CHAPTER XIX.

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 he 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 10th November, 1791 1st July, 1794 15th June, 1795 1st September, 1796 15th August, 1800	 7 4 (a) 20 (b) 49 57 203	7 18 40 176 227 1,044	29 57 576 832 1,531 6,124	74 37 (c) (c) 1,869 4,026	19 (c) 522 985 1,427 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 1883 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 614.

During the seventy-six years covered by the table the live stock of Australia increased considerably, horses 309 per cent.; cattle 241 per cent.; sheep 448 per cent.; and pigs 243 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 1.87 per cent.; cattle, 1.63 per cent.; sheep, 2.26 per cent.; and pigs, 1.63 per cent.

LIVE STOCK.—AUSTRALIA.

	31st December.		Horses.	Cattle	Sheep.	Pigs.	
1860		•••	 	431,525	3,957,915	20,135,286	351,096
1870			1	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	81,795,727	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

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 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, 1934, 113,048,037; 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-six years in the manner shown in the succeeding table:—

LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA.

Yea	ar.	Horses.	Cattle.	Sheep.	Pigs.	Yea	г.	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	<u> </u>					

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:—

648

LIVE STOCK PER SQUARE MILE, 1936.

S	tate or T	l'erritory.	Horses.	Cattle.	Sheep.	Pigs.		
New South Wales	- -	• •		!	1.76	10.63	171.82	1.26
Victoria					4.06	22.81	200.98	3.63
Queensland					0.66	8.87	29.85	0.43
South Australia					0.53	0.86	20.80	0.22
Western Australia			·		0.16	0.81	9.23	0.08
Tasmania					1.18	9.98	85.21	1.53
Northern Territory					0.06	1.83	0.02	0.00
Australian Capital	Territo	ry			1.19	10.49	259.97	0.48
Australia			••]	0.59	4.54	37.06	0.40

7. Minor Classes of Live Stock.—Excluding Victoria, where the details are not available, the numbers of minor classes of live stock returned for 1936 were as follows:—Goats, 140,579; camels, 4,363; mules and donkeys, 13,310; and ostriches, 20. 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 6,155 angora goats are included in the total of 140,579 goats shown above. Of these, 1,720 were in New South Wales, 940 in Queensland, 2,204 in South Australia, 896 in Western Australia, and 395 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 1932-33 to 1936-37 were as follows:—

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Product.	Unit o Quan- tity.		1933-34.	1934-35.	1935-36.	1936-37.
		QUAN	TITIES.			
Animals (living)—		1	1			1
Cattle	No.	189	115	63	76	-665
Horses		3,227			3,783	4,674
Sheep	,,,	51,821		58,182		49,896
Bones	cwt.	8,299	8,737		17,188	16,603
Glue-pieces and Sinews		495	225		379	(a)
Glycerine	11.	93,126	-288,222	-9,282	-1,193,982	-1,163,777
TYola	i	- 121,363	-119,775	-559,673		-1,152,954
TT C	cwt.	(a)	(a)	-339,073	(a)	(a)
		(a)	(a)	(a)	(a)	(a)
Meats—		. (4)	(4)	. (16)	(4)	(4)
Frozen Beef (b)	lb.	770 070 400	772 076 000	212 000 100	196,818,221	222 857 658
Mutton and Ta	mb				178,005,079	
Rabbits and H						
Other	ares pair	(a)	(a)	(a)	(a)	(a)
		9,579,958	12,214,574		15,098,299	18,498,278
Potted, and Extract of		(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.		7,212,976	4,620,270	5,941,584	6,418,202	9,197,093
Other (excluding Ba	con ;		1			1 -
and Ham)	, ,,	330,186	466,613	408,396	561,341	637,509
Sausage Casings	cwt.	10,429	19,361	14,543	8,938	12,502
Skins	1					
Hides	No.	(a)	(a)	(a)	(a)	(a)
Sheep	' ,,	(a)	· (a)	' (a)	(a)	(a)
Rabbit and Hare	\dots cwt.	77,873	99,339	84,744	91,443	66,446
Other (including Undre	ssed					l
Furs)		(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	745,422	471,591	822,751	445,358	624,521
Wool-	i	1	1	1		
Greasy	lb.	1848,468,549	728,676,211	782,278,901	742,738,515	755,610,976
Scoured		73,248,756	72,670,544		68,053,803	66,594,446
Tops		2,525,380	2,923,974		3,144,411	3,746,779
Noils		1,208,204	1,911,741	1,303,616	1,647,629	1,219,681
Waste		738,201	837,184	1,067,598	880,045	621,324
***************************************	•• ; ,,	, , , , , , , , ,	-37,204	1 -,,,,,,,,	1 230,0.43	, 022,344

Note.—The minus sign (-) signifies net imports. chilled beef.

(a) Quantity not available.

(b) Including.

