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CHAPTER XXII.

AGRICULTURAL PRODUCTION.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as £A. f.o.b. port of shipment, except where otherwise indicated.

§ 1. Introductory.

In general, statistics in this chapter relating to agricultural production are derived from "census" returns supplied by approximately 250,000 farmers who utilize one acre or more of land for agricultural or pastoral purposes and the latest figures available are those for the year 1958-59. The returns are collected on a substantially uniform basis in all States at 31st March, each year, and relate to areas sown and crops produced in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources, these are used in conjunction with the "census" returns. The statistics published in this chapter are therefore shown in "agricultural" years. For most purposes, there will be little error involved in considering them as applying to years ending on 30th June.

§ 2. Progress of Agriculture.

1. *Early Records.*—In an "*Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797*", Governor Hunter gives the acreage of crops as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

The following details of crops were collected in 1808:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (*See No. 22, p. 670.*)

By the year 1850, the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850, the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area of crops declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres.

2. *Progress of Cultivation.*—The following table shows the area of crops in each of the States and Territories of Australia at decennial intervals since 1860-61 and during each of the eleven seasons 1948-49 to 1958-59. On page 889 there is a graph showing the area of crops in Australia from 1900-01 onward.

AREA OF CROPS.

('000 Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1860-61	246	387	4	359	25	153	..	..	1,174
1870-71	385	693	52	802	55	157	..	..	2,144
1880-81	606	1,549	114	2,087	64	141	..	..	4,561
1890-91	853	2,032	225	2,093	70	157	..	..	5,430
1900-01	2,447	3,114	458	2,370	201	224	..	..	8,814
1910-11	3,386	3,952	667	2,747	855	287	..	..	11,894
1920-21	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930-31	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940-41	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1948-49	5,711	4,645	1,953	3,757	4,215	345	(a)	10	20,636
1949-50	5,670	4,480	2,057	3,617	4,399	368	(a)	10	20,601
1950-51	4,761	4,351	2,077	3,676	4,650	290	(a)	6	19,811
1951-52	4,704	4,271	2,022	3,696	4,693	291	(a)	6	19,683
1952-53	4,837	4,286	2,422	3,581	4,816	303	(a)	6	20,251
1953-54	5,425	4,480	2,361	3,778	4,633	330	(a)	6	21,013
1954-55	5,394	4,394	2,593	3,895	5,112	301	1	5	21,695
1955-56	5,660	4,542	2,604	3,972	5,342	326	1	7	22,454
1956-57	3,789	3,637	2,469	3,979	5,232	288	1	5	19,400
1957-58	5,000	4,051	2,600	3,907	5,615	292	1	5	21,471
1958-59	6,820	4,791	2,852	4,147	6,135	339	1	8	25,093

(a) Not available.

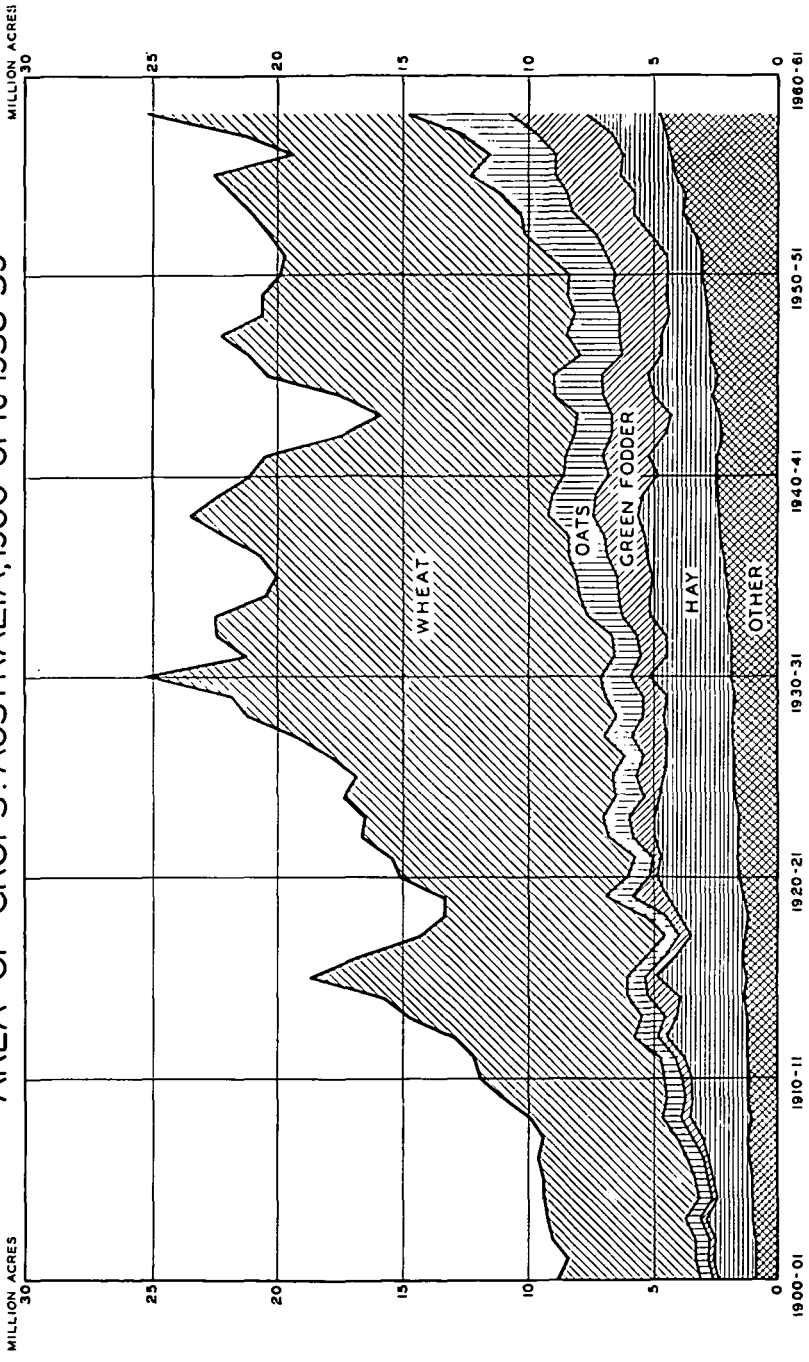
The progress of agriculture was practically uninterrupted from 1860-61 to 1915-16, when, as the result of a special effort to raise wheat during the 1914-18 War, 18.5 million acres were cultivated in Australia. There was a temporary set back in later war years but after the termination of hostilities the area continued to expand and rose steadily to the record area of 25.2 million acres in 1930-31. Thereafter, the slump in wheat prices seriously depressed the agricultural industry and the area of crops receded to just under 20 million acres in 1935-36.

By 1938-39, the industry had recovered from the depression and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time man-power shortages and shipping difficulties, the area declined to less than 16 million acres in 1943-44. After 1943-44, production gradually increased again until, in 1947-48, 22.3 million acres were sown to crops. This upward trend was reversed after 1948-49, largely because, as a result of the high prices of wool, many primary producers transferred from agricultural to pastoral production. In recent years, the area sown increased from 19.7 million acres in 1951-52 to 22.5 million acres in 1955-56, but in 1956-57, due largely to excessively wet conditions in the eastern States the area sown dropped to 19.4 million acres. By 1958-59, the area had increased again to 25.1 million acres, an acreage exceeded only once previously, in 1930-31. As the area under wheat in Australia constitutes a large proportion of the total area cropped (49 per cent. during the ten years ended 1958-59), fluctuations in the latter follow broadly the same pattern as changes in wheat areas.

3. **Area under Sown Pastures.**—In all the States, there are considerable areas of grasses, mainly sown on land from which scrub has been cleared or on land which it is desired to rest from cultivation. These areas, which are not included in "area of crops", have expanded from about 5.3 million acres in 1929-30 to about 34.1 million acres in 1958-59.

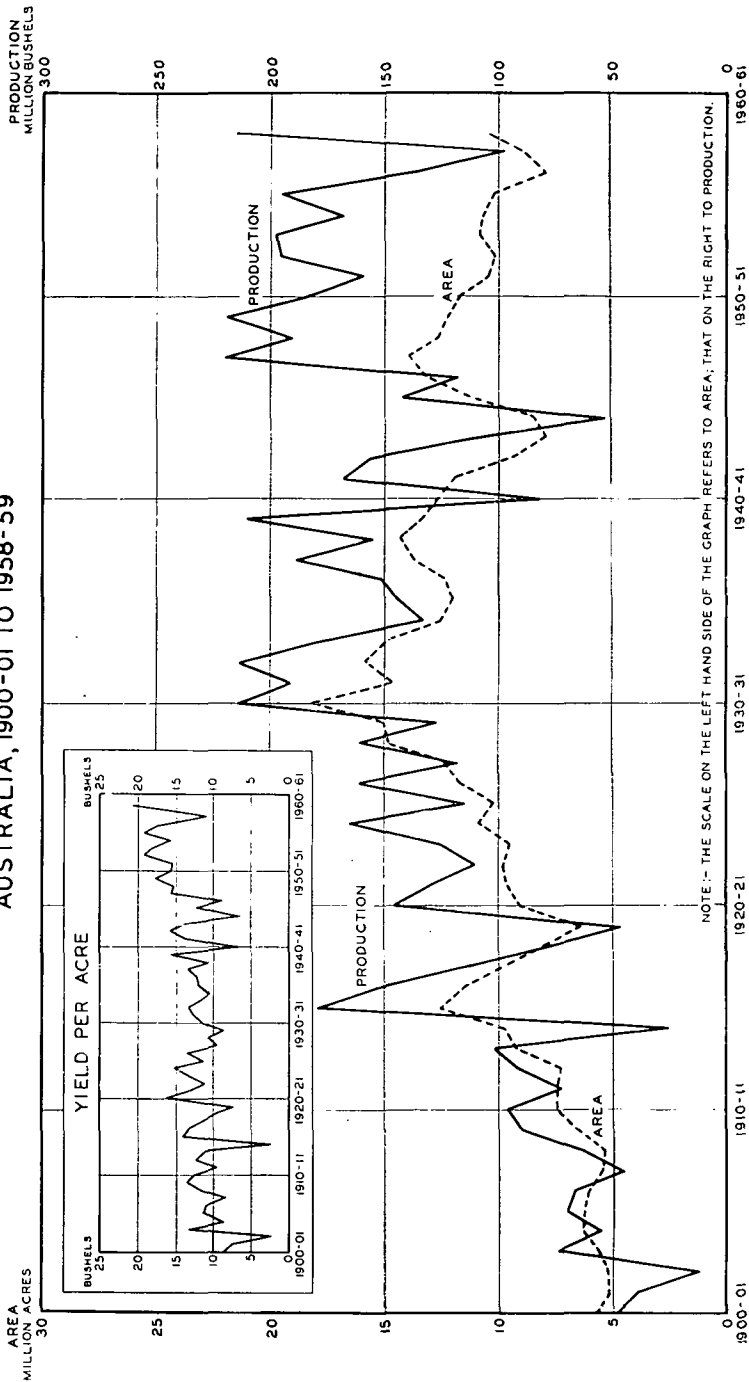
4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Ministers for Primary Industry and for Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are:—(i) the promotion of the welfare and development of agricultural industries generally; (ii) exchange of information on agricultural production and marketing; (iii) the improvement

AREA OF CROPS: AUSTRALIA, 1900-01 to 1958-59

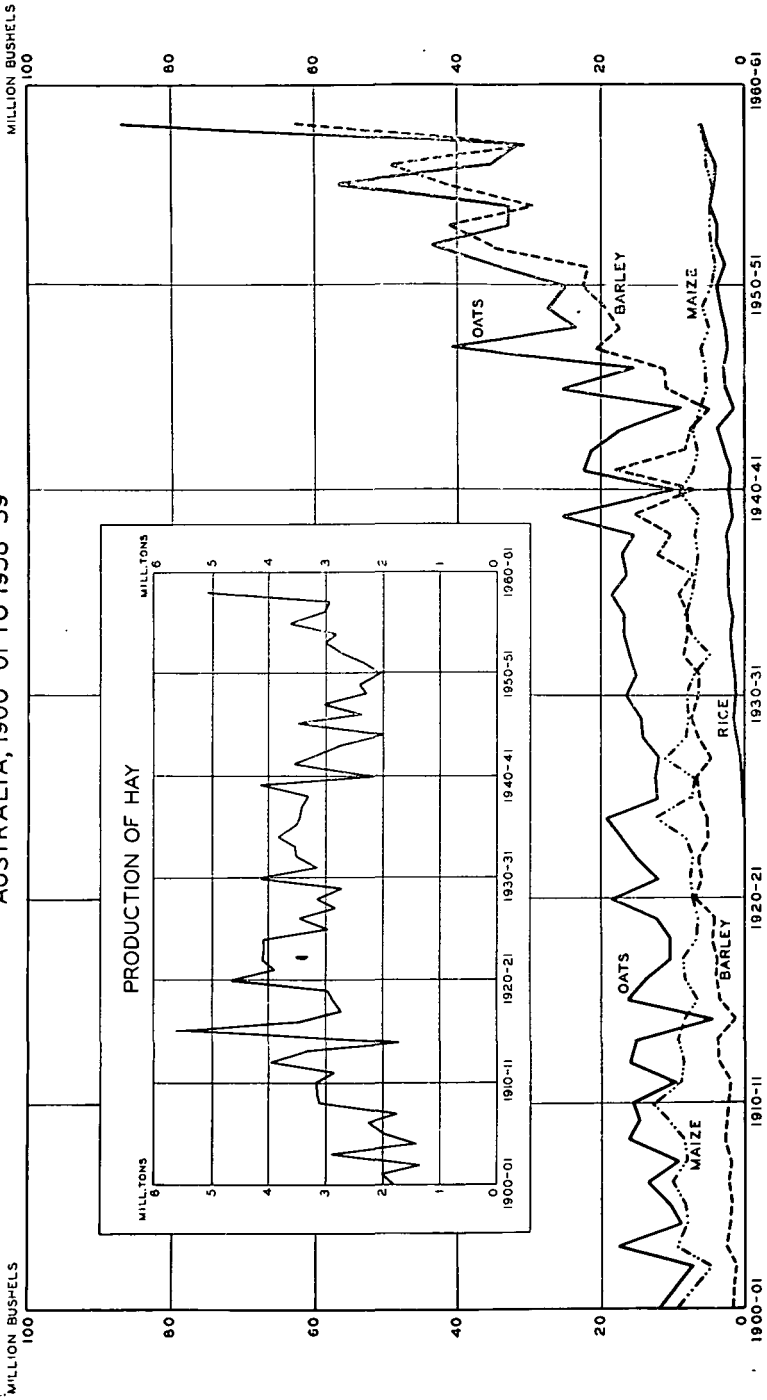


WHEAT (GRAIN) : AREA, PRODUCTION AND YIELD PER ACRE

AUSTRALIA, 1900-01 TO 1958-59



PRODUCTION OF OATS, BARLEY, MAIZE, RICE AND HAY AUSTRALIA, 1900-01 TO 1958-59



of the quality of agricultural products and the maintenance of high grade standards; (iv) to ensure, as far as possible, balance between production and available markets; and (v) organized marketing, etc.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

§ 3. Distribution, Production and Value of Crops.

1. Area of Crops in States and Territories.—The following table shows the areas in the several States, the Northern Territory and the Australian Capital Territory of each of the crops for the season 1958-59.

AREA OF CROPS, 1958-59. (Acres.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—									
Barley—									
2 Row ..	73,407	343,484	223,794	1,265,172	50,412	8,665	..	..	1,964,934
6 Row ..	32,432	19,387	24,723	67,301	271,081	668	..	..	415,592
Maize ..	62,249	3,881	113,402	(a)	10	..	..	..	(b)179,542
Oats ..	1,130,296	970,688	39,133	481,076	1,329,742	22,199	..	1,051	3,974,185
Panicum, Millet and Setaria..	211	1,545	81,245	(a)	..	..	10	..	(b) 83,011
Rice ..	47,054	..	..	..	(a)	..	(a)	..	(b) 47,054
Rye ..	4,047	27,458	658	57,152	10,577	153	..	..	100,045
Sorghum ..	41,899	..	210,371	..	..	..	149	..	252,419
Wheat ..	3,178,013	1,810,026	704,005	1,407,413	3,291,858	6,438	..	1,415	10,399,168
Hay ..	746,865	1,282,140	77,822	419,566	332,613	153,822	121	5,128	3,018,077
Green Fodder ..	1,238,314	(c) 70,289	638,667	(d)261,813	769,199	61,322	273	667	3,040,544
Other Stock Fodder ..	9,420	28,116	11,653	36,575	3,497	26,643	22	..	115,926
Grass Seed—									
Lucerne ..	23,729	..	632	26,596	(a)	..	..	..	(b) 50,957
Clover ..	10,660	5,640	..	5,702	14,513	1,569	..	..	38,084
Other ..	8,036	12,880	12,928	5,957	9,390	2,516	..	..	51,707
Industrial Crops—									
Broom Millet ..	1,800	261	322	..	(a)	..	..	..	(b) 2,383
Canary Seed ..	410	..	9,067	54	..	..	..	..	9,531
Cotton ..	..	..	10,493	..	(a)	..	..	..	(b) 10,493
Flax—									
For Fibre ..	..	..	..	..	2,015	..	..	..	2,015
For Linseed ..	4,622	8,817	22,839	703	244	..	..	..	37,225
Hops ..	..	440	..	..	(a)	1,443	..	..	(b) 1,883
Peanuts ..	867	..	59,279	(a)	..	..	211	..	(b) 60,357
Sugar Cane—									
For Crushing ..	13,368	..	356,210	..	(a)	..	..	..	(b)369,578
Other (excluding fodder) ..	10,343	..	130,591	..	..	..	..	..	140,934
Sunflower Seed ..	(a)	216	7,294	..	..	..	..	..	(b) 7,510
Tobacco ..	1,543	4,248	7,916	..	1,444	..	..	..	15,151
Other ..	(a)	727	261	(a)	..	274	..	..	(b) 1,262
Vegetables for Human Consumption—									
Onions ..	444	3,971	3,412	602	397	21	..	13	8,860
Potatoes ..	17,482	46,122	11,614	6,168	7,051	16,186	..	90	104,713
Other Vegetables ..	49,958	35,702	36,075	10,953	7,208	12,742	138	88	152,864
Vineyards—									
Bearing ..	16,186	42,482	2,721	54,337	8,128	..	2	..	123,856
Not Bearing ..	1,066	2,319	320	2,412	753	..	..	..	6,870
Orchards and other Fruit Gardens—									
Bearing ..	71,783	46,673	30,081	26,135	18,522	21,016	59	84	214,353
Not Bearing ..	20,997	20,073	13,830	11,102	4,381	2,152	27	5	72,567
Nurseries and Cut Flowers ..	923	2,538	319	204	283	227	..	11	4,505
All other Crops ..	1,340	866	10,427	555	1,354	749	..	22	15,313
Total Area ..	6,819,764	4,790,989	2,852,104	4,147,548	6,134,672	338,805	1,012	8,574	25,093,468

(a) Not available for publication. Included in "All other Crops", except in respect of rice in the Northern Territory which is excluded from "Total Area". (b) Incomplete. See footnotes to individual States. (c) Excludes lucerne and oats for grazing. (d) Excludes lucerne for grazing.

2. **Relative Areas of Crops in States and Territories.**—The proportion of each of the major crops cultivated in the various States and Territories to the total area of crops for the season 1958–59 is shown in the next table. In three of the States, namely New South Wales, Victoria and Western Australia, wheat-growing for grain is by far the most extensive crop. In Queensland and South Australia it is also the main crop but in the former State it is closely followed by green fodder and in the latter State by barley for grain. In Tasmania, hay and green fodder crops predominate.

As pointed out previously, wheat is the main crop in Australia, the area thereof, for grain only, representing 41 per cent. of the total area of crops in 1958–59.

RELATIVE AREAS OF CROPS, 1958-59.
(Per cent.)

Crop.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (Grain) ..	46.6	37.8	24.7	33.9	53.7	1.9	..	16.5	41.5
Green Fodder ..	18.2	<i>a</i> 1.5	22.4	<i>b</i> 6.3	12.5	18.1	27.0	7.8	12.1
Oats (Grain) ..	16.6	20.2	1.4	11.6	21.7	6.5	..	12.2	15.8
Barley (Grain) ..	1.6	7.6	8.7	32.1	5.2	2.8	..	..	9.5
Hay ..	10.9	26.7	2.7	10.1	5.4	45.4	12.0	59.8	12.0
Sugar-cane, Crushed ..	0.2	..	12.5	..	..	..	..	..	1.5
Total Orchards and Fruit									
Gardens ..	1.4	1.4	1.5	0.9	0.4	6.8	8.5	1.0	1.2
Sorghum ..	0.6	..	7.4	..	..	..	14.7	..	1.0
Maize (Grain) ..	0.9	0.1	4.0	(<i>c</i>)	..	..	..	..	0.7
Total Vineyards ..	0.2	0.9	0.1	1.4	0.1	..	0.2	..	0.5
Potatoes ..	0.3	1.0	0.4	0.2	0.1	4.8	..	1.0	0.4
All other ..	2.5	2.8	14.2	3.5	0.9	13.7	37.6	1.7	3.8
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Excludes lucerne and oats for grazing. (b) Excludes oats for grazing. (c) Not available for publication. Included in "All other".

3. **Area of Principal Crops in Australia.**—The area of the principal crops during each of the five seasons ended 1958–59 is shown hereunder:—

AREA OF PRINCIPAL CROPS: AUSTRALIA.
(’000 Acres.)

Crop.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—					
Barley, 2 Row ..	1,391	1,510	1,705	1,758	1,965
Maize ..	170	168	182	184	180
Oats ..	2,574	3,354	2,556	2,959	3,974
Rice ..	39	41	50	47	47
Wheat ..	10,673	10,166	7,874	8,848	10,399
Hay ..	1,984	2,241	1,861	2,237	3,018
Green Fodder ..	2,733	2,649	2,685	3,039	3,041
Vegetables for Human Consumption—					
Onions ..	8	7	9	11	9
Potatoes ..	107	94	101	118	105
Other vegetables for human consumption ..	136	155	172	164	153
Industrial crops—					
Cotton ..	8	13	11	10	10
Hops ..	2	2	2	2	2
Sugar-cane ..	502	499	499	506	511
Tobacco ..	10	11	12	13	15
Vineyards ..	136	135	132	131	131
Orchards ..	276	279	270	276	287
All other Crops ..	946	1,130	1,280	1,168	1,246
Total ..	21,695	22,454	19,401	21,471	25,093

4. **Size Classification of Principal Crops.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1955–56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955–56*. Condensed tables also appear in the bulletin *Primary Industries—Part I.—Rural Industries*, No. 51. The tables show a classification by size (area) of holding and size (area) of crop for wheat, oats, barley, sugar-cane, tobacco, potatoes, other vegetables for human consumption, vineyards, and orchard and non-orchard fruit.

