

## PASTORAL RESOURCES AND DAIRY INDUSTRY.

**N**OTWITHSTANDING the fact that the soil, climate, and indigenous herbage of Australasia are admirably adapted to the sustenance of animal life, no attempt was made to test the capabilities of the land as a feeding ground for flocks and herds on a large scale, until the example of Captain Macarthur had demonstrated, beyond doubt, that Nature favoured the production in Australasia of a quality of wool unsurpassed by that of any part of the world. Then the settlers began to understand and utilise the natural resources of the country, and as the indomitable spirit of exploration gradually opened up the apparently boundless plains of the interior, pastoralists extended their domain, and sheep and cattle in increasing numbers spread over the face of Eastern Australia. The expansion of the pastoral industry is gradually converting the central and western portions of the continent into holdings, devoted to the production of the greatest element of the wealth of Australasia.

Commencement  
of the pastoral  
industry.

The beginnings of pastoral enterprise in the parent Colony were very humble. The whole stock of the community which accompanied Captain Phillip comprised only 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats; and although the whole of the present flocks and herds of Australasia have not sprung from these animals alone, it will be seen on how small a scale the business of stock-raising was first attempted. No systematic record of the arrival of stock seems to have been kept in the early days of settlement, but it appears that in the period between Governor Phillip's landing and the year 1800 there were some slight importations, chiefly of sheep from India.

Humble  
beginnings of  
stock breeding.

In the last-mentioned year the stock in Australasia of the various kinds was—6,124 sheep, 1,044 cattle, 203 horses, and a small number of swine, the precise figures not being obtainable; in 1889 the numbers had increased to 101,267,084 sheep, 9,497,665 cattle, 1,542,957 horses, and 1,131,545 swine.

## NUMBERS OF LIVE STOCK.

The following figures give the number of stock in the Colonies at various epochs ending with 1851 :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1800 .....	6,124	1,044	203	.....
1810 .....	25,888	12,442	1,134	9,544
1821 .....	209,158	102,939	4,564	33,906
1842 .....	6,312,004	1,014,833	70,615	66,086
1851 .....	17,326,021	1,921,963	166,421	121,035

The progress since 1861 is illustrated in the following table :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1861 .....	23,741,706	4,039,839	459,970	362,417
1871 .....	49,773,584	4,713,820	782,558	737,477
1881 .....	78,063,426	8,709,628	1,249,765	903,271
1889 .....	101,276,084	9,497,665	1,542,957	1,131,547

The numbers of each class of stock per inhabitant at the same periods were :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1861 .....	18·76	3·19	0·36	0·29
1871 .....	25·26	2·39	0·40	0·37
1881 .....	27·66	3·09	0·44	0·32
1889 .....	26·74	2·51	0·41	0·30

It will be seen that during 1861 there were 18·76 sheep for every person in the Colonies, increasing in 1889 to 26·74. On the other hand cattle had decreased from 3·19 per inhabitant at the former period to 2·51 in the latter. The breeding of horses and swine had about kept pace with the population.

## SHEEP.

Country suitable  
for sheep.

The suitability of the land discovered in the early days of New South Wales for pastoral pursuits was undoubtedly the means of leading the infant Colony to take its first step on the path of commercial progress; and it is not a little surprising at this

distance of time how steadily some of the settlers, in the face of the almost insurmountable difficulty of transport which existed a century ago, availed themselves of the opportunities at their disposal. The importation of valuable specimens of sheep from England or the Cape of Good Hope, prior to the introduction of steam, was at all times attended with great risk, and it frequently happened that many of these costly animals died during the tedious voyage. These enterprises were, however, on the whole successful, and thus the flocks and herds of the colonists surely, if at first slowly, increased and multiplied.

By the year 1795, Captain Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of 1,000, which were held in great estimation, and gradually increased in value, until, as recorded by an entry in his journal ten years later, the market price of a fat wether had risen to £5. Not satisfied with the natural increase of his flocks, Macarthur sought to improve the quality of his fleeces, by which means he could see opening before him the promise of great wealth, and the prospect of establishing important commercial relations with Great Britain. With these ends in view, he procured from the Cape of Good Hope, at great cost and trouble, a number of superior rams and ewes. A happy circumstance occurred which favoured his enterprise; for he had the good fortune to secure possession of three rams and five ewes of very fine Spanish breed, which had been presented by the King of Spain to the Dutch Government. These animals, out of a total of twenty-nine purchased at the Cape, arrived in Sydney in 1797, and were disposed of to various breeders. With the exception of Macarthur, however, those who had secured sheep of the superior breed made no attempt to follow up the advantage, being probably amply satisfied with the larger gains from the sale of an increased number of animals. Macarthur, on the other hand, thought little of present profits, and still less of breeding entirely for human consumption. He attentively watched the results of crossing his imported rams with the old stock, and by systematically selecting the finer ewes which

Captain  
Macarthur  
promotes  
wool-growing.