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 £306,250,709 for the period, or an average of £61,250,142 per annum, of which wool represents 80.45 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

	Product.			1932-33.	1933-34.	1934-35.	1935-36.	1936–37.				
· Values. (a)												
A - i				£	£	£	£	£				
Animals (living Cattle	•			0-		-6						
Horses	• •	••	• •	- 7,089	-27,300	-26,491	-30,244	-24,921				
Sheep	••	••	• •	78,054	35,646	-15,631	3,473	-9,385				
	• •	• •	• • •	12,654	14,440	30,118	36,062	16,605				
Glue-pieces and		• •	• •	5,199	6,058	7,406	9,911	9,804				
		• •		2,489	1,128	2,908	4,812	317				
Glycerine Hair	• •			7,421	1,172	4,962	-34,937	-38,748				
_	••		• •	- 53,063	- 58,098	-81,902	115,077	- 120,245				
Hoofs	• •	• •		4,330	5,755	6,092	5,935	(c)				
Horns	• •	• •		12,771	14,301	* 18,083	16,721	19,762				
Meats-								1 '				
Frozen Beef (b		. ••		1,854,569	2,020,049	2,559,605	2,481,803	3,035,943				
	and Lam			2,697,213	3,575,827	4,475,665	4,465,691	5,233,626				
	s and Har	es .		559,367	425,665	443,484	243,623	(c)				
,, Other	** .			170,462	216,428	266,167	286,415	385,061				
Potted, and				-7,584	- 29,452	-29,507	-32,925	-38,916				
Preserved in				183,539	130,996	152,880	191,316	295,172				
Other (exclud		n and 1		7,710	10,881	7,649	9,885	10,407				
Sausage Casi	ngs			44,002.	184,373	106,210	9,206	60,582				
:Skins						· ·		!				
Hides				52,995	119,344	147,782	450,577	976,227				
Sheep				1,368,986	2,624,990	1,753,908	2,808,267	3,785,748				
Rabbit and 1				450,862	949,819	867,068	1,732,715	1,623,046				
Other (includ	ling Undr	essed F	urs)	-43,379	99,772	-32,942	-110,180	165,625				
Tallow				788,395	476,309	922,505	653,353	812,828				
Wool-				1	1	, ,,,,	1) '				
Greasy				32,063,303	49,463,224	34,095,191	45,806,287	54,921,808				
Scoured				3,952,313	6,646,248	4,598,459	5,548,336	6,659,952				
Tops				271,993	434,472	331,833	404,644	532,121				
Noils				53,902	121,445	75,950	123,481	112,969				
Waste				20,030	32,220	. 39,935	48,848	32,780				
	-				,_,_,	. 35,,333	1					
		•		1				ł				
				<u> </u>			1	}				

Note.—The minus sign (-) signifies net imports.
(b) Including chilled beef. (c) Not recorded separately.

Total Values

⁽a) Australian currency values.

^{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 1936-37 together with the totals for the preceding two 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, 1936-37.

			1	Farm	Costs.	
State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm,	Seed used and Fodder for Farm Stock.	Value of other materials used in process of Production.	Net Value of Production.
	£	<u>£</u>	<u> </u>	<u> </u>	£	£
New South	1	:				{
Wales	43,758,000	3,452,000	40,306,000	706,000	300,000	39,300,000
Victoria	21,948,704	1,642,169	20,306,535	300,000	504,325	19,502,210
Queensland	16,145,000	1,533,000	14,612,000	300,000	200,000	14,112,000
South Australia	6,157,407	691,625	5,465,782	117,610	130,916	5,217,256
Western Aus-			1		•	1
tralia	5,507,783	502,683	5,005,100	256,931	150,939	4,597,230
Tasmania	1,912,400	131,520	1,780,880	57,000	31,300	1,692,580
	i					
Total 1936-37	95,429,294	7,952,997	87,476,297	1,737,541	1,317,480	84,421,276
		7,506,983				73,227,732
	64,647,128	6,986,693	57,660,435	1,314,516	587,420	55,758,499
	1-	7,684,309	76,618,180	1,265,686	545,903	74,806,591
1935-36 1934-35		6,986,693			983,754 587,420	73,227,7 55,758,4

(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 1936-37 and amounted in the aggregate to £495,200

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 have in each case 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 both for 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.

MEATS.—ESTIMATED PER CAPITA CONSUMPTION, AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1936–37.	New Zealand, 1936–37.	Great Britain, 1936.	Canada, 1937.	United States of America, 1936.
Beef and Veal Mutton and Lamb Pork and Bacon and Ham	lb. 146.08 71.51 20.63	lb. 125.00 97.00 19.30	lb. 70.00 30.00 44.00	lb. 58.89 6.16 62.35	lb. 65.50 6.50 54.80
Total All Meats	238.22	241.30	144.00	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 N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
1934 534,853	361,005 357,877 356,106	448,918 447,804 441,075	190,222 196,789 198,765 197,368 200,870	159,646 161,636 160,181	30,269 30,299 30,662 30,626 30,971	33,072 33,590 35,094 35,152 31,056	937 950 1,067 1,060 1,121	1,765,437 1,763,225 1,767,758 1,764,430 1,762,750

(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 norses in Australia from 1860 onwards may be ascertained from the graph on page 614.