5. **Weights and Measures.**—Details of the weights and measures used in recording production of agricultural commodities appear in the introduction to the bulletin *Primary Industries—Part I.—Rural Industries*.

6. **Production of Crops in States and Territories.**—The following table shows production of crops in the various States and Territories for the season 1958–59.

PRODUCTION OF CROPS, 1958-59.

Crop.	Unit of Quantity.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for Grain—										
Barley—										
2 Row	'000 bus.	2,019	8,174	7,372	35,974	809	276	..	..	54,624
6 Row	" "	903	407	732	1,690	4,601	19	..	..	8,352
Maize	" "	2,860	203	3,654	(a)	..	..	..	..	(b) 6,717
Oats	" "	27,638	23,339	832	11,992	22,585	491	..	..	86,905
Panicum, Millet and Setaria	" "	3	26	1,617	..	(a)	..	..	..	1,646
Rice	" "	6,619	..	..	..	(a)	..	(a)	..	(b) 6,619
Rye	" "	59	226	12	446	74	3	..	..	820
Sorghum	" "	943	..	6,366	..	..	..	1	..	7,310
Wheat	" "	66,441	42,697	16,097	32,032	57,650	164	..	40	215,121
Hay	" tons	1,183	2,299	169	672	455	302	..	10	5,090
Grass Seed—										
Lucerne	cwt.	14,874	..	261	21,787	(a)	..	..	..	36,922
Clover	" "	23,085	8,006	..	10,626	31,671	1,642	..	..	75,030
Other	" "	4,475	17,874	23,920	7,270	27,082	6,158	..	..	86,779
Industrial Crops—										
Broom Millet—										
Fibre	" "	11,477	1,327	1,349	..	(a)	..	..	..	(b) 14,153
Grain	bus.	9,996	1,559	(c)	..	..	..	..	..	(b) 11,555
Canary Seed	'000 bus.	5	..	90	..	..	..	..	..	95
Cotton, Unginned	'000 lb.	..	..	4,004	..	(a)	..	..	..	(b) 4,004
Flax—										
Straw	ton	..	..	..	..	3,665	..	..	..	3,665
Linseed	" "	1,196	2,769	6,510	151	42	..	..	..	10,668
Hops (Dry Weight)	cwt.	..	6,281	..	(a)	(a)	30,218	..	..	(b) 36,499
Peanuts	" "	11,623	..	621,687	(a)	..	..	2,412	..	(b) 635,722
Sugar-cane for Crushing	'000 tons	472	..	9,741	..	(a)	..	..	..	(b) 10,213
Sunflower Seed	cwt.	(a)	1,557	43,006	..	..	..	..	..	44,563
Tobacco, Dried Leaf	'000 lb.	1,158	4,885	6,729	..	1,198	..	..	..	13,970
Vegetables for Human Consumption—										
Onions	ton	2,476	28,456	13,584	5,318	5,043	97	..	106	55,080
Potatoes	" "	84,450	259,346	46,999	50,587	47,103	85,900	..	152	574,537
Vineyards—										
Grapes—										
For Drying	" "	47,080	232,962	..	58,989	4,596	..	..	..	343,627
Table	" "	5,007	6,689	3,004	784	2,141	..	1	..	17,626
Wine	" "	24,159	12,403	347	134,578	4,117	..	..	..	175,604

(a) Not available for publication.

(b) Incomplete; see footnotes to individual States.

(c) Not available.

7. **Production of Principal Crops in Australia.**—The following table shows the production of the principal crops for the five years ended 1958–59.

PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—						
Barley, 2 Row	'000 bus.	25,622	35,469	43,870	26,404	54,624
Maize	" "	5,076	4,755	5,494	5,639	6,717
Oats	" "	32,834	56,487	35,396	31,426	86,905
Rice	" "	5,080	(a) 4,725	(a) 4,262	(a) 5,658	(a) 6,619
Wheat	" "	168,617	195,443	134,455	97,566	215,121
Hay	" tons	2,856	3,625	3,043	2,969	5,090
Vegetables for Human Consumption—						
Onions	" "	49	40	54	72	55
Potatoes	" "	468	402	519	575	575
Industrial Crops—						
Cotton, Unginned	" lb.	3,597	5,359	3,809	3,390	4,004
Hops (dry weight) (b) ..	" cwt.	34,075	34,374	25,230	32,710	36,499
Sugar-cane for Crushing ..	'000 tons.	10,087	8,901	9,272	9,249	10,213
Tobacco (Dried leaf) ..	" lb.	6,822	6,106	8,709	11,567	13,970
Vineyards—						
Grapes	" tons	460	378	495	550	537
Wine made(c)	" gals.	23,964	22,895	30,743	33,854	32,538
Dried Vine Fruits	" tons	81	59	80	91	87

(a) Incomplete, excludes Northern Territory. (b) Excludes Western Australia. (c) Net factory and farm production of beverage and distillation wine excluding the liquid gallonage of spirits added in wine fortifying.

8. Yield per Acre of Principal Crops in Australia.—The following table shows for Australia the yield per acre of the principal crops for the five years ended 1958-59.

YIELD PER ACRE OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Cereals for Grain—						
Barley, 2 Row	bushel	18.4	23.5	25.7	15.0	27.8
Maize	" "	29.9	28.4	30.3	30.6	37.4
Oats	" "	12.8	16.8	13.8	10.6	21.9
Rice	" "	131.3	114.7	84.4	121.0	140.7
Wheat	" "	15.8	19.2	17.1	11.0	20.7
Hay	ton	1.44	1.62	1.63	1.33	1.69
Vegetables for Human Consumption—						
Onions	" "	6.13	5.69	5.78	6.36	6.22
Potatoes	" "	4.36	4.29	5.14	4.88	5.49
Industrial Crops—						
Cotton, Unginned	lb.	429	403	336	327	382
Hops (dry weight)(a) ..	cwt.	19.87	20.22	13.97	17.73	19.52
Sugar-cane for Crushing (a)	ton	26.95	23.88	25.05	24.62	27.63
Tobacco (Dried leaf) ..	lb.	706	540	716	876	922
Vineyards—						
Grapes (a)	ton	3.61	2.97	3.98	4.42	4.33

(a) Per acre of productive crops.

9. Gross Value of Principal Crops in Australia.—The following table shows the gross value of principal crops at the principal markets in Australia for the five years ended 1958-59.

GROSS VALUE(a) OF PRINCIPAL CROPS : AUSTRALIA.

(£'000.)

Crop.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
Cereals for Grain—					
Barley	18,257	20,994	24,896	17,555	33,304
Maize	3,615	3,464	3,732	4,995	4,629
Oats	14,066	19,373	12,239	15,951	30,964
Rice	3,430	(b) 3,406	(b) 3,069	(b) 4,045	(b) 4,731
Wheat	107,528	126,091	92,647	66,892	144,087
Hay	30,878	34,807	30,524	39,277	46,503
Green Fodder (c)	6,436	5,950	5,897	8,571	6,966
Vegetables for Human Consumption—					
Onions	1,586	1,973	2,516	1,274	1,920
Potatoes	13,449	25,895	17,955	9,969	13,109
Other vegetables for human consumption	23,385	27,993	30,190	25,359	25,239
Industrial Crops					
Cotton, Unginned	208	307	224	213	249
Hops (c)	1,106	1,102	857	1,137	1,273
Sugar-cane	39,706	35,786	40,718	47,346	47,276
Tobacco (Dried leaf)	3,823	3,200	4,503	6,202	7,920
Grapes	12,293	10,511	15,406	18,337	18,496
Fruit and Nuts	46,568	48,349	49,898	59,150	54,025
All other Crops	13,301	15,736	16,877	14,573	19,166
Total Gross Value	339,635	384,937	352,148	340,846	459,857

(a) Includes amounts paid as bounty, relief, etc. (b) Incomplete, excludes Northern Territory.
(c) Incomplete, excludes Western Australia.

10. Value of Production and Indexes of Price and Quantum of Production.—(i) *Gross and Net Values, 1958-59.* Values of agricultural production for each State are shown for 1958-59 in the following table. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXX.—Miscellaneous.

In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant; consequently, the figures are overstated to that extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1958-59.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Value of Materials Used in Process of Production.		Net value of Production. (a)
				Seed used and other Fodder for Farm Stock.	Value of other Materials used.	
New South Wales	114,599	24,795	89,804	3,824	(b) 3,508	82,472
Victoria	101,058	15,607	85,451	5,349	6,441	73,661
Queensland	95,655	11,577	84,078	3,246	12,116	68,716
South Australia	70,429	9,965	60,464	3,193	6,700	50,571
Western Australia	63,336	8,503	54,833	3,283	8,804	42,746
Tasmania	14,516	2,119	12,397	604	1,297	10,496
Northern Territory	59	..	59	..	..	59
Australian Capital Territory	245	9	236	2	7	227
Australia	459,897	72,575	387,322	19,501	38,873	328,948

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

(ii) *Net Values, 1954-55 to 1958-59.* In the following table, the net value of agricultural production and the net value per head of population are shown by States for the years 1954-55 to 1958-59.

NET VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NET VALUE.(a) (£'000.)									
1954-55	48,711	61,516	59,656	39,180	23,483	11,240	45	88	243,919
1955-56	63,647	66,465	55,361	41,271	37,350	15,170	42	149	279,455
1956-57	48,425	63,802	60,127	49,688	24,640	7,978	58	143	254,861
1957-58	44,754	64,971	62,898	32,318	27,338	12,050	52	149	244,530
1958-59	82,472	73,661	68,716	50,571	42,746	10,496	59	227	328,948

NET VALUE PER HEAD OF POPULATION. (£ s. d.)

1954-55	14	1	7	24	14	6	45	0	3	48	10	5	36	3	9	35	18	3	2	14	6	2	16	4	26	16	8
1955-56	18	1	2	25	18	3	40	18	7	49	9	2	55	16	6	47	10	6	2	8	1	4	8	7	29	19	11
1956-57	13	9	11	24	3	4	43	11	1	57	13	8	35	19	11	24	9	3	3	3	3	3	19	5	26	14	7
1957-58	12	4	8	24	0	0	44	16	5	36	9	7	39	2	8	36	1	4	2	14	8	3	15	10	25	1	10
1958-59	22	2	9	26	10	9	48	3	9	55	13	6	60	0	4	30	15	1	3	0	0	5	4	6	33	1	0

(a) No deduction has been made for depreciation and maintenance.

(iii) *Indexes of Quantum and Price of Agricultural Production.* Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average "prices" of farm products realized at the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. Further details on weights used, etc., are to be found in Chapter XXX.—Miscellaneous.

INDEXES OF QUANTUM(a) AND PRICE OF AGRICULTURAL PRODUCTION
(Base : Average 3 years ended June, 1939 = 100.)

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59
Quantum Produced—					
Wheat	102	119	82	59	131
Other Crops	131	144	144	141	187
<i>Total, All Crops</i>	<i>120</i>	<i>134</i>	<i>120</i>	<i>109</i>	<i>165</i>
Total per Head of Population	91	99	86	77	114
Price—					
Wheat	319	319	347	339	337
Other Crops	314	339	327	333	310
<i>Total, All Crops</i>	<i>316</i>	<i>330</i>	<i>336</i>	<i>336</i>	<i>322</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936-37 to 1938-39).

§ 4. Wheat.

1. *Royal Commission on the Wheat Industry.*—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third that of baking, the fourth the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

2. **Licensing of Areas Sown to Wheat, and Acreages Sown.**—Details of the operations of the Wheat Stabilization Board in licensing wheat growing during the seasons 1941–42 to 1948–49 will be found in Official Year Book No. 38, pages 940–41. The Board ceased to function on 31st December, 1948.

3. **Legislation relating to Wheat Industry.**—(i) *Stabilized Marketing.* A detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Official Year Book No. 37, pages 1295–99.

(ii) *The Australian Wheat Board.* The Australian Wheat Board was constituted in September, 1939, under National Security (Wheat Acquisition) Regulations to purchase, sell, or dispose of, wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations.

The Board was reconstituted for five years, with similar powers, under the Commonwealth Wheat Stabilization Act 1948, to administer the stabilization plan. The new Board commenced to function on 18th December, 1948. The Board has been continued in existence by the Commonwealth Wheat Industry Stabilization Acts of 1954 and 1958 for the purpose of administering the second and third five-year stabilization plans.

(iii) *Wheat Stabilization Plans (a) 1947–48 to 1952–53.* Details of the Wheat Stabilization Plan which operated during the seasons 1947–48 to 1952–53 inclusive were published in Official Year Book No. 40, pages 841 and 842, and previous issues.

(b) *1953–54 to 1957–58.* Details of the plan which operated during the seasons 1953–54 to 1957–58 inclusive were published in Official Year Book No. 44, page 861, and previous issues.

(c) *1958–59 to 1962–63.* Following negotiations during 1958, a new wheat industry stabilization plan was enacted by the Commonwealth and the States towards the end of that year. The new plan follows the lines of the two earlier ones. Details of the plan are as follows:—

- (i) *Period of the Plan.* The plan will operate for five years. It will commence with the 1958–59 wheat crop and will end with the marketing of the 1962–63 crop.
- (ii) *Commonwealth Guarantee.* The Commonwealth will guarantee a return of 14s. 6d. a bushel to growers on up to 100 million bushels of wheat exported from the crop in the first year of the plan. The guaranteed return of 14s. 6d. is based on the findings of the recent survey of the economic structure of the wheat industry conducted by the Bureau of Agricultural Economics. It will be adjusted in each of the following years of the plan on up to 100 million bushels in accordance with the movements in costs based on a cost index established from the survey. The first two five-year Wheat Stabilization Plans each guaranteed a similar quantity of 100 million bushels exported.
- (iii) *Australian Wheat Board.* The Australian Wheat Board will be maintained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.
- (iv) *Stabilization Fund*—
 - (a) *Export Tax.* A tax will be collected on wheat exported which will be equivalent to the excess of the returns from export sales over the guaranteed return. However, the maximum rate of export tax will be 1s. 6d. a bushel.
 - (b) *Size of Fund.* The ceiling of the Stabilization Fund is established at £20 million; any excess beyond this figure will be returned to growers on the “first-in-first-out” principle.
 - (c) *Balance in Present Wheat Stabilization Fund.* The balance remaining in the Fund at the termination of the present plan will be carried forward to the new plan as the nucleus of a new stabilization fund.
 - (d) *Use of the Stabilization Fund.* When the average export realizations fall below the guaranteed return, the deficiency will be made up first by drawing upon the stabilization fund in respect of up to 100 million bushels of wheat from each crop. When the fund is exhausted, the Commonwealth will meet its obligations under the guarantee.

- (v) *Home Consumption Price.* The home consumption base price for 1958–59, the first year of the plan, has been established as 14s. 6d. a bushel, bulk basis, f.o.r. ports plus 2d. a bushel loading to cover the cost of transporting wheat to Tasmania as outlined in (vi) below. There is provision in the plan for annual adjustments in the following years in accordance with the guaranteed price as outlined in (ii) above.
- (vi) *Freight on Wheat to Tasmania.* Provision is made for a loading on the price of all wheat sold for consumption in Australia to the extent necessary to cover the cost of transporting wheat from the mainland to Tasmania in each season of the plan.
- (vii) *Premium on Western Australian Wheat.* A premium will be paid from export realizations on wheat grown in Western Australia and exported from that State in recognition of the natural freight advantage enjoyed by Western Australia owing to its proximity to the principal oversea markets for wheat. The premium will be 3d. a bushel.

By agreement between the parties concerned, the Australian Wheat Growers' Federation, the States and the Commonwealth, a poll of growers as to acceptance of the plan was not considered necessary. The earlier plans had been approved by polls of growers.

The cost of production of wheat, which for the first season of the plan, 1958–59, was fixed at 14s. 6d. a bushel by the legislation, rose to 14s. 10d. a bushel for the 1959–60 season. The guaranteed price for the 1959–60 season was, therefore, also 14s. 10d. a bushel, while the home consumption price, including a loading of 2d. a bushel to cover costs of shipment of wheat to Tasmania, became 15s. 0d. a bushel.

(iv) *Wheat Industry Research.* In 1957, the Commonwealth Parliament passed legislation providing for a levy of a farthing a bushel on wheat handled by the Australian Wheat Board. This money, contributed by the growers, is to be spent by the Wheat Research Committees set up in the wheat growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of £284,000 under the provisions of the Wheat Acquisition (Undistributed Moneys) Act 1958.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of £1 for £1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution.

The Council at its inaugural meeting in February, 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanization, the industry's cost structure and marketing problems.

The Council and the State Committees have incurred an estimated expenditure of £398,064 up to the end of June, 1959, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, Universities and Agricultural Colleges.

4. *Marketing of Wheat.*—(i) *Wheat Acquired and Disposed of.* (a) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board from the 1954–55 to 1958–59 harvests are shown in the following table:—

AUSTRALIAN WHEAT BOARD : WHEAT ACQUIRED, 1954-55 TO 1958-59.
(⁰⁰⁰ Bushels.)

Pool.	Harvest.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
18	.. .. 1954-55	32,385	46,431	14,605	28,636	30,628	65	152,750
19	.. .. 1955-56	51,789	39,079	14,098	26,107	49,649	39	180,761
20	.. .. 1956-57	24,014	32,931	5,837	29,154	28,171	22	120,129
21	.. .. 1957-58	4,617	29,547	5,247	12,535	29,306	74	81,326
22	.. .. 1958-59	60,001	41,216	15,206	29,548	53,348	82	199,401

(b) *Wheat Disposal.* Details relating to the disposal of wheat during the years ended 31 November, 1955 to 1959, are shown in the following table.

AUSTRALIAN WHEAT BOARD : DISPOSAL OF WHEAT, 1955 TO 1959.(a)
(^{'000 Bushels.})

Particulars.	1955.	1956.	1957.	1958.	1959.
Sold for export as wheat	63,171	95,399	66,972	34,399	70,940
Sold for export as flour (b)	34,024	34,950	32,334	16,868	25,258
Sold for local consumption as flour	38,012	39,832	41,162	39,213	40,174
Sold for other purposes	18,560	17,090	21,459	16,894	13,484

(a) Years ended 30th November.
exported.

(b) Includes wheat equivalent of manufactured wheat products

(ii) *Finance.* The Wheat Acquisition Regulations empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. The Wheat Industry Stabilization Act 1948 included similar provisions for advances to the reconstituted Board established under that Act and these provisions have been continued in the subsequent legislation.

AUSTRALIAN WHEAT BOARD : FINANCIAL OPERATIONS, POOLS Nos. 18 to 22.
(^{£'000.})

Particulars.	No. 18 Pool.(a)	No. 19 Pool.(a)	No. 20 Pool.(a)	No. 21 Pool.(b)	No. 22 Pool.(b)
	(1954-55 Harvest.)	(1955-56 Harvest.)	(1956-57 Harvest.)	(1957-58 Harvest.)	(1958-59 Harvest.)
Paid to growers	83,328	98,223	68,800	48,618	97,028
Rail freight	10,010	12,456	7,761	5,028	11,536
Expenses	7,660	8,806	6,189	4,167	8,245
<i>Total Payments</i>	100,998	119,485	82,750	57,813	116,809
Value of sales delivered	(c) 100,810	(d) 118,475	(e) 84,464	(f) 57,633	(g) 91,031

(a) Complete. (b) Incomplete. (c) Subject to addition of £188,000 withdrawn from Wheat Prices Stabilization Fund. (d) Subject to additional £1,010,000 withdrawn from Wheat Prices Stabilization Fund. (e) Includes £1,589,000 paid to Wheat Prices Stabilization Fund and £125,000 to Wheat Industry Research Fund. (f) Subject to additional £398,000 withdrawn from Wheat Prices Stabilization Fund and payment of £85,000 to Wheat Industry Research Fund. (g) Subject to additional £7,203,000 withdrawn from Wheat Prices Stabilization Fund and payment of £206,000 to Wheat Industry Research Fund.

NOTE.—Details of earlier pools will be found in previous issues of the Year Book.

(iii) *Advances to Growers.* Each year the size of the first advance to growers is announced by the Minister for Primary Industry before the commencement of the season. Additional payments are made as sufficient funds become available to the Board from sales realizations. Details of advances made to wheat growers in respect of the various pools are published in *Statistical Bulletin: The Wheat Industry, Australia*, last issued in March, 1960.

(iv) *Stabilization Fund.* Particulars of the most recent legislative provisions for this fund are given in para. 3 (iv) on page 899.

Amounts of £9,160,433 (equivalent to 1s. 5.4d. a bushel on all wheat exported) were paid into the Stabilization Fund from the Export Charge on exports from the 1953-54 harvest and £1,588,868 (equivalent to 6.716d. a bushel) from the 1956-57 crop. There were withdrawals from the Fund in respect of both the 1954-55 and 1955-56 harvests—£188,525 (equivalent to 0.296d. a bushel on all wheat exported) and £1,009,583 (1.975d. a bushel) respectively—to raise export realizations in accordance with guarantee. The balance of the Fund, plus interest from its investment, will first meet any payment needed for the 1957-58 wheat crop, estimated to be £398,000 (equivalent to 1.174d. a bushel)—the only Pool of the second Stabilization Plan not complete—and then the balance will form the nucleus of the Fund for the latest Plan.

5. *International Wheat Agreements.*—Details of the first and second International Wheat Agreements operative from 1st August, 1949, to 31st July, 1953, and from 1st August, 1953, to 31st July, 1956, respectively, were published in Official Year Book No. 42 (*see pp. 840-1*) and previous issues.

A third International Wheat Agreement covering a period of three years from 1st August, 1956, to 31st July, 1959, came into force on 1st August, 1956. The 1956 Agreement was substantially the same in form as the 1949 and 1953 Agreements, although amendments were made to many of the more important provisions.

The annual quota of 395 million bushels determined by the 1953 International Wheat Agreement was reduced in the 1956 Agreement by almost a quarter to 303 million bushels. The quotas were varied slightly during the course of the Agreement and in 1958-59 the total quota was 295.3 million bushels of which Australia's share was fixed at 29.5 million bushels.

Particulars of guaranteed sales and purchases and transactions actually recorded during 1958-59 are shown in the following table.

INTERNATIONAL WHEAT AGREEMENT : GUARANTEED SALES AND PURCHASES AND TRANSACTIONS RECORDED FOR 1958-59.(a)
(Million Bushels.)

