

CHAPTER XX.

PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1. *Early Statistics.*—In earlier issues of the Year Book will be found a brief reference to the pastoral industry in Australia prior to the year 1860. (See Official Year Book No. 6 page 330.)

2. *Subsequent Statistics.*—While the statistical records of live stock in Australia prior to the year 1860 are somewhat defective, 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 1920, and from 1928 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the seventy-three years covered by the table the live stock of Australia increased considerably, horses 309 per cent. ; cattle 241 per cent. ; sheep 446 per cent. ; and pigs 198 per cent. The average annual increases which these aggregates represent are as follow :—Horses, 1.95 per cent. ; cattle, 1.70 per cent. ; sheep, 2.35 per cent. ; and pigs, 1.51 per cent.

LIVE STOCK.—AUSTRALIA.

31st December.				Horses.	Cattle.	Sheep.(a)	Pigs.
1860	..	..	..	431,525	3,957,915	20,135,286	351,006
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	81,795,727	764,406
1928	..	..	..	1,942,753	11,300,757	103,430,773	910,181
1929	..	..	..	1,845,614	11,202,134	104,558,342	1,018,324
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

(a) See note to Table in § 4, 2 hereinafter.

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, 1914-15, 1918, 1919, 1922-23, 1925-26, and 1927-28.

The years in which the numbers of live stock attained their maxima are as follow :—Horses, 1918, 2,527,149 ; cattle, 1921, 14,441,309 ; sheep, 1932, 112,926,931 ; and pigs, 1917, 1,169,365.

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-three 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	1920 ..	0.44	2.49	15.11	0.14
1870 ..	0.43	2.60	25.24	0.33	1929 ..	0.29	1.75	16.30	0.16
1880 ..	0.48	3.37	27.87	0.37	1930 ..	0.28	1.81	17.07	0.17
1890 ..	0.48	3.17	31.06	0.28	1931 ..	0.27	1.88	16.95	0.18
1900 ..	0.43	2.29	18.75	0.25	1932 ..	0.27	1.95	17.23	0.18
1910 ..	0.49	2.65	22.16	0.23	1933 ..	0.26	2.03	16.52	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, 1933.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.72	10.86	168.39	1.19
Victoria	4.11	22.78	195.67	2.74
Queensland	0.67	8.62	29.94	0.32
South Australia	0.52	0.93	20.89	0.24
Western Australia	0.16	0.91	10.58	0.09
Tasmania	1.16	10.00	77.63	1.45
Northern Territory	0.06	1.64	0.03	0.00
Federal Capital Territory	1.01	7.22	246.53	0.49
Total	0.59	4.54	36.95	0.35

7. **Minor Classes of Live Stock.**—Excluding Victoria, details not being available, the numbers of minor classes of live stock returned for 1933 were as follow:—Goats, 152,379; camels, 4,849; mules and donkeys, 14,493; and ostriches, 53. 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, attention has in recent years been devoted to the angora goat and its product (mohair), and 6,312 angora goats are included in the total of 152,379 goats shown above. Of these, 2,301 were in New South Wales, 665 in Tasmania, 573 in Western Australia, 1,377 in South Australia, and 1,391 in Queensland, while the quantity of mohair produced in the latter State in 1933 was set down at 444 lb., and the number of skins placed on the market was returned as 106.

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 1929-30 to 1933-34 were as follow:—

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	Unit of Quantity.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
QUANTITIES.						
Animals (living)—						
Cattle	No.	6,191	174	331	189	115
Horses	"	5,969	4,926	4,771	3,227	3,249
Sheep	"	38,764	26,071	47,131	51,821	42,914
Bones	cwt.	10,503	12,238	9,416	8,299	8,737
Glue-pieces and Sinews	"	-20,176	-15,927	186	495	225
Glycerine	lb.	-703,682	-254,290	13,575	93,126	-288,222
Hair	(a)	(a)	126,712	74,445	-121,363	-119,775
Hoofs	cwt.	11,273	(a)	(a)	(a)	(a)
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef	lb.	156,748,365	155,630,647	165,871,501	153,972,403	173,076,002
" Mutton and Lamb	"	100,410,980	109,252,956	165,281,142	166,797,195	171,106,849
" Rabbits and Hares	pair	3,873,337	(a)	(a)	(a)	(a)
" Other	lb.	6,115,445	6,920,925	8,061,876	9,579,958	12,214,574
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	3,381,248	4,265,578	5,258,749	7,212,976	4,620,270
Other (excluding Bacon and Ham)	"	434,050	344,712	277,562	330,186	466,613
Sausage Casings	cwt.	30,984	8,976	11,562	10,429	19,361
Skins—						
Hides	No.	702,135	(a)	(a)	(a)	(a)
Sheep	"	12,944,781	(a)	(a)	(a)	(a)
Rabbit and Hare	cwt.	77,566	63,348	69,774	77,873	99,339
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	592,231	484,762	768,511	745,422	471,591
Wool—						
Greasy	lb.	696,578,126	767,050,003	772,804,985	848,468,549	728,676,211
Scoured	"	44,195,688	43,685,080	55,708,642	73,248,756	72,670,544
Tops	"	552,152	1,033,823	2,170,330	2,525,380	2,923,974

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

(a) Quantity not available.

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 £242,796,009 for the period, or an average of £48,559,202 per annum, of which wool represents 79.66 per cent. Meat, skins, and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
VALUES. (a)					
	£	£	£	£	£
Animals (living)—					
Cattle	-19,814	- 7,788	-5,673	-7,089	-27,300
Horses	85,178	105,254	100,935	78,054	35,646
Sheep	35,681	3,346	8,496	12,654	14,440
Bones	8,015	8,702	6,725	5,199	6,058
Glue-pieces and Sinews	-13,577	-13,232	1,610	2,489	1,128
Glycerine	-15,167	-3,119	4,691	7,421	1,172
Hair	-47,591	-9,209	-24,966	-53,063	-58,098
Hoofs	7,128	4,412	4,750	4,330	5,755
Horns	22,626	18,164	14,815	12,771	14,301
Meats—					
Frozen Beef	2,569,782	2,235,526	2,087,812	1,854,569	2,020,049
" Mutton and Lamb	2,386,175	2,105,956	2,994,056	2,697,213	3,575,827
" Rabbits and Hares	339,917	412,845	478,946	559,367	425,665
" Other	152,319	149,643	151,793	170,462	216,428
Potted, and Extract of	-52,491	6,981	5,174	-7,584	-29,452
Preserved in Tins, etc.	118,513	138,253	135,805	183,539	130,996
Other (excluding Bacon and Ham)	8,695	7,490	6,098	7,710	10,881
Sausage Casings	245,246	159,913	56,701	44,002	184,373
Skins—					
Hides	459,192	517,132	62,762	52,995	119,344
Sheep	3,123,282	1,945,064	1,097,816	1,368,986	2,624,990
Rabbit and Hare	1,507,142	557,207	477,476	450,862	949,819
Other (including Undressed Furs)	586,842	175,095	304,696	-43,379	99,772
Tallow	981,454	597,594	827,454	788,395	476,309
Wool—					
Greasy	32,775,631	29,294,646	28,883,940	32,063,303	49,463,224
Scoured	3,563,207	2,469,360	2,817,703	3,952,313	6,640,248
Tops	87,781	114,021	248,055	271,993	434,472
Nolls (b) .. .. .	..	30,814	44,520	53,902	121,445
Waste (b) .. .. .	..	9,487	7,940	20,030	32,220
Total Values	48,915,166	41,033,557	40,800,130	44,551,444	67,495,712

NOTE.—The minus sign (—) signifies net imports. (a) Australian currency values.
(b) Not available prior to 1930-31.