3. Proportions in the Several States and Territories.—The percentages of the number of horses in the several States and Territories on the total for Australia for the year 1936 were:—New South Wales, 30.97; Victoria, 20.26; Queensland, 24.99; South Australia, 11.39; Western Australia, 8.81; Tasmania, 1.76; Northern Territory, 1.76; and Australian Capital Territory, 0.06 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 1936 the relative numbers were:—New South Wales, 0.20; Victoria, 0.19; Queensland, 0.45; South Australia, 0.34; Western Australia, 0.34; Tasmania, 0.13; Northern Territory, 5.84; Australian Capital Territory, 0.11; 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:—

					, ·
Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union			Dutch East Indies	1006	
U.S. of America	1937	16,200		1936	655
	1937	11,163	Uruguay Sweden	1930	623 620
Argentine Republic Brazil	1937	8,527	Cuba	1937	
China	1935	6,052	Spain	1934	569
TO 1 1	1935	4,080	Lithmonia	1933	568
	1937	3,888	Donmanle	1937	552
Germany	1937	3,434	Ohile	1937	552
Canada	1937	2,883		1936	528
France	1937	2,742	Bulgaria	1926	482
India (British and		i		1929	. 432
Native)	1935	2,379	Ireland (Eire)	1937	429
Rumania	1935	2,167	Haiti	1935	400
Mexico	1930	1,888	Latvia	1937	392
Manchuria	1936	1,840	Bolivia	1931	390
Australia	1936	1,763	Siam	1936	374
Japan	1936	1,432	Finland	1936	. 369
Yugoslavia	1936	1,216	Greece	1936	359
United Kingdom	1935	1,103	Netherlands	1937	300
Colombia	1934	972	New Zealand	1937	278
Union of South Africa	1930	868	Belgium	1936	265
Hungary	1937	798	Austria	1934	261
Italy	1937	796	Paraguay	1935	237
Turkey	1937 .	723	French Morocco	1937	210
Czechoslovakia	1936	704	Estonia	1937	209

HORSES.—NUMBERS IN PRINCIPAL COUNTRIES.

- 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 4,100. The total number of horses exported during the latter period amounted to 20,695, valued at £648,671, equal to an annual average of 4,139 for £129,734. The average export price was £31 6s. 11d. The horses exported to India, where they are largely used for army remounts, numbered 3,388 or 82 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 £339. The average number imported per annum was, however, only 328, and the average annual value, £111,303. The following table gives the imports, exports and net exports of horses during each of the years from 1932-33 to 1936-37:—

HORSES.-IMPORTS AND EXPORTS.-AUSTRALIA.

Year.		Imp	orts.	. Exp	orts.	Net	Net Exports.		
		No.	Value.	No.	Value.	No.	Value.		
1932-33 1933-34 1934-35 1935-36 1936-37		180 367 388 352 352	£ 30,853 61,627 150,703 132,645 180,686	3,407 3,616 4,514 4,135 5,026	£ 108,907 97,273 135,072 136,118 171,301	3,227 3,249 4,123 3,783 4,674	£ 78,054 35,646 15,631 3,473 9,385		

(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 occupied the leading position as a cattle-raising State, but in that year Queensland took first place, 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 14,441,309 cattle was attained in 1921. After that year the number again fluctuated, dropping almost continuously to 1929 owing to the decline in the oversea demand for frozen beef and occasional droughts particularly in Queensland, and recovering again during the next five seasons with the expansion of dairying a contributing factor.

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.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter. (a)	Total.
1932 1 1933	3,361,771 3,482,831	2,002,235 2,085,080	5,781,170	312,932 352,728 346,479	857,473 885,669 911,940		780,121 859,867 899,679	6,790 8,433	12,783,137 13,512,486 14,048,671
1935	3,388,538 i 3,288,169 i		6,033,004 5,950,572	335,354 328,013	882,761 792,508	270,035 261,597	900,535 855,398	10,186 9,856	13,911,659 13,491,072

(a) 31st March, year following.

Although the proportion is not as high as it has been in the past, Queensland was carrying 44.11 per cent. of the cattle in Australia in 1936.

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 1936 was:—New South Wales, 24.37; Victoria, 14.87; Queensland, 44.11; South Australia, 2.43; Western Australia, 5.87; Tasmania, 1.94; Northern Territory, 6.34; Australian Capital Territory, 0.07.

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	=		Tanganyika Territory	1936	4,837
Native)	1935	161,381	French Equatorial		
U.S. of America	1937	65,930	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	Ireland (Eire)	1937	3,955
Australia	1936	13,491	Spain	1933	3,570
Union of South Africa	1936	11,081	Denmark	1937	3,084
Poland	1937	10,569	Sweden	1935	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-		
Italy	1937	7,287	Egyptian)	1937	2,700
Turkey	1937	6,551	Netherlands	1937	2,627
Siam	1937	5,618	Uganda	1937	2,509
Kenya	1935	5,233	Chile	1937	2,460
Madagascar	1936	4,990	Austria	1934	2,349
Czechoslovakia	1937	4,930	Bolivia	1931	2,064

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.	Imp	orts.	Expo	orts.	Net E	Exports.
i car.	 No.	Value.	No.	Value.	No.	Value.
1932-33 1933-34 1934-35 1935-36 1936-37	 98 208 161 164 946	£ 12,464 33,983 30,382 33,527 32,276	287 323 224 240 281	£ 5,375 6,683 3,891 3,283 7,355	189 115 63 76 — 665	£ - 7.089 - 27,300 - 26,491 - 30,244 - 24,921

(a) Australian currency values.