Exporting Countries.			Importing Countries.		
Country.	Guaranteed Sales.(b)	Sales Recorded	Country.	Guaranteed Purchases.(c)	Purchases Recorded.
United States of America ..	128.8	81.2	Germany	55.1	55.2
Canada	100.3	83.5	Japan	36.7	34.9
Australia	29.5	15.8	Netherlands	25.7	16.8
France	16.1	8.7	Belgium	16.5	4.1
Argentina	14.3	0.2	Egypt	11.0	..
Sweden	6.3	1.6	Greece	11.0	..
			Remaining Importing Countries	139.3	80.0
Total	295.3	191.0	Total	295.3	191.0

(a) Wheat and wheat flour as wheat. (b) Quantities which exporting countries must sell if required by importing countries to do so at the maximum price. (c) Quantities which importing countries must buy if required to do so at the relevant minimum price.

A fourth International Wheat Agreement came into force on 1st August, 1959, covering a further period of three years from that date to 31st July, 1962. The 1959 Agreement, with some important variations, continues the arrangements covered by the earlier Agreements. The text of the new Agreement was negotiated at an international conference convened by the United Nations. The new Agreement was subject to ratification by a sufficient number of wheat exporting and importing countries by 1st December, 1959.

The agreement seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed range. The member exporting countries would compete to supply at prices within the agreed price range, which is 190 cents (Canadian currency), about 17s. Australian, to 150 cents, about 13s. 6d., a bushel. These prices are on the basis of Canada's No. 1 Manitoba Northern Wheat in bulk in store Fort William—Port Arthur.

Under the new Agreement, the member importing countries undertook to buy each year from the member exporting countries a stated percentage of their total commercial import requirements instead of a fixed quota as under previous agreements.

The United Kingdom, the world's largest importer of wheat, has decided to rejoin the agreement. On the basis of the recent level of commercial imports, it now appears that over 400 million bushels will be covered by the Agreement as compared with 295 million bushels in the last year of the previous Agreement.

Under the new agreement, the International Wheat Council is empowered to make an annual review of the world wheat situation, including the international implication of national policies in respect of wheat production, stocks, and marketing, and the disposal of wheat surpluses on non-commercial terms.

The proposed agreement does not retain the provision in the third agreement by which individual exporting countries had separate guaranteed quantities that they could call upon the member importing countries to buy at the minimum price.

There is provision for a right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Manitoba Northern Wheat—and the wheat supplied by the other member exporting countries.

6. Wheat Farms.—(i) Number. Particulars of the number of farms growing 20 acres and upwards of wheat for grain during each of the years 1954-55 to 1958-59, are shown in the following table. It should be noted that a farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING 20 ACRES AND UPWARDS OF WHEAT FOR GRAIN.

State.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
New South Wales	13,784	14,086	10,197	12,111	15,313
Victoria	10,547	9,714	7,674	8,856	9,074
Queensland	4,570	4,186	3,131	3,665	4,791
South Australia	8,892	8,571	7,852	7,515	7,774
Western Australia	7,979	7,962	7,943	7,957	8,660
Tasmania	114	78	45	95	104
Australian Capital Territory	10	9	4	10	19
Australia	45,896	44,606	36,846	40,209	45,135

(ii) *Size Classifications of Wheat Holdings.*—A special series of tabulations relating to rural holdings in Australia was compiled for 1955-56 and published in full detail in a series of mimeographed bulletins, *Size Classification of Rural Holdings, 1955-56*. Condensed tables also appear in *Primary Industries, Part I.—Rural Industries, Bulletin No. 51*. The tables relating to wheat holdings show area under wheat for grain (classified by size), and the number of such holdings also growing oats and barley and the number with sheep, beef cattle and pigs.

7. *Area, Production and Yield per Acre.*—(i) *Area.* Wheat is the principal crop grown in Australia, and its progress since 1860-61 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1954-55 to 1958-59 in comparison with the averages for the ten-year period ended 1957-58:—

WHEAT FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	2,919	2,390	688	1,689	2,979	7	1	10,673
1955-56 ..	2,937	2,141	582	1,609	2,890	6	1	10,166
1956-57 ..	1,742	1,565	360	1,438	2,765	4	..	7,874
1957-58 ..	2,257	1,835	461	1,331	2,957	6	1	8,848
Average, 1948-49 to 1957-58 ..	3,005	2,358	561	1,656	2,951	6	2	10,539
1958-59 ..	3,178	1,810	704	1,408	3,292	6	1	10,399
PRODUCTION ('000 BUSHEL).(a)								
1954-55 ..	37,718	48,484	16,478	31,463	34,300	159	15	168,617
1955-56 ..	57,149	41,083	14,922	28,891	53,250	129	19	195,443
1956-57 ..	28,490	35,282	7,061	31,432	32,100	89	1	134,455
1957-58 ..	10,603	32,134	6,657	14,914	33,100	153	5	97,566
Average, 1948-49 to 1957-58 ..	48,392	46,474	11,547	28,375	39,256	142	28	174,214
1958-59 ..	66,441	42,697	16,097	32,032	57,650	164	40	215,121

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
YIELD PER ACRE (BUSHELS).(a)								
1954-55 ..	12.9	20.3	24.0	18.6	11.5	21.7	19.4	15.8
1955-56 ..	19.5	19.2	25.7	18.0	18.4	20.7	25.5	19.2
1956-57 ..	16.4	22.5	19.6	21.9	11.6	22.7	11.1	17.1
1957-58 ..	4.7	17.5	14.5	11.2	11.2	26.1	8.9	11.0
Average, 1948-49 to 1957-58 ..	16.1	19.7	20.6	17.1	13.3	23.3	17.5	16.5
1958-59 ..	20.9	23.6	22.9	22.8	17.5	25.4	28.1	20.7

(a) 60 lb. per bushel.

A graph showing the expansion of the area sown to wheat for grain in Australia since 1900-01 appears on page 890 while a map showing the distribution of areas growing wheat for grain throughout Australia in 1954-55 appeared on page 833 of Official Year Book No. 43. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39 and 1947-48 appeared respectively in Official Year Books No. 22, page 695, No. 34, page 451 and No. 39, pages 977-8.

(ii) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season, resulting in considerable year to year fluctuations in production.

The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production normally approaches local demands, but Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to two-thirds of the crop is exported.

Australia's wheat production in 1958-59 was 215.1 million bushels, representing a record average yield of 20.7 bushels per acre. Production has been exceeded on only two other occasions, namely 220.1 million bushels in 1947-48 and 218.2 million bushels in 1949-50.

(iii) *Yield per Acre.* Short-term variations in yield per acre are due chiefly to seasonal influences. The best yields per acre for single seasons since 1901 were obtained in 1920-21, 16.1 bushels; in 1942-43, 16.8 bushels; in 1949-50, 17.8 bushels; in 1952-53, 19.1 bushels; in 1953-54, 18.4 bushels; in 1955-56, 19.2 bushels and in 1958-59, 20.7 bushels (a record).

(iv) *Decennial Averages, 1861-70 to 1950-59.* The following table shows the average area, production and yield per acre for decennial periods since 1861.

WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA.

Period.			Area.	Production.	Yield per Acre.
			'000 Acres.	'000 Bushels.	Bushels.
1861-70	..	..	831	10,622	12.8
1871-80	..	..	1,646	17,711	10.8
1881-90	..	..	3,258	26,992	8.3
1891-1900	..	..	4,087	29,934	7.3
1901-10	..	..	5,711	56,058	9.8
1911-20	..	..	8,928	95,480	10.7
1921-30	..	..	11,291	135,400	12.0
1931-40	..	..	14,176	177,758	12.5
1941-50	..	..	11,358	145,599	12.8
1950-59	..	..	10,321	176,656	17.1

It should be noted that with improved farming methods, including the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, the average yield per acre has shown a continued improvement in each decade since 1901.

8. *Varieties of Wheat Sown.*—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in better average yields, a greater uniformity of sample with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown during each season is restricted to about 45.

(ii) *States*.—1958–59. The principal varieties of wheat sown and the percentage of each to the total area sown in the five main producing States during 1958–59 were as follows:—New South Wales, Gabo (20.0), Glen Wari (16.0), Bencubbin (15.2); Victoria, Insignia (47.3), Pinnacle (22.7), Sherpa (8.9); Queensland, Festival (27.3), Gabo (17.3), Charter (13.1), Spica (12.5); South Australia, Gabo (23.0), Insignia (17.7), Dirk (16.7); Western Australia, Gabo (33.9), Bungulla (15.7), Bencubbin (10.8). A detailed table of wheat varieties sown in these five States appears in the annual bulletin *Primary Industries—Part 1.—Rural Industries*.

9. *F.A.Q. Standard of Wheat*.—Until the 1957–58 season, the Chambers of Commerce in each of the four main wheat-producing States determined the “f.a.q.” (fair average quality) standard for each season’s crop. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State.

Samples of wheat are obtained each year by the Chambers of Commerce from the different wheat districts and mixed to give a representative sample of the whole crop. From this representative sample the f.a.q. weight is determined by the use of the Schopper 1-litre scale chondrometer. Commencing with the 1958–59 season, the f.a.q. standard has been determined by State committees comprising representatives of the Australian Wheat Board, the silo authorities, the growers and the State Departments of Agriculture. “F.a.q.” is an Australian term, and the method of selling differs from that of other countries which sell according to sample, or (as in Canada) according to grades which are fixed and do not vary from year to year.

The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1959–60 season’s crop was as follows:—New South Wales, North, 64 lb.; South and West, 64½ lb.; Victoria, 62½ lb.; South Australia, semi-hard, 63 lb., soft, 63½ lb.; and Western Australia, 64½ lb.

10. *Price of Wheat*.—(i) *Home Consumption*. The price charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed was as follows:—Year ended 30th November, 1955, 14s. 1½d.; 1956, 13s. 5½d.; 1957, 13s. 9½d.; 1958, 14s. 4d.; 1959, 14s. 8d.; 1960, 15s. 0d. These prices include an amount used to meet freight charges incurred on wheat shipped to Tasmania (1½d. from 1955 to 1957; 2d. in subsequent years). The figure quoted for 1958 does not apply to New South Wales and Queensland where, because of the necessity of meeting the extra cost of importing wheat from Canada and Western Australia, the prices, during the greater part of the year, were 18s. 4½d. and 16s. 9½d. respectively.

(ii) *Export Wheat Prices—Australian Wheat Board’s Basic Selling Price*. The monthly average of the Wheat Board’s basic export selling prices for f.a.q. bulk wheat f.o.b. basis was 13s. 5½d. for the season ended 31st July, 1957, 14s. 6d. for the season ended 31st July, 1958, and 13s. 10d. for the season ended 31st July, 1959, both for wheat sold under the International Wheat Agreement and for “free” wheat sold on the open market. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The maximum and minimum prices fixed under the 1956 International Wheat Agreement are expressed in terms of “Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund for No. 1 Manitoba Northern wheat in bulk in store Fort William—Port Arthur.” The maximum price was set at 200 cents a bushel and the minimum at 150 cents for f.a.q. wheat. Under the current 1959 Agreement operative from 1st August, 1959 (see paragraph 5, page 901), the agreed price range is between 190 cents and 150 cents. Directly converted into Australian currency these limits are approximately 17s. and 13s. 6d. a bushel respectively.

Details of export wheat prices in previous years, including those received for wheat sold under the terms of the 1949–1953 International Wheat Agreement, are given in Official Year Book No. 40, pages 849–50, and Statistical Bulletin: *The Wheat Industry, Australia*, No. 95 of April, 1959, and in previous issues of these publications.

11. *Value of the Wheat Crop*.—The estimated gross value of the wheat crop in each State and in Australia during the season 1958–59 and the value per acre are shown below.

WHEAT FOR GRAIN: VALUE OF CROPS (a), 1958-59.

Particulars.	N.S.W.	Victoria.	Q’land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £’000	43,994	28,275	10,972	21,896	38,820	105	25	144,087
Value per Acre £	13.8	15.6	15.5	15.6	11.8	16.3	17.4	13.9

(a) Gross value of total crop, including wheat used for seed and for stock feed on farms.

12. **Production and Disposal of Wheat in Australia.**—In the following table, details are given of the production of wheat and its disposal during each of the years ended 30th November, 1955 to 1959. The particulars respecting local consumption refer to sales actually executed by the Australian Wheat Board, whilst those respecting exports represent actual shipments. (For particulars of production and yield from 1900–01 see graph, p. 890.)

WHEAT : PRODUCTION AND DISPOSAL, AUSTRALIA.

(Million Bushels.)

Particulars.	Year ended 30th November—				
	1955.	1956.	1957.	1958.	1959.
Opening stocks (including flour as wheat)	94.9	95.0	84.2	41.5	16.5
Production	168.6	195.4	134.5	97.6	215.1
Imports .. .. .	..	..	..	1.5	..
<i>Total Available Supplies</i> ..	<i>263.5</i>	<i>290.4</i>	<i>218.7</i>	<i>140.6</i>	<i>231.6</i>
Exports—					
Wheat	64.5	93.7	69.3	33.6	71.7
Flour as wheat(a)	35.0	36.8	36.6	17.5	26.8
Breakfast foods and other products(b) ..	1.0	1.4	1.6	0.6	0.4
Local Consumption—					
Flour as wheat	38.0	39.8	41.2	39.2	40.2
Stock feed	16.5	15.3	19.6	15.0	11.6
Seed	10.1	7.9	9.1	11.1	11.2
Breakfast foods and other products(b) ..	2.0	1.7	1.9	1.9	1.9
Balance retained on farm (excluding seed)	5.8	6.7	5.3	6.1	4.5
Closing stocks (including flour as wheat) ..	95.0	84.2	41.5	16.5	65.4
<i>Total Disposals</i>	<i>267.9</i>	<i>287.5</i>	<i>226.1</i>	<i>141.5</i>	<i>233.7</i>
Excess (+) or Deficiency (–) of Disposals in respect of Available Supplies(c) ..	+4.4	–2.9	+7.4	+0.9	+2.1

(a) Includes wheatmeal and sharps. (b) In terms of wheat. (c) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc.

13. **Imports of Wheat.**—Due to drought conditions in 1957–58, wheat supplies, particularly in New South Wales, were insufficient for local requirements. As a result, 1,136,000 bushels were imported from Canada during March, April and May, 1958, and a further 349,000 bushels in July, 1958.

Wheat and flour have been imported in substantial quantities on only two previous occasions since 1900; in 1902–3 the wheat harvest was only 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported while an equivalent of 7,279,000 bushels was imported in 1914–15 to supplement the yield of 25 million bushels produced in that season.

14. **Exports of Wheat and Flour.**—(NOTE: Statistics in this paragraph relate to years ended 30th June). (i) *Quantities.* The following table shows particulars of the exports of wheat and flour and total of both in terms of wheat for each of the years 1954–55 to 1958–59. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 46.3 bushels of grain.

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Quantity.				Value. (£'000.)		
	Wheat.	Flour.		Total as Wheat.	Wheat.	Flour.	Total.
		As Flour. (a)	As Wheat. (b)				
'000 bushels.	Tons. (2,000lb.)	'000 bushels.	'000 bushels.				
1954-55	63,133	683,520	31,647	94,780	45,222	21,184	66,406
1955-56	71,041	684,229	31,680	102,721	46,456	20,273	66,729
1956-57	91,107	766,655	35,496	126,603	60,058	22,234	82,292
1957-58	39,575	479,985	22,223	61,798	28,494	15,059	43,553
1958-59	54,631	467,699	21,654	76,285	38,381	14,001	52,382

(a) White flour, sharps and wheatmeal for baking.
to be equivalent to 46.3 bushels of wheat.

(b) One ton (2,000 lb.) of flour is taken

(ii) *Destination.* (a) *Wheat.* The following table shows the exports of wheat to various countries for each of the five years ended 1958-59.

WHEAT: EXPORTS FROM AUSTRALIA.
(^{'000} Bushels.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	19,134	20,442	26,699	9,792	21,225
New Zealand	7,979	9,067	10,915	9,680	8,229
India	17,416	5,562	23,274	434	1,317
Pakistan .. ..	..	..	6,195	4,720	720
Other Commonwealth Countries	6,738	6,235	5,727	6,843	11,245
Japan	2,034	11,261	3,427	6,762	7,568
Germany, Federal Republic of	5,084	8,189	7,950	..	1,754
Other Foreign Countries	4,748	10,285	6,920	1,344	2,573
Total	63,133	71,041	91,107	39,575	54,631

(b) *Flour.* The following table shows the exports of flour to various countries for each of the five years ended 1958-59. The figures relate to exports of white flour, sharps and wheatmeal for baking.

FLOUR : EXPORTS FROM AUSTRALIA.
(Tons of 2,000 lb.)

Country to which Exported.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
United Kingdom	80,832	67,136	80,735	43,156	45,837
Ceylon	112,484	115,899	181,137	51,613	61,382
Malaya, Federation of	88,546	81,740	71,963	70,299	92,427
Mauritius	20,102	12,659	27,660	17,411	20,362
Singapore	77,956	54,707	47,243	37,590	40,735
Other Commonwealth Countries	90,797	86,238	102,189	94,785	102,996
Indonesia	95,510	178,098	115,660	62,897	37,856
Sudan	20,580	14,415	28,762	11,258	..
Other Foreign Countries	96,713	73,337	111,306	90,976	66,104
Total	683,520	684,229	766,655	479,985	467,699

15. **Stocks of Wheat and Flour.**—Stocks of wheat (including flour in terms of wheat) held by each State at 30th November for the years 1955 to 1959 are shown in the following table. These data relate to stocks held at mills, sidings, ports and depots as recorded by the Australian Wheat Board.

**WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT): STOCKS AT
30th NOVEMBER.(a)**

('000 Bushels.)

30th November—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1955	17,483	28,434	4,049	18,470	26,278	256	94,970
1956	21,365	22,821	1,973	15,223	22,534	265	84,181
1957	8,982	13,304	203	13,732	5,056	215	41,492
1958	4,420	6,172	116	3,262	2,260	222	16,452
1959	19,934	16,390	987	5,950	21,657	447	63,365

(a) One ton of flour is taken as equivalent to 46.3 bushels of wheat.

16. **Bulk Handling and Storage of Wheat in Australia.**—(i) *Description and Development of the Bulk Handling System.* A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954–8 of Official Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and, in more recent years, other States have also introduced bulk systems.

(ii) *Bulk Handling and Storage in the States.* Particulars of the operation of the bulk handling and storage systems and projected extensions in the States concerned are set out below:—

(a) *New South Wales.* Bulk handling facilities are operated by the Grain Elevators Board of New South Wales. The capacity of storages in the country for the 1959–60 season totalled 61,720,000 bushels and comprised 182 elevators (26,390,000 bushels), 13 horizontal type concrete and steel storages (3,200,000 bushels), 4 sub-terminals (16,500,000 bushels), 69 bulkheads (6,930,000 bushels) and 12 bulk depots (8,700,000 bushels). In addition, port terminal facilities provided storage for 4,200,000 bushels at Newcastle and 7,500,000 bushels at Sydney, making a total capacity of 73,420,000 bushels for the State.

(b) *Victoria.* The Victorian Grain Elevators Board operates 193 elevators with a storage capacity of 27,424,000 bushels and a terminal elevator at Geelong with a capacity of 4,100,000 bushels. Storages for 18,000,000 bushels, adjacent to the permanent terminal, have been constructed at Geelong.

Temporary measures for extending bulk handling facilities have been adopted and sub-terminals constructed or acquired at Dunolly, Murtoa and Warracknabeal with a capacity of 22,000,000 bushels. Temporary bulkheads have also been used and in the 1959–60 season there were 35 available for use with a total capacity of 2,525,000 bushels.

(c) *Queensland.*—Bulk storages in this State are controlled and operated by the State Wheat Board. The capacity in the country for the 1959–60 season totalled about 4,500,000 bushels. In addition to the silos and bulkheads, approximately 420,000 bushels will be stored in temporary steel-mesh bins.

The new terminal bulk storage at Pinkenba commenced receiving wheat in July, 1959, and the storage capacity is 1,300,000 bushels.

(d) *South Australia.* Since the formation of the South Australian Co-operative Bulk Handling Ltd. in 1955, steady progress has been maintained in the expansion of the system.

The present capacity of bulk storages is 12,950,000 bushels comprising 1,000,000 bushels at Ardrossan; 1,510,000 at Wallaroo; 1,250,000 at Port Lincoln and 9,190,000 in country areas.

For the 1959-60 season, wheat was received in bulk at 22 installations in country areas in addition to the terminals at Ardrossan, Wallaroo and Port Lincoln.

For the 1960-61 season, the completion of a further five country silos will increase the capacity by 1,440,000 bushels which will give the South Australian Co-operative Bulk Handling Ltd. capacity to handle 14,390,000 bushels of wheat in bulk.

(e) *Western Australia.* The bulk handling system is operated by Co-operative Bulk Handling Ltd., which is a company controlled by growers. In 1959-60, there were 283 sidings equipped with bulk handling facilities and the whole of the marketable harvest was received in bulk.

The system of storage at country stations in Western Australia comprises fixed installations of galvanized iron bins and iron and timber horizontal bulkheads. In addition, a type of temporary roofed bulkhead consisting of timber and iron is used. This latter type of storage can be transferred to suit operational requirements, and therefore lends flexibility to the system. Terminal installations comprise concrete silos and timber and iron horizontal bulkheads with the exception that one port is equipped with iron silos instead of concrete. Plans are in hand to increase the number of vertical concrete cell type storages at the main ports.

(f) *Tasmania.* In order to meet the change to bulk handling of wheat in the mainland exporting States, the Tasmanian Government has constructed grain elevators at Hobart, Launceston and Devonport, each with a capacity of 300,000 bushels, for storage of bulk wheat shipments from the mainland.

17. *World Area and Production of Wheat.*—The details in the following table of the world area and production of wheat by principal countries and by continents have been compiled from official records of the countries concerned so far as they are available, but more particularly from the statistics published by the Food and Agriculture Organization of the United Nations, and the Foreign Agricultural Service of the United States Department of Agriculture. The harvests shown for countries in the Northern Hemisphere are those reaped during the period March to October whilst those for the Southern Hemisphere cover the period November to February following.

WHEAT : AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES.

