

AGRICULTURE.

THE Australasian Colonies may, as a whole, be considered as Value of agricultural products. in the first phase of agricultural settlement, indeed several Colonies have not yet emerged from the pastoral stage. Nevertheless, the value of agricultural produce, estimated at farm price, is considerable, and amounts to £26,830,000, which is three-fourths of the value of pastoral produce. The return from agriculture in each Colony during 1888 was, approximately :—

	£
New South Wales	4,150,000
Victoria	7,330,000
Queensland	1,845,000
South Australia	5,200,000
Western Australia	260,000
Tasmania	1,270,000
New Zealand	6,775,000
Australasia	£26,830,000

From this estimate it would seem that the value of crops, in proportion to the area cultivated, is much larger in Queensland and New South Wales than in the other Colonies. The reason of this will be found in the more extended cultivation of maize, sugarcane, fruit, and vines in proportion to the total extent cropped, in these than in the remaining Colonies. In point of gross value Victoria and New Zealand are much in advance of the other members of the group.

The following figures, giving the areas under the principal grain and other crops, and the total extent of land under cultivation in each of the Colonies and in Australasia at different epochs since the year 1861, will serve to illustrate the progress agriculture has made. Area under cultivation in Australasia, 1861-88.

Colony.	Years.	Area under						Total Area under Crops.	Land under Permanent Artificial Grasses.
		Wheat.	Maize.	Oats.	Barley.	Hay.	Other Crops.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales	1861	123,468	57,959	7,224	2,924	45,175	59,167	295,917	1,658
	1871	154,030	119,956	13,795	3,461	51,805	50,366	393,413	24,388
	1881	221,888	117,478	16,348	6,427	146,610	60,492	569,243	75,825
	1888	304,803	166,101	7,984	3,318	209,531	107,229	798,966	200,332
Victoria	1861	196,922	1,714	91,061	3,419	74,681	42,609	410,406	12,654
	1871	334,609	1,709	175,944	16,772	103,206	296,115	928,355	6,282
	1881	926,729	1,783	146,995	48,652	212,150	99,137	1,435,446	241,947
	1888	1,217,191	5,789	197,518	83,483	411,332	131,795	2,047,108	184,991
Queensland	1861	392	1,914	69	13	280	1,772	4,440	.....
	1871	3,554	21,140	353	588	.....	33,496	59,131	838
	1881	4,708	46,480	88	256	16,926	42,956	111,414	8,565
	1888	9,305	85,966	642	324	20,978	68,150	185,395	7,592
South Australia	1861	310,636	18	1,638	10,637	62,874	14,914	400,717	838
	1871	692,508	.....	3,586	17,225	97,812	26,599	837,730	5,213
	1881	1,768,781	.....	3,023	11,953	333,467	26,730	2,143,954	28,891
	1888	1,605,000	.....	7,264	15,697	308,429	382,894	2,319,284	23,217

II

Colony.	Years	Area under						Total Area under Crops.	Land under Permanent Artificial Grasses.
		Wheat.	Maize.	Oats.	Barley.	Hay.	Other Crops.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Western Australia.....	1861	13,584	73	507	2,412	6,676	1,453	24,705	.....
	1871	25,697	113	1,474	5,083	.....	19,357	51,724	.....
	1881	21,951	36	827	3,679	24,445	2,415	53,353	.....
	1888	30,740	61	1,787	5,009	23,914	3,919	65,430	268
Tasmania.....	1861	58,823	.....	29,022	7,279	31,803	121,137	248,064	.....
	1871	63,332	.....	29,631	4,275	31,578	94,101	222,917	90,247
	1881	51,757	.....	27,535	4,597	34,790	94,084	212,763	137,681
	1888	40,657	.....	33,834	4,670	52,521	150,447	282,129	178,801
New Zealand.....	1861	29,531	770	15,872	3,457	.....	18,998	68,628	157,994
	1871	108,720	.....	139,185	13,305	30,717	76,312	368,239	741,779
	1881	365,715	3,177	243,387	29,808	68,423	360,398	1,070,908	3,569,644
	1888	362,153	4,768	367,225	45,027	50,656	468,936	1,298,765	6,228,655
Australasia.....	1861	733,356	62,448	145,393	30,141	221,489	260,050	1,452,877	173,144
	1871	1,382,450	142,918	363,968	60,709	315,118	596,346	2,861,509	868,747
	1881	3,361,529	168,954	438,203	105,372	836,811	686,212	5,597,081	4,362,553
	1888	3,569,849	262,685	616,254	157,528	1,077,361	1,313,400	6,997,077	6,823,856

AREA UNDER CROPS.

