total, British ..	11,735,821	11,998,740	11,963,996	13,114,915	13,335,301
Grand Total ..	14,531,451	14,574,185	14,789,833	16,134,916	16,392,997

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep Australia produces one-quarter of the world's supply. Moreover, half of the world's production of fine quality merino wool is produced in Australia. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing; the amount so used represented 7 per cent of the total production in 1937–38.

The important position held by Australia among the principal sheep and wool producing countries of the world is more clearly shown in the following table :—

SHEEP AND WOOL : PRINCIPAL PRODUCING COUNTRIES.

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia	1937-38	113.4	1,023
United States of America	1937-38	52.9	455
Argentine Republic.. .. .	1937-38	43.8	380
New Zealand	1937-38	31.3	297
Soviet Union	1937-38	66.6	259
Union of South Africa	1937-38	43.1	246

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured or washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of extraneous matter and grease in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, while it varies also with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the cleanliness of wool described as scoured or washed. Consequently, any comparisons of the weight of the Australian clip for different years or seasons whether on a greasy or a scoured basis cannot be regarded as exactly similar. After extensive inquiry the Bureau estimates the average clean weight at 46.15 per cent. of the greasy weight ; or, in other words, 1 lb. of clean wool is equivalent to 2½ lb. of greasy.

The quantity of scoured or washed Australian wool exported during the last five years was approximately 16 per cent. of the total wool exports regarded as “greasy”.

3. **Production.**—(i) *Quantity.* The bulk of the Australian wool production is shorn from live sheep. Approximately 6 per cent. is obtained by fellmongering and about 5 per cent. is on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table gives the production for each of the last five seasons, but the figures shown for 1938-39 have been estimated and therefore are subject to revision. Particulars of the gross value of wool produced in Australia are also shown ; these values are based upon the average price of greasy wool realized at auction in the principal markets of the Commonwealth :—

WOOL : TOTAL PRODUCTION.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.(c)
	lb.	lb.	lb.	lb.	lb.
New South Wales (a)	496,876,887	474,359,226	505,375,065	496,824,150	437,700,000
Victoria	156,761,979	163,397,896	163,048,510	178,890,131	170,500,000
Queensland	174,088,413	142,793,328	153,766,368	174,751,280	(d)
South Australia	77,790,933	81,709,440	76,604,296	86,606,388	97,000,000
Western Australia	95,836,161	92,458,673	69,935,210	70,684,855	(d)
Tasmania	14,035,000	16,300,000	14,067,000	15,598,500	15,000,000
Northern Territory (b)	35,000	35,000	35,000	35,000	35,000
Total—Quantity	1,015,424,373	971,053,563	982,831,449	1,023,390,304	985,000,000
	£	£	£	£	£
Value ..	40,446,000	55,186,000	63,585,782	54,131,618	43,700,000

(a) Including Australian Capital Territory.
Subject to revision.

(d) Not yet available.

(b) Approximate figures.

(c) Preliminary.

(ii) *Estimate for 1939-40.* No official information is yet available for the season ending June, 1940. In many parts the wool is not yet shorn. At a conference of the National Council of Wool Selling Brokers and the Australian Wool Growers Council, it was stated that the production was expected to approximate 3,371,000 bales. Should this estimate be realized the total production of wool in Australia for 1939-40 would approximate 1,050,000,000 lb.

4. *Care Needed in Comparing Clips.*—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. *World's Wool Production.*—The following table gives details of the world's wool production and shows the importance of Australia as a wool-producing country. Out of a total production of 3,877 million lb. in 1937-38, Australia produced 1,023 million lb., or 26.3 per cent. It is also interesting to note that the share of the British Empire in world production during the same year was estimated at 1,823 million lb., or 47.0 per cent.