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>North America—</i>									
Canada ..	22,781	21,117	20,899	573,062	385,508	371,730	25.2	18.3	17.8
United States ..	49,784	43,806	53,577	1,004,272	950,662	1,462,218	20.2	21.7	27.3
<i>Total(c)</i> ..	74,970	67,380	76,540	1,624,000	1,388,000	1,881,000	21.7	20.6	24.6

NOTE.—See next page for footnotes.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES—*continued.*

Continent and Country.	Area.(a)			Production.			Yield per Acre.		
	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)	1956.	1957.	1958. (b)
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
<i>Europe—</i>									
France.. ..	7,000	11,534	11,404	225,000	407,200	353,000	32.1	35.3	31.0
Italy	12,350	12,375	12,300	318,930	310,000	360,000	25.8	25.1	29.3
Spain	10,638	10,820	10,872	155,000	180,000	167,000	14.6	16.6	15.4
<i>Total(c)</i> ..	67,580	73,440	73,590	1,585,000	1,950,000	1,865,000	23.5	26.6	25.3
<i>U.S.S.R.</i> ..	153,000	170,000	165,000	2,000,000	1,800,000	2,300,000	13.1	10.6	13.9
<i>Africa—Total(c)</i> ..	17,400	17,520	18,180	215,000	185,000	190,000	12.4	10.6	10.5
<i>Asia—</i>									
China	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)
India	30,386	33,580	29,300	319,910	347,700	290,000	10.5	10.4	9.9
Pakistan ..	11,298	11,807	11,815	123,760	142,000	137,000	11.0	12.0	11.6
Turkey	18,125	17,878	16,000	215,000	250,000	240,000	11.9	14.0	15.0
<i>Total(c)</i> ..	146,890	146,620	140,680	1,860,000	1,910,000	1,910,000	12.7	13.1	13.6
<i>South America—</i>									
Argentina ..	13,324	10,858	12,954	261,980	213,500	245,000	19.7	19.7	18.9
<i>Total(c)</i> ..	20,840	18,740	20,260	368,000	320,000	335,000	17.7	17.1	16.5
<i>Oceania—</i>									
Australia ..	7,874	8,848	10,399	134,455	97,566	215,121	17.1	11.0	20.7
<i>Total(c)</i> ..	7,940	8,930	10,570	138,000	101,000	222,000	17.3	11.3	21.0
World Total(c) ..	488,620	502,630	504,820	7,789,000	7,654,000	8,703,000	15.9	15.2	17.2

(a) Figures for countries other than Australia refer to harvested areas as far as possible. For Australia area sown is shown. (b) Preliminary. (c) Totals (estimates) include allowances for any missing data for countries shown and for producing countries not shown. (d) Not available. See footnote (c).

18. **Exports—Principal Countries.**—The following table shows the quantities of wheat exported from the chief exporting countries for the years 1956 to 1958 based on statistics recently published by the Food and Agriculture Organization of the United Nations.

While Australia's production of wheat averages less than 3 per cent. of the world's total, its exports account for a much higher proportion of the total quantities shipped. In 1957, Australia's share of world wheat exports was 7.4 per cent. but in 1958 this fell, as a result of the poor 1957 harvest, to 4.5 per cent.

WHEAT(a) : EXPORTS, PRINCIPAL COUNTRIES.

Exporting Country.	1956.		1957.		1958.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United States of America	470.6	38.0	475.9	36.4	393.6	33.7
Canada	341.7	27.6	267.0	20.4	311.7	26.7
Argentina	94.4	7.6	98.5	7.5	79.1	6.8
France	52.6	4.2	50.3	3.8	67.9	5.8
Australia	136.1	11.0	97.3	7.4	52.8	4.5
All other	144.1	11.6	320.1	24.5	262.2	22.5
<i>Total</i>	<i>1,239.5</i>	<i>100.0</i>	<i>1,309.1</i>	<i>100.0</i>	<i>1,167.3</i>	<i>100.0</i>
World Production (mill. bus.) ..	7,790		7,660		8,705	
Proportion of Australia's Production to World Production	% 1.7		% 1.3		% 2.5	

(a) Includes flour expressed in terms of wheat.

19. Imports—Principal Countries.—The principal importers of wheat, together with quantities imported, for the periods indicated, are shown in the following table:—

WHEAT(a) : IMPORTS, PRINCIPAL COUNTRIES.

Importing Country.	1956.		1957.		1958.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	million bushels.	%	million bushels.	%	million bushels.	%
United Kingdom	197.2	16.8	186.7	14.6	198.6	17.1
India and Pakistan	57.0	4.9	131.7	10.3	125.8	10.8
Japan	86.0	7.3	85.2	6.7	86.8	7.5
Germany, Federal Republic of ..	109.1	9.3	106.6	8.3	83.4	7.2
Brazil	55.0	4.7	54.2	4.2	57.0	4.9
United Arab Republic	25.1	2.1	30.9	2.4	43.1	3.7
Netherlands	34.4	2.9	34.9	2.7	38.9	3.4
Yugoslavia	48.6	4.1	40.5	3.2	27.2	2.3
Poland	24.4	2.1	65.9	5.2	24.5	2.1
All other	536.6	45.8	542.0	42.4	475.7	41.0
<i>Total</i>	<i>1,173.4</i>	<i>100.0</i>	<i>1,278.6</i>	<i>100.0</i>	<i>1,161.0</i>	<i>100.0</i>

(a) Includes flour expressed in terms of wheat.

§ 5. Oats.

1. **Area, Production and Yield per Acre.**—Oats is usually next in importance to wheat among the grain crops cultivated in Australia, but while wheat grown for grain in 1958–59 accounted for 41.4 per cent., oats grown for grain represented only 15.8 per cent. of the area of all crops. The area, production and yield per acre of oats for the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table:—

OATS FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA ('000 ACRES).								
1954–55 ..	657	644	36	340	874	23	(a)	2,574
1955–56 ..	902	871	36	425	1,091	29	(a)	3,354
1956–57 ..	420	613	28	427	1,051	17	(a)	2,556
1957–58 ..	716	622	19	427	1,154	21	(a)	2,959
Average, 1948–49 to 1957–58 ..	561	632	27	348	809	21	(a)	2,398
1958–59 ..	1,130	971	39	481	1,330	22	1	3,974
PRODUCTION ('000 BUSHELS).(b)								
1954–55 ..	7,667	10,021	597	4,508	9,585	452	4	32,834
1955–56 ..	16,537	14,858	743	7,280	16,516	548	5	56,487
1956–57 ..	6,274	9,555	553	8,318	10,441	253	2	35,396
1957–58 ..	3,944	9,528	256	3,423	13,793	482	(c)	31,426
Average, 1948–49 to 1957–58 ..	8,147	10,281	489	4,956	10,023	434	5	34,335
1958–59 ..	27,638	23,339	832	11,992	22,585	491	28	86,905
YIELD PER ACRE (BUSHELS).(b)								
1954–55 ..	11.7	15.5	16.4	13.3	11.0	20.0	20.4	12.8
1955–56 ..	18.3	17.1	20.8	17.1	15.1	19.1	17.1	16.8
1956–57 ..	14.9	15.6	20.1	19.5	9.9	15.3	12.5	13.8
1957–58 ..	5.5	15.3	13.4	8.0	12.0	23.3	7.4	10.6
Average, 1948–49 to 1957–58 ..	14.5	16.3	18.2	14.3	12.4	20.4	16.4	14.3
1958–59 ..	24.5	24.0	21.3	24.9	17.0	22.1	26.6	21.9
(a) Less than 500 acres. (b) 40 lb. per bushel. (c) Less than 500 bushels.								

A graph showing the production of oats appears on page 891.

In 1958–59, extremely favourable seasonal conditions for all cereal crops were experienced and production of oats reached an all-time high at 86,905,000 bushels. This followed the small crop of 31,426,000 bushels produced in the previous year when drought conditions considerably reduced yields in some States. The previous highest production was recorded in 1955–56 when 56,487,000 bushels were produced.

During the five seasons ending 1957–58, on an average, 5.7 million bushels were exported; 1.8 million bushels were used in factories for oatmeal; and 7.9 million bushels were used for seed purposes; leaving a balance of 22.5 million bushels for stock feed (principally unprocessed) and carry-over.

The average yield for the 1958–59 season of 21.9 bushels an acre is the highest yet recorded. The previous highest yield in recent years was 19.3 bushels an acre in the 1947–48 season which was the highest since 1920–21. The yield per acre recorded in the abnormally dry season 1944–45, namely 4.4 bushels, was the lowest ever recorded for Australia.

2. **Price of Oats.**—The average wholesale price in the Melbourne market for oats of good milling quality was 6s. 11d. a bushel in 1958–59. This represents a decrease of approximately 37 per cent. on the price in 1957–58 (10s. 11½d.).

3. Value of Oat Crop.—The estimated gross value of the oat crop in each State for the 1958–59 season and the value per acre were as follows:—

OATS : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	11,977	6,820	416	3,497	8,028	219	7	30,964
Value per acre.. £	10.6	7.0	10.6	7.3	6.0	9.9	6.8	12.8

4. Exports.—The production of oats in Australia is sufficient to allow for a regular export trade. The quantities and values of oats exported from Australia during the years 1954–55 to 1958–59 are shown hereunder:—

OATS : EXPORTS, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity '000 bus.	2,872	9,608	8,165	2,296	17,557
Value £'000	1,376	3,578	2,972	1,064	6,512

In 1958–59, the principal countries of destination of the exports were the Federal Republic of Germany, the United Kingdom, the Netherlands and Italy. Imports of oats into Australia are not recorded separately.

5. Oatmeal, etc.—In 1957–58, the production of oatmeal was 13,763 tons for porridge and 7,781 tons for other purposes. This was equivalent to about 2,400,000 bushels of oats. In 1958–59, 14,446 tons of oatmeal for porridge was produced.

6. World Production.—The world's production of oats for the year 1959, according to preliminary details released by the United States Department of Agriculture, amounted to 3,685 million bushels, harvested from 112.9 million acres, representing an average yield of 32.6 bushels per acre. This compared with an estimated production in the previous year of 4,235 million bushels from an area of 116.5 million acres and an average yield of 36.3 bushels an acre.

§ 6. Maize.

1. States Growing Maize.—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1958–59 season being 175,651 acres, or 98 per cent. of the total for Australia. In all States except South Australia, the crop is grown to some extent for green fodder, particularly in connexion with the dairying industry.

2. Area, Production and Yield per Acre.—Although maize for grain is grown extensively in other countries, the area sown to maize for grain in Australia has averaged only 177,025 acres during the ten years ended 1957–58. The area in 1958–59 was 179,542 acres, a slight decrease on the previous year, and considerably less than the comparatively large areas of 414,914 and 400,544 acres sown in 1910–11 and 1927–28 respectively.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialized industry of growing hybrid strains for seed.

The area, production and yield per acre of maize for grain in each State for the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are given in the following table. Separate details for hybrid and other varieties are shown for New South Wales, Victoria and Queensland for 1958–59.

MAIZE FOR GRAIN : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES).								
1954-55 ..	50,617	4,379	114,673	2	8	8	..	169,687
1955-56 ..	55,678	3,535	108,146	6	6	65	2	167,441
1956-57 ..	53,225	2,727	125,606	(b)	10	2	..	181,570
1957-58 ..	57,513	4,278	122,245	(b)	20	..	6	184,062
Average, 1948-49 to 1957-58 ..	59,382	4,551	113,043	(b)	29	18	1	177,024
1958-59—								
Hybrid ..	48,181	3,135	59,003	} (b)	10	..	..	179,542
Other ..	14,068	746	54,399					
PRODUCTION ('000 BUSHELS).(c)								
1954-55 ..	1,767	229	3,080	..	..	..	..	5,076
1955-56 ..	1,868	176	2,710	..	..	1	..	4,755
1956-57 ..	1,945	81	3,468	(b)	..	..	..	5,494
1957-58 ..	2,237	241	3,161	..	..	..	..	5,639
Average, 1948-49 to 1957-58 ..	1,947	204	2,942	(b)	..	1	..	5,094
1958-59—								
Hybrid ..	2,303	181	2,158	} (b)	..	..	..	6,717
Other ..	557	22	1,496					
YIELD PER ACRE (BUSHELS).(c)								
1954-55 ..	34.9	52.3	26.9	15.0	9.8	21.6	..	29.9
1955-56 ..	33.5	49.7	25.1	12.5	15.0	19.4	80.0	28.4
1956-57 ..	36.6	29.6	27.6	(b)	12.0	30.0	..	30.3
1957-58 ..	38.9	56.5	25.9	(b)	14.9	..	..	30.6
Average, 1948-49 to 1957-58 ..	32.8	44.8	26.0	(b)	12.7	24.7	20.0	28.8
1958-59—								
Hybrid ..	47.8	57.7	36.6	} (b)	25.5	..	..	37.4
Other ..	39.6	30.3	27.5					

(a) Includes 3 acres in the Northern Territory.
per bushel.

(b) Not available for publication.

(c) 56 lb.

The average yield for Australia for the ten-year period ended 1957-58 was 28.8 bushels per acre. Among principal producing countries during 1958, the United States of America averaged 51.7 bushels per acre and Italy 44.4 bushels.

3. **Price of Maize.**—The average wholesale price of maize in the Melbourne market in 1958-59 was 15s. 4½d. a bushel compared with 21s. 2½d. in 1957-58.

4. **Value of Crop.**—The estimated gross value of the crop in each State for the 1958-59 season and the value per acre were as follows:—

MAIZE FOR GRAIN : VALUE OF CROP—1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Aggregate value .. £'000	2,204	137	2,288	..	..	..	4,629
Value per acre .. £	35.4	35.3	20.2	..	..	..	25.8

5. **Exports of Maize and Maize Products.**—Details of exports of maize for the five years ended 1958-59 are shown below.

MAIZE : EXPORTS, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity .. '000 bus.	458	185	32	48	15
Value £'000	301	119	26	30	10

Imports of Maize into Australia are not recorded separately.

Exports of cornflour, which prior to the 1939-45 War were very small, increased considerably during the war years, the principal country of destination being New Zealand. In 1958-59, 682,700 lb., valued at £16,427, were exported. It should be noted that these figures include some quantities of "cornflour" made from wheat. Imports of cornflour into Australia are not recorded separately.

6. **World Production.**—According to preliminary details released by the United States Department of Agriculture, world production of maize in the year 1958 amounted to 7,335 million bushels, harvested from 243 million acres, giving an average yield per acre of 30.2 bushels. This compared with production in the previous year of 6,575 million bushels from 233 million acres, and an average per acre of 28.3 bushels.

The United States of America is the most important maize-producing country in the world and during the three years ended 1958 the area sown to maize in that country averaged 74 million acres or 31 per cent. of the world total. During the same period, production averaged 3,556 million bushels or about 52 per cent. of the world total. These figures are not strictly comparable with those for other countries included in the above-mentioned world totals, as the area and an estimate of grain equivalent of maize used as green fodder are included.

A graph showing the production of maize in Australia appears on page 891.

§ 7. Barley.

1. **Area, Production and Yield per Acre.**—The area sown to barley for grain expanded considerably during the ten years preceding the 1939-45 War—from 383,000 acres in 1930-31 to 836,000 acres in 1939-40. This increase was followed by a decline to 443,000 acres in 1943-44 but the area sown has increased in succeeding years and in 1958-59 reached the record level of 2,381,000 acres. Victoria was originally the principal barley-growing State but since 1913-14 its place has been taken by South Australia which accounted for 56 per cent. of the Australian acreage in 1958-59. There has been a substantial increase in the acreage sown in most States in recent years particularly in Western Australia and Queensland. Small areas of barley are sown for hay, and larger quantities are sown for green forage but these are not included in this section. The production of barley for grain in Australia in 1958-59 was a record at 62,976,000 bushels. The previous highest recorded production occurred in 1956-57 when 49,279,000 bushels were produced. The area, production and yield per acre of barley for grain in the several States for the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown in the following table:—

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	37	280	87	1,020	260	7	..	1,691
1955-56 ..	54	309	146	1,042	337	6	..	1,894
1956-57 ..	44	345	131	1,222	344	7	..	2,093
1957-58 ..	69	352	173	1,212	307	8	..	2,121
Average, 1948-49 to 1957-58 ..	31	273	77	954	181	7	..	1,523
1958-59—								
Malting (2-Row)	73	344	224	1,265	51	8	..	1,965
Other (6-Row)	33	19	25	67	271	1	..	416
Total ..	106	363	249	1,332	322	9	..	2,381

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE—*continued.*

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
PRODUCTION ('000 BUSHEL). ^(a)								
1954-55 ..	500	4,946	2,573	18,376	2,805	200	..	29,400
1955-56 ..	1,120	6,877	4,216	24,598	4,653	191	..	41,655
1956-57 ..	781	7,549	2,960	34,003	3,751	235	..	49,279
1957-58 ..	685	5,447	2,956	17,552	3,556	270	..	30,466
Average, 1948-49 to 1957-58 ..	499	5,404	1,809	20,730	2,281	199	..	30,922
1958-59—								
Malting (2-Row)	2,019	8,174	7,372	35,974	809	276	..	54,624
Other (6-Row)	903	407	732	1,690	4,602	19	..	8,352
Total ..	2,922	8,581	8,103	37,665	5,410	295	..	62,976
YIELD PER ACRE (BUSHEL). ^(a)								
1954-55 ..	13.6	17.6	29.5	18.0	10.8	27.5	..	17.4
1955-56 ..	20.7	22.2	29.0	23.6	13.8	30.2	15.0	22.0
1956-57 ..	17.7	21.9	22.5	27.8	10.9	33.2	..	23.5
1957-58 ..	10.0	15.5	17.1	14.5	11.6	32.2	..	14.4
Average, 1948-49 to 1957-58 ..	16.4	19.8	23.4	21.7	12.6	30.3	22.0	20.3
1958-59—								
Malting (2-Row)	27.5	23.8	32.9	28.4	16.0	31.8	..	27.8
Other (6-Row)	27.8	21.0	29.6	25.1	17.0	28.3	..	20.1
Total ..	27.6	23.6	32.6	28.3	16.8	31.6	..	26.5

(a) 50 lb. per bushel.

For Australia as a whole, 83 per cent. of the area of barley for grain in 1958-59 was sown with malting or 2-row barley while the remainder consisted of 6-row, or feed, varieties. The proportion, however, varied considerably in the several States. The utilization of barley during the season 1957-58 was as follows:—exports, 13,198,000 bushels; malting and distilling, 8,506,000 bushels; pearl barley, 147,000 bushels; seed and stock feed, 10,069,000 bushels.

The following table sets out the acreage and production of malting and other barley in Australia during the seasons 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58.

BARLEY, MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	Area. (^{'000} Acres.)			Production. (^{'000} Bushels.) ^(a)			Yield per Acre. (Bushels.) ^(a)		
	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.
1954-55 ..	1,391	300	1,691	25,622	3,778	29,400	18.4	12.6	17.4
1955-56 ..	1,510	384	1,894	35,470	6,185	41,655	23.5	16.1	22.0
1956-57 ..	1,705	388	2,093	43,870	5,408	49,278	25.7	13.9	23.5
1957-58 ..	1,758	363	2,121	26,404	4,062	30,466	15.0	11.2	14.4
Average, 1948-49 to 1957-58 ..	1,273	250	1,523	27,070	3,852	30,922	21.3	15.4	20.3
1958-59 ..	1,965	416	2,381	54,624	8,352	62,976	27.8	20.1	26.5

(a) 50 lb. per bushel.

A graph showing the production of barley appears on page 891.

During the ten-year period shown, the average area of barley of the malting, or 2-row, class was over five times the corresponding figure for barley of the 6-row, or feed, class. The yield per acre for malting barley was 38 per cent. higher than that for 6-row barley.

2. Australian Barley Board.—Following the outbreak of war in 1939, the Australian Barley Board, representative of the whole industry, was formed, and the Commonwealth Government acceded to its request to acquire the entire 1939-40 barley crop, which was placed under the control of the Board. A pool was established from which proceeds were

distributed with appropriate margins for different grades of barley. The Board was responsible for the marketing and storage of barley, and, like the Australian Wheat Board, appointed licensed receivers to receive grain on its behalf and to act as agents for all local and oversea sales.

Following the decision of the Commonwealth Government not to acquire barley in the smaller producing States after 1941-42, the pooling of barley in Queensland reverted to the control of the Queensland Barley Board (originally established in 1930) and in Western Australia a State Barley Board was established to control marketing.

The Commonwealth Government ceased to acquire barley altogether after the 1947-48 crop, and the Victorian and South Australian Governments formed a joint board under the same name as the former Commonwealth board to market the 1948-49 and subsequent crops of the two States. Details for the seasons from 1953-54 to 1958-59 are shown in the table below.

AUSTRALIAN BARLEY BOARD : BARLEY RECEIVED, SOLD, ETC.

Pool.	Quantity Received.	Quantity Sold.(a)	Total Advances made	Total Net Payments to Growers.
			per Bushel on 2-row No. 1 Grade less freight.	
	'000 bushels.	'000 bushels.	s. d.	£
No. 15 (1953-54 Crop)	34,430	34,586	10 4.101	15,417,374
„ 16 (1954-55 „)	20,679	20,709	12 10.92	11,953,430
„ 17 (1955-56 „)	29,357	29,454	10 3.441	12,990,173
„ 18 (1956-57 „)	39,029	39,102	10 2.541	16,965,609
„ 19 (1957-58 „)	18,023	18,195	11 9.61	9,151,748
„ 20 (1958-59 „)	42,550	42,550	(b) 10 0	17,826,223

(a) Includes surplus in out-turn except for No. 20 Pool for which this surplus has not yet been determined. (b) As at 31st December, 1959. At that date, it was estimated that the amount still to be paid to growers was 9.497d. per bushel.

3. Prices.—The average wholesale price for 2-row English malting barley in the Melbourne market during 1958-59 was 13s. 9d. compared with 13s. 7½d. in 1957-58.

4. Value of Barley Crop. The estimated gross value of the barley crop in each State for the 1958-59 season and the value per acre are shown in the following table:—

BARLEY FOR GRAIN : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Aggregate value £'000	2,092	4,165	4,106	19,944	2,781	216	33,304
Value per acre .. £	19.7	11.5	16.5	15.0	8.6	24.0	14.0

5. Exports.—Exports of barley during the five years ended 1958-59 averaged 23,572,000 bushels. South Australia was the principal exporting State and Japan, the Federal Republic of Germany, the Netherlands and the United Kingdom were the principal countries to which barley was shipped. Particulars of Australian exports for the years 1954-55 to 1958-59 are shown in the following table:—

BARLEY : EXPORTS, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity '000 bus.	18,867	21,065	26,501	21,501	29,924
Value £'000	10,357	10,471	12,745	9,474	16,898

Imports of barley into Australia are not recorded separately.

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1958-59 amounting to 232,531 lb., valued at £10,101, consigned mainly to Malaya.

6. Malt.—(i) *Production.* Details of the quantity of grain used and the production of barley malt are given in the following table:—

BARLEY MALT : GRAIN USED AND MALT PRODUCED, AUSTRALIA.

Particulars.	1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Grain used .. '000 bus.a	7,629	7,803	7,855	8,494	8,206
Malt produced .. '000 bus.b	7,517	7,782	7,895	8,197	8,108

(a) 50 lb. per bushel.

