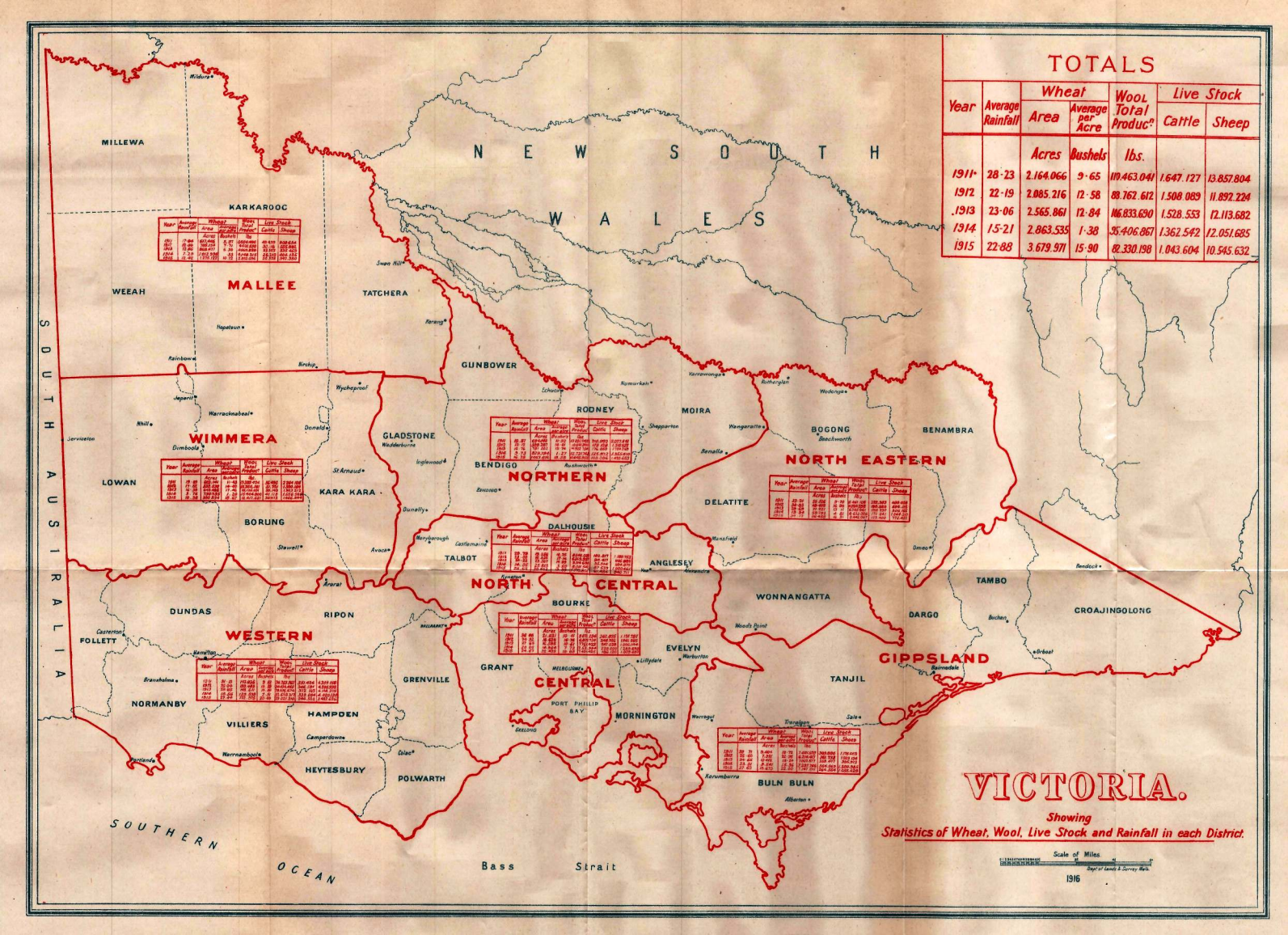
TOTALS
Year | Average Rainfall | Wheat: Area | Wheat: Average per Acre | Wool Total Product | Live Stock: Cattle | Live Stock: Sheep
Acres | Bushels | lbs.
1911* | 28·23 | 2.164.066 | 9·65 | 119.463.041 | 1.647.127 | 13.857.804
1912 | 22·19 | 2.085.216 | 12·58 | 88.762.612 | 1.508.089 | 11.892.224
1913 | 23·06 | 2.565.861 | 12·84 | 116.833.690 | 1.528.553 | 12.113.682
1914 | 15·21 | 2.863.535 | 1·38 | 35.406.867 | 1.362.542 | 12.051.685
1915 | 22·88 | 3.679.971 | 15·90 | 82.330.198 | 1.043.604 | 10.545.632
NEW SOUTH WALES
SOUTH AUSTRALIA
MILLEWA
KARKAROOC
MALLEE
WEEAH
TATCHERA
GUNBOWER
RODNEY
MOIRA
BOGONG
BENAMBRA
NORTH EASTERN
WIMMERA
GLADSTONE
BENDIGO
NORTHERN
LOWAN
KARA KARA
BORUNG
DELATITE
DALHOUSIE
TALBOT
ANGLESEY
NORTH CENTRAL
TAMBO
WONNANGATTA
DARGO
CROAJINGOLONG
DUNDAS
RIPON
BOURKE
WESTERN
FOLLETT
EVELYN
GIPPSLAND
GRANT
GRENVILLE
CENTRAL
TANJIL
NORMANBY
HAMPDEN
VILLIERS
PORT PHILLIP BAY
MORNINGTON
HEYTESBURY
POLWARTH
BULN BULN
SOUTHERN OCEAN
Bass Strait
VICTORIA.
Showing
Statistics of Wheat, Wool, Live Stock and Rainfall in each District.
Scale of Miles.
1916