Improvement  
to the flocks.

were the offspring for further mingling with the sires, he gradually improved the strain, and in a few years obtained fleeces of very fine texture which met with the ready appreciation of English manufacturers.

Spain formerly  
chief wool-  
grower.

Prior to the present century the production of the finest wool had been confined chiefly to Spain, and woollen manufactures were necessarily carried on in England upon a somewhat limited scale, which was not likely to improve in face of certain restrictions the operatives endeavoured to place upon their employers. These men, in support of their contention that the woollen trade could not be expanded, on account of the limited supply of the raw material, argued that fine wool was obtainable only in Spain; and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, conclusively proving the capabilities of Australia as

Trade opened up  
with Great  
Britain.

a wool-producing country. In this way he opened up a small trade with English manufacturers, which, as Australasian wool rose in public estimation, gradually increased until it reached its present enormous dimensions. During his visit to England, Macarthur purchased an additional stock of ten rams and ewes of the noted Spanish breed, nearly equal in quality to those which in 1797 he had procured from the Cape of Good Hope. That these animals were the finest obtainable in Europe may be gathered from the fact they also had formed portion of a present from the King of Spain to George III. Thus did Macarthur, after his return to New South Wales, patiently continue for many years the process of selection, with such success, that in 1858, when his flock was finally dispersed, it was estimated that his superior ewes numbered fully 1,000. Victoria secured a considerable portion of Macarthur's flock, and the process of breeding proceeded simultaneously in that and other adjacent Colonies.

Importation  
of sheep.

Although the increase in the numbers of the finer sheep was satisfactory, the importation of superior stock was not discontinued, and the stock of the Colonies was augmented in 1823 and 1825 by the further introduction of Spanish sheep. Sheep-breeding

was about this period commenced in the Mudgee district, and the climate of that region has produced a still more favourable result upon the quality of the fleeces than any other part of the Colony, and it was thence that the finest merinos were for a long time procured. As might have been anticipated, the climate has in some respects changed the character of the Spanish fleece. The wool has become softer and more elastic, and while having diminished in density it has increased in length, so that the weight of the fleece has only slightly altered. The quality of the wool has thus on the whole improved under the beneficial influence of the climate, and if no further enhancement in its value can be reasonably hoped for, there is at least every reason to believe that Australasian wool will maintain its present high standard of excellence.

Texture of wool.

The following table shows the number of sheep at the close of 1861 and 1889 for each Colony ; also, the annual increase per cent. in comparison to that of the population :—

Colony.	1861.	1889.	Annual Increase from 1861 to 1889.	Annual Increase from 1861 to 1889.
			Sheep per cent.	Population per cent.
New South Wales.....	5,615,054	50,106,768	8·13	4·16
Victoria .....	6,239,258	10,882,231	2·01	2·62
Queensland .....	4,093,381	14,470,095	4·61	9·23
South Australia.....	3,038,356	6,386,617	2·86	3·42
Western Australia .....	279,576	2,366,681	7·93	3·73
Tasmania .....	1,714,498	1,551,429	*0·36	1·87
New Zealand .....	2,761,583	15,503,263	6·36	6·77
Australasia.....	23,741,706	101,267,084	5·32	3·99

\* Decrease.