(b) 40 lb. per bushel.

(ii) *Exports.* Since 1952-53, the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports amounting to 988,549 bushels (value £947,845) and 1,225,139 bushels (value £1,167,631) were recorded in 1957-58 and 1958-59 respectively.

7. *World Production.*—In comparison with the barley production of other countries, that of Australia is extremely small. The main producers in 1959 were the United States of America, France and Canada. China is also normally a major producer, but details for 1959 are not available. Australian production in that year was slightly less than one per cent. of the world total.

According to preliminary estimates made by the United States Department of Agriculture, world production of barley in the year 1959 amounted to 3,240 million bushels harvested from 136.8 million acres, equivalent to a yield per acre of 23.7 bushels. This compared with the production of 3,305 million bushels in the previous year from 135.5 million acres, and a yield per acre of 24.4 bushels.

§ 8. Rice.

The principal rice-growing areas of the world are confined almost entirely to Asia although limited quantities are grown in other countries. In Australia, rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Area until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

The area sown in New South Wales in 1958-59 was 47,054 acres, compared with the record of 50,477 acres in 1956-57. Production was 6,618,933 bushels in 1958-59, the highest ever recorded.

A graph showing the production of rice appears on page 891.

The bulk of Australia's exports of rice in 1958-59 was shipped to Papua and New Guinea, the Pacific Islands, the United Kingdom and New Zealand.

Details relating to area, production and exports for the years 1954-55 to 1958-59, are shown in the following table:—

RICE : AREA, PRODUCTION AND EXPORTS, AUSTRALIA.(a)

Season.	No. of Holdings Growing Rice.(b)	Area.	Production (Paddy Rice).		Average Yield (Paddy) per Acre.	Exports.(d)	
			Quantity.	Gross Value. (c)		Un-cleaned.	Cleaned.
			Acres.	'000 Bushels. (e)	£'000.	Bushels. (e)	Cwt.	Cwt.
1954-55	573	38,690	5,080	3,430	131.3	55,867	552,065
1955-56	620	41,182	4,725	3,406	114.7	179,297	678,929
1956-57	652	50,477	4,262	3,069	84.4	177,123	408,634
1957-58	743	46,774	5,658	4,045	121.0	211,426	430,928
1958-59	775	47,054	6,619	4,731	140.7	183,083	704,381

(a) Until recently rice-growing in Australia has been practically confined to New South Wales with very small acreages only being sown in Queensland and Western Australia. Production commenced in the Northern Territory in 1956-57 but details, which are confidential, are not included in the table. (b) Twenty acres or more in area. (c) Excludes the value of straw. (d) Imports into Australia are not recorded separately. (e) 42 lb. per bushel.

In 1956, the Commonwealth Government entered into an agreement for the development of large scale rice-growing in the Northern Territory. The agreement, which was made with a company financed by American and Australian interests, granted a 30 year lease over 750,000 acres of sub-coastal plains east of Darwin and provided for the development of 500,000 acres of land for rice-growing within 15 years. Production of rice has commenced, but, as only one company is involved, details of area and production are confidential and not available for publication.

§ 9. Sorghum for Grain.

The growing of sorghum for grain on an extensive scale is a recent development in Australia. No details of the area and production of this cereal are available prior to 1939-40, but the output was of little importance. The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum and so far, development has been restricted mainly to these areas, and more particularly to Queensland which accounts for the greater portion of the area sown. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for the feeding of livestock. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). Particulars of the area and production of sorghum grown for grain are given in the following table.

GRAIN SORGHUM : AREA, PRODUCTION AND YIELD PER ACRE, AUSTRALIA.

Season.	Area.			Production.(a)			Yield per Acre.(a)		
	N.S.W.	Q'land.	Total. (b)	N.S.W.	Q'land.	Total. (b)	N.S.W.	Q'land.	Total. (b)
	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1954-55	13,069	202,532	215,688	272,604	5,082,762	5,356,335	20.9	25.1	24.8
1955-56	23,697	155,527	179,298	662,973	3,960,195	4,624,273	28.0	25.5	25.8
1956-57	34,585	171,705	206,659	671,331	4,243,227	4,919,247	19.4	24.7	23.8
1957-58	47,017	166,979	214,442	521,325	3,885,567	4,407,500	11.1	23.3	20.6
1958-59	41,899	210,371	252,419	943,359	6,365,880	7,309,645	22.5	30.3	29.0

(a) 60 lb. per bushel.

(b) Includes small areas sown and quantities produced in other States.

§ 10. Potatoes.

1. Area, Production and Yield per Acre.—Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958–59, Tasmania came next in order of acreage sown, although the production exceeded that of Victoria in some of the war years. In 1958–59, New South Wales, which had previously occupied third position, supplanted Tasmania as the second most important State in area sown. Tasmanian production, however, was still slightly larger than that in New South Wales. The areas sown in these three States accounted for 76 per cent. of the total for Australia in 1958–59.

The area sown, production and yield per acre of potatoes in each State during the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown hereunder:—

POTATOES : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
AREA (ACRES).									
1954–55 ..	13,897	44,075	9,621	6,037	7,563	26,209	5	71	107,478
1955–56 ..	13,270	37,020	10,202	5,373	6,826	20,842	..	74	93,607
1956–57 ..	14,959	39,706	12,925	5,677	8,558	19,125	..	100	101,050
1957–58 ..	17,326	49,846	14,400	6,260	8,322	21,696	4	92	117,946
Average, 1948–49 to 1957–58 ..	17,296	46,727	11,323	6,665	7,432	28,727	..	108	118,278
1958–59 ..	17,482	46,122	11,614	6,168	7,051	16,186	..	90	104,713
PRODUCTION (TONS).									
1954–55 ..	47,700	206,577	30,651	38,362	43,565	101,000	4	330	468,189
1955–56 ..	44,162	163,239	37,561	36,460	42,079	77,930	..	439	401,870
1956–57 ..	54,459	227,307	49,499	43,665	53,741	89,700	2	601	518,974
1957–58 ..	66,689	251,159	56,468	49,965	49,229	101,500	3	420	575,433
Average, 1948–49 to 1957–58 ..	54,797	184,692	35,779	41,127	46,787	115,723	(a)	584	479,489
1958–59 ..	84,450	259,346	46,999	50,587	47,103	85,900	..	152	574,537
YIELD PER ACRE (TONS).									
1954–55 ..	3.43	4.69	3.19	6.35	5.76	3.85	0.80	4.65	4.36
1955–56 ..	3.33	4.41	3.68	6.79	6.16	3.74	..	5.93	4.29
1956–57 ..	3.64	5.73	3.83	7.69	6.28	4.69	..	6.01	5.14
1957–58 ..	3.85	5.04	3.92	7.98	5.92	4.68	0.75	4.57	4.88
Average 1948–49 to 1957–58 ..	3.17	3.95	3.16	6.17	6.30	4.03	(a)	5.41	4.05
1958–59 ..	4.83	5.62	4.05	8.20	6.68	5.31	..	1.69	5.49

(a) Not available.

After the outbreak of war in the Pacific in December, 1941, the area sown to potatoes increased rapidly and reached a maximum of 241,803 acres in 1944–45. Areas sown in subsequent seasons were considerably less, however, and the figure for 1958–59 was 104,713 acres.

The average yield in Australia for 1958–59 was a record of 5.49 tons per acre compared with the previous highest yield of 5.14 tons in 1956–57.

2. **Gross Value of Potato Crop.**—The estimated gross value of the potato crop of each State for the 1958–59 season and the value per acre are shown in the following table:—

POTATOES : VALUE OF CROP, 1958–59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	2,222	5,040	1,198	1,201	1,565	1,880	3	13,109
Value per acre £	127	109	103	195	222	116	33	125

3. **Consumption.**—The annual consumption of potatoes in Australia during each of the three years 1956–57 to 1958–59 amounted to 458,600 tons, 514,400 tons and 516,100 tons respectively, or 107.7 lb., 118.2 lb. and 116.2 lb. respectively per head of population. These figures exclude the quantities used for seed, which averaged about 54,000 tons annually over this period. New South Wales, Queensland and, in some seasons, South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria, which have a surplus.

4. **Marketing.**—Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948 with the completion of sales of the 1947–48 crop.

Potato Marketing Boards were subsequently established in all States under separate State legislation. The life of the Queensland Board was not extended when its term ended in 1954, and the New South Wales Board was voted out by growers in 1956. As the Victorian Board does not acquire the State crop, potato marketing is now conducted chiefly on an open marketing system.

5. **Exports.**—Prior to the 1939–45 War, small quantities of potatoes were exported, principally to the Pacific Islands and Papua. After the war, the export trade expanded considerably. It reached a peak of 37,570 tons in 1952–53 but then fell sharply. Details showing exports for the years 1954–55 to 1958–59 are given in the following table:—

POTATOES : EXPORTS, AUSTRALIA.

Particulars.	1954–55.	1955–56.	1956–57.	1957–58.	1958–59.
Quantity tons	3,473	3,478	3,958	7,410	4,489
Value £'000	109	225	263	227	152

Imports of potatoes into Australia are not recorded separately.

§ 11. Onions.

1. **Area, Production and Yield per Acre.**—Australia's supply of onions comes chiefly from Victoria, which accounted for 45 per cent. of the total area and 52 per cent. of the quantity produced in 1958–59. Queensland was next with 39 per cent. of the area and 25 per cent. of the production, leaving a balance of 16 per cent. of area and 23 per cent. of production distributed among the remaining four States. The Victorian crop consists almost entirely of brown onions of good keeping qualities, and the bulk of the crop is grown in a small section of the Western Division of the State, where soil conditions have been found to be particularly suitable for onion growing on a commercial scale. Details of the area, production and yield per acre are given in the following table for the years 1954–55 to 1958–59 together with averages for the ten-year period ended 1957–58.

ONIONS : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
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AREA (ACRES).

1954-55	285	3,970	2,807	512	390	21	9	7,994
1955-56	318	3,337	2,480	524	321	22	8	7,010
1956-57	532	4,503	3,258	608	428	28	5	9,362
1957-58	498	5,368	4,296	694	415	37	9	11,317
Average, 1948-49 to 1957-58	342	4,323	2,828	542	393	30	6	8,464
1958-59	444	3,971	3,412	602	397	21	13	8,860

PRODUCTION (TONS).

1954-55	1,340	26,091	12,243	4,790	4,322	107	71	48,964
1955-56	1,759	20,299	9,157	4,911	3,547	140	42	39,855
1956-57	2,669	26,811	14,279	5,611	4,606	114	32	54,122
1957-58	2,343	40,678	18,653	5,945	4,149	186	76	72,030
Average, 1948-49 to 1957-58	1,510	26,880	12,045	5,285	4,209	147	40	50,116
1958-59	2,476	28,456	13,584	5,318	5,043	97	106	55,080

YIELD PER ACRE (TONS).

1954-55	4.70	6.57	4.36	9.36	11.08	5.10	7.89	6.13
1955-56	5.53	6.08	3.69	9.37	11.05	6.36	5.25	5.69
1956-57	5.02	5.95	4.38	9.23	10.76	4.07	6.40	5.78
1957-58	4.70	7.58	4.34	8.57	10.00	5.03	8.44	6.36
Average, 1948-49 to 1957-58	4.42	6.22	4.26	9.75	10.71	4.90	6.67	5.92
1958-59	5.58	7.17	3.98	8.83	12.70	4.62	8.15	6.22

2. **Gross Value of Onion Crop.**—The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1958-59 season:—

ONIONS : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	84	1,063	387	215	163	4	4	1,920
Value per acre £	189	268	113	357	411	190	307	217

3. **Consumption.**—The annual consumption of onions in Australia averaged 60,300 tons or 13.8 lb. per head of population during the three years ended 1958-59. These figures exclude an estimated wastage which averaged 3,000 tons per annum.

4. **Exports.**—Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1958-59, exports amounted to

1,998 tons, valued at £61,793, and were shipped mainly to Singapore, New Caledonia, and Australian Territories. The quantity of exports in 1957-58 was 4,562 tons, valued at £134,517. Imports of onions into Australia are not recorded separately.

§ 12. Hay.

1. **General.**—(i) *Area and Production.* As already stated, the chief crop in Australia in terms of area, is wheat grown for grain. Up to and including 1946-47, hay was next, but in recent years it has dropped in relative importance. In 1958-59, the areas sown to green fodder and oats for grain were larger than that sown to hay.

In 1958-59, the hay area represented 12.0 per cent. of the total area cropped. A graph showing the area sown to hay crops since 1900-01 appears on page 889. In most European countries, the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of oats, lucerne and wheat. The area, production and yield per acre of hay of all kinds in the several States during the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown below:—

HAY : AREA, PRODUCTION AND YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
1954-55 ..	524	739	76	257	289	96	3	1,984
1955-56 ..	562	879	63	326	269	137	5	2,241
1956-57 ..	367	782	45	299	242	123	3	1,861
1957-58 ..	554	871	69	291	339	110	3	2,237
Average, 1948-49 to 1957-58 ..	413	723	59	269	238	108	3	1,813
1958-59 ..	747	1,282	78	419	333	154	5	3,018
PRODUCTION ('000 TONS).								
1954-55 ..	680	1,208	171	330	305	158	4	2,856
1955-56 ..	846	1,526	137	461	384	261	10	3,625
1956-57 ..	538	1,423	96	453	289	238	6	3,043
1957-58 ..	535	1,413	122	304	386	205	4	2,969
Average, 1948-49 to 1957-58 ..	557	1,205	122	367	293	194	5	2,743
1958-59 ..	1,183	2,299	169	672	455	302	10	5,090
YIELD PER ACRE (TONS).								
1954-55 ..	1.30	1.63	2.25	1.28	1.05	1.64	1.33	1.44
1955-56 ..	1.51	1.74	2.17	1.41	1.42	1.91	2.08	1.62
1956-57 ..	1.47	1.82	2.12	1.52	1.19	1.94	1.81	1.63
1957-58 ..	0.96	1.62	1.77	1.05	1.14	1.86	1.39	1.33
Average, 1948-49 to 1957-58 ..	1.35	1.67	2.05	1.36	1.23	1.80	1.66	1.51
1958-59 ..	1.58	1.79	2.17	1.60	1.37	1.96	1.98	1.69

For a number of reasons, particularly the variations in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area of hay is apt to fluctuate considerably. The area under hay in Australia during the season 1915-16, 3,598,000 acres, was the largest on record, while the area recorded in 1958-59, 3,018,000 acres, was the largest since 1938-39.

A graph showing the production of hay appears on page 891.

(ii) *Varieties Grown.* Information regarding areas cut for hay in 1958-59 is given in the following table.

HAY : AREA UNDER VARIOUS KINDS GROWN, 1958-59.
(Acres.)

State.	Wheaten.	Oaten.	Lucerne.	Other.	Total.
New South Wales	102,173	117,298	230,912	296,482	746,865
Victoria	32,584	261,853	74,109	913,594	1,282,140
Queensland	9,080	4,337	57,914	6,491	77,822
South Australia	50,283	162,762	31,877	174,644	419,566
Western Australia	47,314	187,730	818	96,751	332,613
Tasmania	2,011	15,689	1,236	134,886	153,822
Northern Territory .. ..	..	..	..	121	121
Australian Capital Territory ..	158	1,942	1,464	1,564	5,128
Australia	243,603	751,611	398,330	1,624,533	3,018,077

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1958-59 were 25 per cent. for oaten, 13 per cent. for lucerne, 8 per cent. for wheaten, and 54 per cent. for other hay. In that year, oaten hay predominated in Western Australia, lucerne in Queensland, and meadow and grass hay in the remaining States.

2. **Value of Hay Crop.**—The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1958-59 season:—

HAY : VALUE OF CROP, 1958-59.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Aggregate value £'000	11,599	19,360	2,803	5,792	4,424	2,362	162	(a)46,503
Value per acre £	15.5	15.1	35.9	13.8	13.2	15.3	32.4	15.4

(a) Includes £1,000 in the Northern Territory.

3. **Farm Stocks of Hay.**—Details of stocks of hay held on farms are now collected at the annual census of farm production. Particulars of stocks so held at 31st March in each year 1955 to 1959 are given in the table below.

STOCKS OF HAY HELD ON FARMS.
(Tons.)

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1955 ..	809,263	1,553,289	156,115	447,102	207,664	145,112	3,269	3,321,814
1956 ..	830,619	1,870,214	149,187	474,456	306,586	270,138	7,778	3,908,978
1957 ..	775,464	2,008,678	156,599	555,681	222,941	296,257	7,617	4,023,237
1958 ..	553,691	1,643,876	89,897	384,143	211,069	256,199	3,492	3,142,367
1959 ..	1,463,334	2,464,050	166,657	679,003	290,988	311,825	9,323	5,385,180

4. **Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not figure largely amongst the exports of Australia. During 1958-59, exports amounted to 14,711 tons, valued at £282,549. Imports of hay into Australia are not recorded separately.

§ 13. Green Fodder.

1. **Nature and Extent.**—Considerable areas are devoted to the growing of green fodder, mainly in connexion with the dairying industry. In the 1958-59 season, green fodder ranked third after wheat and oats in area of crops throughout Australia. The areas recorded in respect of green fodder include areas of crops cut for feeding to live-stock as green fodder, or ensilage, together with areas fed off to stock as green forage. Included with the latter

are areas which may have been sown with the intention of harvesting for grain, but which, due to adverse seasonal conditions, showed no promise of producing grain or even hay and were fed off to live-stock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye and sugar-cane are also used in this way. In 1958-59, the area under green fodder (3,040,544 acres) consisted of oats (1,572,197 acres), lucerne (764,797 acres), wheat (117,019 acres), sorghum (98,283 acres), barley (128,571 acres), maize (37,988 acres), rye (23,100 acres), sugar-cane (1,294 acres) and other crops (297,295 acres). Particulars concerning the area of green fodder in the several States during each of the years 1954-55 to 1958-59 are given in the following table.

GREEN FODDER : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55 ..	934,395	77,135	649,607	360,359	639,086	70,945	32	988	2,732,547
1955-56 ..	826,789	75,815	689,469	334,957	666,398	54,401	..	970	2,648,799
1956-57 ..	813,642	66,490	640,316	363,562	752,072	48,435	2	772	2,685,291
1957-58 ..	993,039	85,095	714,048	421,242	770,739	54,094	4	1,032	3,039,293
1958-59 ..	1,238,314	70,289	638,667	261,813	769,199	61,322	273	667	3,040,544

2. Value of Green Fodder Crops.—The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately £8,600,000 for the 1957-58 season and £6,800,000 for the 1958-59 season.

§ 14. Sugar-cane.

1. Area.—Sugar-cane growing appears to have commenced in Australia in or about 1862, and is confined to New South Wales and Queensland. A brief outline of the development of the industry was included in earlier issues of the Official Year Book (see No. 38, page 985). The area of sugar-cane in Australia for the seasons 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are shown in the following table. In 1958-59, the total area of sugar-cane (excluding areas cut for green fodder) was 510,512 acres, the highest ever recorded.

SUGAR-CANE : AREA.(a)
(Acres.)

Season.	New South Wales.			Queensland.			Australia.			Total.
	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	
1954-55 ..	6,566	8,078	474	367,640	107,512	11,589	374,206	115,590	12,063	501,859
1955-56 ..	7,522	8,728	670	365,252	104,782	12,111	372,774	113,510	12,781	499,065
1956-57 ..	9,182	9,419	522	360,932	106,734	12,450	370,114	116,153	12,972	499,239
1957-58 ..	10,734	9,241	720	364,985	107,424	12,946	375,719	116,665	13,666	506,050
Average, 1948-49 to 1957-58 ..	8,046	8,087	417	313,406	108,305	12,082	321,452	116,392	12,499	450,343
1958-59 ..	13,368	9,727	616	356,210	118,200	12,391	369,578	127,927	13,007	510,512

(a) Excludes areas cut for green fodder.

2. Productive and Unproductive Cane.—The areas shown in the preceding table do not include the small acreage cut for green fodder, which in 1958-59 amounted to 1,294 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

3. Production of Cane and Sugar.—For Queensland, statistics of the production of sugar-cane are not available for seasons prior to 1897-98. In that season, the total for Australia was 1,073,883 tons, compared with the record of 10,212,593 tons in the 1958-59 season. The previous highest production was 10,086,517 tons in 1954-55.

The average production during the ten seasons ended 1957-58 was 7,942,408 tons of cane and 1,075,012 tons of raw sugar. Particulars of the total production of cane and sugar for the years 1954-55 to 1958-59 and the averages for the ten-year period ended 1957-58 are as follows:—

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.
(Tons.)

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.(a)	Cane.	Sugar.(a)	Cane.	Sugar.(a)
1954-55	222,213	26,301	9,864,304	1,301,245	10,086,517	1,327,546
1955-56	284,539	36,028	8,616,163	1,135,685	8,900,702	1,171,713
1956-57	294,087	35,918	8,978,081	1,171,879	9,272,168	1,207,797
1957-58	303,086	36,854	8,945,617	1,256,271	9,248,703	1,293,125
Average, 1948-49 to						
1957-58	277,884	33,940	7,664,524	1,041,072	7,942,408	1,075,012
1958-59	471,798	58,870	9,740,795	1,353,543	10,212,593	1,412,413

(a) Raw sugar at 94 net titre.

The production of raw sugar in Australia in 1958-59 amounted to 1,412,413 tons (a record) manufactured from 10,212,593 tons of cane, compared with the previous highest production of 1,327,546 tons in 1954-55.

Official annual data are not available regarding the total number of persons engaged in the sugar industry in New South Wales and Queensland. The number of separate holdings growing 5 acres or more of cane was 7,375 in 1958-59.

According to data obtained from the population census of 30th June, 1954, the number of persons engaged in the sugar-cane industry in New South Wales and Queensland comprised 20,185 males and 431 females, a total of 20,616 persons, of whom 4,245 were employers and 5,118 were self-employed.

4. Average Production of Cane Sugar.—Owing to climatic variations, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be made accurately except on an annual basis. In New South Wales, the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods the average annual yields of cane per productive acre during the ten years ended 1957-58 were 34.54 tons for New South Wales, and 24.45 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 5.33 tons and 3.32 tons respectively. The average yields of cane and sugar per acre crushed for Australia for the ten years ended 1957-58 were 24.71 tons and 3.34 tons respectively.

SUGAR-CANE AND SUGAR : YIELD PER ACRE.
(Tons.)