Great increase
of area under
crop.

As will be seen from the foregoing figures the area under crop in Australasia is now more than four and a half times as large as it was in 1861. If, however, the land artificially grassed be included the total area is 13,820,933 acres, or eight and a half times the area under crop in 1861.

In order to obtain a clear idea of the progress of agriculture a comparison with the increase of population may be instituted, as follows :—

Area under crop per head of the population in the various Australasian Colonies, and in the whole group, at different epochs.

Colony.	1861.	1871.	1881.	1888.
New South Wales.....	·83	·76	·73	·73
Victoria	·76	1·24	1·63	1·87
Queensland.....	·13	·47	·49	·48
South Australia.....	3·16	4·51	7·49	7·41
Western Australia	1·57	2·04	1·78	1·55
Tasmania	2·75	2·00	1·79	1·93
New Zealand	·60	1·38	2·13	2·14
Australasia.....	1·15	1·45	1·98	1·90

Progress since
1861.

Taking the Colonies as a whole there has been considerable progress since 1861 in the acreage cropped as compared with the population. Such, of course, is what would only naturally be expected, as the gold fever having subsided to a considerable extent more settled employment than that afforded by the gold-fields was sought by a considerable proportion of the population. Since 1871 little progress is shown in some of the Colonies, though in South Australia, New Zealand, and Victoria the growth of agriculture has been much more rapid than that of population.

The proportions of cultivated land to the area of the Colonies, individually, and of Australasia as a whole, at different periods since 1861, are given in the following table :—

Proportion of cultivated land to the area of the Colonies.

Area under crop compared to the total area of each colony and of Australasia.

Colony.	1861.	1871.	1881.	1888.
	per cent.	per cent.	per cent.	per cent.
New South Wales	·15	·20	·29	·40
Victoria	·73	1·65	2·55	3·64
Queensland.....	·001	·01	·02	·04
South Australia.....	·07	·15	·37	·40
Western Australia	·004	·008	·009	·01
Tasmania	1·47	1·32	1·26	1·67
New Zealand	·10	·55	1·60	1·94
Australasia	·07	·15	·28	·36

Of the grain cereals, wheat, maize, oats, and barley form the staple crops, in the order mentioned.

WHEAT.

Only three provinces grow sufficient wheat for their own requirements—Victoria, South Australia, and New Zealand; but after the deficiencies of the rest of Australasia are supplied there is, in most seasons, a large balance for export, the grain of several of the colonies being well and favourably known in Europe.

Growth of wheat.

Progress of
wheat growing.

The subjoined table shows the progress since 1861 of this branch of agriculture :—

Area under Wheat.

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales	123,468	154,030	221,888	304,803
Victoria	196,922	334,609	926,729	1,217,191
Queensland	392	3,554	4,708	9,305
South Australia	310,636	692,508	1,768,781	1,605,000
Western Australia	13,584	25,697	21,951	30,740
Tasmania	58,923	63,332	51,757	40,657
New Zealand	29,531	108,720	365,715	362,153
Australasia	733,356	1,382,450	3,361,529	3,569,849

Production.

Colony.	1861.	1871.	1881.	1888.
	bushels.	bushels.	bushels.	bushels.
New South Wales	1,606,034	2,229,642	3,405,966	1,450,503
Victoria	3,607,727	4,500,795	8,714,377	8,647,709
Queensland	4,484	82,831	39,612	8,263
South Australia	3,410,756	3,967,079	8,087,032	6,187,000
Western Australia	160,155	345,368	153,657	322,759
Tasmania	1,380,913	847,962	977,365	819,497
New Zealand	772,531	2,448,203	8,297,890	8,770,246
Australasia	10,942,600	14,421,880	29,675,899	26,205,977

Fourfold
increase.