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

('ATTLE. 655

The average value of the cattle imported during the last five years was £90 8s. 11d. per head, while the average value of the cattle exported during the same period was £19 12s. 5d. 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 1932 to 1936 is given hereunder:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Aus. Cap. Ter.	Total.
1932	704,646	427,644	596,975		91,359	30,335	1,899	1 10	1,943,714
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363		2,205,190
1934	974,749	593,248	851,393		110,124	37,581	4,358		2,713,414
1935	1,100,472	774,395	866,410		120,123	39,588			3,057,825
1936	1,186,476	904,889	1,040,980	166,468	124,214	46,718	4,814	2,339	3,476,898
					<u> </u>	<u> </u>			1

- (a) For year ended 30th June of year following.
- 6. Production and Consumption of Beef.—The production of beef in Australia during the year 1936-37 was estimated at 1,234,839,000 lb. The requirements of the local market absorbed 994,008,000 lb. or approximately 81 per cent., leaving a balance of 240,831,000 lb. or 19 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:—1932-33, 153,972,800 lb., £1,854,582; 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; and 1936-37, 233,851,658 lb., £3,036,239. 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 1936-37 took £2,755,883 worth, or about 90.8 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Malta, Malaya (British), Philippine Islands, Japan and Belgium; these countries, together with the United Kingdom, accounted for 98.4 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; and 1936-37, 41,869,695 lb., £608,175.

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 1933 to 1937:—

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

Country of Origin.	1933.	1934.	1935.	1936.	1937.
	CHILLE	dQuantii	Y.		đ
	cwt.	ewt.	ewt.	cwt.	ewt.
Brazil	517,022 560,392 6,951,833	509,103 560,997 6,942,113	508,512 561,560 6,937,141	508,653 544,921 7,109,114	496,818 583,487 6,987,234
Other Foreign Countries British	142,073	238,445	478,336	617,303	903,900
Total Chilled	8,171,320	8,250,658	8,485,549	8,779,991	8,971,439
	Снігл	ED-VALUE	•		
Brazil	£ 834,363 953,839 12,832,259	£ 798,693 937,456 11,695,034	£ 793,741 907,452 11,529,888	£ 809,936 838,449 12,010,908	£ 909,703 1,046,308 13,465,413
Other Foreign Countries British		380,422	728,673	900,966	1,667,019
Total Chilled	14,835,265	13,811.605	13,959,754	14,560,259	17,088,443
	Frozei	Quantit	у.		
	ewt.	ewt.	cwt.	cwt.	ewt.
United States of America Brazil	5,333 27,815 113,910	5,473 40,950 97,234	11,245 41,971 93,933	3,421 35,921 113,666	7,873 53,795 112,340
Australia New Zealand Other British Countries		1,322,855 697,146 4,866	1,104,511 464,758 4,509	1,055,786 277,900 4,248	1,328,821 247,059 12,428
Total Frozen	1,530,692	2,168,524	1,720,927	1,490,942	1,762.317
Grand Total (Chilled and Frozen)	9,702,012	10,419,182	10,206,476	10,270,933	10,733,756

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

Country of Origin.	1933.	1934.	1935.	1936.	1937.
	Froz	en-Value.			
	£	£ . £	£	£	£
United States of America Brazil	7.327 42,901 181,307 1,212,096 510,518 7,671	7,635 63,800 153,758 1,660,554 824,611 5,578	17,417 78,018 159,524 1,481,103 606,849 6,134	5,230 62,127 172,843 1,317,389 344,007 6,143	12,170 94,295 200,303 2 1,973,788 364,264 18,823
Total Frozen	1,961,820	2,715,936	2,349,045	1,907,739	2,663,645
Grand Total (Chilled and Frozen)	16,797,085	16,527,541	16,308,799	16,467,998	19,752,088

§ 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 maintained 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 614. 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 113,048,037 in 1934, 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 about eighteen million sheep and lambs for the mutton and lamb trade.

The numbers of sheep in the several States and Territories for each year from 1932 to 1936, together with estimate of the numbers at the 31st December, 1937, are shown in the table hereunder. It would appear from the estimate that the record of 1934 may be exceeded when the final figures for 1937 become available.

SH	EEP	_NI	IM	RF	R

31st Dec.	New South Wales. (a)	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Aust, Cap. Ter. (a)	Total.
		I						707	
1932	53,698,236	17,512,394	21,312,865	7,713,236	10,417,031	2,040,564	18,250	214,355	112,926,931
1933			20,072,804			2,035,052	18,076	231,742	109,921,053
1934	53,327,00C	16,783,631	21,574,182	7,884,919	11,197,156	2,038,450	23,356	219,343	113,048,037
1935					11,082,972		25,483		108,875,801
1936					9,007,535			244,378	110,242,704
19376	52,800,000	18,863,467	22,497,970	8,904,402	8,717,780	2,200,000	10,000	263,000	114,256,619

⁽a) 31st March year following.

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 were depleted in 1936 by drought, but the total for Australia increased by nearly 1½ million owing to gains in the other States.

The percentage distribution in 1936 was:—New South Wales, 48.24; Victoria, 16.02; Queensland, 18.15; South Australia, 7.17; Western Australia, 8.17; Tasmania, 2.02; Northern Territory, 0.01; Australian Capital Territory, 0.22 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 110 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 the number increased 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 130,000,000 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-woolled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve

⁽b) Estimate as at 31st December, 1937.