Tasmania is the only Colony of the group in which the business of sheep-breeding has not advanced since 1861. In all the others there has been a material increase, though, except in the case of New South Wales and Western Australia, the increase per cent. has been less than that of the population. In Queensland and New Zealand there has been a very substantial increase in the number of sheep depastured during the period covered by the

Progress of Sheep-breeding

table, but the population also increased at a rate even more rapid. In South Australia the area adapted to sheep is limited, and no great expansion in sheep-farming can be looked for. As regards Victoria, the important strides made by this Colony in agriculture and kindred pursuits, afford sufficient explanation of the slow rate at which her flocks are increasing. The reasons for the large falling-off in the sheep-farming of Tasmania are various. Mr. Johnston, the Statistician of Tasmania, in the "Official Record," expresses his opinion thus:—"Rabbits, fluke, and the increasing tendency to fatten stock for market, are the reasons generally assigned for the decrease in sheep. No doubt, however, the greater extent of land taken up in respect of cattle and pigs must be considered." The following statement shows the proportion of sheep in each Colony to the total flocks of Australasia. In 1861 out of every 100 sheep New South Wales depastured 23·65, while, in 1889, the proportion had increased to 49·48, or little short of one-half the total flocks. New Zealand came second, with 15·31 per cent. Except Western Australia, whose flocks are small, all the other Colonies occupy a less prominent place in sheep-breeding than they did in 1861:—

Proportion of  
sheep in each  
Colony

Proportion of Sheep in each Colony to total number of Sheep in Australasia.

Colony.	1861.	1889.
	Per cent.	Per cent.
New South Wales .....	23·65	49·48
Victoria .....	26·28	10·74
Queensland .....	17·24	14·29
South Australia .....	12·80	6·31
Western Australia .....	1·18	2·34
Tasmania .....	7·22	1·53
New Zealand .....	11·63	15·31
Australasia .....	100·00	100·00

### CATTLE.

Cattle in Aus-  
tralasia.

Except in Queensland cattle breeding is secondary to that of sheep. In New South Wales the industry does not occupy so important a position as it formerly did, the decline being 23·34

per cent. since 1861, or at the rate of 0·95 per cent. per annum. The lowest point was reached in 1885, when the herds only numbered 1,317,315, the result partly of continuous bad seasons, but principally of the more profitable character of sheep-farming, which induced graziers on many runs to substitute sheep for cattle. Since that period the improvement has been gradual, and, though small, would seem to indicate a disposition on the part of pastoralists in some parts of the Colony to devote more attention to cattle-breeding. The progress of Victoria in this direction has been small but steady, the relative position occupied by the Colony now being much the same as in 1861 in regard to the number of cattle depastured. Queensland has largely increased her herds, and now possesses 50·31 per cent. of the total cattle of the whole group. New Zealand and Western Australia—especially the former—show decided improvement, and the breeding of this class of stock seems to be greatly in favour in those colonies.

The following table shows the number of cattle in 1861 and 1889, with the yearly increase or decrease per cent. for the whole period, as well as the growth of the population :—

Numbers and increase of Cattle.

Colony.	1861.	1889.	Increase or Decrease per cent. per annum, 1861-1889.	
			Cattle.	Population.
New South Wales.....	2,271,923	1,741,592	*0·95	4·16
Victoria .....	628,092	1,394,209	2·89	2·62
Queensland.....	560,196	4,872,416	8·03	9·23
South Australia.....	265,434	324,412	0·72	3·42
Western Australia .....	33,795	119,571	4·62	3·73
Tasmania .....	87,114	150,004	1·96	1·87
New Zealand .....	193,285	895,461	5·63	6·77
Australasia.....	4,039,839	9,497,665	3·10	3·99

\* Decrease.

The proportion of cattle belonging to each Colony in 1861 and 1889 is shown in the next table. It will be noticed that Queens- Proportion of cattle in each Colony.

land has increased its position from 13·87 per cent. to 51·30 per cent., while the other important Colonies have retrogressed, Victoria only slightly, but New South Wales from 56·24 per cent. in 1861 to only 18·34 per cent. in 1889 :—

Proportion of Cattle in each Colony.

Colony.	1861.	1889.
New South Wales ... ..	6·24	18·34
Victoria ... ..	15·55	14·68
Queensland ... ..	13·87	51·30
South Australia ... ..	6·57	3·41
Western Australia.....	·84	1·26
Tasmania ... ..	2·15	1·58
New Zealand ... ..	4·78	9·43
Australasia.....	100·00	100·00

## HORSES.

Horse-breeding.

Australasia is eminently fitted for the breeding of most descriptions of horses, and attention has long been directed to this industry. At an early period the stock of colonial bred horses was enriched by the importation of some excellent thoroughbred Arabians from India; and the high name which was acquired by the horses of Australasia was largely due to this cause. The abundance of good pasture everywhere obtainable also contributed to this result. The native kangaroo-grass, especially when in seed, is full of saccharine matter, and young stock thrive excellently upon it. This abundance of natural provender allowed a large increase in the stock of the settlers, which would have been a great advantage, had it not been that the general cheapness of horses led to a neglect of the canons of breeding. In consequence of the discovery of gold, horses became very high priced. Under ordinary conditions this circumstance would have been favourable to the breed of horses, and such was the case in Victoria. In New South Wales it was far otherwise. The best of the stock of that Colony, including a large proportion of the most valuable breeding mares, was taken by

Excellence of native grasses.



