

## CHAPTER XVI. 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 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 particulars are 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 on 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 1924 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the sixty-eight years covered by the table the live stock of Australia increased considerably, horses 350 per cent., cattle 186 per cent., sheep 414 per cent., and pigs 159 per cent. The average annual increases which these aggregates represent are as follow:—Horses, 2.24 per cent.; cattle, 1.56 per cent.; sheep, 2.44 per cent.; and pigs, 1.41 per cent.

**LIVE STOCK.—AUSTRALIA, 1860 TO 1928.**

Year.	Horses.	Cattle.	Sheep.(a)	Pigs.
1860 .. .. .	431,525	3,957,915	20,135,286	351,096
1870 .. .. .	716,772	4,276,326	41,593,612	543,388
1880 .. .. .	1,068,774	7,527,142	62,184,252	815,776
1890 .. .. .	1,521,598	10,299,816	97,881,221	891,138
1900 .. .. .	1,609,654	8,640,225	70,602,995	950,349
1910 .. .. .	2,165,866	11,744,714	98,066,046	1,025,850
1920 .. .. .	2,415,510	13,499,737	81,795,727	764,406
1924 .. .. .	2,292,050	13,309,473	93,154,953	980,009
1925 .. .. .	2,250,361	13,279,785	103,563,218	1,128,374
1926 .. .. .	2,122,516	11,963,278	104,267,101	989,009
1927 .. .. .	2,040,691	11,617,056	100,827,476	878,207
1928 .. .. .	1,942,753	11,300,757	103,430,773	910,181

(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, and subsequent years, 1901-2, 1912, 1914-15, 1918, 1919, 1922-23, 1925-26, and again in 1927-28, in which latter years Central and Northern Queensland experienced one of the driest periods on record, and a heavy mortality of stock.

As an offset to these visitations, good seasons invariably supervene on the dry periods, and the large natural increases occurring under these conditions greatly facilitate the process of restocking, thus bearing convincing testimony to the extraordinary recuperative powers of the country.

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, 1891, 106,421,068; 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 sixty-eight years in the manner shown in the succeeding table:—

## LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA, 1860 TO 1928.

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	1924 ..	0.39	2.27	15.86	0.17
1880 ..	0.48	3.37	27.87	0.37	1925 ..	0.38	2.22	17.28	0.19
1890 ..	0.48	3.17	31.06	0.28	1926 ..	0.35	1.96	17.06	0.16
1900 ..	0.43	2.29	18.75	0.25	1927 ..	0.33	1.86	16.14	0.14
1910 ..	0.49	2.65	22.16	0.23	1928 ..	0.31	1.78	16.32	0.14

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, 1928.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales (a)	1.83	8.99	162.18	1.01
Victoria	4.69	14.84	187.72	2.53
Queensland	0.78	7.65	27.61	0.32
South Australia	0.54	0.69	18.63	0.17
Western Australia	0.17	0.86	9.16	0.05
Tasmania	1.33	7.97	76.32	1.84
Northern Territory	0.07	1.47	0.02	0.01
Federal Capital Territory (a)	0.98	5.61	220.44	0.05
Total	0.65	3.80	34.77	0.31

(a) 30th June, 1929.

7. Minor Classes of Live Stock.—The numbers of minor classes of live stock returned for 1928 were as follows:—Goats, 153,168; camels, 7,763; mules and donkeys, 15,170; and ostriches, 218. 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 about 9,000 angora goats are included in the total of 153,168 goats shown above. Of these, 2,035 were in New South Wales, 938 in Tasmania, 1,860 in Western Australia, 744 in South Australia, and 2,938 in Queensland, while the quantity of mohair produced in the latter State in 1928 was set down at 2,137 lbs., and the number of skins placed on the market was returned as 648.

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 1924–25 to 1928–29 are as follow:—

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA, 1924-25 TO 1928-29.

Products.	Unit of Quantity.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>QUANTITIES.</b>						
Animals (living)—						
Cattle .. .. .	No.	9,674	9,898	10,093	11,131	8,452
Horses .. .. .	"	4,604	5,255	5,276	5,627	5,356
Sheep .. .. .	"	4,143	20,331	26,218	30,871	29,545
Bones .. .. .	cwt.	23,748	27,329	18,394	14,486	14,060
Glue-plates and Sinews .. .. .	"	-11,055	-8,757	-12,840	-13,469	-18,420
Glycerine .. .. .	lb.	-489,113	-603,485	-553,950	-571,266	-388,800
Hair .. .. .	(a)	(a)	(a)	(a)	(a)	(a)
Hoofs .. .. .	cwt.	8,340	20,510	8,371	13,543	9,852
Horns .. .. .	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef .. .. .	lb.	283,584,278	214,058,586	112,124,913	169,094,472	189,090,102
Frozen Mutton and Lamb .. .. .	"	50,224,659	85,679,850	93,514,533	46,359,146	84,905,335
Frozen Rabbits and Hares .. .. .	pair	3,415,334	4,043,511	3,298,372	3,433,098	3,598,075
Frozen, Other .. .. .	lb.	9,141,545	8,935,456	3,893,937	7,592,372	7,127,553
Potted, and Extract of .. .. .	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc. .. .. .	lb.	8,687,019	10,209,971	8,674,251	3,760,147	3,168,759
Other (excluding Bacon and Ham) .. .. .	"	314,867	211,403	166,537	322,117	447,495
Sausage Casings .. .. .	cwt.	26,860	24,119	24,222	22,714	31,489
Skins—						
Hides .. .. .	No.	900,274	699,080	720,065	1,034,317	816,980
Sheep .. .. .	"	6,016,231	8,007,249	8,487,652	11,315,072	11,026,291
Rabbit and Hare .. .. .	cwt.	116,522	134,024	126,745	112,547	100,655
Other (including Undressed Furs) .. .. .	"	(a)	(a)	(a)	(a)	(a)
Tallow .. .. .	cwt.	855,596	824,974	833,336	648,502	768,314
Wool—						
Greasy .. .. .	lb.	489,669,907	767,812,768	709,438,954	682,913,332	759,443,979
Scoured .. .. .	"	39,221,259	49,972,194	52,110,342	55,397,621	46,019,059
Tops .. .. .	"	4,090,958	5,219,085	4,519,357	2,569,159	872,774

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 £388,021,733 for the period, or an average of £77,604,347 per annum, of which wool represents 80.51 per cent. Skins, meat and tallow rank next in order of importance.

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA, 1924-25 TO 1928-29.

Products.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
<b>VALUES.</b>					
Animals (living)—	£	£	£	£	£
Cattle .. .. .	43,628	32,632	43,663	41,352	21,205
Horses .. .. .	28,062	-8,655	35,313	65,285	79,257
Sheep .. .. .	29,793	27,958	15,390	40,512	43,447
Bones .. .. .	23,031	22,407	11,783	8,932	10,775
Glue-plates and Sinews .. .. .	10,363	3,071	-6,442	-2,503	-6,956
Glycerine .. .. .	-10,898	-15,586	-21,284	-15,097	-6,809
Hair .. .. .	-73,556	-63,681	-44,354	-43,054	-35,660
Hoofs .. .. .	6,011	10,459	4,768	7,826	6,162
Horns .. .. .	47,216	36,102	21,291	25,488	24,385
Meats—					
Frozen Beef .. .. .	4,138,729	3,263,859	1,626,640	2,377,871	2,888,284
Frozen Mutton and Lamb .. .. .	1,520,655	2,430,430	2,057,443	1,188,388	2,165,321
Frozen Rabbits and Hares .. .. .	310,683	399,039	303,752	309,149	331,456
Frozen, Other .. .. .	165,002	166,538	78,956	142,475	180,422
Potted, and Extract of .. .. .	-49,953	-30,580	-38,673	-60,662	-76,328
Preserved in Tins, etc. .. .. .	247,405	328,888	279,167	100,110	84,029
Other (excluding Bacon and Ham) .. .. .	4,058	3,083	1,671	6,243	11,086
Sausage Casings .. .. .	208,673	259,209	179,434	136,567	144,063
Skins—					
Hides .. .. .	890,639	713,589	605,600	1,401,029	886,430
Sheep .. .. .	3,773,328	3,413,809	3,330,745	4,385,138	4,526,170
Rabbit and Hare .. .. .	2,482,933	2,374,582	2,832,128	2,490,709	2,624,253
Other (including Undressed Furs) .. .. .	328,325	569,744	1,026,667	831,042	277,477
Tallow .. .. .	1,703,308	1,584,465	1,402,020	1,043,311	1,366,341
Wool—					
Greasy .. .. .	55,297,455	56,429,712	53,224,169	58,295,914	55,592,624
Scoured .. .. .	6,524,471	5,537,671	5,726,308	6,621,937	5,519,161
Tops .. .. .	1,119,849	1,035,107	822,713	488,199	160,957
<b>Total Values</b> .. .. .	<b>78,769,210</b>	<b>79,023,942</b>	<b>73,518,868</b>	<b>79,886,161</b>	<b>76,823,552</b>

NOTE.—The minus sign — signifies net imports.