During the period illustrated by the foregoing table there has been a fourfold increase in the area laid down with wheat. The

year 1888 was one very unfavourable to the cereal, as the area Season of 1888-9. cropped was considerably less than the previous year and the yield almost the smallest recorded. The following are the returns for the four preceding years :—

Area under Wheat.

Colony.	1884.	1885.	1886.	1887.
	acres.	acres.	acres.	acres.
New South Wales.....	275,225	264,867	337,730	389,390
Victoria	1,096,354	1,020,082	1,052,685	1,232,943
Queensland	12,105	10,093	6,787	8,248
South Australia	1,942,453	1,942,453	1,950,000	1,950,000
Western Australia.....	29,416	29,511	24,043	27,512
Tasmania.....	34,091	30,266	35,322	40,498
New Zealand	270,043	173,891	253,025	357,359
Australasia	3,659,687	3,471,163	3,659,592	4,005,950

Production.

Colony.	1884.	1885.	1886.	1887.
	bushels.	bushels.	bushels.	bushels.
New South Wales.....	4,271,394	2,733,133	5,868,844	4,695,849
Victoria	10,433,146	9,170,538	12,100,036	13,328,765
Queensland	195,727	51,598	21,221	182,308
South Australia	14,621,755	14,621,755	19,012,500	19,012,500
Western Australia.....	382,400	339,376	288,516	269,611
Tasmania.....	654,638	524,353	632,573	675,069
New Zealand	6,866,777	4,242,285	6,297,638	9,424,059
Australasia	37,425,837	31,683,038	44,221,328	47,588,161

Fluctuations in
the yield of
wheat.

One of the most striking features of the preceding table is that, except in New Zealand and Tasmania where the yield is fairly consistent, the production of wheat is subject to great fluctuations. These are due, in a great measure, to the inequality of the seasons. The yield for the season 1888-9 was unusually low throughout Australasia, and the quantity of grain obtained was not more than half what a fair season would have produced.

The average production of wheat, calculated over a series of years, is :—

New South Wales	14·55 bushels per acre.
Victoria	11·64 "
Queensland	11·44 "
South Australia	8·04 "
Western Australia	11·79 "
Tasmania	18·06 "
New Zealand	26·16 "

The average for Australasia for the period 1873-1888 is 11·22 bushels per acre.

Yield of wheat
in Australasia
compared with
other countries.

For the purpose of comparing the average yield of wheat in Australasia with that of other countries the following table is of use :—

Denmark	31·1 bushels per acre.
United Kingdom	26·9 "
Norway	25·1 "
Belgium	21·5 "
Holland	21·5 "
Manitoba	20·3 "
Germany	18·8 "
France	16·9 "
Austria	16·4 "
British Columbia	15·0 "
Ontario	14·1 "
Hungary	13·6 "
Italy	12·1 "
United States	11·7 "
Quebec, Nova Scotia, and New Brunswick	9·9 "
Russia in Europe	4·6 "

The importance of Australasia as a place for wheat producing is, therefore, not great. Out of 2,200 million bushels raised in 1887, which was a good year, only 48 million bushels, or 2·2 per cent, were of Australasian growth. The subjoined statement, based on the returns of the United States Department of Agriculture, gives the approximate crop of the world for the year mentioned :—

Relative importance of Australasian wheat.

Countries.	Yield.
	bushels.
United States	428,967,842
Canada	33,003,000
Argentine States and Chili	29,268,813
Austria	52,683,862
Hungary	135,896,905
France	282,239,159
Germany	108,307,500
Great Britain	79,178,632
Italy	109,420,870
Roumania	52,683,862
Russia	262,639,498
Spain	104,343,316
Turkey	43,903,219
Other European Countries.....	48,155,067
India	275,288,898
Other Asiatic Countries.....	86,342,997
Africa.....	39,062,581
Australasia	47,588,161
Total	2,218,979,182

The yield in New South Wales for the present season is expected to be above the average; no diminution is anticipated in Victoria and South Australia, notwithstanding the appearance of rust; and in New Zealand and Tasmania there is every prospect of excellent crops.