9. Value of Pastoral Production.—Owing to the lack of uniformity in the several States in determining prices and costs the values of pastoral production hitherto presented have been gross values at the principal markets in the respective producing States.

Attempts were made at successive conferences of Australian Statisticians to obtain net values of production, and finally in March, 1935, a uniform method was agreed upon.

The following table has been compiled on the lines adopted by the Conference, and represents in its final column a net value of pastoral production for each State and the Commonwealth. The table has been prepared from data furnished by the State Statistical Bureaux, where the particulars were obtained by actual collections wherever possible or carefully estimated from the most reliable sources.

Maintenance costs have not been computed in all of the States and depreciation has not been deducted; consequently the net value of production is inflated to the extent of these costs. In Queensland the costs of production are not yet as exact as might be desired. Production values of the pastoral and other industries are dealt with more fully in Chapter XXVIII.—Miscellaneous.

GROSS, LOCAL AND NET VALUE OF PASTORAL PRODUCTION, 1933-34.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Fodder fed to Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales ..	38,220,000	3,558,000	34,662,000	390,000	13,000	34,259,000
Victoria ..	17,735,382	1,406,914	16,328,468	305,000	120,000	15,903,468
Queensland ..	14,600,528	1,239,101	13,361,427	1,000,000	228,325	12,133,102
South Australia	5,303,925	621,929	4,681,996	61,209	59,840	4,500,947
Western Australia ..	6,642,024	734,745	5,907,279	157,767	106,988	5,642,524
Tasmania ..	1,800,630	123,620	1,677,010	51,710	17,750	1,607,550
Total ..	84,302,489	7,684,309	76,618,180	1,965,686	545,903	74,106,591

(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 1933-34 and amounted in the aggregate to £496,000.

10. **Consumption of Meats.**—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with figures 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 somewhat below that of New Zealand, but 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. There is evidence of a decline in the consumption of beef and a change over to mutton and pork both in countries which formerly consumed more beef than pork and in those where pork has been the chief diet. This is noticeable chiefly in the United States, Germany and other Northern European countries. The consumption of meat as a whole appears to have declined slightly in many countries during the past decade.

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

Description.	Australia, 1933-34.	New Zealand, (a)	Great Britain, 1933.	Canada, 1934.	United States of America, 1933.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal	110.18	109.00	64.50	68.66	54.20
Mutton and Lamb	84.32	106.00	32.50	6.28	7.00
Pork	8.21	7.00	(b) 45.50	66.36	72.20
Total	202.71	222.00	142.50	141.30	133.40
Bacon and Ham	10.49	11.00	(c)	(c)	(c)
Total All Meats	213.20	233.00	142.50	141.30	133.40

(a) Average, three years ending 1932-33.

(b) Including Lard.

(c) Probably included with Pork.

§ 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, etc., for each of the last five years :—

HORSES.—NUMBER.

31st Dec.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
1929	5534,945	393,015	500,104	189,054	159,528	34,336	33,703	a 929	1,845,614
1930	5524,512	379,872	480,970	183,529	156,973	32,700	33,363	a 815	1,792,734
1931	5524,751	375,459	468,603	185,222	156,489	30,659	33,442	b 925	1,775,550
1932	5528,943	372,907	451,644	190,222	157,443	30,269	33,072	b 937	1,765,437
1933	5532,028	361,005	448,918	196,789	159,646	30,299	33,590	b 950	1,763,225

(a) 30th June year following.

(b) 31st March year following.

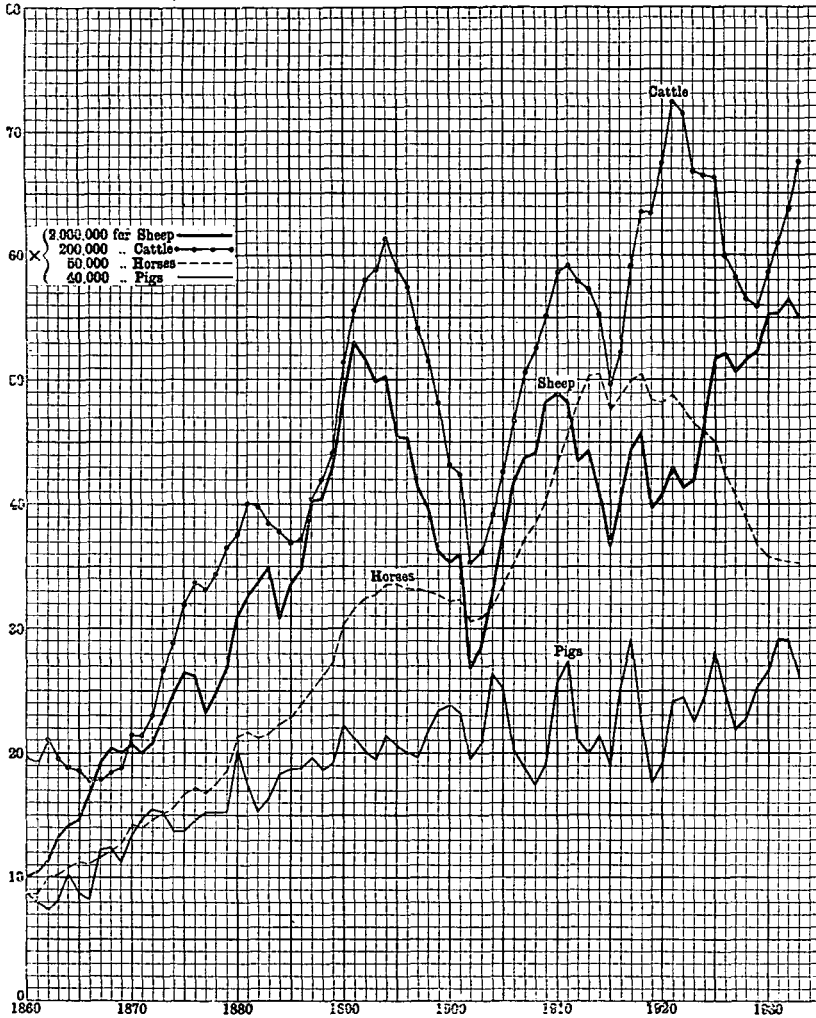
The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded. Since that date, however, a general decline has been experienced, and the number for 1933 is the lowest returned since 1905. The numbers of horses in Australia and in the United States of America reached their maxima in 1918, while in Canada the highest total was recorded in 1921. The decline in each country since the years mentioned up to the latest available date amounted to 30, 45 and 22 per cent. respectively. In Argentina on the other hand, a slight increase was recorded in 1930 over the numbers ascertained at the previous census of 1922. The rapid development of motor transport coupled with the use of petrol-driven cultivating and other machinery on farms brought about the decreases alluded to. In Australia, however, there has recently been a tendency to revert to the horse not only on the farm, but to some extent for the transport of goods in the cities. Confirmation of this fact is afforded by increases in 1933 in New South Wales, 3,000, South Australia, 6,500, and Western Australia, 2,200. In Tasmania and the Northern Territory increases of minor importance were recorded. The fairly constant decline noted in Victoria and Queensland during recent years continued in 1933.