## § 2. Horses.

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

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland, and Victoria together depasture more than 75 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, 1924 TO 1928.

Year.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T. (a)	Total.
1924	646,110	473,236	659,023	255,022	175,116	37,091	45,059	1,393	2,292,050
1925	649,534	463,051	637,436	244,111	170,563	37,785	46,380	1,501	2,250,361
1926	622,009	447,988	570,690	234,352	166,463	36,830	42,801	1,383	2,122,516
1927	598,377	428,666	547,412	224,027	165,021	35,872	40,108	1,208	2,040,691
1928	567,371	412,867	522,490	205,865	160,876	34,908	37,452	924	1,942,753

(a) 30th June year following.

The number of horses attained its maximum in Australia during 1918, when 2,527,149 were recorded. Since that date, however, a gradual decline has taken place in all divisions of the Commonwealth, except Northern Territory, and the number for 1928 is the lowest recorded since 1909. The decrease for Australia during the period amounted to 584,306.

Particulars regarding 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 past five years are as follows :—

HORSES.—PERCENTAGE IN EACH STATE, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
	%	%	%	%	%	%	%	%	%
1924	28·19	20·65	28·75	11·13	7·64	1·62	1·96	0·06	100·00
1925	28·86	20·58	28·32	10·85	7·58	1·68	2·06	0·07	100·00
1926	29·30	21·11	26·89	11·04	7·84	1·73	2·02	0·07	100·00
1927	29·32	21·00	26·83	10·98	8·09	1·76	1·97	0·05	100·00
1928	29·20	21·25	26·89	10·60	8·28	1·80	1·93	0·05	100·00

The relative changes in distribution are insignificant, the greatest alteration being a decrease of under 2 per cent. in Queensland.

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 1924. Particulars for the past five years are as follows :—

HORSES.—NUMBER PER HEAD OF POPULATION, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	All States
1924 ..	0·29	0·29	0·79	0·47	0·48	0·17	12·60	0·46	0·39
1925 ..	0·28	0·27	0·74	0·44	0·46	0·17	12·69	0·38	0·38
1926 ..	0·26	0·26	0·65	0·41	0·44	0·17	10·98	0·28	0·35
1927 ..	0·25	0·25	0·61	0·39	0·43	0·17	9·47	0·21	0·33
1928 ..	0·23	0·23	0·57	0·36	0·40	0·16	9·41	0·11	0·31

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.	Date.	Number of Horses (000 omitted).	Country.	Date.	Number of Horses (000 omitted).
Soviet Republics ..	1928	32,207	Union of South Africa	1926	856
U.S. of America ..	1928	14,029	Cuba ..	1927	759
Argentine Republic ..	1922	9,432	Czecho-Slovakia ..	1925	740
Brazil ..	1920	5,254	Dutch East Indies ..	1927	707
China ..	1916	4,401	Spain ..	1925	698
Poland ..	1927	4,127	Turkey ..	1926	639
Germany ..	1928	3,711	Sweden ..	1928	628
Canada ..	1928	3,376	Lithuania ..	1928	611
France ..	1928	2,936	Uruguay ..	1924	522
India (British and Native) ..	1927	2,192	Denmark ..	1928	519
Rumania ..	1928	1,945	Paraguay ..	1918	490
<b>Australia ..</b>	<b>1928</b>	<b>1,943</b>	Bulgaria ..	1926	482
Japan ..	1927	1,495	Irish Free State ..	1928	434
United Kingdom ..	1928	1,204	Finland ..	1928	394
Jugo-Slavia ..	1928	1,109	Latvia ..	1928	365
Mexico ..	1926	1,036	Netherlands ..	1921	364
Italy ..	1918	990	Philippine Islands ..	1927	336
Colombia ..	1926	980	Chile ..	1925	324
Hungary ..	1928	918	New Zealand ..	1928	307

6. *World's Totals.*—Several countries do not issue annual statistics of live stock, the information available consisting of censuses or estimates made at varying intervals. It is not possible, therefore, to give world aggregates for the different classes of stock year by year, nor to make a satisfactory comparison between the totals for consecutive years. In order, however, to give some idea of the latest position as regards live stock and the changes that have taken place as compared with pre-war years, the following information has been taken from the Year Book issued by the International Institute of Agriculture. The list of countries included is fairly complete, but China, which possesses large numbers of horses, is omitted, as also are certain parts of Asiatic Russia, together with a few other countries. While for some countries the figures are the result of careful enumeration, in the case of others they are merely approximations. The totals, therefore, can be regarded as a general indication only of the position at the dates shown. The figures for horses are as follows :—

## HORSES.—WORLD'S TOTALS, 1913 AND 1927.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (-) in 1927.	
	1913.	1927.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding Soviet Republics) ..	22,698	22,863	+ 165	+ 0·7
Union of Socialist Soviet Republics ..	35,522	31,258	- 4,264	-12·0
North and Central America ..	26,134	20,465	- 5,669	-21·7
South America ..	18,162	17,653	- 509	- 2·8
Asia (excluding Soviet Republics) ..	4,914	5,394	+ 480	+ 9·8
Africa ..	1,692	2,079	+ 387	+22·9
Oceania ..	2,976	2,445	- 531	-17·8
Total ..	112,098	102,157	- 9,941	- 8·9

Compared with the pre-war totals reductions have taken place in all the continents, with the exception of Africa, where the number of horses is relatively insignificant. The greatest decrease occurred in North and Central America, viz. :—5,669,000, largely as the result of the decline in the United States.

7. *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 under 6,000. The total number of horses exported during that period amounted to 27,820, valued at £760,425, or equal to an annual average of 5,564 for £152,085. The average export price for the period was £27 6s. 8d. ; 85 per cent. of the horses exported went to India, where they are largely used for remount purposes.

(ii) *Imports.* The number of horses imported into Australia is comparatively small, consisting mainly of valuable animals introduced for breeding purposes, principally from the United Kingdom and New Zealand. The average value per head of the horses imported during the last five years was £331 9s. 2d., as compared with £27 6s. 8d. per head for the exports for the same period. The average number imported per annum was, however, only 339, and the average annual value, £112,233. The following table gives the imports, exports, and net exports of horses during each of the years from 1924-25 to 1928-29 :—

## HORSES.—IMPORTS AND EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
1924-25 .. ..	356	£ 132,652	4,960	£ 160,714	4,604	£ 28,062
1925-26 .. ..	355	135,124	5,610	126,469	5,255	8,655
1926-27 .. ..	343	111,297	5,619	146,610	5,276	35,313
1927-28 .. ..	300	87,065	5,936	152,350	5,636	65,285
1928-29 .. ..	339	95,025	5,695	174,282	5,356	79,257

NOTE.—The minus sign — signifies net imports.

## § 3. Cattle.

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

2. Distribution throughout 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 in recent years 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, which particularly affected the beef cattle areas of New South Wales and Queensland, were mainly responsible for the heavy decreases recorded in both these States during recent years.

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

CATTLE.—NUMBER, 1924 TO 1928.

Year.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor.Ter.	Fed. Cap. Ter. (a)	Total.
1924	2,871,196	1,605,554	6,454,653	400,423	891,564	225,740	855,285	5,058	13,309,473
1925	2,931,818	1,513,787	6,436,645	373,597	835,911	212,373	970,342	5,312	13,279,785
1926	2,813,144	1,435,761	5,464,845	340,007	827,303	213,112	863,597	5,509	11,963,278
1927	2,848,654	1,327,077	5,225,804	316,314	846,735	210,894	835,390	6,188	11,617,056
1928	2,784,615	1,304,426	5,128,341	263,016	837,527	208,812	768,751	5,269	11,800,757

(a) 30th June year following.