Victoria, with the result that for twenty years after the gold rush the horses of New South Wales greatly deteriorated. One class of stock only escaped. The thoroughbred racer was probably improved both by the importation of fresh stock from England and by the judicious selection of mares.

Partial deterioration of stock.

The Colonies are specially adapted for the breeding of saddle and light-harness horses, and it is doubtful whether these particular breeds of Australasian horses are anywhere surpassed. The bush horse is hardy and swift, and capable of making very long and rapid journeys, when fed only on the ordinary herbage of the country; and in times of drought, when the grass and water have become scanty, these animals often perform astonishing feats of endurance. Generally speaking, the breed of horses is improving, owing to the introduction of superior stud horses and the breeding from good mares. Where there has been a deterioration in the stock, this has been due to breeding from weedy mares for racing purposes and from the effect of droughts.

Saddle and harness horses.

Endurance of colonial horses.

Although the demand for horses in India is considerable and Australia is a natural market from which supplies may be derived there is no one employed habitually by the Indian Government to make himself acquainted with the resources of the Colonies, or to furnish information to intending shippers. The speculation of sending horses to India is one open to many risks, as, apart from the dangers of the voyage, there is always an uncertainty as to the stock being accepted. Owing, therefore, to the limited demand, it has not been found advantageous to breed horses for any but local requirements.

Foreign demand for horses limited.

The following table shows the number of horses in each Colony for 1861 and 1889, also the proportion in each case to the total at each period. In 1861, New South Wales possessed 50·70 per cent. of all the horses in Australasia, Victoria being second, with 18·27 per cent. In 1889, New South Wales still held the leading

Number of horses in Australasia.

## HORSES OWNED BY EACH COLONY.

position as regards numbers, but her proportion to the whole had fallen to 27·92 per cent. Queensland and New Zealand exhibit the most relative progress, having increased their respective proportions of the total from 6·30 and 6·15 per cent. in 1861 to 22·84, and 12·14 per cent. in 1889. The numbers and proportion for each Colony were :—

## Horses.

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1889.	1861.	1889.
New South Wales...	233,220	430,777	50·70	27·92
Victoria .....	84,057	329,335	18·27	21·34
Queensland.....	28,983	352,364	6·30	22·84
South Australia.....	52,597	170,515	11·44	11·05
Western Australia...	10,720	42,806	2·33	2·78
Tasmania .....	22,118	29,778	4·81	1·93
New Zealand .....	28,275	187,382	6·15	12·14
Australasia .....	459,970	1,542,957	100·00	100·00

## STOCK CARRYING CAPACITY OF AUSTRALASIA.

Capacity of the Colonies to carry stock.

None of the Colonies are stocked to their full capacity, while in the large territory of Western Australia, and the Northern territory of South Australia, the process has only begun. A clear idea of the comparative extent to which each Colony is stocked cannot be given unless the different classes of stock are reduced to a common value. Assuming, therefore, that one head of large stock is equivalent to ten sheep, and stating cattle and horses in terms

of sheep, it will be found that the number of acres per sheep for each Colony is as follows :—

Stock carried by each Colony.

Colony.	No. of acres per sheep.
New South Wales .....	2·81
Victoria.....	2·00
Queensland .....	6·41
South Australia .....	51·02
Western Australia .....	170·01
Tasmania .....	5·01
New Zealand .....	2·54
<b>Australasia .....</b>	<b>9·50</b>