Season of 1889-90.

CONSUMPTION OF WHEAT.

Although the Australasian crop is small compared to that of other countries, much of the wheat is exported, as already explained, there being more than sufficient for the requirements of the population.

Consumption of
wheat.

The following figures show that the average consumption for Australasia is higher than any other part of the world for which records are available, with the exception of France and Canada:—

	Consumption per Head. (Bushels.)
United Kingdom.....	5·9
France	8·1
Germany	3·0
Russia	2·1
Austria	2·9
Italy	5·4
Spain and Portugal.....	6·4
Belgium and Holland	5·0
Scandinavia	1·4
Turkey	6·1
United States	5·4
Canada	6·6
Victoria.....	6·4
New South Wales	6·5
Queensland	6·1
Tasmania	6·2
New Zealand	7·4
Australasia	6·5

Surplus for
export.

Assuming that the population of Australasia during the year 1890 will be 3,890,000 souls, at the rate of 6·5 bushels per head, 25,300,000 bushels of wheat will be required for home consumption; and taking 4,200,000 acres as the approximate area under crop, the production would be 47,000,000 bushels, and allowing 5,000,000 bushels for seed, there would remain 17,000,000 bushels for export. It is probable, however, that the area and the yield will exceed the estimate given above.

OATS.

The cultivation of oats, coming next in importance to wheat as a grain crop, is rapidly increasing, as the following figures show:—

Area under crop.

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales...	7,224	13,795	16,348	7,984
Victoria	91,061	175,944	146,995	197,518
Queensland.....	69	353	88	642
South Australia.....	1,638	3,586	3,023	7,264
Western Australia..	507	1,474	827	1,787
Tasmania	29,022	29,631	27,535	33,834
New Zealand	15,872	139,185	243,387	367,225
Australasia.....	145,393	363,968	438,203	616,254

Production.

Colony.	1861.	1871.	1881.	1888.
	bushels.	bushels.	bushels.	bushels.
New South Wales...	152,426	280,887	356,568	109,931
Victoria	2,136,430	3,299,889	3,612,111	2,803,800
Queensland.....	974	7,060	1,121	3,626
South Australia	33,160	38,894	32,219	88,639
Western Australia..	8,162	28,330	8,270	41,852
Tasmania	751,475	593,477	783,129	946,354
New Zealand	512,665	3,726,810	6,924,848	10,977,065
Australasia.....	3,595,292	7,975,347	11,718,266	14,971,267

The total area cultivated in oats for grain in Australasia being:—

1861.	1871.	1881.	1888.
acres.	acres.	acres.	acres.
145,393	363,968	438,203	616,254

The yield of oats for the season 1888-89 was very small in all the continental Colonies. A better idea of the extent of cultivation and the ordinary yield of the cereal may be gathered

PRODUCTION OF OATS.

Area under oats. from an inspection of the figures of the preceding seasons given hereunder :—

Cultivation of Oats.

Area.

Colony.	1884.	1885.	1886.	1887.
	acres.	acres.	acres.	acres.
New South Wales...	19,472	14,117	23,947	19,393
Victoria	187,710	215,994	185,765	199,036
Queensland	143	208	138	550
South Australia.....	7,264	7,264	7,264	7,264
Western Australia..	1,452	1,596	1,766	1,680
Tasmania	28,956	29,247	31,607	21,169
New Zealand	354,794	329,488	387,228	336,474
Australasia	599,791	597,914	637,715	585,566

Production.

Colony.	1884.	1885.	1886.	1887.
	bushels.	bushels.	bushels.	bushels.
New South Wales...	425,920	279,107	600,892	394,762
Victoria	4,392,695	4,692,303	4,256,079	4,562,530
Queensland	2,170	1,006	1,438	13,343
South Australia.....	88,639	88,639	88,639	88,639
Western Australia..	26,140	23,142	28,512	25,424
Tasmania	82,964	784,325	560,622	385,195
New Zealand	12,360,449	8,603,702	11,973,295	10,512,119
Australasia	17,378,977	14,472,224	17,509,477	15,982,012

Yield per acre.