3. Proportion in each State.—Percentages showing the relative importance of the various cattle-breeding States during the years 1924 to 1928 are given hereunder :—

CATTLE.—PERCENTAGE IN EACH STATE, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor.Ter.	Fed. Cap. Ter.	Total.
1924	21·57	12·06	48·50	3·01	6·70	1·69	6·43	0·04	100·00
1925	22·08	11·40	48·47	2·81	6·29	1·60	7·31	0·04	100·00
1926	23·51	12·00	45·68	2·84	6·92	1·78	7·22	0·05	100·00
1927	24·52	11·42	44·98	2·72	7·29	1·82	7·19	0·06	100·00
1928	24·64	11·54	45·38	2·33	7·41	1·85	6·80	0·05	100·00

Queensland contains within its borders nearly one half of the cattle-herds of Australia. Despite decreases during recent years the percentage of cattle in Queensland on the total for Australia amounted to 45.38 in 1928. The largest relative gain since 1924 occurred in New South Wales, whilst a slight increase was recorded in Western Australia, Tasmania, and the Northern Territory.

4. Relation to Population.—The number of cattle per head of population varies considerably in the several States, as may be seen from the following table :—

CATTLE.—NUMBER PER HEAD OF POPULATION, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	All States.
1924	1.27	0.97	7.73	0.74	2.45	1.03	237.75	1.69	2.27
1925	1.28	0.90	7.47	0.68	2.24	0.98	265.41	1.35	2.22
1926	1.20	0.84	6.19	0.60	2.18	0.99	221.55	1.12	1.96
1927	1.20	0.76	5.81	0.55	2.16	0.98	191.56	1.08	1.86
1928	1.14	0.74	5.59	0.45	2.06	0.96	193.06	0.65	1.78

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

## CATTLE.—NUMBER IN VARIOUS COUNTRIES.

Country.	Date.	No. of Cattle (,000 omitted).	Country.	Date.	No. of Cattle (,000 omitted).
India (British and Native) .. .. .	1927	147,950	Rumania .. .. .	1928	4,436
Soviet Republics .. .. .	1928	66,792	Cuba .. .. .	1927	4,786
U.S. of America .. .. .	1928	55,751	Tanganyika Territory .. .. .	1926	4,706
Argentine Republic .. .. .	1922	37,065	Czecho-Slovakia .. .. .	1925	4,691
Brazil .. .. .	1920	34,271	Dutch East Indies .. .. .	1927	4,442
Germany .. .. .	1928	18,386	Siam .. .. .	1927	4,128
China .. .. .	1921	15,973	Irish Free State .. .. .	1928	4,125
France .. .. .	1928	15,005	Spain .. .. .	1925	3,794
Australia .. .. .	1928	11,301	Jugo-Slavia .. .. .	1928	3,654
Union of South Africa .. .. .	1928	10,478	French Equatorial and West Africa .. .. .	1924	3,471
Canada .. .. .	1928	8,793	Kenya .. .. .	1926	3,413
Poland .. .. .	1927	8,602	New Zealand .. .. .	1928	3,274
Uruguay .. .. .	1924	8,432	Denmark .. .. .	1928	3,016
Madagascar .. .. .	1925	7,659	Nigeria .. .. .	1927	2,997
United Kingdom .. .. .	1928	7,240	Sweden .. .. .	1928	2,898
Turkey .. .. .	1926	6,537	Rhodesia .. .. .	1927	2,716
Colombia .. .. .	1926	6,500	Bolivia .. .. .	1926	2,320
Italy .. .. .	1918	6,240	Venezuela .. .. .	1922	2,278
Mexico .. .. .	1926	5,584	Austria .. .. .	1923	2,162
Paraguay .. .. .	1918	5,500	Netherlands .. .. .	1921	2,063

6. World's Totals.—The information in the appended table has been taken from the returns published by the International Institute of Agriculture at Rome. The figures given therein are subject to the limitations previously noted in respect to horses (See § 2, 6 ante).

## CATTLE.—WORLD'S TOTALS, 1913 AND 1927.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (-) in 1927.	
	1913.	1927.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding the U.S.S.R.) .. .. .	98,764	100,339	+ 1,575	+ 1.6
Union of Socialist Soviet Republics .. .. .	60,280	67,835	+ 7,555	+12.5
North and Central America .. .. .	76,485	79,415	+ 2,930	+ 3.8
South America .. .. .	86,662	101,053	+14,391	+16.6
Asia (excluding the U.S.S.R.) .. .. .	131,300	143,927	+12,627	+ 9.6
Africa .. .. .	34,537	51,270	+16,733	+48.4
Oceania .. .. .	13,859	15,476	+ 1,617	+11.7
Total .. .. .	501,887	559,315	+57,428	+11.4

The number of cattle has increased in all continents since 1913, the most notable advances being in Africa and South America. In these continents the development of the cattle industry has been most marked, the number of cattle having increased by more than 16 and 14 million head respectively since the pre-war year.

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

## CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1924-25 ..	70	2,318	9,744	45,946	9,674	43,628
1925-26 ..	173	15,743	10,071	48,375	9,898	32,632
1926-27 ..	103	4,412	10,196	48,075	10,093	43,663
1927-28 ..	89	3,553	11,220	44,905	11,131	41,352
1928-29 ..	96	17,761	8,548	38,966	8,452	21,205

The average value of the cattle imported during the last five years was £68 4s. 8d. per head, while the average value of the cattle exported during the same period was £4 12s. 5d. As previously stated, the imported cattle were required principally for stud purposes.

8. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1924 to 1928 is given hereunder :—

## CATTLE (INCLUDING CALVES) SLAUGHTERED, 1924 TO 1928.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Fed. Cap. Ter. (a)	Total.
1924	818,683	499,840	893,169	155,050	95,648	36,154	6,630	143	2,505,317
1925	825,628	523,960	778,060	157,210	110,286	36,824	2,000	456	2,434,424
1926	809,810	499,519	567,640	143,747	101,948	32,989	1,369	2,784	2,159,806
1927	694,527	469,610	739,995	142,557	101,146	36,249	1,854	2,924	2,188,862
1928	778,994	466,576	685,196	127,627	100,982	36,264	2,065	2,074	2,199,778

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

9. **Production and Consumption of Beef.**—The production of beef in Australia during the three years ended 1928-29 was estimated at 1,105,323,400 lbs. per annum. The requirements of the local market absorbed 943,794,700 lbs., approximately 85 per cent., leaving a balance of 15 per cent., which was exported as frozen and canned beef. The annual consumption of beef per head of population in Australia averaged 152 lbs. compared with 52 lbs. in the United States of America, 69 lbs. in Canada, and 71 lbs. in the United Kingdom for the same period.

10. **Export of Beef Preserved by Cold Process.**—The establishment of the frozen meat export trade about the year 1882 provided an outlet for the surplus stock of Australia, and since that date the trade in frozen beef has grown to large proportions, the quantities and values exported during the past five years being as follows, viz. :— 1924-25, 283,620,687 lbs., £4,140,087; 1925-26, 214,089,981 lbs., £3,264,920; 1926-27, 112,198,096 lbs., £1,627,998; 1927-28, 169,098,425 lbs., £2,377,967; and 1928-29, 189,090,357 lbs., £2,888,287. The largest purchaser of Australian beef is the United Kingdom, which during the year 1928-29 took £1,599,740 worth, or about 55 per cent. of the total shipments. Other importing countries in order of importance were Belgium, Germany, Philippine Islands, and Egypt. These countries, together with the United Kingdom, accounted for 85 per cent. of the total exports.

## § 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 was, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, 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 lead in sheep-raising which naturally attached to it as the portion of Australia in which settlement was first effected. Within its borders is contained generally one half of the flocks of Australia, and in the returns for the years 1924 to 1926 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 as quickly restored, and, despite a decrease of 3½ millions during the drought of 1922, the number reported in 1926 was 104,267,101, the greatest number since the maximum year 1891, when 106,421,068 sheep were depastured. A decline occurred in 1927, but owing to favourable conditions during 1928 the number rose again to 103,430,773. The drought which followed in 1929 was not accompanied by a decline in the flocks, as at the 31st December it was estimated that the number reached 106,125,973, or slightly below the record number in 1891. This development in spite of the annual slaughter of some ten to twelve million sheep and lambs for the mutton and lamb trade is a striking commentary on the soundness of the sheep and wool industry in Australia.