The most closely stocked Colony is Victoria, with 2 acres per sheep, but this is by no means the limit of the carrying capacity of that Colony. On the contrary, there is still a considerable tract yet to be brought under the sway of the pastoralist. Neither New Zealand, with 2·54 acres per sheep, nor New South Wales, with 2·81 acres, can be said to have reached their full carrying capacity. If the present average of New South Wales be taken as the possible limit to which Australasia may be stocked; then there is room in these Colonies for 600 million of sheep, or 60 million cattle more than now depastured. That Australasia can carry 1 sheep to 2·8 acres is an improbable supposition. In almost every Colony the best land is under occupation, and the demands of the farmer must diminish the area at present at the disposal of the grazier. This will more especially prove true in regard to Victoria, New Zealand, and Tasmania. On the other hand, by resisting the temptation to overstock inferior country, and by increasing the natural carrying capacity by water conservation and irrigation, and the artificial cultivation of grasses, the Colonies where agriculture has made most progress will be able to carry stock in even larger numbers than they have hitherto attempted. Taking all circumstances into consideration it may be fairly estimated that under the present system the Colonies are capable of maintaining, in ordinary seasons, stock equivalent to 390,000,000 sheep; that is, about 180,000,000 sheep, or their equivalent in cattle, more than are now depastured.

Limit of production not yet reached.

Stock, expressed  
in terms of  
sheep.

The number of stock in Australasia, expressed in terms of sheep, the number of acres per sheep, and number of sheep per head of population for the various dates herein mentioned, were :—

Stock in terms of Sheep.

Year.	Sheep.	Cattle. In terms of Sheep.	Horses. In terms of Sheep.	Total.	Acres per Sheep.	Sheep per head of Population.
1861	23,741,706	40,398,390	4,599,700	68,739,796	29·43	54·30
1871	49,773,584	47,138,200	7,825,580	104,737,364	19·31	53·16
1881	78,063,426	87,096,280	12,497,650	177,657,356	11·39	62·95
1889	101,267,084	94,976,650	15,425,450	211,673,304	9·56	55·89

Value of  
Pastoral  
property.

The total capital value of pastoral property, including land, improvements, and plant, as well as stock, was estimated at the beginning of 1890 at £417,000,000, and of this large sum £167,000,000, or 40 per cent., belonged to New South Wales. In the amount quoted the value of stock alone (including swine), comes to about £107,693,000. The annual return from pastoral pursuits is £34,745,300, the share of each Colony in the total production being :—

Value of Australasian Pastoral Products.

New South Wales .....	£14,725,300
Victoria .....	4,920,500
Queensland .....	5,678,900
South Australia.....	2,054,600
Western Australia .....	585,800
Tasmania .....	561,400
New Zealand .....	6,218,800
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Australasia .....	£34,745,300

The products of dairy cattle and swine are not included in the foregoing statement, the figures being given in another place. It should be understood that the values quoted are those at the place of production. The value of the return from each class of stock may be approximately reckoned as follows :—

Return from each class of Australasian Stock.

Sheep.....	£26,046,000
Cattle .....	5,985,000
Horses .....	2,714,300
	£34,745,300

As might be supposed the greater part of the value of stock returns is due to wool. Thus, out of the £34,745,300 quoted above, £20,257,515 is the value of wool, viz :—£20,032,010 for wool exported, and £225,505 for wool used locally. The clip of the Australasian Colonies during 1889 was 603,367,400 pounds weighed in the grease, the export value being £21,474,000—that is to say, £1,441,990 more than shown by the foregoing tables. The latter sum represents the cost of freight, handling, and brokerage between the sheep-walks and the port of shipment.

The quantity and export value of the wool clip in the grease is given for each Colony in the subjoined table for 1881 and 1889. The values of the clip for the latter year for Victoria, South Australia, and Tasmania, do not compare favourably with those of 1881 ; indeed for the two Colonies last named there has been a serious fall, not only in value, but in the quantity exported. New South Wales, maintains its high position as a wool producer, nor can it be denied that in New Zealand sheep-breeding is a flourishing concern, for though the numbers of sheep in 1889 were less than those of 1885, this is mainly due to the heavy demand upon the resources of the Colony for the supply of stock to meet the requirements of the London market in regard to frozen meat.

## Net Export of Wool for each Colony, 1881 and 1889.

Colony.	Weight of clip in grease.		Values.	
	1881.	1889.	1881.	1889.
	lb	lb	£	£
New South Wales.....	165,436,500	294,054,800	7,175,200	10,455,000
Victoria .....	58,832,500	64,967,200	2,562,800	2,333,400
Queensland.....	32,532,500	69,617,600	1,331,900	2,679,900
South Australia.....	46,328,200	42,337,600	1,573,300	1,350,300
Western Australia .....	4,107,000	9,501,000	256,700	395,900
Tasmania .....	8,269,700	6,241,000	498,400	283,200
New Zealand .....	70,787,000	116,648,200	2,910,600	3,976,300
Australasia.....	386,293,400	603,367,400	16,308,900	21,474,000

Price of wool in grease.