WOOL: WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Annual Pre-war Production. (a)	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Australia	741.4	995.9	1,015.4	971.1	982.8	1,023.4
United States .. .	314.1	459.8	451.0	452.7	448.6	454.6
Argentine Republic ..	358.7	387.0	370.0	359.0	379.0	380.0
New Zealand .. .	198.5	290.0	265.0	304.0	303.5	297.0
Soviet Union (Russia)	380.0	121.0	128.0	158.4	202.1	259.0
Union of South Africa	165.9	283.0	219.0	250.0	277.0	246.0
China (b)	100.0	110.0	110.0	110.0	110.0	110.0
Uruguay	157.0	93.0	112.0	110.0	114.0	110.0
United Kingdom .. .	134.0	120.0	115.0	109.0	108.0	107.0
India (b)	100.0	100.0	100.0	100.0	100.0	100.0
Turkey	118.0	36.6	35.4	41.1	48.9	64.5
Spain	72.0	78.0	73.0	66.0	66.0	60.0
France	80.7	53.6	52.8	52.7	53.9	55.1
Morocco (French) .. .	14.9	34.0	35.6	40.8	40.7	47.8
Rumania	13.2	43.3	43.0	42.9	42.9	45.0
Germany	52.0	31.3	32.2	36.3	40.1	43.3
Brazil	35.0	35.3	36.4	37.5	37.5	43.2
Chile	17.4	34.6	37.0	35.2	35.7	36.0
Iran	12.1	36.5	40.0	37.5	37.5	35.3
Yugoslavia	25.4	30.1	31.0	32.2	33.6	31.5
Italy	55.0	41.0	36.0	30.0	30.0	30.0
Bulgaria	23.7	20.9	21.3	21.1	20.4	20.7
Canada	11.2	19.3	19.5	19.4	18.9	19.0
Algeria	35.2	14.5	15.2	16.1	17.6	17.2
Eire .. ..	..	19.6	17.0	16.5	17.6	16.4
Basutoland .. ..	..	9.9	5.1	7.3	6.0	4.7
Falkland Islands .. .	..	4.0	4.0	4.2	4.0	4.6
Other Countries .. .	71.2	193.9	201.4	214.0	222.3	215.9
Total	3,286.6	3,696.1	3,621.3	3,675.0	3,798.6	3,877.2

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

6. **Consumption of Locally Processed Wool.**—It is impossible to obtain particulars of the total consumption of wool in Australia, as considerable quantities of manufactures of wool are imported. It is possible, however, to secure with reasonable accuracy the quantities of wool used in Australian factories and mills to produce woollen cloth and other woollen goods, such as hosiery and knitted ware. Some difficulties arise in the aggregation of returns from individual mills concerned only with one process in the manufacture of the completed article and whose output constitutes the raw material of other mills. It is believed, however, that the risk of duplication has now been reduced to a minimum and that the figures stated below can be accepted as substantially accurate. Reference is made to the woollen mills established in Australia in Chapter XXIII. "Manufacturing Industry".

In the following table particulars are given of the quantity of wool processed in Australian factories during each of the past ten years.

For reasons mentioned in § 5 par. 2 above, the factor used for converting wool in terms of scoured, tops, yarn, etc., to a greasy basis must be regarded as approximate.

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

(In terms of greasy.)

Year.		Quantity.	Year.		Quantity.
		lb.			lb.
1928-29	.. ..	44,481,718	1933-34	.. ..	60,881,494
1929-30	.. ..	49,606,200	1934-35	.. ..	55,753,478
1930-31	.. ..	35,200,996	1935-36	.. ..	70,205,840
1931-32	.. ..	50,159,704	1936-37	.. ..	71,579,920
1932-33	.. ..	65,343,392	1937-38	.. ..	68,377,043

7. **Exports of Wool.**—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years 35 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1933-34 were Japan 20 per cent.; Belgium 14 per cent.; France 11 per cent.; and Germany 7 per cent. The balance of 13 per cent. was distributed among all other countries. The following table shows the quantities of "greasy" wool exported, and the principal countries of recorded destination:—

EXPORTS OF WOOL IN THE GREASE: AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom	212,004,088	209,887,487	292,725,835	244,568,575	277,210,184	294,411,888
Other British Countries	(a)	1,162,155	1,252,059	2,477,886	2,396,043	7,931,028
Belgium	55,143,706	62,649,202	124,169,015	102,501,997	120,959,807	87,862,566
France	149,835,946	65,017,851	75,760,166	64,602,287	76,063,696	123,835,665
Germany	106,344,966	113,529,765	27,220,923	27,116,447	41,451,486	53,956,616
Italy	4,381,197	58,549,566	17,694,730	4,502,392	35,775,546	29,577,669
Japan	7,262,683	170,444,059	196,125,519	234,518,700	84,058,539	69,162,890
Netherlands	(a)	3,270,646	16,450,416	15,296,631	8,798,135	7,084,535
Poland	(a)	9,051,704	12,058,269	12,679,782	12,296,714	17,988,525
United States of America	15,486,447	5,359,242	5,448,868	24,810,766	72,758,475	4,193,670
Other Foreign Countries	6,382,577	6,902,103	16,878,821	18,722,139	27,404,760	31,821,901
Total	556,841,340	735,823,780	785,784,621	751,887,602	759,174,375	721,826,953

(a) Included with Other Foreign Countries.