Sheep. 659

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 202.1 million lb. only during the year 1936. This represents an average weight of fleece shorn of under 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	1936	110,243	Italy	1937	9,095
Soviet Union (a)	1937	66,600	Bulgaria	1926	8,740
United States of			Greece	1936	8,440
America	1937	52,918	Algeria	1936	6,267
Argentine Republic	1937	43.790	Chile	1936	5,752
India (British and		1	Bolivia ,	1931	5,232
Native)	1935		Iraq	1937	4,976
Union of South Africa	1936	39,866	, Germany	1937	4,684
New Zealand	1937	31,306	Mexico	1930	3,674
United Kingdom	1937	25,541	Tunis	1936	3,532
China	1935	20,957	Canada	1937	3,340
Spain	1933	19,093	Portugal!	1934	3,274
Turkey	1937	16,449	Kenya!	1930	3,243
Iran	1934	16,019	Poland	1937	3,182
Uruguay	1932	15,406	Ireland (Eire)	1937	3,000
Brazil	1935	12,645	Manchuria	1936	3,000
Rumania	1935	11,838	Somaliland	1936	2,500
Peru	1929	11,209	Sudan (Anglo-		
French Morocco	1937	10,373	Egyptian)	1937	2,500
France	1937	9,994	Syria and Lebanon	1937	2,274
Yugoslavia	1936	9.568	Nigeria	1936	1,993
French Equatorial			Tanganyika Territory	1936	1,862
and West Africa	1935	9,488	·		

(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 1936–37 exports of stud sheep amounted to 9,572 valued at £33,454, of which 9,082 sheep valued at £26,917 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 1932-33 to 1936-37:—

SHEEP.—IMP	ORTS AND	EXPORTS.	AUSTRALIA.

		Imports.		Expo	rts.	Net Exports.		
Year.		No.	Value.	No.	Value.	No.	Value.	
	-	1	£		£		£	
1932-33]	1,725	9,843	53,546	22,497	51,821	12,654	
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	

(a) Australian currency values.

6. Sheep Slaughtered.—The numbers of sheep slaughtered in the several States during each of the years from 1932 to 1936 were as follows:—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus, Cap, Ter.(s)	Total.
1932 1933 1934 1935	7,534,585 7,180,612 6,829,477 6,054,749 6,428,027	7,139,449 7,773,289 7,646,070 7,691,488 7,914,433	1,275,936	1,495,127 1,591,054 1,642,550	1,044,493 1,092,222 1,079,516 1,160,663 1,106,107	424,519 366,156 349,044 351,684 341,586	790 900 	25,367 22,207 21,948	19,013,209 19,232,958 18,793,304 17,895,540 18,536,400

- (a) Year ended 30th June, year following.
- 7. Production and Consumption of Mutton and Lamb.—The production of mutton and lamb during the year 1936-37 amounted to 697,344,000 lb., of which 486,560,000 lb. or 70 per cent. was consumed locally, leaving a balance of 210,784,000 lb. or 30 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, 1932-33, 121,802,858 lb., £2,165,175; 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. Mutton, 1932-33, 44,994,653 lb., £532,049; 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.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed 98 per cent. of the total quantity exported from Australia during the year 1936-37.

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.)

66₁

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 1937 are given in the following table:—

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Orlgin.	1933.	1934.	1935.	1936.	1937.
	Митто	n—Quantit	у.		<u> </u>
	cwt.	cwt.	ewt.	ewt.	ewt.
	140,282	82,258	89,326	95,759	94,327
	33,324	13,690	6,232	8,240	16,553
	. 217,174	137,748	150,423	121,907	110,946
		2,895	2,870	2,063	4,871
Total, Foreign	. 392,562	236,591	248,851	227,969	226,69
New Zealand	347,409 998,547 1,763	461,259 898,965	424,050 1,041,563	227,218 888,864 350	405,614 861,832 4,582
Total, British .	. 1,347,719	1,360,224	1,465,613	1,116,432	1,272,028
, Grand Total .	. 1,740,281	1,596,815	1,714,464	1,344,401	1,498,725
	, Muti	on-Value.			
	£	£	£	£	£
Chile	. 214,655	163,574	129,856	177,128	163,339
•	. 54,863	23,260	10,635	13,945	28,34
4 0 0 D 11	. 348,525	261,398	223,070	219,405	202,40
		4,744	3,984	3,204	8,76
Total, Foreign .	. 620,455	452,976	367,545	413,682	402,849
Australia New Zealand Other British Countries .	513,354 1,612,378 2,888	845,228 1,716,799	693,878 1,754,720	422,096 1,616,778 613	726,344 1,637,165 8,485
Total, British .	2,128,620	2,562,027	2,448,598	2,039,487	2,371,993
Grand Total .	• 2,749,075	3,015,003	2,816,143	2,453,169	2,774,842