The figures given for South Australia are those computed for the year 1884, as no returns have since been collected. The yield per acre, calculated upon the basis supplied by the crops of a series of years, is :—

New South Wales	20·72 bushels.
Victoria.....	21·42 "
Queensland	14·12 "
South Australia	12·55 "
Western Australia	16·06 "
Tasmania	24·26 "
New Zealand	27·30 "

For Australasia as a whole the average yield of oats is about 26·78 bushels per acre, New Zealand, with its high average yield, furnishing about two-thirds of the total production. The cultivation of this cereal is comparatively neglected in New South Wales; in Victoria, however, it is next in importance to wheat, whilst in Queensland and South Australia, the yield being small and the climate ill-adapted, oats count for very little in the total grain production. Large areas are, nevertheless, sown for hay.

High yield of
New Zealand.

MAIZE.

Maize is the principal crop grown in Queensland, and is one of the most important products of New South Wales; it is not cultivated to a great extent in any of the other Colonies.

The following figures disclose the progress made in the cultivation of this cereal since 1861:—

Cultivation of Maize.

Area.

Colony.	1861.	1871.	1881.	1888.
	Acres.	Acres.	Acres.	Acres.
New South Wales...	57,959	119,956	117,478	166,101
Victoria	1,714	1,709	1,783	5,789
Queensland	1,914	21,140	46,480	85,966
New Zealand	770	.....	3,177	4,768
Other Colonies	91	113	36	61
Australasia	62,448	142,918	168,954	262,685

Production.

Colony.	1861.	1871.	1881.	1888.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	1,727,434	4,015,973	4,930,956	4,910,404
Victoria	20,788	30,833	81,007	267,155
Queensland	77,570	845,600	1,313,655	2,181,681
New Zealand	31,570	.....	127,257	207,275
Other Colonies	not estimated	2,110	648	1,769
Australasia	1,857,362	4,894,516	6,453,523	7,568,284

Yield of maize
per acre.

The average yield of maize differs greatly in the various colonies.

	Average yield.	
New South Wales	31·7	bushels per acre
Victoria	44·4	” ”
Queensland	25·5	” ”
New Zealand	41·0	” ”
Australasia	33·2	” ”

The explanation of the discrepancy between the average yields of Victoria and New Zealand, and those of New South Wales and Queensland, will be found in the fact that the area operated upon in the colonies first mentioned, is specially adapted for the growth of maize, and is so small as to make the average obtained of little use for the purposes of comparison.

BARLEY.

Barley.

Barley is not cultivated to the extent it deserves, as the sub-joined table shows :—

Area under Cultivation.

Colony.	1861.	1871.	1881.	1888.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	2,924	3,461	6,427	3,318
Victoria	3,419	16,772	48,652	83,483
Queensland.....	13	588	256	324
South Australia.....	10,637	17,225	11,953	15,697
Western Australia	2,412	5,083	3,679	5,009
Tasmania	7,279	4,275	4,597	4,670
New Zealand	3,457	13,305	29,808	45,027
Australasia.....	30,141	60,709	105,372	157,528

The average yield of barley in each Colony is :—

	Bushels per acre.
New South Wales	20·25
Victoria	20·00
Queensland	19·50
South Australia	12·59
Western Australia	14·96
Tasmania	24·26
New Zealand	27·31

The mean average yield for Australasia is, therefore, 19·83 bushels per acre.

HAY.