The number of horses in Australia from 1860 onwards may be ascertained from the graph herein.

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 1933 were :—New South Wales, 30.17; Victoria, 20.47; Queensland, 25.46; South Australia, 11.16; Western Australia, 9.05; Tasmania, 1.72; Northern Territory, 1.91; and Federal Capital Territory, 0.06 per cent.

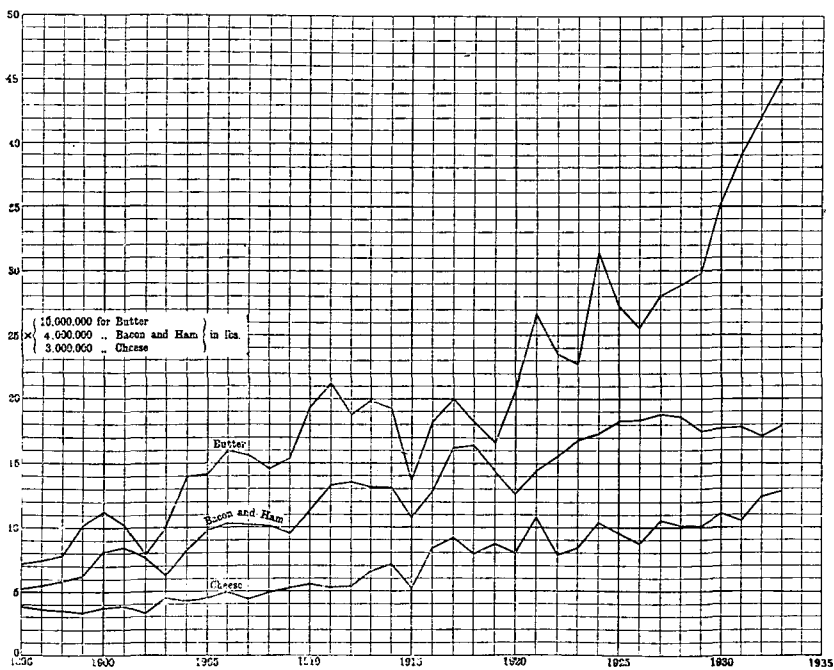
The percentages in the various States have remained practically constant during the last quinquennium.

NUMBER OF HORSES, CATTLE, SHEEP AND PIGS—AUSTRALIA, 1860 TO 1933.



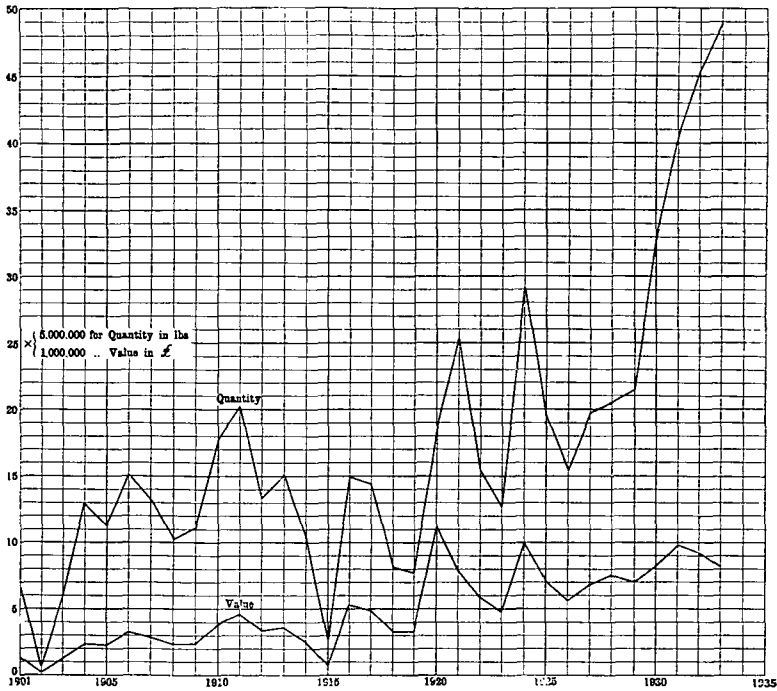
EXPLANATION.—The base of each small square represents an interval of one year, and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, and 40,000 for pigs.

PRODUCTION OF BUTTER, CHEESE, AND BACON AND HAM—AUSTRALIA, 1896 TO 1933-34.



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

QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM AUSTRALIA, 1901 TO 1933-34.



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

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 Tasmania 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 1933 the relative numbers were :—New South Wales, 0.20; Victoria, 0.20; Queensland, 0.47; South Australia, 0.34; Western Australia, 0.36; Tasmania, 0.13; Northern Territory, 6.86; Federal Capital Territory, 0.10; and Australia, 0.26.

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

HORSES.—NUMBER IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union ..	1933	16,645	Sweden	1933	659
U.S. of America ..	1933	11,942	Dutch East Indies	1933	650
Argentina ..	1930	9,858	Uruguay	1930	623
Brazil ..	1931	6,828	Lithuania ..	1933	580
Poland	1933	3,773	Turkey	1933	534
Germany	1933	3,397	Denmark	1933	501
Canada	1933	2,984	Bulgaria	1926	482
France	1933	2,878	Irish Free State	1933	441
India (British and Native)	1932	2,323	Chile	1930	441
Rumania	1932	2,034	Peru	1929	432
Mexico	1930	1,887	Haiti	1933	400
Australia	1933	1,763	Bolivia	1931	390
Japan	1932	1,541	Latvia	1933	370
Yugoslavia ..	1933	1,187	Finland	1933	357
United Kingdom ..	1933	1,154	Greece	1933	341
Italy	1930	943	Siam	1933	328
Columbia	1932	926	Netherlands ..	1933	299
Union of South Africa	1930	836	New Zealand ..	1933	274
Hungary	1933	820	Austria	1930	248
Spain	1932	803	Estonia	1933	247
Cuba	1929	758	Belgium	1933	233
Czechoslovakia ..	1933	701	French Morocco	1933	216
			Paraguay	1926	210

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 4,600. The total number of horses exported during the latter period amounted to 23,273, valued at £679,910, equal to an annual average of 4,655 for £135,982. The average export price was £29 4s. 3d.. The horses exported to India, where they are largely used for army remounts, numbered 4,158 or 89 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 race horses from New Zealand. The average value per head of the horses imported during the last

five years was £243. The average number imported per annum was, however, only 226, and the average annual value, £54,969. The following table gives the imports, exports, and net exports of horses during each of the years from 1929-30 to 1933-34 :—

HORSES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
1929-30 ..	362	£ 121,902	6,331	£ 207,080	5,969	£ 85,178
1930-31 (a) ..	101	40,094	5,027	145,348	4,926	105,254
1931-32 (a) ..	121	20,367	4,892	121,302	4,771	100,935
1932-33 (a) ..	180	30,853	3,407	108,907	3,227	78,054
1933-34 (a) ..	367	61,627	3,616	97,273	3,249	35,646

(a) Australian currency values.

§ 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. The graph herewith shows a 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. The decline in the frozen beef trade and the droughts of 1922-23 and 1925-26 were mainly responsible for the heavy decreases recorded in Queensland since that year. Subsequent to 1929 an increase of approximately 500,000 has been recorded annually, half of which was due to expansion in the dairy herds.

The number of cattle in the several States and Territories during each of the last five years is as follows :—

CATTLE.—NUMBER.