The average price per lb. obtained for wool in grease, at the London Wool Sales, for the five series during each year from 1885, for the principal producing Colonies was:—

Year.	New South Wales. (Merino).	Victoria. (Merino).	New Zealand. (Merino.)
	d.	d.	d.
1885 .....	8½	10½	8½
1886 .....	8½	10½	9½
1887 .....	9½	10½	9½
1888 .....	8½	10½	9½
1889 .....	9½	11½	9½

New South Wales wool exported *via* Melbourne.

It will be noticed that Victorian wool averages about 2d. per lb. higher than New South Wales wool. The figures must be taken with qualification. Much of the New South Wales wool, the product of the Riverina districts, is exported *via* Melbourne, and sold as Port Phillip wool, and brings a price considerably in excess of the average given in the table for the Colony of which it is the produce.

Frozen and preserved meats.

The domestic export trade of frozen and preserved meat is now largely confined to New Zealand, where the industry is in a flourishing condition. In 1881 the value of the trade done by that Colony was only £22,391, or 6 per cent. of that of Austral-

asia ; in 1889 it had increased to £911,151, or 81 per cent. of the total. New South Wales and Queensland are the principal exporters in this trade after New Zealand, the value of export being almost the same for each Colony—£94,296 and £93,437, respectively. In 1881 New South Wales and Victoria together exported meat to the value of £304,909, but in 1889 the joint export had fallen to £113,808, the larger portion of the decline being due to Victoria. The diminution appears to be caused by the lessened demand for preserved meats.

The following table shows the quantity of fresh and preserved meats exported by each Colony in 1881 and 1889 :—

Quantity and value of meats exported.

Export of Fresh and Preserved Meats.

Colony.	Quantity.			
	1881.		1889.	
	Fresh and Frozen.	Salt and Preserved.	Fresh and Frozen.	Salt and Preserved.
New South Wales...	Cwt. 17,740	Cwt. 62,094	Cwt. 40,394	Cwt. 27,625
Victoria .....	8,136	35,947	1,382	8,912
Queensland.....	.....	22,051	24,296	10,486
South Australia.....	22	746	217	1,086
Western Australia..	.....	.....	.....	.....
Tasmania .....	.....	.....	.....	.....
New Zealand .....	.....	9,595	654,999	65,915
Australasia.....	25,898	130,433	721,288	114,024

DAIRY FARMING.

Dairy farming has of late years made fair progress in Australasia, especially in New South Wales, Victoria, and New Zealand. The introduction of the factory system at convenient centres, and the use of the cream separator, have done much to cause the extension of this industry. The number of dairy cows and the milk produced by them in each Colony were as follows in 1889 :—

Progress of dairy farming

## Dairy Cows and Milk Produced.

Colony.	Dairy Cows.	Quantity of milk produced (estimated).
	No.	Gallons.
New South Wales.....	261,315	117,450,000
Victoria.....	346,444	151,609,000
Queensland.....	120,000*	53,445,000
South Australia.....	104,000*	47,545,000
Western Australia.....	10,000*	4,454,000
Tasmania.....	30,263	15,000,000
New Zealand.....	272,344	107,961,000
Australasia.....	1,144,366	497,464,000

\* Estimated.

Breeding of swine.

The breeding of swine is usually carried on in conjunction with dairy farming. Below will be found a return of the number of swine in each Colony in 1861, and in 1889, together with the proportion owned by each Colony in comparison with the total stock. It will be observed that the actual number owned by the various Colonies has in all cases increased, though the relative proportions have altered considerably. New South Wales, for instance, held over 40 per cent. of the stock of swine in 1861, but in 1889 the proportion had receded to 21 per cent. In the same interval New Zealand had increased from nearly 12 per cent. to something under 33 per cent. of the whole:—

## Swine.

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1889.	1861.	1889.
	No.	No.	Per cent.	Per cent.
New South Wales.....	146,091	238,585	40·31	21·09
Victoria.....	43,480	249,673	12·00	22·06
Queensland.....	7,465	80,730	2·06	7·14
South Australia.....	69,286	106,856	19·11	9·44
Western Australia.....	11,984	27,079	3·31	2·39
Tasmania.....	40,841	58,632	11·27	5·18
New Zealand.....	43,270	369,992	11·94	32·70
Australasia.....	362,417	1,131,547	100·00	100·00



The value of the milk and its products, butter and cheese, and of the return obtained from swine, together with the total value of dairy produce for each Colony in 1889 were :—

Value of Dairy Produce.