The number of sheep in the several States and Territories for each year from 1925 to 1929 was as follows :—

**SHEEP.—NUMBER, 1925 TO 1929.**

Year.	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter. (a)	Total.
1925	53,687,749	13,740,500	20,663,323	6,810,495	6,861,795	1,619,075	8,030	172,251	103,563,218
1926	55,705,923	14,919,653	16,860,772	7,283,945	7,458,786	1,807,558	8,407	224,077	104,267,101
1927	50,510,000	15,557,067	16,642,385	7,542,345	8,447,480	1,904,955	9,585	213,659	100,827,476
1928	50,184,950	16,498,222	18,509,201	7,079,947	8,943,002	2,000,805	7,635	207,211	103,430,773
1929 <sup>b</sup>	50,740,000	17,427,203	19,975,752	6,186,252	9,556,823	2,000,000	7,500	232,448	106,125,973

(a) 30th June year following.

(b) Estimate as at 31st December, 1929.

3. **Proportion in the Several States and Territories.**—Particulars concerning the relative positions of the several States and Territories with respect to the total flocks of Australia during the years 1924 to 1928 are given hereunder :—

**SHEEP.—PERCENTAGE IN EACH STATE, 1924 TO 1928.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Total.
	%	%	%	%	%	%	%	%	%
1924 ..	50.38	13.58	20.42	6.83	6.87	1.73	0.01	0.18	100.00
1925 ..	51.84	13.27	19.95	6.58	6.62	1.56	0.01	0.17	100.00
1926 ..	53.43	14.31	16.17	6.99	7.15	1.73	0.01	0.21	100.00
1927 ..	49.99	15.46	16.54	7.50	8.40	1.89	0.01	0.21	100.00
1928 ..	48.52	15.95	17.90	6.84	8.65	1.93	0.01	0.20	100.00

Apart from the effect of drought the percentage of sheep depastured in the different States shows little change. The most noteworthy alteration was a loss of 1.47 per cent. in New South Wales and a gain of 1.36 per cent. in Queensland during 1928 as compared with the previous year.

4. **Relation to Population.**—The relation of the flocks of the several States and Territories to the population at the end of each year from 1924 to 1928 is as follows :—

**SHEEP.—NUMBER PER HEAD OF POPULATION, 1924 TO 1928.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Total.
1924 ..	20.82	7.64	22.79	11.81	17.57	7.34	1.92	55.30	15.86
1925 ..	23.36	8.16	23.99	12.35	18.44	7.46	2.20	43.76	17.28
1926 ..	23.73	8.72	19.11	12.86	19.69	8.42	1.64	45.53	17.06
1927 ..	20.95	8.93	18.51	13.10	21.53	8.82	2.20	37.25	16.14
1928 ..	20.52	9.37	20.19	12.22	22.03	9.24	1.92	25.62	16.32

5. Comparison with other Countries.—As regards the size of its flocks, and the quantity and quality of wool produced, Australia has long occupied the leading position amongst the sheep-raising countries of the world. The following comparison taken mainly from the Year Book of the International Institute of Agriculture gives the latest figures relative to the number of sheep in the principal wool-producing countries. The leading position, so long held by Australia, is now occupied by the United Socialist Soviet Republics. This interchange of positions is due to the fact that figures regarding the number of sheep have been revised, and now include those depastured in Europe and Asia. Efforts are being made 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, 2,031 sheep valued at £6,017 were exported from Australia to Russia for breeding purposes. The production of wool, however, only amounted to about 370 million lbs. during the year 1927-28.

## SHEEP.—NUMBER IN VARIOUS COUNTRIES.

Country.	Date.	No. of Sheep (,000 omitted).	Country.	Date.	No. of Sheep (,000 omitted).
Soviet Republics ..	1928	124,757	Jugo-Slavia ..	1928	7,722
<b>Australia</b> .. ..	1929	106,126	Greece .. ..	1928	6,920
U.S. of America ..	1928	47,171	French Equatorial and West Africa ..	1927	6,328
Union of South Africa	1928	42,500	Algeria .. ..	1928	5,614
Argentine Republic ..	1922	36,209	Iraq (a) .. ..	1926	5,055
India (British and Native) .. ..	1927	35,703	Bolivia .. ..	1926	4,220
New Zealand .. ..	1928	27,134	Chile .. ..	1925	4,095
United Kingdom ..	1928	23,968	Portugal .. ..	1920	3,851
Uruguay .. ..	1927	22,500	Germany .. ..	1928	3,626
China .. ..	1916	22,232	Canada .. ..	1928	3,416
Spain .. ..	1925	20,067	Irish Free State ..	1928	3,264
Rumania .. ..	1928	12,801	Kenya .. ..	1926	2,756
Italy .. ..	1918	11,754	Mexico .. ..	1926	2,698
Turkey .. ..	1926	11,702	Basutoland .. ..	1927	2,149
Peru .. ..	1922	11,335	Sudan (Anglo-Egypt- tian) .. ..	1927	2,010
France .. ..	1928	10,415	Poland .. ..	1927	1,918
Bulgaria .. ..	1926	8,739	Tanganyika Territory	1927	1,911
French Morocco ..	1928	8,035			
Brazil .. ..	1920	7,933			

(a) Including goats.

6. World's Totals.—The number of sheep in the various great divisions of the world has been estimated by the International Institute of Agriculture, and a comparison has been made with pre-war estimates. In the table below the results are shown, the totals being subject to the limitations noted for other classes of live stock. (See § 2, 6 ante.)

## SHEEP.—WORLD'S TOTALS, 1913 AND 1927.

Continents, etc.	Number at the date nearest—		Increase (+) or Decrease (-) in 1927.	
	1913.	1927.	Actual Figures.	Percentages.
	,000	,000	,000	%
Europe (excluding the U.S.S.R.) ..	126,999	129,733	+ 2,734	+ 2.2
United Socialist Soviet Republics ..	111,051	120,237	+ 9,186	+ 8.3
North and Central America ..	43,148	51,097	+ 7,949	+18.4
South America .. ..	100,392	89,642	- 10,750	-10.7
Asia (excluding the U.S.S.R.) ..	41,802	43,994	+ 2,192	+ 5.2
Africa .. ..	76,583	84,118	+ 7,535	+ 9.8
Oceania .. ..	109,331	129,947	+ 20,616	+18.9
Total .. ..	609,306	648,768	+ 39,462	+ 6.5

7. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively small importance. During the past five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by South African and Japanese buyers at the Australian Stud Sheep Sales during recent years have opened up a regular export trade with these two countries in stud sheep, the bulk of which has been secured from the leading flocks of New South Wales, Victoria and South Australia. Other countries purchasing stud sheep during 1928–29 were Russia and Chile. The following are particulars of the imports and exports for the years 1924–25 to 1928–29 :—

SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA, 1924–25 TO 1928–29.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1924–25 ..	2,183	10,902	6,326	40,695	4,143	29,793
1925–26 ..	2,375	13,873	22,706	41,831	20,331	27,958
1926–27 ..	6,951	34,595	33,169	49,985	26,218	15,390
1927–28 ..	3,045	12,417	33,916	52,929	30,871	40,512
1928–29 ..	3,764	17,797	33,309	61,244	29,545	43,447

8. Sheep Slaughtered.—The number of sheep slaughtered in the several States during each of the years from 1924 to 1928 was as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED, 1924 TO 1928.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Fed. Cap. Ter.(a)	Total.
1924 ..	3,396,957	3,591,219	446,247	933,426	588,577	276,117	..	2,989	9,235,532
1925 ..	4,244,497	4,194,572	635,335	1,028,593	613,935	286,691	..	7,908	11,011,471
1926 ..	5,600,083	4,528,113	679,266	1,090,756	712,647	310,428	..	19,319	12,940,612
1927 ..	5,009,511	4,732,494	669,742	1,209,608	784,340	328,671	..	22,507	12,756,882
1928 ..	4,967,835	5,286,642	805,461	1,263,352	807,510	331,820	..	20,384	13,483,004

(a) Year ended 30th June year following.

9. Production and Consumption of Mutton and Lamb.—The annual production of mutton and lamb during the three years ended 1928–29 averaged 520,387,450 lbs., of which 443,871,672 lbs., or 85 per cent., was consumed locally, leaving a balance of 15 per cent. for exportation. The consumption of mutton and lamb in Australia during the same period averaged 71 lbs. per head per annum, a figure considerably in excess of the per capita consumption during the past three years in the following countries :—United Kingdom, 26 lbs. ; Canada, 6 lbs. ; and United States of America, 5½ lbs.