31st Dec.	N.S.W.	Vic. (b)	Q'land	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Total.
1929	2,686,132	1,335,242	5,208,588	204,516	836,646	214,643	711,607	44,760	11,202,134
1930	2,840,473	1,429,920	5,463,724	218,985	812,844	230,254	720,476	44,240	11,720,916
1931	2,993,586	1,637,530	5,550,399	265,324	826,532	232,444	749,745	65,395	12,260,955
1932	3,141,174	1,900,922	5,535,065	312,932	857,473	250,807	780,121	64,643	12,783,137
1933	3,361,771	2,002,235	5,781,170	352,728	885,669	262,256	859,867	66,790	13,512,486

(a) 30th June, year following.

(b) 31st March, year following.

Although the proportion is not as high as it has been in the past Queensland was carrying 42.8 per cent. of the cattle in Australia in 1933.

The largest relative gain since 1928 occurred in Victoria, followed by South Australia and Tasmania; increases were also recorded in the remaining States. The proportion in each of the States and Territories during 1933 was:—New South Wales, 24.88; Victoria, 14.82; Queensland, 42.79; South Australia, 2.61; Western Australia, 6.55; Tasmania, 1.94; Northern Territory, 6.36; Federal Capital Territory, 0.05.

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.—NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native)	1932	158,574	Siam	1933	5,120
U.S. of America ..	1933	67,352	French Equatorial and West Africa	1933	4,972
Brazil	1931	42,539	Dutch East Indies..	1933	4,963
Soviet Union	1933	38,592	Czechoslovakia ..	1933	4,405
Argentina	1930	32,212	New Zealand	1933	4,192
China	1933	22,327	Rumania.. ..	1932	4,189
Germany	1933	19,739	Spain	1932	4,164
France	1933	15,830	Irish Free State ..	1933	4,137
Australia	1933	13,512	Cuba	1932	4,033
Union of South Africa	1930	10,751	Yugoslavia	1933	3,876
Mexico	1930	10,083	Rhodesia.. ..	1933	3,173
Poland	1933	8,985	Denmark	1933	3,134
Canada	1933	8,876	Sweden	1933	3,086
United Kingdom ..	1933	8,647	Paraguay	1926	2,973
Columbia	1932	7,592	Netherlands	1933	2,877
Uruguay	1932	7,372	Nigeria	1933	2,799
Italy	1930	7,089	Chile	1930	2,388
Madagascar	1933	6,169	Austria	1930	2,313
Tanganyika Territory	1933	5,450	Venezuela	1922	2,278
Kenya	1933	5,225	Uganda	1933	2,107
Turkey	1933	5,123	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 follow:—

CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1929-30 ..	193	44,309	6,384	24,495	6,191	— 19,814
1930-31 (a) ..	81	11,368	355	3,580	274	— 7,788
1931-32 (a) ..	40	8,543	371	2,870	331	— 5,673
1932-33 (a) ..	98	12,464	287	5,375	189	— 7,089
1933-34 (a) ..	208	33,983	323	6,683	115	— 27,300

(a) Australian currency values.

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

The average value of the cattle imported during the last five years was £178 9s. 10d. per head, while the average value of the cattle exported during the same period was £6 7s. 11d. 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 1929 to 1933 is given hereunder :—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Fed. Cap. Ter. (a)	Total.
1929	680,316	387,662	630,620	117,806	91,195	35,278	1,531	2,143	1,946,551
1930	594,950	328,032	648,473	89,585	95,021	27,338	1,844	1,357	1,786,600
1931	630,372	373,380	540,649	81,285	91,748	28,565	1,844	1,349	1,751,192
1932	704,646	427,644	709,611	89,350	91,359	30,335	1,899	1,506	2,056,350
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363	2,411	2,205,985

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

6. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1933-34 was estimated at 909,878,000 lb. The requirements of the local market absorbed 733,275,000 lb., approximately 81 per cent., leaving a balance of 19 per cent., which was exported as frozen or canned beef. (See also § 1, *ante*.)

7. **Export of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade in frozen beef has grown considerably, the quantities and values exported during the past five years being as follow, viz. :— 1929-30, 156,748,665 lb., £2,569,788; 1930-31, 155,630,647 lb., £2,235,526; 1931-32, 165,872,145 lb., £2,087,829; 1932-33, 153,972,800 lb., £1,854,582; and 1933-34, 173,076,092 lb., £2,020,050. (See Table § 1, No. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1933-34 took £1,745,245 worth, or about 86.4 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Philippine Islands, Belgium, Malta, Malaya (British), and Japan. These countries, together with the United Kingdom, accounted for 97.5 per cent. of the total value of export.

The distance of Australia from the chief markets of the world has hitherto made it necessary that meat should be exported in a frozen condition. This circumstance, in view of the preference for chilled beef, has placed the beef industry in Australia at a serious disadvantage in the past. Investigations conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England have proved, however, that chilled beef can 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. Exports in 1934-35, which amounted to 21,570,928 lb., valued at £322,239, indicate that these shipments are now past the experimental stage and forecast the displacement of the frozen beef trade at no distant date. Shipping companies have effected structural alterations to their vessels to permit of the carriage of chilled beef.

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, to 30th June, 1934. The quantities of foreign meat to be imported into the United

Kingdom during each quarter of the period 1st January, 1933, to 30th June, 1934, were limited to certain proportions of the imports during corresponding quarters of the twelve months ending June, 1932. These proportions expressed as percentages are shown below :—

Meat.	1933.				1934.	
	January-March.	April-June.	July-September.	October-December.	January-March.	April-June.
	%	%	%	%	%	%
Frozen Mutton and Lamb ..	90	85	80	75	70	65
Frozen Beef (Carcasses and Boned Beef) ..	90	85	80	75	70	65
Chilled Beef ..	100	100	100	100	100	100

Under the terms of this agreement the rates of restrictions operating on foreign meat imported into the United Kingdom at 30th June, 1934, were to be continued until 1938, unless a permanent policy could be negotiated as a result of consultations between the Governments of the United Kingdom and Australia. In the absence of a permanent policy, short-term agreements have been negotiated in which the quantities of beef, mutton and lamb, and pork which might be imported into the United Kingdom from Australia during 1935 have been determined. Negotiations for 1936 are still proceeding. This matter is more specifically referred to in Chapter VII., Trade. Details of imports of beef, mutton and lamb into the United Kingdom during the period 1929 to 1933 will be found in the tables hereafter.