(ii) *Scoured and Washed including Tops, Noils and Waste—Quantities.* The exports of "scoured and washed" wool including tops, noils and waste during the period shown were as follows:—

EXPORTS OF WOOL—SCOURED AND WASHED, INCLUDING TOPS, NOILS AND WASTE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13. (a)	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	34,245,804	36,713,150	33,670,787	34,770,657	30,951,063
Canada ..	(b)	3,483,351	3,270,402	4,226,701	5,227,856	4,686,416
Other British Countries ..	(b)	646,731	862,051	1,000,077	1,363,204	1,650,938
Belgium ..	7,528,058	14,710,178	10,733,900	10,826,486	8,701,786	5,115,051
France ..	16,068,910	5,863,131	9,843,830	10,835,868	7,668,430	8,238,396
Germany ..	12,310,967	11,213,776	2,879,686	3,927,532	3,561,744	2,772,248
Italy ..	265,442	2,638,595	1,073,491	213,531	593,359	310,170
Japan ..	1,888,161	2,863,131	1,027,420	1,814,949	474,775	695,954
Poland ..	(b)	1,526,197	1,187,583	2,003,013	812,765	555,721
Other Foreign Countries ..	252,995	1,515,761	4,392,352	5,378,311	9,134,695	6,687,941
Total ..	70,347,110	78,706,655	71,983,865	73,897,255	72,309,271	61,664,498

(a) Including "tops."

(b) Included with Other Foreign Countries.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia during the five years ending 1937-38 averaged 42 per cent. of the value of the total exports of merchandise of local origin, but during 1937-38 the proportion was only 33 per cent. The total value during the periods under review together with the principal countries to which wool was exported is shown in the next table:—

VALUE OF WOOL EXPORTS : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	17,762,789	16,007,777	18,379,416	23,025,184	20,247,877
Other British Countries ..	(a)	526,133	409,286	657,572	948,495	834,619
Belgium ..	2,546,915	6,864,323	5,433,157	6,184,099	8,195,565	4,782,798
France ..	6,494,832	4,691,794	3,558,066	4,413,359	5,441,316	7,111,406
Germany ..	5,131,282	8,698,904	1,511,094	2,052,436	3,578,244	3,877,114
Italy ..	202,434	4,237,212	807,775	273,549	2,594,586	1,846,631
Japan ..	516,528	12,127,621	8,680,119	14,594,465	7,513,956	4,042,266
Netherlands ..	(a)	303,844	825,971	1,068,533	707,361	466,199
Poland ..	(a)	784,609	617,064	968,108	918,665	1,056,739
United States of America ..	795,328	485,840	352,466	2,102,066	7,039,771	391,356
Other Foreign Countries ..	296,356	642,457	1,063,165	1,661,958	2,541,424	2,326,557
Total ..	26,592,642	57,125,526	39,265,940	52,345,561	62,504,567	46,983,561

(a) Included with Other Foreign Countries.

8. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally. Buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart and Launceston. Particulars regarding exports and local sales, as well as quantities and proportions of the various descriptions of wool marketed in each State, will be found in the *Production Bulletin* issued by this Bureau.

9. *Value.*—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. The heavy decline in the price of wool which commenced in 1929-30 continued during the succeeding three years. In 1933-34, prices rose in a remarkable manner, averaging 15.84d. per lb., compared with 8.72d. per lb. for the previous year, an increase of 81.6 per cent. A decline in 1934-35 was succeeded by a period of rising prices in the two years

following, but in 1937-38 and in 1938-39 values again receded. The effect of fluctuating wool values upon the national income is reflected in the following figures. Based on the average auction room price of greasy wool the output for the season 1937-38 was valued at £54,132,000 compared with £63,586,000 in 1936-37. These values may be compared with £81,430,000 in 1924-25 when the record price was realized and £34,804,000 in the depression year 1930-31. On the average of the five seasons 1933-34 to 1937-38 the annual clip was valued at £55,277,000.