In addition to the cultivation of wheat, oats, and barley for Hay-grain, a considerable quantity is grown for hay, as the appended figures show; the average yield per acre is about 68 ton :—

Colony.	1884.	1885.	1886.	1887.	1888.
	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales....	226,646	219,886	223,470	170,324	209,531
Victoria	339,725	421,036	445,150	441,812	411,332
Queensland	25,307	28,881	39,280	25,734	20,978
South Australia	308,429	308,429	308,429	308,429	308,429
Western Australia...	24,054	19,677	25,718	25,807	23,914
Tasmania	44,735	41,693	47,269	44,562	52,521
New Zealand	56,670	40,304	57,938	67,425	50,656
Australasia	1,025,566	1,079,906	1,147,254	1,084,093	1,077,361

The cultivation of permanent, sown grasses, commonly called Artificial grasses. "artificial," is principally confined to districts where dairy-farming is carried on. The area grassed in this way is :—

	Acres.
New South Wales	200,332
Victoria	184,991
Queensland	7,592
South Australia	23,217
Western Australia	268
Tasmania	178,801
New Zealand	6,228,655
Australasia	6,823,856

In New Zealand the area grassed shows an increase from 3,869,644 acres in 1881, to 6,228,655 acres in 1888, whilst Victoria and New South Wales are rapidly extending this kind of cultivation.

THE VINE.

The grape vine.

The history of the vine in these colonies dates from the year 1828, when cuttings from the celebrated vineyards of France, Spain, and the Rhine Valley, were planted in the Hunter River District of New South Wales, and formed the nursery for the principal vineyards of that Colony. Years afterwards the vine was planted in the Murray River District and other parts of New South Wales, and was afterwards introduced into Victoria and South Australia, the latter Colony having a large proportion of Germans employed in the industry of wine-making. Through sustained efforts on the part of the growers the wines of Australia have obtained a large and increasing foreign sale, apart from local consumption. The climate and soil of Australia are peculiarly adapted to the successful cultivation of the vine, and a marked expansion of the wine trade may be confidently expected.

Increase of cultivation.

The increase in the area cultivated for the grape is shown by the following figures :—

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales	1,130	4,152	4,023	7,072
Victoria	1,464	5,523	4,923	12,750
Queensland .....	.....	431	890	1,432
South Australia.....	3,918	5,455.	4,202	4,590
Western Australia .....	.....	692	527	891
Tasmania .....	.....	.....	.....	37
Australasia	6,512	16,253	14,565	26,772

The wine-growing industry has, therefore, passed from an experimental to a permanent stage. The production of wine for the years specified was—

Production of Wine, 1871-1888.

Colony.	1871.	1881.	1884.	1885.	1886.	1887.	1888.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
New South Wales	413,321	513,148	442,612	555,470	601,897	666,382	805,813
Victoria	713,589	539,191	760,752	1,003,827	986,041	1,167,874	1,206,442
Queensland	16,762	72,121	95,358	133,298	147,410	118,672	144,239
*South Australia.....	852,315	313,060	473,535	473,535	473,535	473,535	473,535
Western Australia .. .. .	.....	.....	.....	59,488	97,350	124,240	135,888
Australasia	1,995,887	1,437,520	1,772,257	2,225,618	2,306,233	2,550,703	2,765,917

*No statistics in regard to vines were collected in this Colony since 1884 ; the figures for 1884 are therefore taken as the yield of subsequent years.

Compared with the wine production of other countries, as given hereunder, that of Australia appears small, but the prospects of this industry are sufficiently promising to encourage a hope that the coming years will witness important developments:—

Country.	Production in million gallons.	Country.	Production in million gallons.
Australia	3	Roumania	18
Austria	92	Russia	92
Algeria	72	Servia	53
Cape Colony	5	Spain ..	608
France	795	Switzerland	29
Greece	46	Turkey and Cyprus	69
Hungary	185	United States	32
Italy	798		
Portugal	132	Total	3,029

Average production per acre.

The average production for New South Wales, calculated on the yields for 28 years, amounts to 197·82 gallons per acre—the maximum being 262·96, and the minimum 144·83. In Queensland the average for the last ten years has been computed at 231·25 gallons per acre. It is impossible to tabulate the averages of the various Colonies, as in many instances the acreage under cultivation for wine-making purposes cannot be separated from young unproductive vineyards, or areas cultivated for table varieties of grape only. The *phylloxera vastatrix* which at one time threatened the vineyards of Australia with destruction has been eradicated.

SUGAR CANE.

Sugar cane.