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

	_	con	tinued.			
Country of Origin.		1933.	1934.	1935.	1936.	1937.
		Lamb-	-Quantity.	•		
		cwt.	ewt.	cwt.	ewt.	cwt.
Iceland		15,236				
United States		i			!	
Chile		124,368	124,067	118,554	111,209	116,063
Brazil		9,929				
Uruguay		138,637	124,702	. 130,176	117,888	148,408
Argentine Republic		929,420	783,868	754,827	778,176	778,986
Other Foreign Countries			27,641	28,561	37,236	38,006
Total, Foreign		1,217,590	1,060,278	1,032,118	1,044,509	1,081,463
Australia		956,948	1,165,848	1,360,158	1,272,046	1,477,348
New Zealand	• •	2,736,546	2,655,611	2,591,399	2,641,880	2,741,204
Other British Countries	• •	1,404	242	18	558	4,174
Total, British		3,694,898	3,821,701	3,951,575	3,914,484	4,222,726
Grand Total	٠.	4,912,488	4,881,979	4,983,693	4,958,993	5,304,189
	<u> </u>	Lam	B-VALUE.	.,,,		
			£	£	£	£
Iceland		, £	*	, ac.	£	£
United States	• •	38,718	• • •		1	
Chile	٠.	290,447	365,115	271,858	316,386	313,089
Brazil	• •	20,421	, 303,113	i 2/1,030	310,300	313,009
Uruguay	• •	314,292	311,953	327,257	316,441	418,157
Argentine Republic		2,151,100		1,898,688	2,091,908	2,179,907
Other Foreign Countries		2,131,109	67,008	77,642	101,211	108,090
5		\- 	-		·	
Total, Foreign	• •	2,814,987	.2,795,630	2,575,445	2,825,946	3,019,243
Australia		2,395,193	3,320,964	3,934,693	3,707,390	4,351,242
New Zealand		7,435,731	8,414,183	8,063,996	8,266,051	8,754,457
Other British Countries		3,615	674	51	1,529	11,704
Total, British	٠.	9,834,539	11,735,821	11,998,740	11,974,970	13,117,403

§ 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 1936-37.

Wool. 663

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:—

SHEED	AND	WOOI	PRINCIPAL	PRODUCING	COUNTRIES

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia	. 1936–37	110.2	983
United States of America .	. 1936–37	52.9	449
Soviet Union	. 1936–37	58.1	202
Argentine Republic	. 1936–37	43.8	385
Union of South Africa .	. 1936–37	39.9	272
New Zealand	. 1936–37	30.1	303

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, however, by this Bureau it has been accepted that, for the purpose of converting the Australian clip from the greasy to the clean category, the clean weight may be estimated at 46.15 per cent. of the greasy weight; in other words, $2\frac{1}{6}$ lb. of greasy wool are equivalent to 1 lb. of clean wool.

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 1937–38 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.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.(c)
New South Wales (a) Victoria Queensland South Australia Western Australia Tasmania Northern Territory (b)	lb. 486,152,493 161,146,436 169,989,516 79,288,903 85,118,808 14,200,000 35,000	156,761,979 174,088,413 77,790,933 95,836,161 14,035,000	163,397,896 142,793,328 81,709,440 92,458,673 16,300,000	76,604,296 69,935,210 14,067,000	179,400,000 167,665,000 85,500,000 64,700,000 14,000,000
Total—Quantity Value	995,931,156 £ 63,037,000	£	£	982,831,449 £ 63,585,782	£

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

⁽b) Approximate figures.

⁽c) Preliminary.

- (ii) Estimate for 1938-39. No official information is yet available for the season ending June, 1939. In many parts the wool is not yet shorn. At the joint annual 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 2,970,000 bales. Should this estimate be realized the total production of wool in Australia for 1938-39 would approximate about 950,000,000 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 3,826.1 million lb. in 1936-37, Australia produced 982.8 million lb., or 25.7 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 1,819 million lb., or 47.5 per cent.

WOOL.—WORLD'S PRODUCTION.
(In millions of lb., "greasy" basis.)

Countries,	Average Annual Pre-war Produc- tion. (a)	1932-33.	1933-34.	1934-35.	1935-36.	1936–37.
Australia	. 741.4	1,062.6	995.9	1.015 4	971.1	982.8
United States	314.1	440.5	459.8	451.0	452.7	448.6
Argentine Republic .		388.0	382.0	370.0	366.0	385.0
Union of South Africa		330.0	284.0	222.0	250.0	272.0
Soviet Union (Russia		143.0	136.0	128.0	158.4	202.1
New Zealand .	. 198.5	277.1	289.6	265.0	304.3	302.9
Uruguay	7.55	111.0	93.0	112.0	110.0	113.0
China (b)		0.01	110.0	0.011	110.0	110.0
United Kingdom .	. 134.0	119.0	120.0	115.0	109.0	108.0
India (b)	100.0	100.0	0.001	100.0	100.0	100.0
Spain	. 72.0	78.0	78.0	73.0	66.0	66.0
Rumania	. 13.2	43.3	43.3	43.0	42.9	42.9
Persia	. 12.1	(b) 49.0				
France	. So.7	53.8	53.6	52.8	52.7	53.9
Turkey	. , 118.0	38.9	36.6	35.4	41.1	48.9
Italy	. 55.0	42.0	41.0	36.0	30.0	30.0
Algeria	. 35.2	39.3	39.0	41.0	43.0	47.0
Chile	17.4	33 7	34.6	37.0	35.2	33.5
Brazil	. 35.0	33.7	35 3	36.4	37.5	37.5
Germany	. 52.0	31.5-	31.3	32.2	36.3	40.1
Yugoslavia .	25.4	29.8	30.1	31.0	32.2	33.6
Canada	. 11.2	20.5	19.2	19.5	19.4	18.9
Morocco (French) .	14.9	33.2	34.0	35.6	40.8	40.7
Bulgaria	. 23.7	20.7	20.9	21.3	21.1	20.4
Ireland (Eire) .		19.6	19.6	17.0	16.5	17.6
Basutoland .		11.8	9.9	5.1	7.3	6.0
Falkland Islands .		3.9	4.0	4.0	4.2	4.0
Other Countries .	71.2	193.9	194.6	199.3	208.2	211.7
Total .	3,286.6	3,857.8	3.744.3	3,657.0	3,714.9	3,826.1

⁽a) Average for years 1909 to 1913 inclusive.