10. Exports of Mutton and Lamb Preserved by Cold Process.—The export trade in mutton and lamb preserved by cold process grew rapidly until in 1913, the year immediately before the war, the value of the shipments amounted to nearly £3,000,000. The exports fell away considerably during the war years, but a record shipment of 246,971,346 lbs., valued at £5,482,564, was made in 1919–20, and another large consignment, valued at £4,321,917, was dispatched in 1922–23. Climatic conditions have since favoured a considerable output, but shipments were not large in comparison, owing chiefly to the sound position of wool and depressed meat markets overseas.

The quantity and value of the shipments during each of the past five years were as follows :—1924–25, 50,271,462 lbs., £1,522,082 ; 1925–26, 85,681,970 lbs., £2,430,465 ; 1926–27, 93,520,154 lbs., £2,057,607 ; 1927–28, 46,362,954 lbs., £1,188,506 ; 1928–29, 84,929,176 lbs., £2,166,043.

As in the case of frozen beef, the principal customer in this trade is the United Kingdom, which absorbed 88 per cent. of the total quantity exported from Australia during the year 1928–29, while the balance was shipped mainly to Canada, Malaya (British), and United States of America.

## § 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 1928–29, 25 per cent., or one-quarter of the world's supply. Her contribution was even more important as it represented one-half of the world's production of fine quality merino wool. 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 6 per cent. of the total production.

2. *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 its annual wool clip. Based upon the export values of the produce of the various States the output for the season 1928–29 was valued at £70,833,000 compared with £75,364,000 in the previous year, £81,430,000 in the record price year 1924–25, and £71,792,000 the average of the previous five seasons. During the period 1924–25 to 1928–29 the export of wool averaged 42.2 per cent. of the value of the total shipments of merchandise from Australia, and during 1928–29 the ratio was 42.5 per cent.

3. *Greasy and Scoured Wool.*—For the purpose of comparing the clips as a whole for a series of years, it is convenient to have the total production expressed in terms of greasy wool.

The quantity of Australian greasy wool which was scoured and washed before export during the last five years has been on the average about 17 per cent. of the total export in terms of greasy wool. The loss of weight in scouring varies largely with season, locality, breed, and condition. It seems preferable to express "scoured and washed" wool in terms of "greasy" rather than vice versa, since the absolute error arising from uncertainty as to average loss of weight is thereby minimized.

In the tables dealing with production, "scoured and washed" wool has been converted into the estimated equivalent amount of "greasy" on the assumption that two and one-sixth pounds of "greasy" wool are on the average required to produce one pound of "scoured and washed."

4. *Production.*—(i) *Quantity.* The annual shearing of the live sheep provides the main source of Australia's wool supply, the resultant clip forming about 89 per cent. of the total production. A small quantity, approximately  $6\frac{1}{2}$  per cent. of the total output is obtained by fellmongering, or removing wool from skins of slaughtered sheep, while the remaining  $4\frac{1}{2}$  per cent. is an estimation of the quantity of wool exported on sheepskins. Statistics of wool production are compiled from data received from growers, fellmongers, etc. As the result of recent investigations made in some of the States serious understatements by landholders have been disclosed, and exhaustive inquiries have enabled the Statisticians of the States concerned satisfactorily to revise their original figures, and provisional amendments have been inserted pending similar action in the remaining States. The following table furnishes the revised figures for each State and the Commonwealth during the past five seasons :—

## WOOL.—TOTAL PRODUCTION, 1924-25 TO 1928-29.

State.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales(a) ..	369,118,000	402,490,000	499,322,000	443,860,000	484,753,597
Victoria .. ..	133,484,871	139,076,017	151,624,526	148,503,795	179,854,306
Queensland .. ..	152,131,544	158,744,544	129,435,804	136,544,333	150,108,044
South Australia ..	62,438,953	69,007,266	72,365,200	78,369,918	74,616,004
Western Australia ..	47,204,687	51,827,080	59,300,023	67,549,734	63,890,984
Tasmania .. ..	12,483,452	12,564,000	12,333,000	13,272,000	14,900,000
Northern Territory(b)	20,000	30,000	30,000	30,000	30,000
<b>Total .. ..</b>	<b>776,881,507</b>	<b>833,738,907</b>	<b>924,410,553</b>	<b>888,129,780</b>	<b>968,152,935</b>

(a) Including Federal Capital Territory. (b) Approximate figures.

(ii) *Estimate for 1929-30.* Although the returns are not yet complete, the total wool production of the Commonwealth during 1929-30 is officially estimated at 910,000,000 lbs., valued at approximately £42,863,000.

5. *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 that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

6. *World's Wool Production.*—The following table compiled by the Textile Division of the United States Department of Commerce shows the importance of Australia as a wool-producing country. Out of a total production of 3,663 million lbs. in 1929, Australia's contribution amounted to over 888 million lbs., or more than 26 per cent. of the world's supply.

## WOOL(a).—WORLD'S PRODUCTION, 1909 TO 1929.

Countries.	Average Annual Pre-War Production.(b)	Production.	
		1928.	1929.(c)
	lbs.	lbs.	lbs.
North America—			
United States .. ..	314,110,000	351,013,000	363,447,000
Canada .. ..	11,210,000	19,611,000	21,420,000
Mexico .. ..	7,000,000	1,320,000	1,320,000
<b>Total .. ..</b>	<b>332,320,000</b>	<b>371,944,000</b>	<b>386,187,000</b>
Central America and West Indies .. ..	1,000,000	..	..
South America—			
Argentine Republic ..	358,688,000	342,250,000	323,400,000
Brazil .. ..	35,000,000	24,200,000	24,200,000
Chile .. ..	17,430,000	33,000,000	32,500,000
Peru .. ..	9,940,000	10,000,000	10,300,000
Uruguay .. ..	156,968,000	135,000,000	135,000,000
All other .. ..	9,324,000	17,147,000	19,847,000
<b>Total .. ..</b>	<b>587,350,000</b>	<b>561,597,000</b>	<b>545,247,000</b>

(a) Computed on "greasy" basis. (b) Average for years 1909 to 1913 inclusive. (c) Where 1929 figures were not obtainable, an earlier figure or an unofficial estimate has been inserted.

WOOL(a).—WORLD'S PRODUCTION 1909 TO 1929—*continued.*

Countries.	Average Annual Pre-War Production.(b)	Production.	
		1928.	1929.(c)
	lbs.	lbs.	lbs.
Europe—			
Austria .. .. .	15,360,000	837,000	860,000
Belgium .. .. .	1,060,000	800,000	775,000
Bulgaria .. .. .	23,700,000	21,495,000	22,887,000
Czecho-Slovakia .. .. .	..	3,290,000	3,290,000
Denmark .. .. .	3,508,000	992,000	2,959,000
Estonia .. .. .	..	1,850,000	1,499,000
Finland .. .. .	..	4,980,000	4,250,000
France .. .. .	80,688,000	49,604,000	44,000,000
Germany .. .. .	52,000,000	31,905,000	34,750,000
Greece .. .. .	14,000,000	16,625,000	16,625,000
Hungary .. .. .	17,637,000	11,500,000	6,150,000
Iceland .. .. .	1,980,000	1,642,000	(d)
Italy .. .. .	55,000,000	49,500,000	37,500,000
Jugo-Slavia .. .. .	25,446,000	30,000,000	30,000,000
Netherlands .. .. .	3,556,000	3,960,000	4,400,000
Norway .. .. .	8,160,000	5,515,000	5,515,000
Poland .. .. .	7,100,000	9,839,000	8,818,000
Portugal .. .. .	10,000,000	6,325,000	5,105,000
Rumania .. .. .	13,228,000	55,000,000	55,000,000
Russia .. .. .	320,000,000	370,272,000	384,252,000
Spain .. .. .	72,000,000	100,000,000	99,000,000
Sweden .. .. .	2,875,000	1,600,000	1,250,000
Switzerland .. .. .	1,049,000	850,000	850,000
Turkey .. .. .	28,000,000	..	..
United Kingdom .. .. .	134,000,000	106,112,000	117,869,000
Irish Free State .. .. .	..	13,578,000	14,461,000
All other .. .. .	..	7,327,000	9,886,000
Total .. .. .	890,347,000	905,398,000	911,951,000
Asia—			
British India .. .. .	60,000,000	70,000,000	70,000,000
China .. .. .	50,000,000	55,505,000	55,505,000
Persia .. .. .	12,146,000	14,000,000	45,000,000
Russia in Asia .. .. .	60,000,000	(e)	(e)
Turkey in Asia .. .. .	90,000,000	11,000,000	7,700,000
All other .. .. .	1,000,000	56,622,000	51,594,000
Total .. .. .	273,146,000	207,127,000	229,799,000
Africa—			
Algeria .. .. .	35,221,000	38,764,000	43,000,000
British South Africa .. .. .	165,888,000	285,000,000	311,967,000
Tunis .. .. .	3,735,000	3,164,000	3,801,000
Morocco .. .. .	14,850,000	21,627,000	21,657,000
All other .. .. .	30,000,000	18,374,000	19,538,000
Total .. .. .	249,694,000	366,929,000	399,963,000
Oceania—			
Australia .. .. .	741,377,000	888,130,000	968,153,000
New Zealand .. .. .	198,474,000	235,546,000	222,491,000
Total .. .. .	939,851,000	1,123,676,000	1,190,644,000
Total all other Countries .. .. .	13,000,000	..	..
GRAND TOTAL .. .. .	3,286,708,000	3,536,671,000	3,663,791,000