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 1930 to 1934 :—

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

Country of Origin.	1930.	1931.	1932.	1933.	1934.
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CHILLED—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	506,976	598,664	481,151	517,022	509,103
Uruguay	866,685	778,437	503,855	560,392	560,997
Argentina	7,713,349	7,911,175	7,804,366	6,951,833	6,942,064
Other Foreign Countries .. ..	..	..	..	..	..
British .. ..	..	..	9,369	142,073	238,358
Total Chilled ..	9,087,010	9,288,276	8,798,741	8,171,320	8,250,522

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

Country of Origin.	1930.	1931.	1932.	1933.	1934.
CHILLED—VALUE.					
	£	£	£	£	£
Brazil	1,276,361	1,160,043	980,342	834,363	798,693
Uruguay	2,197,906	1,589,591	986,489	953,839	937,560
Argentina	20,248,423	17,384,571	16,198,019	12,832,259	11,694,995
Other Foreign Countries .. .. .	..	..	..	..	..
British .. .. .	..	..	13,807	214,804	380,794
Total Chilled ..	23,722,690	20,134,205	18,178,657	14,835,265	13,812,042

FROZEN—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
United States of America .. .. .	..	..	..	..	..
Brazil	106,271	83,477	24,544	5,333	5,473
Uruguay	191,180	169,200	98,806	27,815	40,950
Argentina	256,502	197,895	149,800	113,910	97,178
Other Foreign Countries .. .. .	..	486	1,090	..	..
Australia	719,111	992,462	814,362	947,142	1,323,061
New Zealand	230,876	220,317	362,003	431,007	697,259
Other British Countries	11,133	1,288	1,244	5,485	4,848
Total Frozen ..	1,515,073	1,665,125	1,451,849	1,530,692	2,168,769
Grand Total (Chilled and Frozen) ..	10,602,083	10,953,401	10,250,590	9,702,012	10,419,291

FROZEN—VALUE.					
	£	£	£	£	£
United States of America .. .. .	..	..	..	..	..
Brazil	226,617	149,606	47,788	7,327	7,635
Uruguay	476,559	349,300	183,109	42,901	63,800
Argentina	664,586	410,853	276,653	181,307	153,608
Other Foreign Countries .. .. .	..	877	1,526	..	..
Australia	1,561,342	1,547,425	1,185,849	1,212,096	1,660,948
New Zealand	496,784	320,691	479,757	510,518	824,770
Other British Countries	22,470	2,503	2,282	7,671	5,560
Total Frozen ..	3,448,358	2,781,255	2,176,964	1,961,820	2,716,321
Grand Total (Chilled and Frozen) ..	27,171,048	22,915,460	20,355,621	16,797,085	16,528,363

§ 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. Within its borders is contained generally one half of the sheep of Australia, and in the years 1924 to 1927 even this high percentage was exceeded.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph accompanying this Chapter. Five marked periods of decline depleted the numbers at successive intervals, but these gaps were quickly restored. Since 1925 the sheep flocks have exceeded 100 millions, reaching 104,558,342 in 1929; 110,568,279 in 1930; and 112,926,931 in 1932, the latter figure constituting a record eclipsing the previous record of 110.6 millions in 1931. In 1933 the numbers declined to 109.9 millions, a decrease of 3 million. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an annual slaughter of some twelve to nineteen million sheep and lambs for the mutton and lamb trade.

The number of sheep in the several States and Territories for each year from 1930 to 1933 with an estimate at the 31st December, 1934, is as follows:—

SHEEP.—NUMBER.

31st Dec.	New South Wales.	Victoria. (c)	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Tota..
1930	553,366,000	16,477,995	22,542,043	5,980,959	9,882,761	2,119,606	15,838	1183,077	110,568,279
1931	552,986,000	16,376,217	22,324,278	6,608,981	10,098,104	2,012,055	18,867	1194,391	110,618,893
1932	553,698,236	17,512,394	21,312,865	7,713,236	10,417,031	2,040,564	18,250	1214,355	112,926,931
1933	552,104,000	17,195,969	20,072,804	7,941,060	10,322,350	2,035,052	18,076	1231,742	109,021,053
1934 ^b	55,000,000	16,783,631	21,574,182	7,700,000	11,163,232	2,050,000	18,000	220,000	114,509,045

(a) 30th June year following.

(b) Estimate as at 31st December, 1934.

(c) 31st March, year following.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative number of sheep depastured in the different States remains fairly constant. Slight decreases were recorded in 1933 in New South Wales, Victoria and Queensland, totalling 3 million. South Australia showed an increase of 200,000, while little change was noted in the remaining States.

The percentage distribution in 1933 was:—New South Wales, 47.41; Victoria, 15.64; Queensland, 18.26; South Australia, 7.22; Western Australia, 9.39; Tasmania, 1.85; Federal Capital Territory, 0.21 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 nearly 110 millions, followed by the United States of America with 51 millions, the Soviet Union with 51 millions, and the Union of South Africa, 46 millions. During the years 1925 to 1929 the sheep

flocks of the Soviet Union exceeded those of Australia. The maximum number recorded in that country was 130,000,000 in 1928, but since that year a remarkable decline has taken place and the number depastured in 1933 was only 51,000,000. No explanation of this large decrease is available, but it is known that heavy slaughterings have occurred as a protest against the intensification of the Soviet collectivization plan. 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, and to this end merino sheep were imported from America and Germany in 1927. 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 paragraph 5 following, however, the export of stud sheep is subject to control. Production of wool, in the Soviet Union, apparently, amounted to about 140 million lb. only during the year 1933. This represents an average weight of fleece shorn of under 3 lb., which is considerably less than half of that obtained in Australia :—

SHEEP.—NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia	1933	109,921	Yugoslavia	1933	8,600
United States of America	1933	51,374	French Morocco	1933	8,590
Soviet Union (a)	1933	50,551	Greece	1933	7,427
Union of South Africa	1933	46,091	Chile	1930	6,263
Argentina	1930	44,413	Algeria	1933	5,513
India (British and Native)	1932	43,481	Bolivia	1931	5,232
New Zealand	1933	27,556	Iraq	1933	3,933
United Kingdom	1933	26,651	Portugal	1925	3,721
Spain	1932	16,741	Mexico	1930	3,674
Uruguay	1932	15,406	Irish Free State	1933	3,495
Rumania	1932	12,294	Germany	1933	3,387
Peru	1929	11,209	Canada	1933	3,386
Turkey	1933	11,070	Kenya	1930	3,200
China	1933	10,985	Tunis	1933	3,076
Brazil	1931	10,702	Poland	1933	2,557
Italy	1930	10,268	Somaliland	1933	2,500
French Equatorial and West Africa	1933	9,995	Manchuria	1933	2,370
France	1933	9,730	Tanganyika Territory	1933	2,346
Persia	1932	8,916	Sudan (Anglo-Egyptian)	1933	2,300
Bulgaria	1926	8,740	Nigeria	1933	2,241
			Basutoland	1933	1,885
			Syria and Lebanon	1933	1,779

(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 1933-34 exports increased to 3,697 sheep valued at £11,955, of which 3,233 sheep valued at £8,554 were shipped to Japan. The ordinary

sheep exported from Australia are, for the most part, to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and ordinary sheep for the years 1929-30 to 1933-34 :—

SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1929-30 ..	2,908	23,278	41,672	58,959	38,764	35,681
1930-31 (a) ..	1,417	10,868	27,478	14,214	26,061	3,346
1931-32 (a) ..	1,566	8,326	48,697	16,822	47,131	8,496
1932-33 (a) ..	1,725	9,843	53,546	22,497	51,821	12,654
1933-34 (a) ..	1,522	12,906	44,436	27,346	42,914	14,440

(a) Australian currency values.

6. Sheep Slaughtered.—The number of sheep slaughtered in the several States during each of the years from 1929 to 1933 was as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Fed. Cap. Ter.(a)	Total.
1929..	6,326,925	6,024,702	1,089,978	1,242,835	861,785	341,527	644	23,026	15,911,422
1930..	6,254,436	5,745,475	1,671,245	1,308,976	994,813	363,329	540	23,911	16,362,725
1931..	6,894,961	5,678,252	1,761,974	1,378,931	1,038,672	399,904	540	23,448	17,176,682
1932..	7,534,585	7,139,449	2,082,087	1,279,143	1,044,493	424,519	790	23,444	19,530,510
1933..	7,180,612	7,773,289	1,299,285	1,495,127	1,092,222	366,156	900	36,344	19,243,935

(a) Year ended 30th June year following.