PRODUCTION.

LAND SETTLEMENT, ETC.

The total area of the State is 56,245,760 acres. This comprises—

	Acres.
Lands alienated in fee simple	24,256,222
Lands in process of alienation	7,559,827
Crown lands	24,429,711
Total	56,245,760

The Crown lands comprise—

Permanent forests	3,107,819
Timber Reserves	778,727
Water Reserves	316,204
Reserves for Agricultural Colleges, &c. ..	85,107
Reserves in the Mallee	397,881
Other Reserves	305,584
Roads	1,732,720
Water frontages, beds of rivers, lakes, &c. Unsold land in cities, towns, and boroughs	2,685,642
Land in occupation under—	
Grazing Area Leases	2,575,480
Perpetual Leases	252,947
Other Leases	132,190
Temporary Grazing Licences	10,123,743
Unoccupied	1,935,667
Total	24,429,711

Alienation of land, 1900 to 1915.

In the following table are shown the area of Crown lands sold absolutely and conditionally, and the area of such lands alienated in fee simple in each year since 1899. A proportion of the area conditionally sold each year

reverts to the Crown in consequence of the non-fulfilment of conditions by the selectors. The lands alienated each year include areas selected in previous years.

ALIENATION OF CROWN LANDS, 1900 TO 1915.

Year.	Area of Crown Lands Sold.		Crown Lands alienated in Fee Simple.	
	Absolutely, at Auction, &c.	Conditionally to Selectors.	Area.	Purchase Money.
	Acres.	Acres.	Acres.	£
1900	7,685	225,098	494,752	526,650
1901	7,052	516,412	406,145	438,363
1902	7,304	299,502	523,574	555,538
1903	13,223	324,590	510,080	542,011
1904	9,588	253,592	584,010	613,511
1905	8,778	217,419	907,339	934,386
1906	6,642	173,113	344,519	375,296
1907	6,313	191,232	181,050	208,619
1908	6,552	213,883	137,023	176,335
1909	7,393	257,179	150,948	188,017
1910	5,795	248,694	127,993	171,904
1911	4,068	205,708	159,892	136,277
1912	4,120	114,630	128,427	165,854
1913	4,205	171,449	153,051	164,065
1914	3,705	166,026	129,525	145,003
1915	3,287	129,232	117,257	113,167

Amount realized by sale of Crown lands.