⁽b) Estimated.

Wool. 665

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 XXIV. "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.	
1927-28			lb. 38,510,532	1932-33			lb. 65,343,392
1928-29 1929-30	• •		44,481,718 49,606,200	1933-34	• •	• •	60,881,494
1929–30 1930–31	• • •	::	35,200,996	1934-35 1935-36	••		55,753,478 70,205,840
1931-32			50,159,704	1936-37			71,579,920

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:—

WOOL IN THE GREASE.—EXPORTS, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935–36.	1936–37.	1937–38.
United Kingdom Other British Countries Belgium France Germany Italy Japan Netherlands Poland United States of America Other Foreign Countries	4,381,197	lb. 209,887,487 1,162,155 92,649,202 65,017,851 113,529,705 58,549,566 170,444,059 3,270,646 9,051,704 5,359,242 6,902,103	lb. 292,725,835 1,252,059 124,169,015 75,760,166 27,220,923 17,694,730 196,125,519 16,450,416 12,058,269 5,448,868 16,878,821	lb. 244,568,575 2,477,886 102,501,997 64,692,287 27,116,447 4,502,392 234,518,700 15,296,631 12,679,782 24,810,766 18,722,139	lb. 277,210,184 2,396,943 120,959,897 76,063,696 41,451,486 35,775,546 84,058,539 8,798,135 12,296,714 72,758,475 27,404,760	lb. 294,411,888 1,931,028 87,862,566 123,835,665 53,956,616 29,577,669 69,162,890 7,084,535 17,988,525 4,193,670 31,821,901
Total	556,841,340	735,823,780	785,784,621	751,887,602	759,174,375	721,826,953

(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:—

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

						
Country to which Exported.	Average Five Years 1909-13.	1933-34. -	1934-35.	1935-36.	1936–37.	1937–38.
	1ь.	Ib.	lb.	lb.	lb.	1ь.
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	s (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	5,115,651
France	16,068,910	5,863,131	9,843,830	10,835,868	7,668,430	8,238,396
Germany	** *** ***	11,213,776	2,879,686	3,927,532	3,561,744	2,772,248
Italy	265	2,638,595	1,073,491	213,531	593,359	310,170
Japan	999 -6-	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."

(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:—

WOOL EXPORTS .- TOTAL VALUE, 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	1,058,533	707,361	466,198
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 Bulletins 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

⁽b) Included with Other Foreign Countries.

following, but in 1937-38 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 1936-37 was valued at £63,586,000 compared with £55,186,000 in 1935-36. 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 1932-33 to 1936-37 the annual clip was valued at £52,171,000.

The value of the clip for 1937-38 is estimated at £52,600,000, 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.	 1931-32.	1932-33.	1933-34	1934-35.	1935-36.	1936-37.	1937–38.
Greasy (a)	 d. 8.46	d. 8.72	d. 15.84	d. 9·75	d. 14.01	d. 16.48	d. 12.51

(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:—

AVERAGE VALUE OF GREASY WOOL PER LB.-AUSTRALIA.

	Year.		Australian Currency. ,	Sterling.	Gold Prices
- · ·			\overline{d} .	\overline{d} .	d.
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		٠.	8.72	6.98	4.84
933-34			15.84	12.65	8.19
1934-35		٠	9.75	7.78	4.68
935-36			14.01	11.19	6.79
1936-37			16.48	13.16	8.03
937-38			r2.51	9.99	6.15

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 1936 from the principal wool-producing countries shows the important position which Australia occupied in the supply of wool to the Mother Country:—

WOOL (a).--IMPORTS, UNITED KINGDOM, 1936.

Country of Origin,	Quantity.	Value,	Country.	Quantity.	Value.
+	lb.	£		lb.	£
Australia	347,763,700	19,670,119	Other British		
New Zealand	233,594,600	9,358,333	Possessions	2,699,300	262,475
Union of South		1	Peru	1,106,400	122,700
Africa	109,834,600	5,024,468	Belgium	3,740,800	121,761
Argentine Re-			Falkland Islands	3,129,800	65,213
public	83,914,400	2,994,139	Germany	432,400	54,510
India	44,511,600	1,722,288	United States of	•	
France	23,738,200	1,230,122	America	909,200	27,642
Uruguay	29,925,800	2,046,922	Other Countries	6,495,600	276,926
Chile	9,987,200	482,321			
Ireland (Eire)	12,112,400	468,483	Total	913,896,000	13,928,422

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom, Australian wool represented 38 per cent. of quantity and 45 per cent. of value, and New Zealand 26 per cent. of quantity and 21 per cent. of value. Altogether, 753,646,000 lb., valued at £36,488,152, were received from British Possessions, these figures being equivalent to 82 per cent. of the total weight and 84 per cent. of the total value of all wool imported.