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
1954-55	33.84	4.01	8.45	26.83	3.54	7.58	26.95	3.55	7.60
1955-56	37.83	4.79	7.90	23.59	3.11	7.59	23.88	3.14	7.60
1956-57	32.03	3.91	8.19	24.87	3.25	7.66	25.05	3.26	7.68
1957-58	28.24	3.43	8.22	24.51	3.44	7.12	24.62	3.44	7.15
Average, 1948-49 to									
1957-58	34.54	5.33	8.19	24.45	3.32	7.36	24.71	3.34	7.39
1958-59	35.29	4.40	8.01	27.35	3.80	7.20	27.63	3.82	7.23

5. **Quality of Cane.**—The quantity of cane required to produce a ton of sugar varies with the variety planted, the district, and the season. For the ten years ended 1957–58, it required on the average 7.39 tons of cane to produce one ton of sugar, or 13.5 per cent. of its total weight. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods, the sugar content of the cane has been increased considerably since the turn of the century, when over 9 tons of cane were required to produce 1 ton of sugar. It is believed that the sugar content obtained in Australia is the highest anywhere in the world.

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

6. **Production and Utilization.**—Details of the production and utilization of raw sugar for the years 1954–55 to 1958–59 are shown below. It should be noted that the details of sugar production refer to the annual periods shown, without regard to the season in which the sugar was produced. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

RAW SUGAR : PRODUCTION AND UTILIZATION, AUSTRALIA.

Year.	Changes in Stocks.	Pro-duction.	Exports. (a)	Miscel-laneous Uses.(b)	Consumption in Australia.(a)	
					Total.(c)	Per Head.(c)
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
1954–55	–27.1	1218.1	761.2	21.7	462.3	114.0
1955–56	+40.5	1158.0	617.0	21.7	478.8	115.7
1956–57	+21.1	1217.7	698.7	20.0	477.9	112.3
1957–58	–23.3	1222.2	733.8	21.1	490.6	112.8
1958–59	+ 3.7	1353.4	830.8	20.0	498.9	112.3

(a) Includes sugar content of manufactured products in refining.

(c) In terms of refined sugar.

(b) Includes industrial uses and losses

7. **Consumption in Factories.**—The quantity of sugar used in factories in 1957–58 amounted to 278,764 tons compared with 271,688 tons in 1956–57 and 266,065 tons in 1955–56. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1957–58, consumption by factories engaged in the production of jams, jellies and preserved fruit (including condiments, pickles, etc.) amounted to 77,052 tons, by those producing confectionery, ice cream, etc. to 55,207 tons, by breweries to 43,738 tons and by factories producing aerated waters, cordials, etc. to 42,323 tons.

8. **Control of Cane Production in Queensland.**—Agreements between the Commonwealth and Queensland Governments have fixed the wholesale price of sugar and sugar products from time to time. Details of prices are shown in para. 14 of this section (see page 929).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills.

Sugar production barely met local requirements in 1923 but increased rapidly until 1925 when approximately 44 per cent. of the production was exported. Steps were taken by the Government to restrict planting of new areas and production was fairly stable until 1929. In that year, the pool was reorganized and mills received the full pool price for sugar up to the amount of their previous maximum production, further output being acquired at export prices.

Between 1929 and 1939, production rose by more than 70 per cent. despite the restrictions above-mentioned and the fact that export prices were generally less than half the pool price.

In 1939, following the International Sugar Agreement, which limited exports, the Queensland Government limited the pool (mill peaks) to 737,000 tons in respect of Queensland production. Mill quotas were allotted on the understanding that mills would allot

quotas to individual growers. Mill peaks have been raised since 1939, following the negotiation of the Commonwealth Countries Sugar Marketing Agreement of 1949, which allowed the Queensland Government to initiate a planned expansion of the industry. In 1958, they were 1,207,400 tons and in 1959, 1,213,000 tons.

9. **Sugar Agreement in Australia—Embargo on Imports, etc.**—Reference was made in Official Year Book No. 37, pages 940–41, to the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement operates for a five year period from 1st September, 1956, to 31st August, 1961.

10. **International Sugar Agreement.**—The International Sugar Agreement of 1937 was superseded by the International Sugar Agreement of 1953 which came into force on 1st January, 1954. Details of the 1937 Agreement were given in Official Year Book No. 40, pages 881 and 882, and previous issues.

The 1953 agreement, which was amended by protocol from 1st January, 1957, was for the five year period ended 31st December, 1958.

In October, 1958, a new agreement was negotiated at a conference held in Geneva under the auspices of the United Nations. The new agreement, which follows the lines of the 1953 agreement, is for five years commencing 1st January, 1959, with provision for a review during the third year. It is designed to assure supplies of sugar to importing countries and markets for sugar to exporting countries at equitable and stable prices, to facilitate a steady increase in the consumption of sugar and a corresponding increase in the supply of sugar, and, in general, to further international co-operation in connexion with world sugar problems. Basic export quotas of exporting countries are established and provision is made for adjustment of quotas according to fluctuations in the world sugar price. A number of price levels are stipulated at which the International Sugar Council may or must take action. The Council has considerable discretion to adjust quotas during the quota year.

Under the 1953 agreement, the British Commonwealth, as a whole, was granted an export quota of 2,375,000 tons rising to 2,500,000 tons in 1958. Under the 1958 agreement, the quota remains at 2,500,000 tons for 1959 but is increased by 75,000 tons to 2,575,000 tons in 1960 and 1961. This quota is not subject to the fluctuations mentioned above. The allocation of the total quota among exporting members of the British Commonwealth is a matter for internal arrangement by those countries and territories themselves. Australia's quota for 1959 was approximately 631,000 tons and will increase to about 650,000 tons in 1960 and 1961.

Details of the marketing arrangements for Australian sugar are given in paragraph 15 below.

11. **Net Return for Sugar Crop.**—Details of the disposal of the crop, net value of exports and the average price realized during each of the years 1954–55 to 1958–59 are shown in the following table:—

RAW SUGAR(a): NET RETURNS, AUSTRALIA.

Year.		Proportion Exported. (b)	Net Value of Exports per Ton. (b)	Average Price per Ton for Whole Crop.	Estimated Value of Crop.
		Per cent.	£ s. d.	£ s. d.	£'000.
1954–55	.. ..	59.11	37 8 0	41 6 11	53,984
1955–56	.. ..	53.46	38 11 4	42 9 0	53,244
1956–57	.. ..	56.01	41 6 5	46 14 3	57,686
1957–58	.. ..	57.44	45 16 8	49 7 6	64,194
1958–59	.. ..	60.53	39 8 2	45 9 11	64,849

(a) 94 net titre.

(b) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1958-59 amounted to £615,833. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively.

12. **Exports of Sugar.**—Particulars of the exports of cane sugar (raw and refined) for each year from 1954-55 to 1958-59 are as follows:—

SUGAR : EXPORTS, AUSTRALIA.

Particulars.			1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Quantity	tons		737,184	592,229	675,282	707,806	802,971
Value	£'000		31,148	24,723	28,780	34,996	32,163

13. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the amounts used for distilling, fuel, manure and other purposes will be found in Chapter VI.—Manufacturing Industry.

Other by-products include industrial chemicals and building boards. These boards are made from the residue of crushed fibre after removal of the sugar content from sugar-cane and possess high insulating and sound-absorbing properties which make them particularly suitable for use in walls and ceilings.

14. **Sugar Prices.**—The prices of sugar in Australia from 1952 to 1958 in the case of raw sugar; and from 1952 to 1961 in the case of refined sugar (as determined under the Sugar Agreement in Australia—see para. 9 above) are shown in the following table:—

SUGAR : PRICES IN AUSTRALIA.

Year.	Raw Sugar, 94 Net Titre.			Refined Sugar.		
	Average Return per Ton Received by Millers and Growers for—			Date of Determination.	Wholesale Price per Ton.	Retail Price per lb.
	Home Consumption.	Exports.(a)	Whole Crop. (a)			
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	d.
1952 ..	44 3 0	41 2 0	42 12 9	24.3.52 to 12.10.52	65 12 10	8
1953 ..	47 18 6	38 13 9	42 10 8	13.10.52 to 13.5.56	73 16 11	9
1954 ..	47 1 0	37 8 0	41 6 11	14.5.56 to 31.8.61	82 1 0	10
1955 ..	46 18 0	38 11 6	42 9 0			
1956 ..	53 11 6	41 6 5	46 14 3			
1957 ..	54 3 0	45 16 8	49 7 6			
1958 ..	54 15 0	39 8 2	45 9 11			

(a) Including "Excess" Sugar.

15. **Marketing Arrangements.**—From 1939 to 1952, the British Ministry of Food purchased Australia's surplus raw sugar at prices negotiated annually and varying from £stg.11 5s. in 1939 to £stg.38 10s. a ton in 1952 including tariff preference (for prices in other years see earlier issues of the Year Book).

On 1st January, 1953, the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1965, provides for Australia to export a maximum of 600,000 tons per annum, subject to annual review. For 1959, the Australian quota was approximately 631,000 tons. The United Kingdom agrees to take 300,000 tons at an annually negotiated price, the balance being sold at world prices, plus tariff preferences. The negotiated prices for 1958 and 1959 were £stg.43 16s. 8d. and £stg.45 2s. per ton respectively.

The Sugar Bill introduced into the House of Commons on 5th July, 1955, provided for the reversion of dealings in sugar in the United Kingdom to a trader to trader basis as

from 1st January, 1957. However, under the Bill, a Sugar Board was created which is responsible for the purchase of the negotiated price sugar which the United Kingdom Government has contracted to take under the British Commonwealth Sugar Agreement.

16. Fruit Industry Sugar Concession Committee and Sugar Rebates.—The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

A rebate of £2 4s. per ton of refined sugar used in processing approved fruit products is paid to Australian manufacturers provided they buy the fresh fruit at prices not lower than those declared by the Committee as reasonable.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for Australian sugar than the price for which the cheapest imported sugar could be landed duty free in Australia.

Under the Sugar Agreement 1956–1961, the Queensland Government contributes to the fund £120,000 annually and also reimburses the Committee for the actual expenditure on export sugar rebates. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for scientific research for the purpose of increasing the yield per acre of Australian fruit.

17. Bulk Handling of Sugar.—The conversion of the Australian sugar industry to bulk handling and mechanized loading and unloading of raw sugar is well advanced. Within the next few years, 80 per cent. of raw sugar in Australia will be handled in bulk without being bagged at any stage.

Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958 and at Townsville in 1959; a terminal is also in the course of construction at Mourilyan.

Bulk unloading facilities are in operation, or in the course of construction, at all Australian refineries.

§ 15. Vineyards.

1. Progress of Cultivation.—(i) *Area of Vineyards.* Since the early days of Australian settlement, the expansion of the cultivation of vines has been most rapid in Victoria and South Australia, the area under vineyards in the 1958–59 season in these two States comprising 78 per cent. of the total area. The purposes for which grapes are grown in Australia are (a) for wine-making, (b) for table use and (c) for drying. The total area of vines in the several States during each of the years 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table:—

VINEYARDS : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Aust.(a)
1954–55	18,205	45,757	2,896	60,612	9,015	136,485
1955–56	18,099	44,817	2,916	59,862	9,107	134,801
1956–57	17,394	44,902	2,916	57,409	8,996	131,617
1957–58	16,984	44,767	2,821	57,439	9,023	131,034
Average, 1948–49 to 1957–58	17,428	45,356	2,951	60,129	9,288	135,152
1958–59—						
Wine	7,128	4,164	319	42,892	3,112	57,615
Table	2,572	2,212	2,722	235	1,499	9,240
Drying	7,552	38,425	..	13,622	4,270	63,869
Total	17,252	44,801	3,041	56,749	8,881	130,724

(a) Excludes particulars for Australian Capital Territory and Northern Territory.

NOTE.—There are no vineyards in Tasmania.

(ii) *Wine Production, Bounties, etc.* The total production of wine (beverage and distillation) in Australia has shown a marked increase in recent years, rising from 14.3 million gallons in 1938-39 to 32.5 million gallons in 1958-59. In the same period, consumption of beverage wine in Australia has increased from 4.5 million gallons (0.7 gallons per head of population) to 11.1 million gallons (1.14 gallons per head of population). For many years prior to the 1939-45 War, a bounty was paid on wine shipped overseas under the provisions of the Wine Export Bounty Act 1930, as amended from time to time. Details of the bounty, payment of which was discontinued in 1947, may be found in Official Year Book No. 39, page 992.

The quantity of wine produced in the several States during the 1954-55 to 1958-59 seasons, together with the averages for the ten-year period ended 1957-58, are shown in the following table:—

WINE : PRODUCTION.(a)

('000 Gallons.)

Season.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Australia.
1954-55.. ..	2,271	1,612	61	19,208	812	23,964
1955-56.. ..	2,327	1,342	37	18,403	786	22,895
1956-57.. ..	3,412	2,369	38	24,038	886	30,743
1957-58.. ..	4,150	2,583	21	26,400	700	33,854
Average, 1948-49 to 1957-58 ..	4,062	2,464	42	21,704	721	28,993
1958-59.. ..	4,360	2,354	49	25,131	644	32,538

(a) Net factory and farm production of beverage and distillation wine excluding the liquid gallowage of spirits added in wine fortifying.

2. **Imports and Exports of Wine.**—(i) *Imports.* Imports for 1958-59 amounted to 51,812 gallons valued at £121,599 compared with 51,225 gallons valued at £115,519 in the previous year.

During 1958-59, Italy supplied 20,038 gallons valued at £25,404, France supplied 18,368 gallons valued at £64,612, and the Federal Republic of Germany supplied 5,268 gallons valued at £13,513. The bulk of the sparkling wines were obtained from France.

(ii) *Exports.* Exports in 1958-59 totalled 1,747,249 gallons, of which the United Kingdom received 1,332,848 gallons, New Zealand 40,095 gallons, Canada 280,655 gallons, and other countries 93,651 gallons.

Exports for the five years ended 1958-59 are shown in the following table:—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity (Gallons).			Value (£).		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
1954-55.. ..	5,570	1,258,503	1,264,073	19,670	797,767	817,437
1955-56.. ..	5,997	1,197,995	1,203,992	19,833	714,235	734,068
1956-57.. ..	6,701	1,743,648	1,750,349	23,737	1,108,314	1,132,051
1957-58.. ..	4,872	1,484,656	1,489,528	18,194	978,616	996,810
1958-59.. ..	5,203	1,742,046	1,747,249	10,989	1,141,036	1,152,025

3. **Oversea Marketing of Wine.**—(i) *The Wine Overseas Marketing Act 1929–1954.* This Act was introduced to place the oversea marketing of surplus wine on an orderly basis. The Australian Wine Board (formerly The Wine Overseas Marketing Board), consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board has a London agency which advises on marketing conditions.

During 1954, the Act was amended to enable the Board to engage in the sales promotion of wine in Australia in addition to overseas.

(ii) *The Wine Grapes Charges Act 1929–1957.* This Act provides for the imposition of a levy on all grapes used in Australia for the manufacture of wines or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

4. **Other Viticultural Products.**—(i) *Table Grapes.* Grapes for table use are grown in all States except Tasmania, but the area of this type is only about 7 per cent. of the productive area of vines. The quantities of table grapes produced during the season 1958–59 in each State are shown in § 3 of this chapter. (See p. 895.)

(ii) *Raisins and Currants.* The quantities of raisins (including sultanas and lexias) and currants dried during each of the seasons 1954–55 to 1958–59 and the averages for the ten-year period ended 1957–58 are shown in the following table. Production in 1958–59 was 87,256 tons, compared with 90,554 tons in 1957–58.

RAISINS(a) AND CURRANTS : PRODUCTION.

(Tons.)

Season.	N.S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
1954–55.. ..	7,873	663	49,368	4,675	12,287	3,654	60	2,172	69,588	11,164
1955–56.. ..	4,313	725	29,417	5,150	11,699	5,009	95	2,463	45,524	13,347
1956–57.. ..	9,380	585	50,085	3,954	9,716	3,941	148	2,048	69,329	10,528
1957–58.. ..	10,608	674	56,742	4,153	11,306	4,824	111	2,136	78,767	11,787
Average, 1948–49 to 1957–58 ..	7,104	772	44,252	5,403	10,854	5,207	254	2,308	62,464	13,690
1958–59.. ..	10,914	856	52,707	4,776	12,323	4,531	94	1,055	76,038	11,218

(a) Including sultanas and lexias.

5. **Production and Disposal of Dried Vine Fruit.**—As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export. Total production during the 1958–59 season amounted to 87,256 tons, while exports for the 12 months ended December, 1959, were 74,884 tons, leaving an estimated 12,372 tons available for Australian consumption. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

The following table shows the overseas exports of raisins and currants during each of the years 1954-55 to 1958-59:—

RAISINS AND CURRANTS(a) : EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£'000.	Tons.	£'000.	Tons.	£'000.
1954-55.. ..	59,934	6,720	8,373	917	68,307	7,637
1955-56.. ..	51,734	6,224	9,561	1,151	61,295	7,375
1956-57.. ..	38,496	5,377	6,521	831	45,017	6,208
1957-58.. ..	52,297	8,019	7,398	938	59,695	8,957
1958-59.. ..	68,245	11,215	7,585	1,051	75,830	12,266

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1958-59 being 38,956 tons, 18,861 tons and 6,092 tons respectively.

6. **Post-war Contracts.**—Agreements were negotiated between the Governments of the United Kingdom and Australia for the purchase of Australian dried vine fruits during the period 1946-1953. Up to and including 1951, the quantity of fruit to be purchased was limited but in 1952 and 1953 there was no restriction. In April, 1953, it was agreed to extend the contract for one year but in August, 1953, the United Kingdom Government abolished all controls and on 1st December of that year exports reverted to a trader to trader basis. The British Ministry of Food agreed, however, to subsidize returns from sales of fruit of the 1954 crop sold in the United Kingdom up to 31st May, 1955, if average returns were less than the level of prices agreed upon.

7. **Overseas Marketing of Dried Fruits.**—(i) *The Dried Fruits Export Control Act 1924-1953.* This Act was passed to organize overseas marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of growers representatives, members with commercial experience and experience in marketing dried fruits and a Government representative, controls the sale and distribution of dried fruit exports and recommends the conditions under which export licences are issued.

In conjunction with its London agency, the Board has improved dried fruit marketing overseas by its system of appraisal, regulation of shipments and advertising.

(ii) *Dried Fruits Export Charges Act 1924-1929.* This Act provides for a levy on exports of dried fruits to defray costs and expenses incurred by the Board. Provision is made for exemption from the levy upon recommendation by the Board.

§ 16. Orchards and Fruit Gardens.

1. **Area.**—The largest area of orchards and fruit-gardens prior to the 1939-45 War was 281,899 acres which was attained in 1933-34. Since then, the acreage has varied but has not fallen below 260,000 acres. It reached 290,000 acres in 1947-48 but declined somewhat in subsequent years, rising again to the record level of 287,000 acres in 1958-59.

ORCHARDS AND FRUIT-GARDENS : AREA.
(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1954-55.. ..	91,124	66,091	42,517	30,507	21,475	23,687	102	122	275,625
1955-56.. ..	93,482	65,214	41,253	32,998	21,943	23,795	104	118	278,907
1956-57.. ..	87,920	63,319	39,561	33,998	22,040	22,994	94	113	270,039
1957-58.. ..	88,170	66,221	40,856	35,295	22,186	23,013	81	93	275,915
1958-59.. ..	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920

2. **Varieties of Crops.**—The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics, to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal varieties grown in Victoria are apples, peaches, pears, oranges, plums and apricots. In Queensland, pineapples, apples, bananas, oranges, mandarins, peaches and plums are the varieties most largely cultivated. In South Australia, in addition to apples, oranges, apricots, plums, peaches and pears, almonds and olives are grown extensively. In Western Australia, apples, oranges, pears, plums, peaches, lemons, apricots and figs are the chief varieties. In Tasmania, apples occupy over three-quarters of the fruit-growing area, but small fruits, such as currants, raspberries and gooseberries are grown extensively while the balance of the area is mainly taken up with pears, apricots and plums. The following table shows the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantities produced.

ORCHARDS AND FRUIT-GARDENS, 1958-59.

Fruit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AREA, BEARING AND NON-BEARING (ACRES).									
Apples ..	15,722	20,058	10,744	5,505	13,459	18,049	..	77	83,614
Apricots ..	2,016	3,917	360	4,622	388	799	..	1	12,103
Bananas ..	25,197	..	6,171	..	408	..	22	..	31,798
Cherries ..	2,113	1,633	8	581	41	47	..	..	4,423
Citrus—									
Oranges ..	25,466	5,466	3,501	9,926	4,064	..	30	..	48,453
Mandarins ..	1,952	219	1,525	242	271	..	1	..	4,210
Lemons and Limes ..	2,311	1,259	429	345	593	..	5	..	4,942
Other ..	529	286	76	397	136	..	4	..	1,428
Nuts ..	259	430	146	3,303	182	..	..	1	4,321
Peaches ..	6,994	11,360	1,609	4,377	818	55	..	2	25,215
Pears ..	3,155	14,710	612	1,936	999	1,598	..	4	23,014
Pineapples ..	542	..	14,264	..	..	..	17	..	14,823
Plums and Prunes ..	4,551	2,068	1,358	1,270	1,031	104	..	3	10,385
Small Fruits ..	16	1,181	281	113	13	2,481	..	..	4,085
Other Fruits ..	1,957	4,159	2,827	4,620	500	35	7	1	14,106
Total ..	92,780	66,746	43,911	37,237	22,903	23,168	86	89	286,920

PRODUCTION.

Apples '000 bus.	1,863	2,970	649	1,022	1,550	4,983	..	7	13,044
Apricots " "	310	291	25	714	40	50	..	..	1,430
Bananas " "	3,918	..	515	..	71	4	..	..	4,504
Cherries " "	114	98	..	41	2	..	..	..	259
Citrus—									
Oranges " "	2,698	830	351	1,687	337	..	1	..	5,904
Mandarins " "	148	24	151	33	16	..	..	..	372
Lemons and Limes, " "	281	162	75	44	99	..	1	..	662
Other " "	157	67	21	98	20	..	1	..	364
Nuts .. '000 lb.	99	239	30	1,715	41	..	4	..	2,128
Peaches '000 bus.	726	1,034	84	655	86	7	..	..	2,592
Pears " "	497	3,280	64	295	169	433	..	..	4,738
Pineapples " "	95	..	5,099	..	..	..	1	..	5,195
Plums and Prunes " "	371	158	56	109	86	22	..	..	802
Small Fruits '000 cwt.	..	18	13	2	..	107	..	..	140

3. **Principal Fruit Crops.**—The area and production of the principal fruit crops and the gross value of production during the seasons 1954-55 to 1958-59 are shown hereunder.

PRINCIPAL FRUIT CROPS : AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION.