The value of the clip for 1938-39 is estimated at £43,700,000, but as complete details in regard to production are not yet available this figure is subject to revision.

The following table gives the average auction room price in Australia of greasy wool as compiled by the National Council of Wool-selling Brokers. This price represents the average price realized for all greasy wool of whatever type or quality marketed during the years indicated.

WOOL : AVERAGE MARKET PRICE PER LB.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	<i>d.</i>	d.	d.	d.	d.	d.	d.
Greasy (a)	8.72	15.84	9.75	14.01	16.48	12.51	10.39

(a) National Council of Wool-selling Brokers.

Measured in terms of Australian, sterling and gold currencies the approximate values of greasy wool per lb. since 1929-30 were as follows :—

GREASY WOOL : AVERAGE VALUES PER LB.

Year.	Australian Currency.	Sterling.	Gold Prices.
	<i>d.</i>	<i>d.</i>	<i>d.</i>
1929-30	10.29	10.29	10.29
1930-31	8.36	6.96	6.96
1931-32	8.46	6.69	5.10
1932-33	8.72	6.98	4.84
1933-34	15.84	12.65	8.19
1934-35	9.75	7.78	4.68
1935-36	14.01	11.19	6.79
1936-37	16.48	13.16	8.03
1937-38	12.51	9.99	6.15
1938-39	10.39	8.30	4.84

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currency on the basis of the average rate of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes.

10. Wool Realization Scheme.—The affairs of the British-Australian Wool Realization Association have been liquidated and consequently references to its operations which appeared in previous Official Year Books are not repeated in this issue.

11. United Kingdom Importation of Wool.—The appended statement of the quantities and values of wool imported into the United Kingdom during the year 1937 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the Mother Country :—

WOOL (a) : IMPORTS INTO UNITED KINGDOM, 1937.

Country of Origin.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	300,963,700	20,397,001	Other British Possessions	2,898,800	154,168
New Zealand ..	180,526,400	12,033,163	Peru ..	882,300	66,167
Union of South Africa ..	97,672,900	5,306,492	Belgium ..	3,471,900	297,985
Argentine Republic ..	74,307,500	4,044,705	Falkland Islands	2,174,200	115,367
India ..	43,149,000	2,036,212	Germany ..	179,200	11,030
France ..	28,422,300	2,196,699	United States of America ..	1,043,400	71,755
Uruguay ..	19,433,700	1,259,751	Other Countries	12,575,700	683,595
Chile ..	5,705,300	377,802			
Eire ..	9,580,200	602,512	Total ..	782,986,500	19,654,404

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom, Australian wool represented 38 per cent. of quantity and 41 per cent. of value, and New Zealand 23 per cent. of quantity and 24 per cent. of value. Altogether, 636,965,200 lb., valued at £40,644,915, were received from British Possessions, these figures being equivalent to 81 per cent. of the total weight and 82 per cent. of the total value of all wool imported.

Preliminary figures show that during 1938, 882.2 million lb. of wool were imported into the United Kingdom; the chief sources of supply were Australia 366.3 million lb., New Zealand 198.0 million lb., Union of South Africa 106.7 million lb., and Argentine Republic 79.4 million lb., a total of 750.4 million lb. or 85 per cent.

12. Principal Importing Countries and Sources of Supply.—The following table furnishes in respect of the principal importing Countries details of their production and imports of wool for the year 1937, together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured. They are also exclusive of any wool imported on skins.

WOOL : PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY.

(In millions of lb.)

Importing Country.	Production(a) of Importing Country.	Quantity imported from—					Total Imports.
		Australia.	Union of South Africa.	Argentine Republic.	New Zealand.	Other Countries.	
United Kingdom ..	107.0	274	41	60	150	259	784
Belgium ..	0.7	103	23	21	10	99	256
Czechoslovakia ..	2.1	11	1	4	1	16	33
France ..	55.1	106	34	34	15	148	337
Germany ..	43.3	51	66	25	10	75	227
Italy ..	30.0	44	12	25	0	12	93
Japan ..	..	102	51	11	38	56	258
Poland ..	12.1	12	2	6	3	19	42
United States of America ..	454.6	36	3	60	33	190	322
Total ..	..	739	233	246	260	874	2,352

(a) As in the grease.