(a) Computed on "greasy" basis. (b) Average for years 1909 to 1913 inclusive. (c) Where 1929 figures were not obtainable, an earlier figure or an unofficial estimate has been inserted. (d) Included with Denmark. (e) Included with Russia in Europe.

7. Wool Locally Used.—The quantity of wool used in the woollen and tweed mills of the various States during the past five years was approximately as follows; the total shown for 1928-29 includes 312,480 lbs. as in the grease of wool used in the manufacture of hats :—

**WOOL.—GREASY, USED IN LOCAL WOOLLEN, TWEED, AND TOP MILLS,  
1924-25 TO 1928-29.**

State.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales .. .. .	12,798,722	15,332,166	15,394,823	12,038,830	14,796,906
Victoria .. .. .	14,420,497	17,642,326	29,020,842	24,075,102	23,372,872
Queensland .. .. .	1,102,110	2,192,482	3,373,800	3,589,730	3,116,009
South Australia .. .. .	536,870				
Western Australia .. .. .	.. .. .	3,321,213	4,337,831	4,400,693	5,862,862
Tasmania .. .. .	1,931,814				
Total .. .. .	30,790,013	38,488,187	52,127,351	44,104,360	47,148,649

The total consumption of wool in Australia cannot be accurately estimated, as particulars in respect of all wool-using establishments are not available. The figures given above, however, are furnished by the largest consumers, and approximate the total quantity used in local manufacture.

8. Exports of Wool.—(i) *Greasy—Quantities.* Of the total weight of wool expressed in terms of “greasy” shipped overseas during the past five years slightly more than 33.7 per cent. was sent to the United Kingdom, practically the same percentage as was dispatched in pre-war years. The other leading consignees since 1924-25 were France, Japan, Germany, Belgium, United States of America, and Italy, the principal continental countries taking 48.7 per cent., and America and Japan 16.2 per cent. of the total shipments. The following table shows for the years 1924-25 to 1928-29 the quantities of “greasy” wool exported, and the principal countries of destination :—

**WOOL IN THE GREASE.—EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.**

Country to which Exported.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom .. .. .	175,937,327	256,078,293	211,874,803	106,106,241	212,035,141	1,052,031,805
France .. .. .	114,676,170	224,052,949	174,426,470	140,913,531	172,006,450	826,075,570
Japan .. .. .	53,015,265	59,595,292	78,913,977	106,399,417	101,092,258	399,016,209
Germany .. .. .	39,595,031	65,802,691	97,808,703	95,402,154	99,933,251	398,541,830
Belgium .. .. .	36,682,734	64,602,486	76,891,243	76,032,767	99,695,826	353,905,053
United States of America .. .. .	38,501,358	61,317,978	41,446,243	27,089,377	19,154,235	187,509,191
Italy .. .. .	28,752,441	34,173,784	28,185,823	34,691,092	40,104,242	185,907,382
Netherlands .. .. .	2,977,389	1,472,172	1,090,882	100,604	296,051	5,937,098
India .. .. .	770,543	193,292	448,275	778,328	1,404,596	3,595,034
Canada .. .. .	483,127	461,719	338,045	177,208	270,921	1,731,020
Other Countries .. .. .	875,712	1,353,614	925,744	11,157,264	17,346,556	31,658,890
Total .. .. .	492,267,097	769,104,270	712,350,208	688,847,983	763,339,527	3,425,909,085

(ii) *Scoured and Washed—Quantities.* Similar particulars concerning the exports of “scoured and washed” wool were as follows :—

## WOOL, SCOURED AND WASHED(a).—EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Country to which Exported.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
United Kingdom ..	27,181,826	32,481,422	30,113,626	19,242,933	24,818,010	133,837,817
France ..	5,609,547	9,452,561	10,078,990	9,193,140	5,463,934	39,798,172
Japan ..	3,462,119	6,484,570	5,002,337	3,179,822	1,972,525	20,101,373
Belgium ..	3,179,143	3,295,602	5,739,697	6,266,931	6,987,612	25,468,985
Germany ..	1,979,909	1,780,997	5,344,667	7,004,132	3,534,812	19,644,517
United States of America ..	713,661	1,087,828	305,374	796,867	875,775	3,779,505
Canada ..	441,424	506,608	320,900	288,396	614,677	2,172,005
Italy ..	413,878	308,316	294,957	395,277	544,585	1,957,013
Netherlands ..	18,995	28,470	..	23,653	12,718	83,836
India ..	212,006	8,395	1,816	17,310	174,272	413,799
Other Countries ..	448,554	601,259	534,329	7,454,477	2,202,143	11,240,762
Total ..	43,661,062	56,036,028	57,736,693	63,862,938	47,201,063	258,497,784

(a) Including "tops."

The figures for "scoured and washed wool" include tops, amounting in 1924-25 to 4,090,958 lbs., valued at £1,119,849; in 1925-26, 5,953,442 lbs., valued at £1,162,877; in 1926-27, 4,519,357 lbs., valued at £822,713; in 1927-28, 2,559,159 lbs., valued at £488,199; and in 1928-29, 872,774 lbs., valued at £166,957. The total exports of wool tops during the last five years amounted to 17,995,690 lbs., valued at £3,760,595, of which 15,603,165 lbs., or more than 85 per cent., were shipped to Japan.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia to the principal countries during the five years under review was:—

## WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA, 1924-25 TO 1928-29.

Country to which Exported.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
	£	£	£	£	£	£
United Kingdom ..	24,386,464	23,195,387	19,013,978	19,993,795	19,947,694	106,537,318
France ..	12,484,097	15,821,883	13,164,721	11,990,477	11,865,744	65,296,922
Japan ..	7,479,586	5,869,969	7,868,883	10,316,846	8,093,195	40,228,479
United States of America ..	5,926,430	6,076,012	4,080,960	3,105,212	1,883,155	21,071,769
Germany ..	4,929,589	5,034,599	7,920,677	9,080,643	7,773,780	34,739,288
Belgium ..	3,844,335	4,221,646	5,507,034	6,166,070	6,434,323	26,195,408
Italy ..	3,327,166	2,523,541	2,156,454	2,944,103	3,019,502	13,971,066
Netherlands ..	367,651	117,408	89,078	18,527	27,411	615,075
Canada ..	162,395	121,359	69,695	79,137	113,926	546,512
India ..	108,522	14,897	23,670	53,026	110,802	310,917
Other Countries ..	246,910	213,175	159,210	2,364,282	1,745,413	4,728,990
Total ..	63,263,145	63,209,876	60,054,360	66,097,118	61,615,245	314,239,744