Season.	Apples.	Apricots.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums and Prunes.
AREA, BEARING AND NON-BEARING (ACRES).							
1954-55..	79,971	13,106	30,480	57,703	24,079	21,247	11,477
1955-56..	82,336	13,087	29,331	59,271	23,454	22,030	10,915
1956-57..	81,965	12,493	26,981	57,189	22,020	21,499	10,679
1957-58..	82,595	12,689	26,981	58,631	23,451	21,989	10,816
1958-59..	83,614	12,103	31,798	59,033	25,215	23,014	10,385
PRODUCTION ('000 BUSHELS).							
1954-55..	11,678	1,544	3,139	7,086	3,080	4,708	820
1955-56..	13,464	1,383	4,736	8,212	2,582	4,206	842
1956-57..	10,792	1,417	3,625	7,943	2,179	4,606	674
1957-58..	14,703	1,575	3,360	7,575	2,967	5,307	828
1958-59..	13,044	1,430	4,504	7,302	2,592	4,738	802
GROSS VALUE OF PRODUCTION. (£'000.)							
1954-55..	13,969	2,010	7,350	8,639	3,606	4,628	1,220
1955-56..	16,594	2,286	5,749	8,556	3,365	4,681	1,380
1956-57..	15,188	2,731	7,288	8,367	3,724	5,483	1,398
1957-58..	19,211	2,400	9,121	10,709	3,854	6,635	1,478
1958-59..	16,539	2,054	8,588	10,873	3,194	4,916	1,479

4. **Production of Jams and Jellies and Preserved Fruit.**—In Australia, considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1958-59, output of jams, conserves, fruit spreads, etc. amounted to 75,040,000 lb. while output of preserved fruit amounted to 317,055,000 lb. Of the latter figure, pears accounted for 92,588,000 lb., peaches 78,523,000 lb. and pineapples 67,822,000 lb.

The recorded consumption of fruit in factories for all purposes, including that used for juice and cordial manufacture and for drying, was 238,713 tons in 1957-58.

5. **Consumption of Fruit and Fruit Products.**—Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1958-59 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

6. **Imports and Exports of Fruit.**—(i) *General.* The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates.

A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1958-59 amounted to £9,412,592 and £12,747,780 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable.

(ii) *Fresh Fruit.* Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1954-55 to 1958-59 are shown in the following table:—

FRESH AND FROZEN FRUIT : EXPORTS, AUSTRALIA.

Year.	Apples.		Pears.		Citrus.		Total.(a)	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.	'000 bus.	£'000.
1954-55 ..	4,265	5,444	1,407	2,183	525	783	6,283	8,771
1955-56 ..	5,023	6,513	1,012	1,470	585	869	6,689	9,138
1956-57 ..	3,969	5,582	1,020	1,731	613	926	5,670	8,585
1957-58 ..	5,892	9,076	1,448	2,755	572	882	7,961	13,062
1958-59 ..	4,948	6,625	1,100	1,783	415	664	6,559	9,413

(a) Total, including exports of all other fresh and frozen fruit.

(iii) *Dried Tree Fruit.* The quantity and value of oversea imports and exports of dried fruit, other than raisins and currants, for the years 1954–55 to 1958–59 are shown below. Normally, the bulk of the imports consists of dates obtained almost entirely from Iraq.

DRIED TREE FRUIT(a): IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.(b)		Exports.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£'000.	'000 lb.	£'000.
1954–55	13,176	373	6,576	804
1955–56	8,627	204	3,681	428
1956–57	7,052	158	2,887	378
1957–58	8,683	209	1,366	186
1958–59	8,411	203	3,352	482

(a) Excludes raisins and currants referred to separately under Vineyards (see p. 932). (b) Imports of dates and figs only.

(iv) *Jams and Jellies.* Exports of jams and jellies reached large proportions immediately following the 1939–45 War and in 1946–47 amounted to 65,434,000 lb., compared with the average for the five years ended 1938–39 of 7,118,000 lb. Since 1949–50, when exports totalled 65,229,000 lb., there has been a marked decline and in 1958–59 exports amounted to only 7,748,450 lb., valued at £541,865. Imports of jams and jellies are negligible.

(v) *Preserved Fruit.* The total quantity of fruit preserved in liquid, or partly preserved in liquid or pulped, imported into Australia during 1958–59 was 1,032,196 lb. valued at £188,663. Large quantities of fruit preserved in liquid are normally exported from Australia, the quantity recorded in 1958–59 being 196,025,186 lb. valued at £12,950,271. Exports in 1958–59 were principally made up of pears (77,704,652 lb.), peaches (45,439,793 lb.), apricots (15,028,831 lb.) and pineapples (48,027,987 lb.). In addition the exports of pulped fruits during 1958–59 amounted to 2,146,777 lb. valued at £173,739.

7. Marketing of Apples and Pears.—(i) *Apple and Pear Organization Act 1938–1953.* This Act, which was passed by the Commonwealth Parliament at the request of the apple and pear industry, provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees and the Commonwealth Government. Oversea representatives may also be appointed by the Board.

The function of the Board is the organization and control of exports of fresh apples and pears and it has the power to regulate shipments, determine export quotas and allocate consignments from each State.

(ii) *Apple and Pear Export Charges Act 1938–1957.* This Act provides for an export levy to meet the expenses of the Board.

(iii) *Apple and Pear Acquisition.* Exports of apples and pears were seriously curtailed during the war and the 1940 to 1948 crops were acquired and marketed under National Security and Defence Regulations. Details of the acquisition scheme will be found on pages 1003 and 1004 of Official Year Book No. 38 and in earlier issues.

8. Oversea Marketing of Canned Fruit.—(i) *The Canned Fruits Export Control Act 1926–1959.* This legislation was introduced with the object of organizing the oversea marketing of canned fruit. The Australian Canned Fruits Board, comprising members representing the Commonwealth Government, canners of apricots, peaches, pears, pineapples and fruit salad, and a representative of the growers of canning apricots, peaches and pears, was appointed to organize the oversea marketing of canned fruit and also to recommend conditions under which export licences are issued.

The system of marketing adopted by the Board has resulted in the satisfactory disposal of the exportable surplus of canned fruits.

(ii) *The Canned Fruits Export Charges Act 1926–1956.* This Act provides for a levy on exports to meet the Board's expenses. Provision has been made for certain exemptions when recommended by the Board.

§ 17. Vegetables for Human Consumption.

1. **Area and Production of Fresh Vegetables.**—Details of the areas planted and production of individual kinds of vegetables, excluding potatoes and onions referred to in §§ 10 and 11 of this chapter, are shown below for the seasons 1956–57 to 1958–59.

FRESH VEGETABLES(a) FOR HUMAN CONSUMPTION: AUSTRALIA.†

Vegetable.	1956–57.		1957–58.		1958–59.	
	Area Sown.	Production.	Area Sown.	Production.	Area Sown.	Production.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Asparagus	4,098	4,601	3,788	5,300	3,620	4,702
Beans, French and Runner	18,000	26,064	17,517	23,217	17,457	25,012
Beans, Navy	999	273	1,728	266	1,855	371
Beetroot	2,264	13,917	2,102	13,967	1,976	13,385
Cabbages and Brussels Sprouts	7,413	77,938	6,471	69,475	6,308	70,363
Carrots	5,444	47,537	5,001	47,648	4,625	43,743
Cauliflowers	7,295	78,540	7,734	89,385	7,361	93,913
Celery(b)	648	8,509	653	9,949	669	10,265
Cucumbers(b)	1,538	5,255	1,616	5,822	1,711	6,441
Lettuces	4,393	16,114	4,595	17,017	4,745	19,254
Parsnips	1,619	12,631	1,530	12,426	1,342	11,349
Peas, Blue	8,325	5,090	7,323	3,860	2,571	1,342
Peas, Green	48,614	48,437	47,988	51,714	46,388	52,298
Tomatoes	19,908	146,800	17,096	119,964	16,382	118,819
Turnips, Swede and White	5,427	22,688	4,670	18,701	4,214	20,044
All Other	35,815	..	33,739	..	31,550	..
Total	171,800	..	163,551	..	152,774	..

(a) Excludes potatoes and onions.

(b) Incomplete, excludes New South Wales.

2. **Production of Canned and Dehydrated Vegetables.**—Total production of canned vegetables in 1958–59 amounted to 66,600,000 lb., which was considerably higher than pre-war production, but only about 56 per cent. of the peak war-time production of 119,149,000 lb. recorded in 1944–45. The principal canned vegetables produced in 1958–59 were green peas (including mint-pro peas), 24,517,000 lb., green beans 1,245,000 lb., baked beans (including pork and beans) 18,685,000 lb., tomatoes 779,000 lb., and asparagus 7,689,000 lb.

The production of dehydrated vegetables, which was initiated by the Commonwealth Government during the 1939–45 War, rose to a maximum of 22,000,000 lb. in 1945–46, but in 1957–58 it was only approximately 751,000 lb. Production of potato crisps, chips and flakes, which has increased substantially in recent years, amounted to 5,711,000 lb. in 1957–58.

3. **Imports and Exports of Vegetables.**—The quantity and value of oversea exports of pulse and fresh vegetables during 1958–59 were respectively:—pulse, 14,970 tons, £751,295; onions, 1,998 tons, £61,793; potatoes, 4,489 tons, £152,358; other vegetables, 1,640 tons, £194,974. Imports of pulse amounted to 2,489 tons, valued at £215,179, while imports of fresh vegetables in total were 500 tons, valued at £77,138.

In 1958–59, exports of vegetables preserved in liquid consisted of:—Asparagus, 547,353 lb. (£84,848); Beans (including baked), 67,563 lb. (£4,623); Peas, 346,832 lb. (£18,628); Tomatoes, 123,475 lb. (£6,120); Other Vegetables, 258,861 lb. (£33,134).

4. **Consumption of Vegetables.**—Details of the estimated consumption of vegetables for a series of years ending 1958–59 are shown in Chapter XXX.—Miscellaneous, of this Year Book.

§ 18. Tobacco.

1. **States, Area and Production.**—Tobacco has been grown in Australia for a considerable number of years. As early as the season 1888–89, the area of this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria and 123 in Queensland. Thereafter, the industry fluctuated for many years reaching a peak in 1932–33 when 26,272

acres were planted. After the 1939–45 War the area fell to below 4,000 acres, but it has increased again largely as a result of the beneficial effect of improved varieties and techniques on average yields and of the protection to Australian growers given by the tariff (*see also* (vii) Tobacco Factories on page 939).

In 1958–59, the area planted was 15,151 acres which was 77 per cent. more than the average for the ten years ended 1957–58. The production of dried leaf in 1958–59 at 13,970,000 lb. was 110 per cent. more than the average for the ten years ended 1957–58.

In the following table, particulars of the area and production of tobacco are given by States for each of the seasons 1954–55 to 1958–59, together with averages for the ten-year period ended 1957–58:—

TOBACCO : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	W. Aust.	N.T.	Aust.
AREA (ACRES).						
1954–55	635	2,471	5,135	1,418	2	9,661
1955–56	893	2,876	6,301	1,235	1	11,306
1956–57	1,031	2,935	7,029	1,176	1	12,172
1957–58	1,193	3,252	7,493	1,266	..	13,204
Average, 1948–49 to 1957–58 ..	623	1,983	4,790	1,153	..	8,549
1958–59	1,543	4,248	7,916	1,444	..	15,151
PRODUCTION OF DRIED LEAF ('000 lb.).						
1954–55	618	868	4,332	1,003	1	6,822
1955–56	547	1,135	3,702	722	..	6,106
1956–57	805	2,741	4,344	819	..	8,709
1957–58	1,235	3,683	5,618	1,031	..	11,567
Average, 1948–49 to 1957–58 ..	571	1,581	3,642	874	..	6,668
1958–59	1,158	4,885	6,729	1,198	..	13,970

2. **The Tobacco Industry.**—(i) *Marketing.* In the early days, purchase of the leaf at the farms was the usual practice but towards the end of the 1930's the auction system was introduced by arrangement between the growers' associations and the manufacturers.

On 9th May, 1941, the Australian Tobacco Board was constituted under the National Security (Australian Tobacco Leaf) Regulations for the purpose of facilitating and regulating the marketing of Australian grown tobacco leaf. All leaf was under the control of the Board, the growers being paid on the valuation as appraised by the Board. The Board ceased to function on 24th September, 1948, and subsequent crops have been marketed at open auction in the respective States. Queensland has had its own Tobacco Leaf Marketing Board since 1948. Growers in New South Wales voluntarily submit their leaf to the Queensland Board for sale at auction. Leaf from Victoria is sold at auction in Melbourne for the Victoria Tobacco Growers' Association. In Western Australia, the leaf is sold in Perth for the Western Australian Tobacco Growers' Association (Inc.).

(ii) *Central Tobacco Advisory Committee.* The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems.

The Committee was reconstituted by the Agricultural Council during 1952–53 and its terms of reference are as follows:—

“To report annually to the Agricultural Council, through the Standing Committee on Agriculture and also to the Commonwealth Minister for Customs and Excise, through the Chairman of the Council, on the following:—

- (i) The percentage of Australian tobacco which should be incorporated in locally manufactured tobacco under Customs regulations, having regard to the anticipated volume of Australian production of usable leaf available for absorption by the manufacturing industry;
- (ii) The progress of the industry during the year with particular reference to—
 - (a) marketing problems encountered,
 - (b) a review of prices being paid to farmers in relation to quality of leaf,
 - (c) such other problems as may be retarding the progressive development of the industry, such as the volume of importation of manufactured tobacco and cigarettes.”

(iii) *Industry Inquiries.* The tobacco industry has been the subject of a number of investigations during the past 30 years. The Tariff Board inquired into the industry in 1923, 1926, 1931 and 1940 and reports were issued in respect of the last three inquiries.

(iv) *Commonwealth Grants.* Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30th June, 1953, are given in Official Year Book No. 40, pages 895, 896 and in previous issues.

(v) *Research and Investigations.* The Commonwealth Scientific and Industrial Research Organization has been investigating many fundamental problems connected with tobacco culture. One of the major achievements of this organization was the development in the mid-1930's of a technique to control blue mould in the seed bed. Investigations are now being made into the control of this disease in the field. State Departments of Agriculture are also carrying out investigations over a wide range of problems, being concerned mainly with variety trials, irrigation, disease and pest control, crop rotation and cultural practices. The New South Wales Department of Agriculture has recently developed a commercial blue mould resistant hybrid.

In 1955, the Central Tobacco Advisory Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at £168,000 of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. It was estimated that to maintain the programme would cost approximately £63,000 per annum, of which the Commonwealth Government contributes £21,000, tobacco growers £14,000 and tobacco manufacturers £28,000 per annum. A Tobacco Industry Trust Account was established to receive these contributions. This programme commenced in 1956.

During the first three years of the operation of the Trust Account, £464,689 was allocated to State and Commonwealth departments. The allocation for 1959-60 is £161,000.

(vi) *War Service Land Settlement.* Due to technical difficulties, tobacco growing under War Service Land Settlement has been considerably curtailed. Farms designed for tobacco growing in Western Australia have been converted to an alternative use or sold outside the scheme. Farms at Clare, Queensland, while still growing tobacco, are not proving as successful as anticipated. It appears that crops alternative to tobacco may play an increasingly important part in the future.

(vii) *Tobacco Factories.* Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages rose from 3 per cent. for cigarettes and 5 per cent. for tobacco in November, 1946, to 22 per cent. and 23½ per cent. respectively from 1st July, 1959. The percentages to apply from 1st July, 1960, when most of the 1959 tobacco crop will be used in manufacture, are 28½ per cent. and 24½ per cent. respectively. In 1958-59, the quantity of cured leaf used in tobacco factories in Australia amounted to 49.0 million lb. of which 8.8 million lb. was of local origin. The balance was imported, chiefly from the United States of America.

3. *Oversea Trade.*—Imports of tobacco and manufactures thereof into Australia during 1958-59 were valued at £14.5 million, including 38.7 million lb. of unmanufactured tobacco valued at £13.7 million. Exports of tobacco and manufactures thereof during 1958-59 were valued at £461,497.

§ 19. Hops.

Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1958-59 being 1,883 acres, of which 1,443 acres were in Tasmania, and 440 acres in Victoria. A small area was also under hops in Western Australia, but the details are not available for publication. The Tasmanian area, though still small, has increased during the present century, the total for 1901-2 being 599 acres. The cultivation of hops was much more extensive in Victoria some 70 years ago than at present, the area in 1883-84 being 1,758 acres.

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table, details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1954-55 to 1958-59. Exports of hops are not recorded separately, but are negligible.

HOPS : PRODUCTION AND DISPOSAL, AUSTRALIA.

Year.	Production.		Imports.	Net Available Supplies. (a)	Quantity used in Breweries
	Quantity.	Gross Value.			
	Cwt.	£'000.	Cwt.	Cwt.	Cwt.
1954-55	34,075	1,106	10,311	44,386	42,976
1955-56	34,374	1,102	16,880	51,254	43,638
1956-57	25,230	857	3,074	28,978	40,250
1957-58	32,710	1,137	4,502	37,212	39,370
1958-59	36,499	1,273	8,471	44,970	38,664

(a) Disregards movements in stocks.

The Tariff Board conducted an inquiry into the hop-growing industry and issued report on 12th June, 1945.

§ 20. Flax.

1. **Flax for Fibre.**—During the 1914-18 and 1939-45 Wars, there was an acute shortage of flax fibre and the expansion of production was encouraged by the Commonwealth Government, the area sown reaching a maximum of more than 61,000 acres in 1944-45.

In recent years the growing of flax for fibre has been confined to Victoria, South Australia and Western Australia. In Victoria and South Australia, production has been directed and controlled by the Flax Commission, which took over the Commonwealth flax undertakings from the Flax Production Committee on 1st November, 1954. In Western Australia, the industry is carried on by a Co-operative Company.

In November, 1957, the Government approved a three-year extension of bounty assistance to flax producers and decided that the Commonwealth should withdraw from flax fibre production.

One important factor which influenced the Government in making this decision was the view expressed by the defence authorities that the industry no longer has the same defence significance as it had when the Flax Commission was first established.

In accordance with the decision, growing of flax under contract to the Flax Commission did not take place in 1959, and all of the Commonwealth mills finished operating before the end of the year. As a result, Western Australia became the only producing State, and its mill at Boyup Brook was the only flax mill left in production.

It appears that many former growers of flax for fibre in Victoria have now switched to growing flax for linseed.

Details of the area under flax and the production of straw are given in the following table:—

FLAX FOR FIBRE : AREA AND PRODUCTION.

Season.	Victoria.	S. Aust.	W. Aust.	Australia.
AREA (ACRES).				
1954-55	5,878	1,314	464	7,656
1955-56	2,550	526	1,594	4,670
1956-57	2,196	1,864	1,757	5,817
1957-58	5,550	1,410	1,002	7,962
1958-59 .. .. .	..	..	2,015	2,015
PRODUCTION (TONS OF STRAW).				
1954-55	7,799	1,888	500	10,187
1955-56	4,637	1,150	1,875	7,662
1956-57	4,013	4,606	2,051	10,670
1957-58	9,923	3,077	1,246	14,246
1958-59 .. .. .	..	..	3,665	3,665

2. **Flax for Linseed.**—Prior to 1948–49, the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. Development of the industry proceeded rapidly until 1951–52 when 53,741 acres were sown. In 1952–53, there was a decline in the acreage and a further decline in 1953–54 when 6,343 acres only were sown. Since then, an increase to £70 per ton, f.o.r. ports, in the guaranteed price, which is notified to growers by the crushers early in each season, has led to an increase in the area sown to 19,403 acres in 1954–55, 90,102 acres in 1956–57 and 96,465 acres in 1957–58. In 1958–59, the area sown declined to 37,225 acres.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953 and their conclusions are contained in their Report on *Linseed and Linseed Products* dated 23rd October, 1953.

Details of the area and production of flax for linseed are shown in the following table for the seasons 1954–55 to 1958–59.

FLAX FOR LINSEED : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
AREA (ACRES).							
1954–55	1,826	1,829	15,569	171	..	8	19,403
1955–56	1,817	580	45,202	128	..	..	47,727
1956–57	2,404	1,143	86,265	290	..	..	90,102
1957–58	2,251	4,091	90,255	221	549	..	97,367
1958–59	4,622	8,817	22,839	703	244	..	37,225
PRODUCTION (TONS OF LINSEED).							
1954–55	355	358	4,705	28	..	2	5,448
1955–56	400	94	12,738	15	..	..	13,247
1956–57	622	306	17,644	76	..	..	18,648
1957–58	36	1,149	7,279	49	68	..	8,581
1958–59	1,196	2,769	6,510	151	42	..	10,668

§ 21. Peanuts.

The production in Australia of peanuts, or groundnuts, is mainly confined to Queensland, although small quantities are grown in New South Wales, Western Australia and the Northern Territory. Details of the area and production are given in the table below.

PEANUTS : AREA AND PRODUCTION, AUSTRALIA.

Season.	Area (Acres).				Production (Tons).			
	N.S.W.	Q'land.	N.T.	Aust.(a)	N.S.W.	Q'land.	N.T.	Aust.(a)
1954–55	769	37,971	780	39,520	346	14,001	135	14,482
1955–56	414	31,493	544	32,451	174	8,633	40	8,847
1956–57	419	25,017	208	25,644	234	8,676	17	8,927
1957–58	686	34,739	156	35,581	401	18,326	15	18,742
1958–59	867	59,279	211	60,357	581	31,084	121	31,786

(a) Excludes Western Australia for which details are not available for publication.

The gross value of the 1958–59 crop (excluding the small crop in Western Australia) was £3,520,000 which was approximately £1,276,000 more than in 1957–58.

Formerly, considerable quantities of peanut kernels were imported, chiefly from India, for the extraction of oil. These imports were suspended from 1946 to 1949, but have since been resumed on an increasing scale. Total supplies available for consumption in Australia in 1958–59 were 27,435 tons (shell equivalent), after allowing for an increase in stocks held by the Peanut Marketing Board of 9,350 tons. Supplies were made up of 33,721 tons from Australian production received into store by the Board and 3,064 tons imported.

§ 22. Cotton.

1. **General.**—The production of cotton in Australia has been, until recently, restricted to Queensland, where cultivation began in 1860. Cotton has been grown experimentally in some other States in recent years and the first commercial crop outside Queensland has been grown in Victoria in the 1959–60 season. Details of areas sown for years prior to 1930 and of Government financial assistance to growers up to 1940 appear in Official Year Book No. 39 and earlier issues.

Australia produces only a small part of its requirements of raw cotton, the balance in 1958–59 being obtained chiefly from the United States of America and Mexico. Efforts have been directed towards increasing production by an extension of area, the introduction of irrigation methods, and payment of bounties, but so far they have not met with much success. Production increased very considerably during the early years of the 1939–45 War, reaching a peak of 17,550,000 lb. unginced cotton in 1939–40, but has since fallen away. The expansion of the industries connected with the spinning and weaving of cotton is referred to in Chapter VI.—Manufacturing Industry.