7. Production and Consumption of Mutton and Lamb.—The production of mutton and lamb during the year 1933-34 amounted to 733,463,000 lb., of which 561,180,000 lb., or 77 per cent., was consumed locally, leaving a balance of 23 per cent. for exportation. See also § 1, No. 10.

8. Exports of Frozen Mutton and Lamb.—The export trade of mutton and lamb preserved by cold process expanded rapidly until in 1913 the record shipment of 205 million lb. was despatched. Progress was interrupted during the war years and exports declined 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 shipped overseas each year.

The quantity and value of the shipments of mutton and lamb during each of the last five years were as follow :—1929-30, 100,411,243 lb., £2,386,186; 1930-31, 109,253,195 lb., £2,105,963; 1931-32, 165,281,336 lb., £2,994,062; 1932-33, 166,797,511 lb., £2,697,224; 1933-34, 171,107,297 lb., £3,575,843. See Table § 1, No. 8.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed almost 98 per cent. of the total quantity exported from Australia during the year 1933-34.

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, 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 1934 are given in the following table:—

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin	1930.	1931.	1932.	1933.	1934.
MUTTON—QUANTITIES.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	202,715	125,907	151,195	140,282	82,258
Brazil	11,588	1,799	462	1,782	..
Uruguay	156,756	53,605	31,649	33,324	13,690
Argentina	656,685	485,350	354,233	217,174	137,748
Other Foreign Countries ..	2,641	124	286	..	2,895
Total, Foreign ..	1,030,385	666,785	537,825	392,562	236,591
Australia	254,238	502,211	190,952	347,409	461,957
New Zealand	1,172,262	1,105,105	1,335,884	998,547	898,876
Other British Countries ..	1,305	3	873	1,763	..
Total, British ..	1,427,805	1,607,319	1,527,709	1,347,719	1,360,833
Grand Total ..	2,458,190	2,274,104	2,065,534	1,740,281	1,597,424
MUTTON—VALUE.					
	£	£	£	£	£
Chile	335,882	203,360	216,577	214,655	163,574
Brazil	29,466	3,038	659	2,412	..
Uruguay	366,746	103,301	58,559	54,863	23,260
Argentina	1,594,543	952,349	555,712	348,525	261,398
Other Foreign Countries ..	5,912	244	534	..	4,744
Total, Foreign ..	2,332,549	1,262,292	832,041	620,455	452,976
Australia	552,149	810,537	296,577	513,354	847,060
New Zealand	2,699,759	2,033,978	2,083,185	1,612,378	1,716,567
Other British Countries ..	3,752	8	1,621	2,888	..
Total, British ..	3,255,660	2,844,523	2,381,383	2,128,620	2,563,627
Grand Total ..	5,588,209	4,106,815	3,213,424	2,749,075	3,016,603

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

Country of Origin.	1930.	1931.	1932.	1933.	1934.
LAMB—QUANTITIES.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Iceland	16,910	18,097	30,661	15,236	..
United States	2,443	..	..	..	..
Chile	152,052	113,992	144,952	124,368	124,067
Brazil	15,785	10,362	4,841	9,929	..
Uruguay	266,571	230,695	131,220	138,637	124,696
Argentina	795,358	1,067,959	1,017,417	929,420	783,884
Other Foreign Countries	182	280	266	..	27,641
Total, Foreign	1,249,301	1,441,385	1,329,357	1,217,590	1,060,288
Australia	555,932	1,027,134	961,140	956,948	1,165,928
New Zealand	2,120,580	2,364,656	2,570,958	2,736,546	2,655,635
Other British Countries	905	..	85	1,404	242
Total, British	2,677,417	3,391,790	3,532,183	3,694,898	3,821,805
Grand Total	3,926,718	4,833,175	4,861,540	4,912,488	4,882,093

LAMB—VALUE.

	£	£	£	£	£
Iceland	50,177	45,310	58,784	38,718	..
United States	8,761	..	..	..	..
Chile	443,906	274,645	347,020	290,447	365,115
Brazil	51,500	24,319	4,046	20,421	..
Uruguay	820,209	603,981	315,141	314,292	311,939
Argentina	2,519,074	2,806,270	2,357,467	2,151,109	2,051,597
Other Foreign Countries	634	687	945	..	67,008
Total, Foreign	3,894,261	3,755,212	3,083,403	2,814,987	2,795,659
Australia	1,933,600	2,785,113	2,199,041	2,395,193	3,321,812
New Zealand	8,232,156	7,600,524	7,154,472	7,435,731	8,414,584
Other British Countries	3,339	..	290	3,615	674
Total, British	10,169,095	10,385,637	9,353,803	9,834,539	11,737,070
Grand Total	14,063,356	14,140,849	12,437,206	12,649,526	14,532,729

§ 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 produced in 1933-34 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, nevertheless the amount so used represents under 7 per cent. of the total production.

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	1933-34	109.9	995.9
United States	1933	51.4	428.9
Soviet Union	1933	50.5	(b)138.0
Argentina	1933-34	(a)44.4	385.0
Union of South Africa	1933-34	46.1	284.0
New Zealand	1933-34	27.6	300.5

(a) Year 1930. (b) Estimate.

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 scrupulously exact. 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, 2½ 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 15 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 4 per cent. is on exported skins. 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 :—

WOOL.—TOTAL PRODUCTION.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	lb.	lb.	lb.	lb.	lb.
New South Wales (a)	461,852,890	428,752,210	503,275,416	533,710,404	486,152,493
Victoria	160,662,578	146,862,612	159,721,916	170,807,900	161,146,436
Queensland	161,087,873	182,061,407	184,716,462	185,833,546	169,989,516
South Australia	67,300,881	63,478,524	67,021,312	75,727,946	79,288,903
Western Australia	72,562,594	76,951,500	77,985,741	81,307,832	85,118,808
Tasmania	15,000,000	14,800,000	14,700,000	15,200,000	14,200,000
Northern Territory (b)	30,000	35,000	35,000	35,000	35,000
Total	938,496,816	912,941,253	1,007,455,847	1,062,622,628	995,931,156

(a) Including Federal Capital Territory.

(b) Approximate figures.

(ii) *Estimate for 1934-35.* Although the returns are not yet complete, the total wool production of Australia during 1934-35 is estimated at 1,031,000,000 lb., valued at approximately £41,884,000 or 9.75 d. per lb. in Australian currency.

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 3,656 million lb. in 1933, Australia produced 995.9 million lb., or 27.2 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 1,853 million lb., or 50.7 per cent.

WOOL.—WORLD'S PRODUCTION.