The growth of the cane and manufacture of sugar are important features in the industry of Queensland and New South Wales, but whilst the climate of the former colony renders the employment of white labour in the field almost impossible, the plantations of the latter are worked without the assistance of coloured labour. The owners of Queensland plantations usually combine the functions of cane-growers and sugar manufacturers, but in New South Wales, where the numerous holdings, are as a rule, small in area, the cane is purchased from the planters principally by the Colonial Sugar Company, whose various crushing mills and refinery are of the most effective kind. The importation of coloured labour must,

according to Queensland legislation, cease in the year 1892; leaving the planters the difficult problem to solve as to whether successful sugar-growing is compatible with the employment of white labour.

The area under cane for the years specified below was :—

	1864.	1871.	1881.	1888.	Area under sugar cane.
	acres.	acres.	acres.	acres.	
New South Wales	22	4,394	12,167	15,281	
Queensland	94	9,581	28,026	47,340	
Total	116	13,975	40,193	62,621	

The progress of this industry has been very rapid, especially in Queensland, the area of suitable land being very large in that colony. Some years ago sugar-growing was started on the Daly River, in the Northern territory of South Australia, but no statistics are available regarding acreage or production.

The area under cultivation during the five years 1884 to 1888 was :—

	1884.	1885.	1886.	1887.	1888.
	acres.	acres.	acres.	acres.	acres.
New South Wales	17,517	16,418	15,117	15,287	15,281
Queensland	57,687	59,186	54,010	51,815	47,340
Total	75,204	75,604	69,127	67,102	62,621

The area given includes all cane plant, whether cut during the year or not. It will be noticed that the maximum area under cane was reached in 1884 by New South Wales, and in 1885 by Queensland, a considerable and continuous decline in the Northern colony being observable since the latter date. This retrogression is owing to a fall in the price of sugar, joined to the difficulties surrounding the labour question. New South Wales was affected to some extent by the decline in price of the manufactured article, but the prospects of the industry are now thought to be fairly good.

Decline of sugar industry.

The produce of the cane for the years 1884 to 1888 is given as :—

	1884.	1885.	1886.	1887.	1888.
	Tons of Sugar.				
New South Wales	5,398	12,268	8,609	14,040	5,649
Queensland	33,361	55,796	58,545	60,806	34,659
Total	38,759	68,064	67,154	74,846	40,308

The average yield in New South Wales is 26·74 tons of cane per acre, the average production of sugar in Queensland being 1·37 per acre.

TOBACCO.

Tobacco.

The cultivation of the tobacco plant has received attention in New South Wales, Victoria, and Queensland, especially in the first mentioned colony, as the following figures show :—

Year.	New South Wales.		Victoria.		Queensland.		Total Australasia.	
	acres.	cwt. of leaf.	acres.	cwt. of leaf.	acres.	cwt. of leaf.	acres.	cwt. of leaf.
1861	224	2,647	220	2,552	..	.....	444	5,190
1871	567	4,475	299	2,307	44	.....	910	6,782
1881	1,025	18,311	1,461	12,876	68	521	3,154	31,703
1884	1,046	9,914	1,402	7,893	73	816	2,521	18,023
1885	1,603	22,947	1,866	13,734	117	1,330	3,586	33,011
1886	1,203	13,642	2,031	12,008	90	636	3,324	26,286
1887	2,371	23,465	1,966	11,853	128	424	4,465	35,742
1888	4,833	55,478	1,685	13,355	123	1,418	6,641	70,251

the average yield of leaf being :—

New South Wales	11·20 cwt. per acre.
Victoria	7·01 „
Queensland	8·00 „
Australia	9·29 „

POTATOES.

Potatoes.

The cultivation of the potato is not confined to any particular Colony, although Victoria, New Zealand, and New South Wales are the largest growers, as will be seen from the subjoined table :—

Colony.	Area.			
	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales.....	10,040	14,770	15,944	15,419
Victoria	27,174	39,064	39,129	43,074
Queensland	512	3,121	5,086	7,303
South Australia.....	2,612	3,156	6,136	5,666
Western Australia	277	494	278	481
Tasmania	9,349	8,154	9,670	13,653
New Zealand	7,265	11,933	22,540	26,331
Australasia.....	57,229	80,692	98,783	111,927

The average yield was as follows :—

New South Wales.....	2.75 tons per acre.
Victoria	3.65 "
Queensland.....	2.98 "
South Australia.....	3.52 "
Western Australia	3.00 "
Tasmania.....	3.87 "
New Zealand	5.20 "

The mean production for Australasia is therefore 3.83 tons per acre.