In connexion with the total imports shown in the above table, it should be noted that a considerable transit trade exists between continental countries. It must not be assumed, therefore, that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with this transit trade are United Kingdom, Belgium, and France. The quantities re-exported during 1937 were:—United Kingdom, 232 million lb., or 30 per cent., of the total imports; Belgium, 113 million lb., or 44 per cent.; and France, 69 million lb., or 20 per cent.

13. **Inquiry into Wool Industry.**—A Committee was appointed by the Commonwealth Government on the 15th August, 1932, to inquire into and report on the condition of the Australian Wool Industry. The report of the Committee was presented on the 24th November, 1932. The inquiry covered costs of production, prices, etc., and recommendations were made for the rehabilitation of the industry. For fuller details see Official Year Book No. 29, page 644.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported; the value of cattle and horse hides, and sheep and other skins sent overseas during the five years 1933-34 to 1937-38 amounted to £27,048,101, or an average of £5,409,620 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £14,223,206 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1937-38 France was the largest purchaser, taking 64 per cent. of the total consignments, while the United Kingdom ranked next with 20 per cent., followed by United States, with 6 per cent. The exports of sheepskins with wool during each of the years from 1933-34 to 1937-38 were as follows:—

EXPORTS OF SHEEPSKINS WITH WOOL : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	11,478,513	10,765,364	11,811,480	12,130,265	12,713,364
Value .. £	2,627,389	1,772,595	2,805,083	3,636,659	3,381,480

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United States of America, this country taking 50 per cent. of the shipments in 1937-38. Quantities and values for the last five years are given in the table hereunder:—

EXPORTS OF SHEEPSKINS WITHOUT WOOL : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	177,814	247,050	255,636	1,543,713	916,157
Value .. £	13,384	11,768	19,370	169,250	79,461

4. **Hides.**—(i) *Exports.* The export trade in cattle hides, which fell away during the depression years, has again become important. The consignments in 1937-38 were distributed as follows:—United Kingdom, £527,036; Japan, £302,227; Germany, £37,495; Finland, £60,268; Italy, £6,158; Canada, £17,567; Other Countries, £141,297.

The exports during the last five years are given in the table below:—

EXPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	482,339	690,578	807,604	1,034,937	1,063,896
Value .. £	369,927	417,071	613,717	940,024	1,092,048

Calfskins exported during the years 1933-34 to 1937-38 numbered 2,881,992 valued at £711,309 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 58 per cent. of the total exports during the year 1937-38. The annual export of horse hides is very small, and for the past five years averaged only 6,926 hides valued at £4,234.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average annual value during the last five years amounting to £307,727. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France and Italy. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1933-34 to 1937-38 were as follows :—

IMPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
Quantity cwt.	64,447	90,703	64,902	47,705	69,955
Value (a) £	288,125	336,872	301,217	248,848	363,573

(a) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during 1937-38 amounted to £1,219 in Australian currency.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding paragraphs were valued as follows :—

EXPORTS OF OTHER SKINS : AUSTRALIA.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Rabbit and Hare	953,901	876,221	1,744,834	1,649,412	1,052,709
Opossum ..	7,832	134,044	18,938	375,152	78,961
Kangaroo ..	175,597	159,571	229,469	125,033	182,490
Fox ..	168,034	50,232	61,943	80,390	68,684
Wallaby ..	30,325	12,051	12,803	25,789	27,635
Other ..	6,779	4,583	5,966	15,458	31,559
Total ..	1,342,468	1,236,702	2,073,953	2,271,234	1,442,038

These skins were shipped principally to the United States of America and the United Kingdom, the values taken by each during 1937-38 being as follows :—

OTHER SKINS : EXPORTS TO UNITED STATES AND UNITED-KINGDOM, 1937-38.

Description.	United Kingdom.	United States of America.
	£	£
Rabbit and Hare	196,997	853,205
Opossum	58,193	19,862
Kangaroo	12,059	170,342
Fox	49,224	18,267
Wallaby	11,997	15,590
Other	5,301	13,011
Total	333,771	1,089,277