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

Countries.	Average Annual Pre-war Production. (a)	1929.	1930.	1931.	1932.	1933.
Australia	741.4	938.5	912.9	1,007.5	1,062.3	995.9
United States	314.1	382.2	412.2	438.3	411.5	428.9
Argentina	358.7	332.0	354.0	378.0	388.0	385.0
Union of South Africa	165.9	306.0	299.0	314.0	330.0	284.0
Soviet Union (Russia)	380.0	394.0	306.0	220.0	140.0	138.0
New Zealand	198.5	272.9	271.1	282.8	288.4	300.5
Uruguay	157.0	163.0	165.0	115.0	120.0	110.0
China (b)	100.0	120.0	120.0	120.0	120.0	120.0
United Kingdom ..	134.0	110.0	111.0	113.0	119.0	120.0
India (b)	100.0	100.0	100.0	100.0	100.0	100.0
Spain	72.0	83.3	80.5	77.5	80.5	70.0
Rumania	13.2	43.9	43.5	42.8	43.3	(b) 45.0
Persia	12.1	45.0	45.0	49.0	(b) 49.0	(b) 49.0
France	80.7	46.1	46.1	44.8	43.4	43.0
Turkey	118.0	35.4	36.8	41.3	41.3	38.7
Italy	55.0	50.0	48.0	44.0	42.0	(b) 42.0
Algeria	35.2	47.2	49.3	28.1	39.3	39.3
Chile	17.4	27.1	26.7	29.6	32.5	33.9
Brazil	35.0	31.0	31.5	32.0	(b) 32.0	(b) 32.0
Germany	52.0	32.0	32.4	32.4	31.5	31.3
Yugoslavia	25.4	27.0	27.1	27.8	29.5	30.1
Canada	11.2	20.3	21.0	20.4	20.5	19.2
Morocco (French) ..	14.9	31.0	27.9	23.1	26.4	27.0
Bulgaria	23.7	21.2	19.6	19.8	20.7	20.9
Irish Free State ..	..	18.6	18.9	19.3	19.6	19.6
Basutoland .. ..	..	12.9	9.7	9.3	11.8	9.9
Falkland Islands ..	..	4.1	3.7	3.9	3.9	4.0
Other Countries ..	71.2	187.6	171.9	179.2	134.7	119.2
Total	3,286.6	3,882.3	3,790.8	3,812.9	3,781.1	3,656.4

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

6. Wool Locally Used.—The quantity of wool used locally, so far as can be ascertained, is shown in the following table. Precise details of consumption are difficult to obtain, but the quantities shown hereunder should closely approximate the truth:—

WOOL.—ESTIMATED CONSUMPTION OF GREASY WOOL—AUSTRALIA.

Particulars.	1929-30	1930-31.	1931-32.	1932-33.	1933-34.
Wool Consumption — in terms of Greasy ..	lb. 44,231,610	lb. 34,824,134	lb. 51,703,628	lb. 67,884,548	lb. 65,081,398

7. Export of Wool.—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years 31 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1930-31 were Japan, France, Germany, Belgium, Italy and the United States of America, the principal continental countries taking 42 per cent., and America and Japan 24 per cent. of the total shipments. The following table shows the quantities of "greasy" wool exported, and the principal countries of destination:—

WOOL IN THE GREASE.—EXPORTS, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	228,196,396	256,845,443	244,011,182	209,887,487	292,725,835
France ..	149,835,946	147,453,999	116,355,296	122,536,429	65,017,851	75,760,166
Japan ..	7,262,683	151,201,649	185,672,264	196,847,697	170,444,959	196,125,519
Germany ..	106,344,696	104,320,246	80,565,488	111,703,527	113,529,765	27,220,923
Belgium ..	55,143,706	74,488,232	63,822,477	89,832,720	92,649,202	124,169,015
United States of America ..	15,486,447	20,378,195	9,362,688	5,500,120	5,359,242	5,448,868
Italy ..	4,381,197	37,724,169	56,740,272	63,099,517	58,549,566	17,694,730
Netherlands ..	(a)	956,029	461,462	2,255,552	3,270,646	16,450,416
India ..	425,547	466,704	673,314	1,210,144	882,129	937,589
Canada ..	126,653	23,735	102,134	112,292	264,826	209,358
Other Countries ..	5,830,377	3,759,976	4,626,184	12,758,245	15,969,007	29,042,202
Total ..	556,841,340	768,969,330	775,227,022	849,927,425	735,823,780	785,784,621

(a) Included in Other Countries.

(ii) *Scoured and Washed—Quantities.* The exports of "scoured and washed" wool during the period shown were as follow:—

WOOL, SCOURED AND WASHED (a).—EXPORTS, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	23,762,729	33,355,887	34,180,339	32,869,622	34,462,119
France ..	16,068,910	6,206,301	5,371,571	9,828,929	5,863,131	9,843,830
Japan ..	1,888,161	2,334,505	2,508,758	4,159,095	1,862,198	549,812
Belgium ..	7,528,058	5,255,927	6,007,231	10,101,445	14,691,550	10,733,445
Germany ..	12,310,967	5,174,277	4,883,089	9,019,009	11,190,255	2,879,686
United States of America ..	66,156	376,543	356,088	231,561	162,569	93,779
Canada ..	(b)	1,091,112	1,599,432	2,603,940	3,221,629	1,229,816
Italy ..	265,442	616,790	2,604,242	2,570,836	2,638,595	728,040
Netherlands ..	(b)	24,995	208,112	231,687	542,420	907,970
India ..	59,684	459,440	549,272	925,895	533,872	633,950
Other Countries ..	127,155	355,390	385,984	1,950,694	2,378,041	4,432,019
Total ..	70,347,110	45,658,009	57,889,666	75,803,430	75,953,882	66,494,466

(a) Including "tops."

(b) Included with Other Countries.

The figures for "scoured and washed wool" include tops as follow:—in 1930-31, 1,033,913 lb., valued at £114,035; in 1931-32, 2,170,330 lb., valued at £248,055; in 1932-33, 2,525,380 lb., valued at £271,993; in 1933-34, 2,929,970 lb., valued at £435,469; and in 1934-35, 3,104,275 lb., valued at £331,839. See also § 1, No. 8. The total exports of wool tops during the last five years amounted to 11,763,868 lb., valued at £1,401,391, of which 6,708,100 lb., or more than 57 per cent., were shipped to Canada and 4,688,000 lb., or nearly 40 per cent., to the United Kingdom.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia during the five years ending 1934-35 averaged 40 per cent. of the value of the total exports of merchandise of local origin, while during 1933-34 the proportion was 39 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.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	10,257,653	11,841,995	11,479,976	17,762,789	16,007,777
France ..	6,494,832	5,479,746	4,004,983	4,996,227	4,691,624	3,558,066
Japan ..	516,528	6,478,587	7,513,519	7,969,600	12,131,655	8,680,119
United States of America ..	795,328	1,117,533	542,728	337,215	494,294	352,466
Germany ..	5,131,282	4,165,020	3,223,083	4,561,321	8,668,744	1,511,094
Belgium ..	2,546,915	2,623,906	2,284,555	3,376,311	6,864,243	5,433,157
Italy ..	202,434	1,482,943	2,174,633	2,567,680	4,237,212	807,775
Netherlands ..	(a)	41,616	36,651	119,867	303,844	825,665
Canada ..	6,765	109,280	178,703	241,346	409,798	310,460
India ..	22,308	41,839	64,638	94,509	106,873	84,977
Other Countries ..	267,283	205,182	237,408	663,881	1,424,450	1,694,384
Total ..	26,592,642	32,003,305	32,102,896	36,407,933	57,125,526	39,265,940

(a) Included with Other 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 three succeeding years. In 1933-34, however, 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. The effect of this improvement 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 1933-34 was valued at £62,336,000, compared with £38,600,000 for the clip of 1932-33, and £81,430,000 for 1924-25, when the record price was realized. On the average of the five seasons 1929-30 to 1933-34 the annual clip was valued at £43,007,000.

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

WOOL.—AVERAGE MARKET PRICE PER LB.