From the period of the first settlement of the State to the end of 1915 the amount realized by the sale of Crown lands was £33,405,976, which represents an average of £1 1s. per acre for all lands alienated or in process of alienation. Payment of a considerable portion of this amount extended over a series of years without interest, upon very easy terms.

Lands remaining for disposal.

The next table shows the whole of the unalienated lands of the Crown remaining for disposal :—

CROWN LANDS REMAINING FOR DISPOSAL ON 31ST DECEMBER, 1915.

Location.	Classification.					Total.
	Agricultural and Grazing.				Auriferous.	
	First.	Second.	Third.	Unclassed.		
County.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Buln Buln	2,774	46,643	44,577	..	58	94,052
Croajingolong	2,510	6,056	553,110	840,400	14,150	1,416,226
Dargo	..	..	87,880	435,400	77,800	601,080
Tambo	..	..	203,050	398,850	900	602,800
Tanjil	..	..	90,190	363,650	67,000	520,840
Wonnangatta	..	39	129,618	942,100	..	1,071,757
Bogong	2,935	12,242	194,005	208,692	117,877	535,751
Benambra	..	352	220,948	294,994	101,994	618,288
Delatite	724	21,761	198,357	180,300	65,638	466,780
Moira	41	..	9,336	..	..	9,377
Anglesey	37	4,094	62,337	..	5,923	72,391
Bourke	..	30	100	..	..	130
Dalhousie	180	951	3,074	..	6,082	10,287
Evelyn	..	23,993	..	..	3,299	27,292
Mornington	..	4,953	42,808	..	..	47,761
Bendigo	14	762	5,953	..	9,754	16,483
Rodney	17	103	855	..	2,660	3,635
Borung	..	455	39,197	2,300	8,881	50,833
Gladstone	335	1,211	2,536	..	25,430	29,512
Lowan	..	177	41,849	..	..	42,026
Kara Kara	..	221	3,922	..	7,998	12,141
Talbot	80	485	226	..	55,465	56,256
Tatchera	..	70	..	..	..	70
Heytesbury	..	860	159,780	..	..	160,640
Polwarth	705	9,430	30,484	..	..	40,619
Grant	..	75	25,059	..	16,880	42,014
Grenville	..	20	..	..	16,930	16,950
Ripon	..	..	16,022	..	8,050	24,072
Normanby	..	617	58,286	..	..	58,903
Dundas	425	40	26,991	11,500	..	38,956
Villiers	..	..	238	..	..	238
Follett	..	..	8,505	..	..	8,505
Totals	10,777	135,640	2,259,293	3,678,186	612,769	6,696,665
Throughout the State	Swamp or reclaimed lands					1,425
" "	Lands which may be sold by auction					11,250
The north-western portion of the State	Mallee lands (such as are suitable to be eventually classed 1st, 2nd, or 3rd class for selection)					5,350,070
Total area remaining for disposal						12,059,410

Much of the land included in the above statement is temporarily leased under grazing licences.

Pastoral occupation of Crown lands.

The particulars of Crown lands leased for pastoral occupation on 31st December, 1915, are as follows :—

Number of Licences and Leases	14,541
Area (acres)	13,035,612
Annual Rental	£42,381

These licences and leases are not all on the same footing as regards the terms and the privileges of tenure. For instance, grazing area leases are granted for any term of years expiring not later than 29th December, 1920, whilst grazing licences are renewable annually, and are only granted for waste lands of the Crown until required under the principal sections of the Act. The lessee of a grazing area has the privilege of selecting (*i.e.*, of purchasing under the deferred payment system on certain conditions) out of his lease for agricultural or grazing purposes an area not exceeding 200 acres of first class, 320 acres of second class, or 640 acres of third class land, according to classification; and the lessee of a Mallee allotment has a like privilege of selecting out of his lease 640 acres of first class, 1,000 acres of second class, or 1,280 acres of third class land, according to classification.

For the purposes of administration, the State is divided into seventeen districts, in each of which there is a land office under the management of a land officer. These offices are situated at Melbourne, Ararat, Alexandra, Bairnsdale, Ballarat, Beechworth, Benalla, Bendigo, Geelong, Hamilton, Horsham, Omeo, Sale, Seymour, St. Arnaud, Stawell, and Warracknabeal, and the officers stationed at these centres are in a position to point out the exact localities of available lands to intending selectors. Pamphlets with fuller details are obtainable from the Crown Lands Inquiry Office, Melbourne.