The comparative productiveness of the various Colonies may be gauged from the following figures, compiled from the most recent authorities available ; the yield in every case is per acre :—

Comparative productiveness of the various Colonies.

Countries.	Wheat.	Oats.	Barley.	Maize.	Wine.	Tobacco.	Potatoes
	bhls.	bhls.	bhls.	bhls.	gals.	cwt.	ton.
Algeria .....	...	...	...	...	176	...	...
Argentine Republic. ....	...	...	...	...	160	...	...
Austria	16.4	20.9	17.5	16.0	196	9.2	2.3
Belgium	21.5	41.8	56.0	...	...	...	...
Brazil .....	...	...	...	...	...	7.2	3.7
Canada	17.2	...	...	...	...	...	3.0
Denmark	31.1	32.3	29.8	...	...	...	...
France.....	16.9	26.0	20.3	...	140	11.6	3.0
Germany.....	18.8	21.9	24.1	...	230	12.2	3.1
Holland	21.5	42.1	39.5	...	...	...	3.7
Hungary	13.6	20.2	14.2	...	...	...	...
Italy	12.1	19.3	9.9	20.0	125	...	2.5
Japan .....	...	...	...	...	...	5.0	...
Norway	25.1	39.7	31.0	...	...	...	...
Portugal .....	...	...	...	25.0	190	...	...
Russia	4.6	12.3	7.3	...	170	13.6	3.0
Spain .....	...	...	...	25.0	118	...	2.5
South Africa .....	...	...	...	...	220	...	...
Turkey.....	...	...	...	...	...	...	...
United Kingdom	26.9	37.7	31.1	...	...	...	3.5
United States.....	11.7	26.0	20.7	23.5	160	6.4	1.9
Australasia	14.5	19.5	19.8	33.2	...	9.3	3.8
New South Wales	14.6	20.7	20.3	31.7	198	11.2	2.8
Victoria	11.6	21.4	20.0	44.4	...	7.0	3.7
Queensland	11.4	14.1	19.5	25.5	231	8.0	3.0
South Australia	8.0	12.6	12.6	...	...	...	3.5
Western Australia.....	11.8	16.1	14.9	...	...	...	3.0
Tasmania	18.1	24.3	24.3	...	...	...	3.9
New Zealand	26.2	27.3	27.3	41.0	...	...	5.2

Condition of
Agriculture in
the Colonies.

Notwithstanding the rapid advance made in some of the colonies in the cultivation of certain crops, it must be allowed that, speaking generally, agriculture in the colonies has scarcely passed the tentative stage. The typical Australian agriculturist, relying largely on a bountiful Nature, does not exercise upon crops anything approaching the same patience, care, and labour that are bestowed by the European cultivator; nor, as a rule, does he avail himself of the benefits of scientific farming and improved implements to the extent that prevails in England and America.

Irrigation

Irrigation is absolutely necessary in order to insure successful husbandry, owing to the unreliable nature of the rainfall, especially in the interior of the continent, a fact that is only now beginning to make itself felt. Trusts have been formed in Victoria, based on legislation, in connection with this matter; and much is anticipated from the Water Conservation Department recently established in New South Wales. Theoretically feasible, the irrigation of vast areas in the vicinity of the Murray, Murrumbidgee, Lachlan, and Darling Rivers should be an accomplished fact before many years elapse. The Victorian Government was the first to offer facilities to private enterprise in this direction, one of the results being the establishment by an American firm of a large irrigation "colony" at Mildura, on the Murray. The general question is under consideration in South Australia; and there is possibly no subject which more deserves immediate and profound attention, nor one on which the future of Australia, both as regards pastoral and agricultural pursuits, so much depends, as the conservation and utilization of waters now wastefully allowed to flow to the ocean.