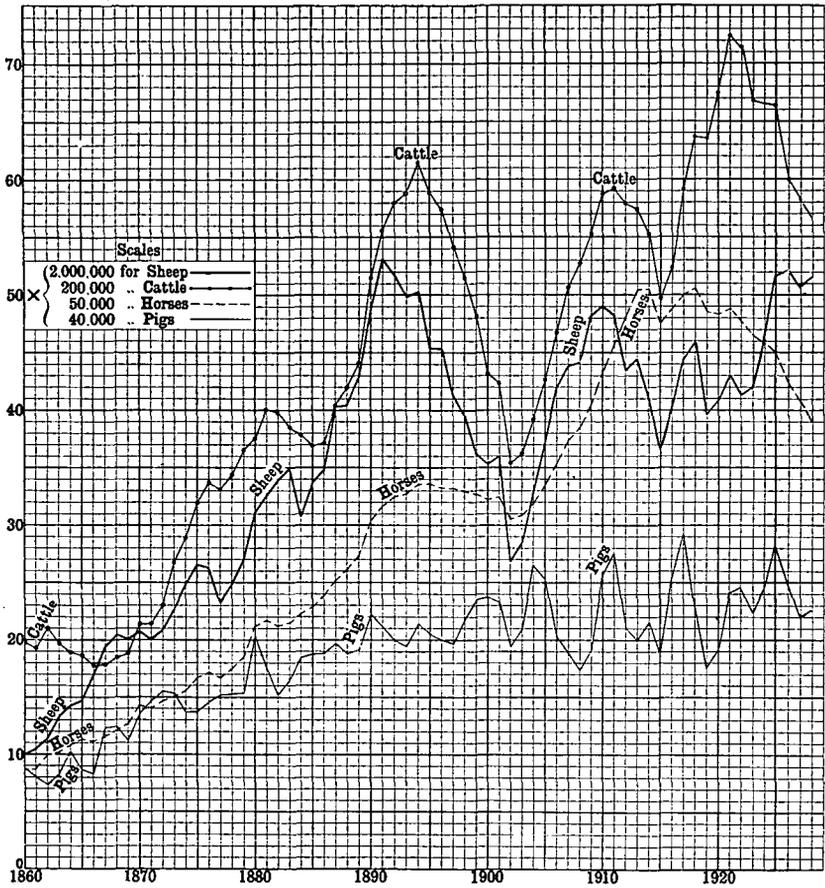
9. *Average Export Value.*—The average values per pound of Australian wool according to the export returns for the year 1913 and for each of the past five years have been as follows:—

## AUSTRALIAN WOOL.—EXPORT VALUE PER POUND, 1913 TO 1929-30.

Description.	1913.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
	d.	d.	d.	d.	d.	d.
Greasy ..	9.70	17.63	17.99	20.49	17.58	11.30
Scoured ..	17.27	26.57	26.25	31.87	28.72	19.34

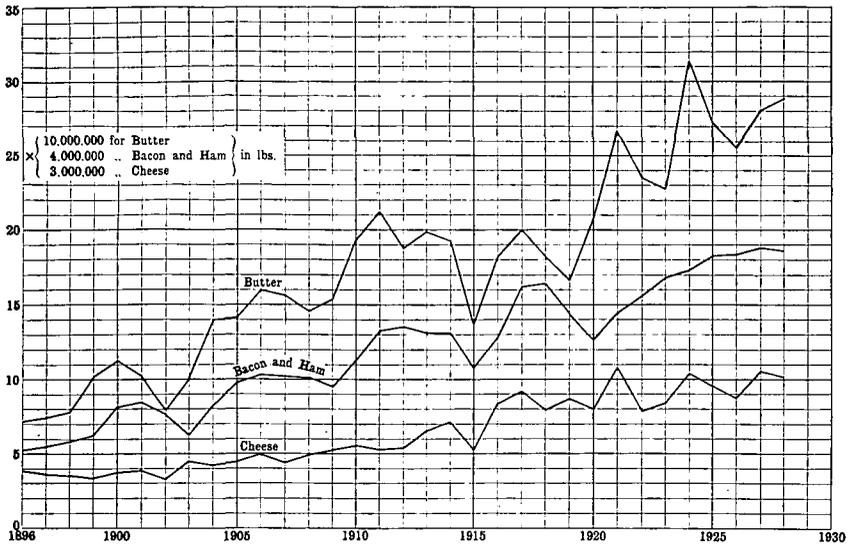
10. *Exports and Local Sales of Wool.*—Wool selling in Australia has been developed to such a stage that approximately 90 per cent. of the wool grown is now disposed of locally prior to export. Buyers from the United Kingdom, France, Belgium, Germany, and other European countries, also from America, 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

## NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS—AUSTRALIA, 1860 TO 1928.



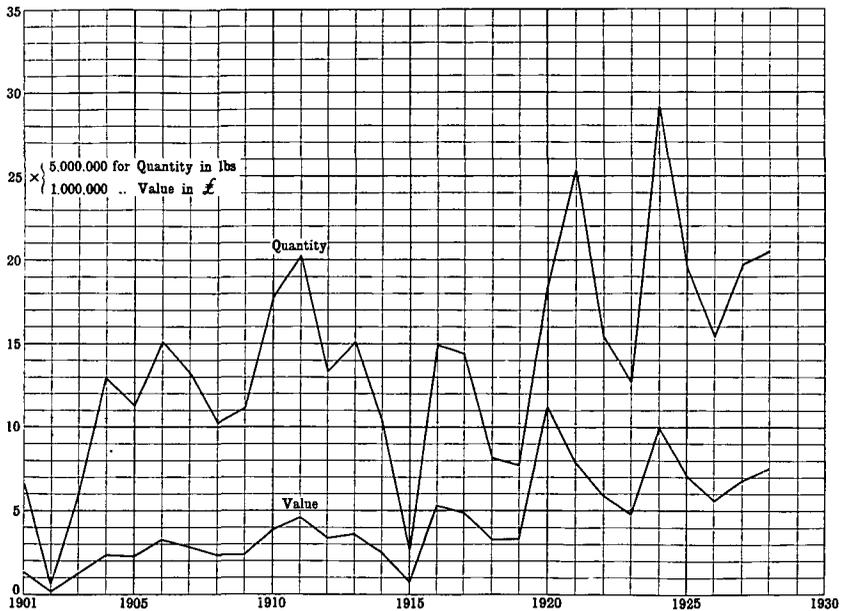
EXPLANATION.—The base of each small square represents an interval of one year, and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, and 40,000 for pigs.

PRODUCTION OF BUTTER, CHEESE, AND BACON AND HAM—AUSTRALIA  
1896 TO 1928.



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 lbs.; in the case of bacon and ham 4,000,000 lbs.; and in the case of cheese 3,000,000 lbs.

QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM AUSTRALIA, 1901 TO 1928.



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

as quantities and ratios of the various descriptions of wool marketed in each State, were inserted in preceding issues of the Official Year Book, but considerations of space preclude the inclusion of similar matter in the present volume. Detailed tables, however, are published in Production Bulletin No. 23 issued by this Bureau.

11. **The Wool Market.**—(i) *The 1928-29 Season.* The 1928-29 wool-selling season was very disappointing when compared with the previous season, which was one of the most successful experienced in the history of the industry. The sustained demand which characterized the 1927-28 season was absent in 1928-29 and the markets reflected a lack of confidence. Prices, however, remained steady at the opening rates but waned considerably towards the close of the year. Although the clip exceeded that of the preceding year by almost 80 million lbs., and constituted a record, its total value, based upon export price, was £4.8 million less. The clip for 1928-29 was well grown, but largely lacked the fineness of the preceding year, being generally broader in staple, due to the generous conditions under which it was grown.

During the year the sales figures amounted to 2,645,695 bales, compared with 2,411,873 bales the previous year. Values depreciated considerably during the season, the average bale realizing £3 12s. 11d. less than the previous year, while the aggregate sales amounted to £57,122,056 as against £60,873,662 in 1927-28.

(ii) *Wool Realization Scheme.* The British Australian Wool Realization Association Ltd. ("B.A.W.R.A.") was formed on the 27th January, 1921, for the purpose of realizing the large stock of wool remaining at the close of the Imperial Wool Purchase Scheme, which covered part of the 1916-17 clip and the complete clips of the three following seasons. Detailed information in connexion with procedure is contained in the previous Official Year Books (see No. 22, p. 666). The whole of the wool controlled by "B.A.W.R.A." was sold in three and a half years, and passed into consumption together with the current clips of the wool-growing countries.