Colony.	Value of Milk, Butter, and Cheese.	Value of Return from Swine.	Total Value of Dairy and Swine Produce.
	£	£	£
New South Wales .....	1,397,000	255,000	1,652,000
Victoria .....	1,838,000	350,000	2,188,000
Queensland .....	652,000	113,000	765,000
South Australia .....	576,000	150,000	726,000
Western Australia.....	59,000	32,000	91,000
Tasmania.....	178,000	82,000	260,000
New Zealand .....	1,219,000	389,000	1,608,000
Australasia .....	5,919,000	1,371,000	7,290,000

The production of butter and cheese for 1889 in each Colony is estimated to have been as follows :—

Production of Butter and Cheese.

Colony.	Butter.	Cheese.
	lb.	lb
New South Wales .....	17,600,000	4,834,000
Victoria .....	19,802,000	5,664,000
Queensland .....	6,018,000	706,000
South Australia .....	5,996,000	1,429,000
Western Australia.....	332,000	43,000
Tasmania .....	2,228,000	657,000
New Zealand .....	14,723,000	5,985,000
Australasia .....	66,699,000	19,318,000

Export of butter  
and cheese.

The Colonies having a surplus of butter and cheese available for exportation are shown in the following table :—

Net Export of Dairy Produce.

Colony.	Quantity.		Value.	
	Butter.	Cheese.	Butter.	Cheese.
	lb.	lb.	£	£
Victoria .....	949,000	155,000	34,022	3,816
South Australia.....	509,000	.....	18,052	.....
New Zealand .....	4,245,000	2,934,000	146,647	66,334
Total .....	5,703,000	3,089,000	198,721	70,150

Import of butter  
and cheese.

The Colonies which, on the other hand, are obliged to import butter and cheese are shown below :—

Net Import of Dairy Produce.

Colony.	Quantity.		Value.	
	Butter.	Cheese.	Butter.	Cheese.
	lb.	lb.	£	£
New South Wales.....	1,242,000	655,000	55,788	11,736
Queensland.....	760,000	1,267,000	33,934	31,375
South Australia.....	.....	169,000	.....	3,903
Western Australia .....	400,000	171,000	16,680	6,397
Tasmania.....	312,000	82,000	11,585	2,554
Total .....	2,714,000	2,344,000	117,987	55,965

From the foregoing figures it will be seen that those Colonies which produce a surplus of butter and cheese, have, after providing for the deficiency of the other Colonies, a balance available for external exportation. The quantity in 1889 amounted to 2,989,000 lb. butter. and 745,000 lb. cheese, valued at £80,734 and £14,185 respectively. Butter and cheese have for some time past been exported chiefly from New Zealand, but during

1890 Victorian and New South Wales butter was sent to the London market, and its very favourable reception there should act as a fresh stimulus to the dairying industry in those Colonies.

The products of the swine—bacon, ham, lard, and salt pork—Products of the swine. are still imported by all the Colonies with the exception of South Australia and New Zealand, as is shown in the following table, which relates to the year 1890 :—

Colony.	Bacon and ham.	Salt pork.	Lard.	Net value imported.
	£	£	£	£
New South Wales...	46,546	*3,843	1,042	43,745
Victoria .....	4,774	2,153	*356	6,571
Queensland .....	23,595	6,460	632	30,687
South Australia .....	*3,239	*2,953	.....	*6,192
Western Australia...	7,669	.....	357	8,026
Tasmania .....	1,145	1,447	.....	2,592
New Zealand .....	*31,066	*9,037	*1,787	*41,890
Australasia .....	49,424	*5,773	*112	43,539

The figures marked (\*) show an excess of exports, all the others represent an excess of imports. There seems to be considerable scope for an extension of this particular branch of farming in most of the Colonies. The minor products of dairying, such as eggs Eggs and honey and honey, are produced in sufficient quantities by the Colonies taken as a whole. The most remarkable feature is the trade in eggs between South Australia as supplier and Victoria and New South Wales as buyers. The figures for 1889 show that during that year South Australia exported eggs to the value of £37,433, while the imports of Victoria and New South Wales were £39,905 and £16,164 respectively, chiefly from South Australia.