Preliminary figures show that during 1937, 783.8 million lb. of wool were imported into the United Kingdom; the chief sources of supply were Australia 301.7 million lb., New Zealand 180.6 million lb., Union of South Africa 97.3 million lb., and Argentine Republic 74.4 million lb., a total of 654.0 million lb. or 83 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, 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.		Produc-							
		tion(a) of Importing Country.	Australia.	Union of South Africa.	Argentine Republic.	New Zealand.	Other Countries.	Total Imports	
United Kingdom Belgium Czechoślovakia France Germany Italy Poland Spain		108.0 0.7 1.9 53.9 40.1 30.0 11.5 66.0	347.8 137.8 9.1 144.1 37.5 6.1 154.7 21.7 (b)	109.8 18.1 0.5 69.0 43.6 4.9 18.6 4.2	83.9 24.3 2.0 56.9 35.5 11.4 7.5 6.2 (b)	233.6 8.4 1.9 45.0 7.6 23.7 8.3 (b)	. 138.8 58.3 31.2 38.6 103.5 19.9 12.5 10.6 (b)	913.9 246.9 44.7 353.6 227.7 42.3 217.0 51.0 (b)	
Soviet Union United States America	of	202.ī 448.6	32.0	4.0	60.3	26.5	130.5	57.1 253.3	
Total	•••		896.8	272.7	288.0	355.0	595.0	2,407.5	

(a) As in the grease.

(b) Not available.

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, France and Germany. The quantities re-exported during 1936 were:—United Kingdom, 277.0 million lb., or 30.3 per cent. of the total imports; Belgium, 106.2 million lb., or 43.0 per cent.; France, 64.4 million lb., or 18.2 per cent.; and Germany, 0.8 million lb., or .35 per cent.

13. Inquiry into Wool Industry—(i) General. 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 1932-33 to 1936-37 amounted to £23,219,234, or an average of £4,643,847 per annum.
- 2. Sheepskins with Wool.—The exports of sheepskins with wool aggregating £12,224,309 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1936-37 France was the largest purchaser, taking 59 per cent. of the total consignments, while the United Kingdom ranked next with 23 per cent., followed by United States, with 11 per cent. The exports of sheepskins with wool during each of the years from 1932-33 to 1936-37 were as follows:—

SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.		1932-33. 1933-34.		1934–35.	1935-36.	1936–37.
Number Value	·÷	10,448,928	11,478,513 2,627,389	10,765,364	11,811,480 2,805,083	12,130,265 3,636,659

3. Sheepskins without Wool.—Sheepskins without wool are exported chiefly to the United States of America, this country taking 65 per cent. of the shipments in 1936-37. Quantities and values for the last five years are given in the table hereunder:—

SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1932~33.	1933-34.	1934-35.	1935-36.	1936-37.	
Number	146,564	177,814	247,050	255,636	1,543,713	
Value £	3,914	13,384	11,768	19,370	169,250	

4. Hides.—(i) Exports. The export trade in cattle hides, which fell away during the depression years, has again become important. The consignments in 1936-37 were distributed as follows:—United Kingdom, £368,898; Japan, £136,387; Germany, £77,978; Finland, £46,097; Italy, £28,357; Canada, £68,100; Other Countries, £214,207.

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

CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1932-33.	1933-34.	1394-35.	1935-36.	1936-37.
Number	450,857	482,339	690,578	807,604	1,034,937
Value £	292,841	369,927	417,071	613,717	940,024

Calfskins exported during the years 1932-33 to 1936-37 numbered 2,150,726 valued at £524,485 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 49 per cent. of the total exports during the year 1936-37. The annual export of horse hides is very small, and averaged only 6,240 hides valued at £3,330.

(ii) Imports. The imports of cattle hides and calfskins are fairly large, the average annual value during the last five years amounting to £285,093. 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 1932-33 to 1936-37 were as follows:—

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CALLL	3 11	ides.—imp	UKIS, AUSI	KAL	.IA.		
1932-33.		1933-34	1934-35.	,	1935	30.	 1936-

 Particulars.
 1932-33.
 1933-34.
 1934-35.
 1935-30.
 1936-37.

 Quantity cwt.
 76,529
 64,447
 90,703
 64,902
 47,705

 Value (a)
 £
 250,569
 288,125
 336,872
 301,217
 248,848

(a) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during 1936-37 amounted to £73 in Australian currency.

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

OTHER SKINS .- EXPORTS, AUSTRALIA.

Description	on.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	<u>'</u> -	-			* *	
		£	€	£	£	£
Rabbit and	Hare	460,182	953,901	876,221	1,744,834	1,649,412
Opossum	,	29,177	7,832	134,044	18,938	375,152
Kangaroo		74,389	175,597	159,571	229,469	125,033
Fox		105,356	168,034	50,232	61,943	80,390
Wallaby	'	6,826	30,325	12,051	12,863	25,789
Other	• •	2,238	6,779	4.5 ⁸ 3	5,966	15,458
	· i_		-	= -		
Total	• • •	678,168	1,342,468	1,236,702	2,073,953	2,271,234
	- :					· .

These skins were shipped principally to the United States of America and the United Kingdom, the values taken by each during 1936-37 being as follows:—

OTHER SKINS,—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1936-37.

			-			
	Descri	ption.	United Kingdom.	United States of America.		
			' -			
				ĺ	£	£
d Hare					208,609	1,429,038
					343,735	31,050
)	2,759	122,256
		:.			68,097	9,875
					7,421	18,064
• •	• •		• •	• •	3,997	3,783
				1		
Total	• •	• •	• •		634,618	1,514,066
	•••	d Hare		d Hare	d Hare	d Hare 208,609 343,735 2,759 68,097 3,997