The following statement provides a summary of the payments made to wool-growers under the Imperial Wool Purchase Scheme and of the distribution of profits accruing to growers therefrom to 31st December, 1929 :—

**STATEMENT OF AMOUNTS DISTRIBUTED BY CENTRAL WOOL COMMITTEE AND "B.A.W.R.A." TO 31st DECEMBER, 1929.**

1916—November	..	Initiation of Imperial Wool Purchase Scheme.	
1917—January 3rd	..	First appraisalment of wool.	
1920—June 30th	..	Last appraisalment of wool.	
		Total f.o.b. value of wool and sheepskins	£171,518,891
1920—October 27th	..	Payment by Central Wool Committee of 5 per cent. profits dividend	£7,333,700
1921—January	..	Formation of "B.A.W.R.A." Limited— Issue of Priority Wool Certificates and Share Certificates.	
1921—July 30th	..	Payment—47½ per cent.— Priority Wool Certificates	£4,487,899
		Cash retirement of small interests and fractional payments	£206,536
1922—May 18th	..	Payment—52½ per cent.— Final payment of Priority Wool Certificates	£4,960,310
1923—April 14th	..	First capital reduction— Payment 10s. per share	£5,651,495
1923—May 1st	..	Last bale of wool shipped from Australia.	
1924—February 12th	..	Second capital reduction— Payment 9s. per share	£5,086,345
1924—May 2nd	..	Last bale of wool sold in England.	
1927—November 15th	..	Final capital payment— 1s. per share	£565,149
			£20,957,734
			£199,810,325
1927—November 15th	..	First liquidation payment— 12s. 6d. per share	7,064,368
			£206,874,693

12. United Kingdom Importation of Wool.—The appended statement of the quantity and value of wool imported into the United Kingdom during the year 1928 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the mother country :—

WOOL(a).—IMPORTS, UNITED KINGDOM, 1928.

Country from which imported.	Quantity.	Value.	Country from which imported.	Quantity.	Value.
	lbs.	£		lbs.	£
Australia ..	222,567,800	20,090,249	United States of America ..	1,130,200	93,241
New Zealand ..	182,346,700	12,491,453	Peru ..	3,284,600	262,135
Union of South Africa ..	162,355,600	12,689,256	Belgium ..	3,306,400	305,731
Argentine Republic ..	49,376,000	3,621,391	Falkland Islands ..	3,074,200	212,150
India ..	55,042,600	2,925,901	Other British Possessions ..	2,123,300	151,491
Chile ..	25,310,400	1,724,210	Germany ..	3,249,600	219,943
France ..	21,734,400	2,377,943	Other Countries	11,131,900	678,051
Uruguay ..	27,289,200	2,333,325			
Irish Free State	10,035,300	657,348			
			Total ..	783,358,200	60,833,818

(a) Greasy, Scoured, and Tops.

Of the importations of wool into the United Kingdom, Australian wool represented 28 per cent. of quantity and 33 per cent. of value, and New Zealand 23 per cent. of quantity and 21 per cent. of value. It is interesting to note that 637,545,500 lbs., valued at £49,217,848, were received from British Possessions, being 81 per cent. of the total weight and 81 per cent. of the total value imported.

### § 6. Trade in Hides and Skins.

1. Extent of Trade.—In addition to the hides and skins treated in the tanneries of the several States, a very considerable export trade is carried on, the value of Australian cattle and horse hides and sheep and other skins exported during the five years 1924–25 to 1928–29 amounting to £44,200,027, or an average of £8,840,005 per annum.

2. Sheepskins with Wool.—By far the largest item included in the amount mentioned in the preceding sub-section arises from the value of sheepskins with wool—the exports of which during the five years aggregated £19,696,527. France was the largest purchaser, taking 52.3 per cent. of the total consignments, while United Kingdom ranked next with 31.6 per cent., and the remaining 16 per cent. was shipped principally to the United States of America, Belgium, and Germany. The exports of sheepskins with wool during each of the years from 1924–25 to 1928–29 were as follows :—

SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA, 1924–25 TO 1928–29.

Particulars.	1924–25.	1925–26.	1926–27.	1927–28.	1928–29.	Total for 5 years.
Sheepskins (with wool) .. No.	6,245,268	8,585,054	9,152,287	10,829,913	10,910,516	45,723,038
Value .. £	3,821,837	3,509,328	3,409,833	4,410,702	4,544,827	19,696,527

3. Sheepskins without Wool.—In the case of sheepskins without wool the principal countries of consignment are the United States of America and the United Kingdom. These two countries were responsible for 96 per cent. of the exports during the past five years, the purchases of the United States of America alone amounting to 68 per cent. of the total shipments. Particulars concerning exports are as follows :—

## SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
Sheepskins (with- out wool) .. No.	64,425	89,860	217,102	553,170	514,302	1,438,859
Value .. .. £	7,139	13,858	30,228	42,447	44,001	137,673

4. Hides.—(i) *Exports.* The export trade in Australian 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 mainly to Italy, which took 21 per cent. of the total shipments during that period, followed by the United Kingdom 20 per cent., United States of America 18 per cent., Germany 17 per cent., and Finland 6 per cent.

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

## CATTLE HIDES.—EXPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
Cattle Hides .. No.	1,167,938	916,956	889,746	1,003,220	829,780	4,807,640
Value .. .. £	1,322,088	1,105,540	998,981	1,690,908	1,331,486	6,449,003

Calfskins exported during the years 1924-25 to 1928-29 numbered 1,331,750, valued at £413,313, and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 53 per cent. of the total exports during the past five years. The annual export of horse hides is very small, and averaged only 6,091 hides, valued at £4,819.

(ii) *Imports.* The import trade in cattle hides and calfskins is fairly considerable, the number annually imported on the average during the past five years amounting to 398,820, with an average value of £476,852. New Zealand supplies the great bulk of these importations, and shipments of limited quantities are also obtained from the Pacific Islands, France, and Italy. The number and value of cattle hides, including calfskins, imported into Australia during the five years 1924-25 to 1928-29 were as follows :—

## CATTLE HIDES.—IMPORTS, AUSTRALIA, 1924-25 TO 1928-29.

Particulars.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	Total for 5 years.
Cattle Hides .. No.	456,589	474,342	371,868	327,903	363,400	1,994,102
Value .. .. £	494,501	462,066	437,932	419,345	570,416	2,384,260

The number of horse hides imported into Australia is unimportant. Imports during the last five years averaged 1,027, valued at £973 per annum.

5. **Other Skins.**—The oversea exports of skins other than those mentioned in the preceding sub-sections are of considerable importance. During the past five years the value of these shipments amounted to £17,479,417, or an annual average of £3,495,883. Rabbit and hare skins contributed most largely to this total, followed by opossum and kangaroo skins. The individual exports from 1924–25 to 1928–29 were as follows :—

**OTHER SKINS.—EXPORTS, AUSTRALIA, 1924–25 TO 1928–29.**

Particulars.	1924–25.	1925–26.	1926–27.	1927–28.	1928–29.	Total for 5 years.
	£	£	£	£	£	£
Rabbit and Hare	2,492,438	2,880,360	2,837,663	2,492,522	2,630,295	13,333,278
Opossum ..	127,774	362,406	921,833	540,735	166,059	2,118,807
Kangaroo ..	182,009	154,476	137,994	200,781	207,532	882,792
Fox ..	62,988	112,986	103,683	140,301	132,771	552,729
Wallaby ..	55,653	74,464	46,655	42,184	87,299	306,255
Other ..	10,912	13,320	26,400	214,085	20,839	285,556
<b>Total ..</b>	<b>2,931,774</b>	<b>3,598,012</b>	<b>4,074,228</b>	<b>3,630,608</b>	<b>3,244,795</b>	<b>17,479,417</b>

The destination of these skins was practically confined to the United States of America and the United Kingdom, the former country taking the bulk of the rabbit, hare, and kangaroo skins, while the fox, opossum, and wallaby skins were mainly dispatched to the United Kingdom. The shipments of the various skins to these two countries during the past five years were as follows :—

**OTHER SKINS.—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1924–25 TO 1928–29.**

Particulars.	United Kingdom.	United States of America.
	£	£
Rabbit and Hare .. .. .	4,041,862	8,291,767
Opossum .. .. .	1,237,213	934,391
Kangaroo .. .. .	155,258	717,568
Fox .. .. .	445,260	60,771
Wallaby .. .. .	264,723	33,502
Other .. .. .	55,566	200,037
<b>Total .. .. .</b>	<b>6,199,882</b>	<b>10,238,036</b>