The Raw Cotton Bounty Act 1940 provided an extension, until 31st December, 1946, of assistance previously granted by way of bounty. The Act was amended in August, 1946, to provide a guaranteed net average return to cotton-growers of 15d. per lb. of raw cotton for five years from 1st January, 1947. It was superseded by the Cotton Bounty Act 1951, which guaranteed a net average return of 9½d. per lb. of seed cotton for five years from 1st January, 1951. The 1951 Act was amended in 1952 to provide for a guaranteed return of 14d. per lb. of seed cotton for the 1953 crop, and for variation by regulation of the guaranteed return, in succeeding seasons, with a minimum of 9½d. per lb. The Act, as amended in 1952 and 1957, was extended in 1958 to cover production up to 31st December, 1963. The guaranteed return has remained at 14d. per lb. of seed cotton since the 1953 season.

2. **Area and Production.**—The area under cultivation and the production in Queensland for the years 1954 to 1958 are shown hereunder. Details of the production of ginned cotton are derived from published statistics of the Queensland Cotton Marketing Board.

COTTON: AREA AND PRODUCTION IN QUEENSLAND.

Season ended December—	Area Sown.	Production of Cotton.				Average Yield per Acre Sown.	
		Unginned.		Ginned.	Ginned— Equiva- lent in Bales. (a)	Unginned.	Ginned.
		Quantity.	Gross Value.					Unginned.	Ginned.
	Acres.	'000 lb.	£'000.	'000 lb.	Bales.	lb.	lb.
1954	8,377	3,597	208	1,365	2,819	429	163
1955	13,290	5,359	307	2,164	4,386	403	163
1956	11,338	3,809	224	1,460	3,046	336	129
1957	10,364	3,390	213	1,341	2,845	327	129
1958	10,493	4,004	249	1,536	3,073	382	146

(a) Bales of approximately 500 lb.

3. **Consumption of Raw Cotton.**—The following table shows details of the availability and actual consumption of raw cotton in Australian factories, during the last five years:—

RAW COTTON: PRODUCTION, IMPORTS AND CONSUMPTION, AUSTRALIA.
(*000 lb.)

Year.	Production.	Imports.	Total.	Consumption of Raw Cotton.
1954–55	1,365	43,218	44,583	47,098
1955–56	2,164	37,614	39,778	45,262
1956–57	1,460	47,805	49,265	46,699
1957–58	1,341	42,578	43,919	49,054
1958–59	1,536	43,984	45,520	47,323

§ 23. Financial Assistance to Primary Producers.

NOTE.—See also Chapter XXI.—Public Finance, page 328.

Direct financial assistance to primary producers by the Commonwealth Government takes the form of bounties, subsidies and other financial assistance. Brief details of some of the more important payments are given below:—

(i) *Cotton Bounty.* The Cotton Bounty Act provides for payment of a bounty on seed cotton delivered by growers to processors. The present rate of bounty is designed to give growers an average return of 14d. per lb. The total payment in 1957–58 was £64,702 and in 1958–59 it was £139,455.

(ii) *Dairy Products Bounty.* Under the provisions of the Dairy Industry Act 1952, a subsidy was paid to dairymen to ensure them a return equal to the average cost of production for a specified quantity equal to local consumption plus twenty per cent. The Dairy Industry Act 1957 provided for continuation of the scheme for a further five years. A new feature, however, was that any subsidy made available under the scheme would be determined before the commencement of each season and would be on the basis of a fixed amount in any dairying year. In 1958–59, total payments amounted to £13,500,000, the same as in 1957–58.

(iii) *Flax Fibre Bounty.* From 1954 to 1958, a bounty was paid on scutched flax fibre produced from flax grown in Australia. In 1957, the Act was amended to provide for the calculation of the bounty payable on the basis of fibre sold, in lieu of fibre produced. In 1957–58, payments amounted to £62,348. Expenditure in 1958–59 was £93,167.

Other forms of financial assistance to primary producers include payments for Cattle Tick Control, the Dairy Industry Extension Grant, Flood, Drought and Bush Fire Relief, Food Production, Expansion of Agricultural Advisory Services and Assistance to the Tobacco Industry.

§ 24. Fertilizers.

1. **General.**—In the early days of settlement in Australia, scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. This practice is very much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture and the relevant Commonwealth authorities, such as the Bureau of Agricultural Economics and the Commonwealth Scientific and Industrial Research Organization, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now appreciated by farmers. The introduction of the modern seed-drill, acting also as a fertilizer-distributor, has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive. During the last few years, the application of fertilizers from aircraft, particularly to pastures, has become a feature of modern farm technique, and has enabled the artificial fertilization of some areas which would not be readily accessible to ground machinery. Details of the area treated and quantity of fertilizer used by both aerial and ground methods of application in total are shown in para. 3, below, while further details on aerial top-dressing are given in § 25.

In order to protect the users of artificial fertilizers, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features are given in Official Year Book No. 12, page 378.

2. **Imports and Exports.**—The Australian output of prepared fertilizers is derived chiefly from imported rock phosphate and is sufficient for local requirements.

The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilizers during the five years ended 1958–59 are shown in the following table:—

ARTIFICIAL FERTILIZERS : IMPORTS INTO AUSTRALIA.

Fertilizer.		1954-55.	1955-56.	1956-57.	1957-58.	1958-59.
Ammonium Sulphate	tons	35,056	9,466	28,251	20,945	19,979
	£'000	764	228	624	522	497
Potash Salts ..	tons	27,403	39,099	38,246	53,570	43,912
	£'000	489	652	638	882	710
Rock Phosphate ..	tons	1,086,884	1,418,527	1,321,607	1,273,766	1,353,739
	£'000	2,166	2,828	2,804	3,325	3,750
Sodium Nitrate ..	tons	11,714	14,102	11,219	14,430	7,505
	£'000	250	323	252	354	152
Other	tons	399	506	785	4,619	16,951
	£'000	14	16	20	125	497
Total	tons	1,161,456	1,481,700	1,400,108	1,367,330	1,442,086
	£'000	3,683	4,047	4,338	5,208	5,606

Export of fertilizers (practically all of which were manufactured locally) amounted to 14,059 tons valued at £442,000 in 1958-59 compared with 2,646 tons valued at £58,000 in 1957-58.

3. Quantities Used Locally.—Information regarding the area treated with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1958-59 season is given in the following table. Details of the area fertilized with natural manure (stableyard, etc.) are no longer collected.

AREA FERTILIZED AND QUANTITY OF ARTIFICIAL FERTILIZERS USED, 1958-59.

State or Territory.	Area Fertilized ('000 Acres).			Fertilizers Used (Tons).		
	Crops.	Pasture Lands.	Total.	Crops.	Pasture Lands.	Total.
New South Wales	3,016	4,320	7,336	126,416	218,074	344,490
Victoria	4,580	8,925	13,505	228,582	502,281	730,863
Queensland	498	17	515	110,244	1,497	111,741
South Australia	3,692	3,716	7,408	192,168	218,728	410,896
Western Australia	5,999	5,662	11,661	294,546	265,545	560,091
Tasmania	147	1,043	1,190	22,225	80,055	102,280
Northern Territory	1	..	1	135	9	144
Australian Capital Territory ..	4	42	46	353	2,371	2,724
Total	17,937	23,725	41,662	974,669	1,288,560	2,263,229

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the seasons 1954-55 to 1958-59, are shown in the next table. These details include the quantity used for the topdressing of pasture lands.

QUANTITY OF ARTIFICIAL FERTILIZERS USED.

(Tons.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Total.
1954-55 ..	273,548	635,290	91,700	350,351	450,823	75,748	54	2,672	1,880,186
1955-56 ..	307,608	653,591	99,075	380,783	468,108	82,967	67	2,982	1,995,181
1956-57 ..	292,261	644,830	103,915	389,952	481,981	89,598	54	2,805	2,005,396
1957-58 ..	337,865	739,322	114,681	418,539	539,192	99,042	156	3,189	2,251,986
1958-59 ..	344,490	730,863	111,741	410,896	560,091	102,280	144	2,724	2,263,229

4. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1958-59 was 48, made up as follows:—New South Wales, 12; Victoria, 7; Queensland, 8; South Australia, 8; Western Australia, 6; and Tasmania, 7. The production of superphosphate in Australia during 1958-59 amounted to 2,124,000 tons.

§ 25. Aerial Agriculture.

During recent years, aircraft have been used for top dressing and seeding (principally of pastures) and for spraying and dusting of crops and pastures. During the year ended 31st March, 1959, the total area treated by aircraft was 2,268,392 acres—1,335,575 acres were topdressed and/or seeded, 835,957 acres were sprayed or dusted with insecticides, fungicides or herbicides, of which 800 acres were dusted in conjunction with top-dressing operations, and 97,660 acres were baited for rabbit destruction. For 1956-57 (the first year for which data are available), the total area treated was 1,465,959 acres, and in 1957-58 it was 2,011,715 acres. The following table shows details of area treated and materials used for each State for the year ended 31st March, 1959. The information was collected by the Department of Civil Aviation.

AERIAL AGRICULTURE : OPERATIONS DURING 1958-59.

Item.	Unit.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total. (a)
<i>Topdressing and Seeding—</i>								
Area treated with—								
Superphosphate	Acres.	713,402	252,529	360	50,753	33,491	100,700	1,151,235
Seed .. ..	..	72,329	10,336	104,043	5,685	20,619	1,900	214,912
Other .. ..	..	65,301	1,360	1,556	..	..	..	68,217
<i>Total (b)</i> ..	..	785,948	253,489	105,959	55,288	34,191	100,700	1,335,575
<i>Materials used—</i>								
Superphosphate	Tons.	35,809	15,895	36	3,624	2,231	5,769	63,364
Seed	lbs.	117,374	8,320	134,745	76,525	35,930	1,100	373,994
<i>Spraying and Dusting—</i>								
Area treated with—								
Insecticides ..	Acres:	63,920	82,740	30,643	40,069	158,604	2,600	378,576
Fungicides ..	..	..	600	1,473	..	..	..	2,073
Herbicides ..	..	68,244	75,747	30,571	37,467	255,518	..	467,547
<i>Total (b)</i> ..	..	128,124	155,256	62,315	77,542	410,120	2,600	835,957
Total Area Treated (b)	..	914,072	505,805	168,074	132,830	444,311	103,300	2,268,392
		(c)	(c)	(c)	(c)	(c)	(c)	(c)

(a) Includes Australian Capital Territory.
in one operation are counted once only.

(b) Areas treated with more than one type of material
(c) Includes 97,660 acres baited for rabbit destruction.

§ 26. Ensilage.

1. **Government Assistance.**—The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

2. **Quantity Made and Stocks Held on Farms.**—Information regarding production and farm stocks of ensilage for the years ended 31st March, 1957, 1958 and 1959, are given in the following table.

ENSILAGE : PRODUCTION AND FARM STOCKS.
(Tons.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Production during—								
1956-57 season ..	106,521	187,220	46,255	50,900	12,644	60,454	210	464,204
1957-58 ..	91,486	194,850	41,367	23,230	27,988	52,125	58	431,104
1958-59 ..	243,990	301,839	73,365	68,988	76,997	63,974	410	829,563
Farm Stocks, as at—								
31st March, 1957 ..	135,302	(a)	74,705	41,338	8,466	67,135	580	(a)
„ „ 1958 ..	134,895	(a)	77,972	20,605	16,501	52,263	205	(a)
„ „ 1959 ..	333,178	(a)	126,693	50,170	53,549	62,758	435	(a)

(a) Not available.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage, and in the following seasons there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The accumulated stocks proved of great value during the 1914 drought. The quantities of ensilage made since 1914 have fluctuated considerably, but increased up to 1939-40 in which year it was 303,495 tons. During subsequent seasons, production declined to the extremely low level of 94,744 tons during the drought year 1944-45, rising to 180,622 tons in 1947-48 but decreasing again in succeeding years to 110,474 tons in 1951-52. Since then, production has increased substantially. In 1957-58, 431,104 tons were made and in 1958-59 a record production of 829,563 tons was recorded.

§ 27. Agricultural Colleges and Experimental Farms.

Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agricultural work and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are primarily concerned with agricultural research and experimentation, each farm concentrating on problems specific to the district in which it is located. The results of the work undertaken are passed on to farmers at field days, which are held at regular intervals, through publication in various agricultural or scientific journals and through the agricultural extension officers of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations throughout Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has a number of regional laboratories throughout the country. These laboratories conduct research into agronomic problems as they occur in each particular region. The most recently established laboratory which is concerned with all aspects of the culture and production of tobacco is at Mareeba, Northern Queensland. The State Departments of Agriculture study problems of particular significance within their own boundaries. The universities also carry out valuable research work on their own experimental farms.

§ 28. Tractors on Rural Holdings.

The growth of mechanization in agriculture is indicated by the increase in the number of tractors on rural holdings from 41,943 in 1939 to 232,819 in 1959. The annual increase in numbers reached its peak in 1951-52 when over 20,000 additional tractors were enumerated on holdings. The rate of increase has declined in more recent years and over the last five years averaged only about 12,000 per annum.

The table below sets out the number of wheeled and crawler type tractors by States for the five years ended 1959.

TRACTORS ON RURAL HOLDINGS.

March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
WHEELED TYPE TRACTORS.									
1955 ..	45,619	45,824	35,024	20,074	17,832	5,699	(a)	172	170,244
1956 ..	50,005	49,584	37,443	21,155	18,537	6,272	70	193	183,259
1957 ..	52,477	52,275	39,627	22,826	19,352	6,967	83	191	193,798
1958 ..	55,648	55,090	41,072	23,952	20,086	7,395	82	188	203,513
1959 ..	56,277	57,435	42,709	25,116	20,989	7,838	103	193	210,660
CRAWLER OR TRACK TYPE TRACTORS.									
1955 ..	3,479	1,430	4,945	3,036	3,334	660	(a)	9	16,893
1956 ..	4,001	1,645	5,313	3,190	3,654	745	32	10	18,590
1957 ..	4,232	1,621	5,180	3,186	3,556	843	31	8	18,657
1958 ..	4,605	1,825	6,506	3,336	3,877	974	38	7	21,168
1959 ..	4,669	2,067	6,998	3,416	3,996	968	38	7	22,159
TOTAL TRACTORS.									
1955 ..	49,098	47,254	39,969	23,110	21,166	6,359	(a)	181	187,137
1956 ..	54,006	51,229	42,756	24,345	22,191	7,017	102	203	201,849
1957 ..	56,709	53,896	44,807	26,012	22,908	7,810	114	199	212,455
1958 ..	60,253	56,915	47,578	27,288	23,963	8,369	120	195	224,681
1959 ..	60,946	59,502	49,707	28,532	24,985	8,806	141	200	232,819

(a) Not available.

§ 29. Number and Area of Rural Holdings and Employment Thereon.

NOTE.—In New South Wales, in 1955–56, the lists of rural holdings used in the collection of agricultural and pastoral statistics were reconciled with lists of ratable land of one acre or more in extent recorded by country shires for rating purposes. This reconciliation led to the addition of a number of holdings to the annual collection.

The only items of agricultural and pastoral statistics which were materially affected by the inclusion of the additional land holdings were:—number of holdings, area of holdings, persons engaged on rural holdings and wages and salaries paid. To permit continuity of comparison of the relevant statistics, the effects of the additions to the collection are set out in detail in Official Year Book No. 44, pages 911–912.

1. Number and Area.—A holding in Australia has been defined by statisticians on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent, used in the production of agricultural produce, the raising of livestock or the products of livestock.

There are considerable fluctuations from time to time in the numbers of very small holdings and it is very difficult to determine in some cases whether or not they are rural holdings within the definition.

In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied under short-term lease or other arrangement and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

The following table shows the recorded number and area of the holdings in each State for the seasons 1954–55 to 1958–59.

RURAL HOLDINGS : NUMBER AND AREA.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS.									
1954–55 ..	73,759	69,551	43,284	28,092	20,876	11,743	(a)	212	b 247,517
1955–56 ..	73,071	69,528	43,459	28,585	21,323	11,647	229	222	248,064
	(c) 77,855								c 252,848
1956–57 ..	77,812	69,509	43,292	27,936	21,385	11,538	230	223	251,925
1957–58 ..	78,120	69,590	43,457	27,971	21,593	11,389	230	225	252,575
1958–59 ..	77,857	69,770	43,290	28,105	21,563	11,374	243	221	252,423

TOTAL AREA OF RURAL HOLDINGS.
(‘000 ACRES.)

1954-55	..	169,444	37,814	362,200	149,379	228,883	6,604	(a)	390	6,954,714
1955-56	..	169,124	37,857	367,464	149,965	229,734	6,628	160,153	389	1,121,314
		^c 172,255								(c)
1956-57	..	172,411	37,659	368,689	149,932	232,689	6,508	168,447	390	1,124,445
1957-58	..	173,278	37,822	368,833	152,045	236,667	6,547	167,210	392	1,136,725
1958-59	..	172,978	37,755	370,240	152,312	238,264	6,573	156,897	381	1,142,794
										1,135,400

(a) Not available. (b) Excludes Northern Territory. (c) New series. See Note at beginning of § 29.

2. **Special Tabulation Relating to Rural Holdings.**—(i) *Classification by Size.* Some of the information obtained from the 1955-56 Agricultural and Pastoral Census was classified by size and the results of these tabulations are shown in detail in *Primary Industries Part I—Rural Industries*, Bulletin No. 51, and in summarized form in Official Year Book No. 44, page 913.

(ii) *Classification by Type.* An experimental classification of holdings by type was carried out for New South Wales for 1955-56 in conjunction with the classification by size referred to above. An outline of the methods used and the results obtained are shown on page 914 of Official Year Book No. 44. This was the first attempt at a detailed classification of this kind in Australia although a very simple classification into the three categories—agricultural, pastoral or dairying (on the basis of main activity)—had been made in some earlier years. The methods used in the 1955-56 experimental classification are being used as the basis for an Australia-wide classification of holdings by type to be carried out for the 1959-60 season in conjunction with the classification of certain characteristics by size for that year.

3. **Employment on Rural Holdings.**—The following table shows, for each State, the recorded number of males working on rural holdings as at 31st March, 1959. Additional particulars relating to the number of males employed in agriculture are available up to 1941-42 in Official Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES(a) ENGAGED ON RURAL HOLDINGS AT 31st MARCH, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.(b)	A.C.T.	Aust.
<i>Permanent Males—</i>									
Owners, Lessees or Share-farmers	}	(c)	44,659	23,329	19,974	7,806	183	161	}
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary			3,715	3,270	1,530	248	17	4	
Employees, including Managers and Relatives working for wages or salary			18,832	8,369	8,852	4,472	524	130	
<i>Total Permanent Males</i>			67,206	34,968	30,356	12,526	724	295	(c)
<i>Temporary Males</i>			15,086	17,455	4,424	5,273	1,475	43	
<i>Total Males</i>			82,292	52,423	34,780	17,799	2,199	338	

(a) Details for females not available. (b) 1,361 male full-blood aboriginals employed are included as temporary employees. (c) Not available.

The next table shows for Australia as a whole the number of persons working full-time on rural holdings as at 31st March of the five years 1954 to 1958.

PERSONS ENGAGED ON RURAL HOLDINGS, AUSTRALIA.(a)

Particulars.	As at 31st March—				
	1954.(b)	1955(b).	1956.	1957.	1958.
Permanent—					
Males—					
Owners, Lessees or Share-farmers ..	241,149	240,879	245,621	244,111	241,247
Relatives of Owner, Lessee or Share-farmer over 14 years of age, not receiving wages or salary ..	22,736	23,529	21,232	21,734	21,535
Employees, including managers and relatives working for wages or salary	93,748	91,479	89,334	90,599	91,308
Total, Males	357,633	355,887	356,187	356,444	354,090
„ Females	49,782	46,656	42,104	41,373	39,763
Total Permanent ..	407,415	402,543	398,291	397,817	393,853
Temporary—					
Total, Males	86,644	87,400	84,607	86,267	93,142
„ Females	8,365	9,238	9,638	11,324	12,986
Total Temporary	95,009	96,638	94,245	97,591	106,128
Grand Total	502,424	499,181	492,536	495,408	499,981

(a) Australian totals for 1959 are not available.

(b) Excludes Northern Territory.

4. Salaries and Wages Paid to Employees on Rural Holdings.—Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings have been collected uniformly in all States from 1949–50. Details are set out below for each State for the year 1958–59, and for Australia as a whole for the years 1954–55 to 1957–58.

RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES, 1958-59. (£'000.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Permanent—Males ..	(b)	}	13,147	5,712	5,758	3,254	446	124	(b)
Females ..			1,145	224	31	71	33	6	
Temporary(c)—Males ..			19,896	4,978	5,387	1,792	366	98	
Females ..			218	335	42	198	34	2	
Total			34,406	11,249	11,218	5,315	879	230	

(a) Including value of keep.

(b) Not available.

(c) Includes amounts paid to contractors.

RURAL HOLDINGS : SALARIES AND WAGES(a) PAID TO EMPLOYEES, AUSTRALIA.(b) (£'000.)

Particulars.	1954–55.(c)	1955–56.	1956–57.	1957–58.
Permanent—Males	53,951	55,752	58,707	63,397
Females	2,468	2,456	2,456	2,793
Temporary(d)—Males	53,855	53,200	54,431	59,982
Females	1,323	1,476	1,498	1,656
Total	111,597	112,884	117,092	127,828

(a) Including value of keep.

(b) Australian totals for 1958–59 are not available.

(c) Excludes Northern Territory.

(d) Includes amounts paid to contractors.

5. Persons (of all ages) Residing Permanently on Holdings.—Particulars of persons (of all ages) residing permanently on rural holdings have been collected by all States at the annual Agricultural and Pastoral Census each year since 1954. Details for each State as at 31st March, 1959, and for Australia as a whole for the years 1955 to 1958 are shown below.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS AT 31st MARCH, 1959.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males ..	} (a) {	145,065	107,664	57,989	47,228	28,074	884	525	} (a) {
Females ..		125,521	86,124	51,087	38,364	24,766	373	452	
Total ..		270,586	193,788	109,076	85,592	52,840	1,257	977	

(a) Not available.

RURAL HOLDINGS : PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON HOLDINGS, AUSTRALIA.(a)

Particulars.	As at 31st March—			
	1955.	1956.	1957.	1958.
Males	549,734	557,274	563,894	560,196
Females	462,163	469,805	475,587	474,333
Total	1,011,897	1,027,079	1,039,481	1,034,529

(a) Australian totals for 1959 are not available.