Description.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
Greasy ..	16.44	10.29	8.36	8.46	8.72	15.84	9.75
Scoured ..	28.12	18.69	13.74	12.65	14.08	24.00	17.05

Measured in terms of Australian, Sterling, and Gold currencies the approximate value of greasy wool per lb. was as follows:—

AVERAGE VALUE OF GREASY WOOL PER LB.—AUSTRALIA.

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

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 quantity and value of wool imported into the United Kingdom during the year 1933 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, 1933.

Country.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	308,677,400	12,893,452	Other British Possessions..	4,804,400	170,176
New Zealand ..	243,749,100	8,287,992	Peru ..	4,066,600	165,371
Union of South Africa ..	174,104,600	7,086,453	Belgium ..	3,435,200	211,256
Argentina ..	81,124,100	1,923,564	Falkland Islands	2,405,500	73,035
India ..	40,642,600	1,032,635	Germany ..	925,700	39,046
Uruguay ..	25,344,000	1,069,085	United States of America ..	852,500	26,406
France ..	23,521,400	1,540,608	Other Countries	6,584,900	205,543
Chile ..	21,026,400	627,441			
Irish Free State	10,755,000	260,527	Total ..	952,019,400	35,612,590

(a) Greasy, Scoured, and Tops.

Of the importations of wool into the United Kingdom, Australian wool represented 32 per cent. of quantity and 36 per cent. of value, and New Zealand 26 per cent. of quantity and 23 per cent. of value. Altogether, 785,138,600 lb., valued at £29,804,570, 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 1934, 791.2 million lb. of wool was imported into the United Kingdom; the chief sources of supply being Australia 254.6 million lb., New Zealand 216.4 million lb., South Africa 106.0 million lb., and Argentina 84.3 million lb.; a total of 661.3 million lb. or nearly 84 per cent.

12. *Inquiry into Wool Industry.*—(i) *General.* A Committee under the chairmanship of the Honorable John Gunn 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.

(ii) *Costs of Production.* Information relating to costs of production was obtained by the Committee from 668 returns covering the operations of representative properties in all States, these properties carrying altogether about 8 million sheep. It is claimed in the Report that the figures given are representative of typical average costs on medium and large properties under the favourable seasonal conditions experienced in 1931. It should be noted that the costs quoted refer to the production of wool only, as distinct from stock and other station produce.

AVERAGE COSTS ATTRIBUTABLE TO WOOL ONLY.

	Per lb. of Wool.
Expenses of production—	<i>d.</i>
Working Expenses excluding all Interest	6½
Annual Maintenance and Average Drought Expenses	1½
Total Wool Expenses at Sheep Properties	8½
Add Rail Freight, Handling and Selling Charges	1
Average Cost when sold	9½

The summary above does not take into account interest on borrowed capital or capital invested. This item at an average rate of interest of 5 per cent. on property valued at £3 per sheep area would amount to a further increase of 4½d. per lb. of wool, making a total cost including all interest to the point of sale of 14d. per lb. No allowance has been made for management or the risk of investment in the industry.

(iii) *Recommendations.* Recommendations were made by the Committee with a view to reducing the gap between cost and price. The recommendations refer, amongst other things, to reductions in rail freights, State Government charges generally, land tax (Commonwealth and State), private business charges generally, interest rates, and handling and selling charges. The Committee also recommended (a) the formation of a Commonwealth Wool Executive, consisting of representatives of the wool-growers and wool-selling brokers; and (b) that the Commonwealth Government, by regulation or otherwise, should take to itself power to prohibit the export of wool, except on such conditions as may be prescribed, provided that such power should not be exercised except upon request of the Commonwealth Wool Executive.

The Australian Woolgrowers' Council in its Annual Report in June, 1933, gave general support to all of these recommendations with the exception of those relating to the establishment of a Commonwealth Wool Executive and the prohibition of the export of wool below a minimum reserve price.

Relief from those charges which come within the jurisdiction of the Commonwealth Government has been effected, while assistance has been rendered by some of the States by means of reduction in rail freight and in taxation. In addition private business charges have been lowered to assist the industry, viz., reduction in handling and selling charges and in oversea freight rates. In common with other industries relief has been effected by the lowering of interest rates.

§ 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 1930-31 to 1934-35 amounted to £16,224,362, or an average of £3,244,872 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £8,837,810 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1934-35 France was the largest purchaser, taking 62 per cent. of the total consignments, while the United Kingdom ranked next with 16 per cent., followed by Spain, United States, and Belgium. The exports of sheepskins with wool during each of the years from 1929-30 to 1934-35 were as follow :—

SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	12,562,384	12,016,672	9,146,335	10,448,928	11,478,513	10,765,364
Value £	3,103,558	1,949,048	1,106,195	1,382,583	2,627,389	1,772,595

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to France and the United Kingdom. In 1934-35 the purchases of these two countries accounted for nearly 70 per cent. of the total shipments. Quantities and values for the last five years are given in the table hereunder :—

SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	673,221	280,128	131,276	146,564	177,814	247,050
Value £	53,415	13,612	3,643	3,914	13,384	11,768

4. **Hides.**—(i) *Exports.* The export trade in cattle hides, which fell away during the war years, has again become important. Considerable quantities were shipped oversea during each of the last five years. The consignments in 1934-35 were distributed as follow :—Japan, £107,983; United Kingdom, £102,488; Italy, £80,288; Finland, £47,609; other countries, £78,073.

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

CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	754,846	752,366	293,890	450,857	482,339	690,578
Value £	794,991	610,720	212,539	292,841	369,927	417,071

Calfskins exported during the years 1930-31 to 1934-35 numbered 959,307 valued at £182,862 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 60 per cent. of the total exports during the last five years. The annual export of horse hides is very small, and averaged only 7,713 hides, valued at £3,457.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average value during the last five years amounting to £227,199. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France and Italy. The number and value of cattle hides, including calfskins, imported into Australia during the years 1929-30 to 1934-35 were as follow :—

CATTLE HIDES.—IMPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	340,150	(a)	(a)	(a)	(a)	(a)
Value (b) £	401,793	169,165	157,057	250,569	288,125	271,081

(a) Not available. (b) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during the last five years averaged £237.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding sub-sections were valued as follow :—

OTHER SKINS.—EXPORTS, AUSTRALIA.

Description.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£	£
Rabbit and Hare	1,526,242	570,240	488,736	460,182	953,901	876,221
Opossum ..	681,472	215,711	333,209	29,177	7,832	134,044
Kangaroo ..	193,385	127,932	96,997	74,389	175,597	159,571
Fox ..	115,241	47,787	56,435	105,356	168,034	50,232
Wallaby ..	38,714	25,012	7,848	6,826	30,325	12,051
Other ..	19,281	7,230	2,509	2,238	6,779	722
Total ..	2,574,335	993,912	985,734	678,168	1,342,468	1,232,841

The United States of America and the United Kingdom were the chief purchasers of these skins in 1934-35 as shown below :—

OTHER SKINS.—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1934-35.

Description.					United Kingdom.	United States of America.
					£	£
Rabbit and Hare .. .. .	..	..	..	..	175,766	681,844
Opossum .. .. .	..	..	..	..	118,532	13,345
Kangaroo .. .. .	..	..	..	..	3,528	155,922
Fox .. .. .	..	..	..	..	44,156	4,742
Wallaby .. .. .	..	..	..	..	4,293	7,058
Other .. .. .	..	..	..	..	335	134
Total .. .. .	..	..	..	..	346,610	863,045