Persons who may select land. Any person of the age of 18 years or upwards is eligible to take up or select under the Land Acts a prescribed area varying according to the classification of the land—less the area of previous selections.

Land Acts. The present system of disposing of the Crown lands of Victoria dates from the passing of *The Land Act* 1884 and *The Mallee Pastoral Leases Act* 1883, which, with subsequent amendments, were consolidated by the *Land Act* 1890. This Act was in turn amended by the Land Acts 1891, 1898, 1900, and 1900 (No. 2); and by the *Settlement on Lands Act* 1893 and the *Mallee Lands Act* 1896. These Acts were consolidated into the *Land Act* 1901, which has been amended by the Land Acts of 1903, 1904, 1905, 1909, and 1911, and all these have been consolidated into the *Land Act* 1915. With the *Land Act* 1898 (Part III.) was introduced a system by which the Government was enabled to repurchase private lands for closer settlement. This subject is dealt with on page 677.

Agricultural and grazing lands. The Crown lands termed Agricultural and Grazing lands are arranged in three classes—first, second, and third.

The lands of the first class, comprising 10,777 acres, are situated principally in the counties of Buln Buln, Croajingolong, and Bogong, are heavily timbered, and consist for the most part of good chocolate

soil of volcanic origin, and the grey soil of the coal-bearing country. The second class lands, embracing 135,640 acres, are fairly distributed throughout the State, and comprise silurian and granite ranges, and lower lands of tertiary formation. A large portion of these lands has chiefly a grazing value, though parts, comprising creek flats and gullies, are suitable for cultivation, while large areas are specially suitable for vineyards and orchards. The area of third class lands, which are to be found in almost every county in the State, is very extensive, amounting to 2,259,293 acres.

Grazing area leases.

Grazing area leases may be issued for any term of years expiring not later than 29th December, 1920, for areas not exceeding 200, 640, or 1,280 acres of first, second, or third class land, at annual rentals, according to classification and valuation, of not less than 3d., 2d., and 1d. per acre respectively. The areas must be enclosed by a fence within the first three years, or, with approval, otherwise improved to an amount equal to the cost of fencing. A lessee may at any time apply to select from his area, as provided in the lease, under the provisions of sections 32 to 44 of the *Land Act* 1915. Grazing area leases are transferable with consent obtained through the Department.

Selection purchase leases.

A person desirous of selecting land and obtaining the freehold thereof may do so by either taking up a grazing area lease and selecting therefrom as described in the preceding paragraph, or by taking up direct a selection purchase lease. Selection purchase leases of agricultural and grazing lands may be acquired under the provisions of the table on the next page, with or without residence condition. The Acts provide for either 20 or 40 years' tenure (at option) with half-yearly payments towards the purchase of areas not exceeding 200, 320, or 640 acres of first, second, or third class land respectively. Specified conditions must be complied with, and improvements effected during the first six years, as indicated in the appended explanatory table, after which the Crown grant may be obtained, if desired, upon payment in full of the balance of the purchase money at any time during the currency of the lease. The lease is not negotiable during the first six years, though a lien may be registered upon the improvements effected. After six years the lease may be operated upon as freely as a Crown grant if all conditions have been complied with. The selector under residence conditions is required to reside on the land, or within 5 miles thereof, for a minimum of three years and nine months during the first six years, but substituted occupation by a selector's wife, or child over 18 years of age, or parent dependent for support, may be sanctioned.

EXPLANATORY SELECTION TABLE.

Classification of Land.	Maximum Area.		(*a*) Value per Acre.			(*b*) Value of Improvements per Acre to be effected by a Licensee before the end of specified Periods.										
				Annual Rental (payable half-yearly).		Residence Lease (Section 49 of *Land Act* 1915).				Non-Residence Lease (Section 50 of *Land Act* 1915).						
	Ordinary Crown Lands.	Mallee Lands.	Total (Minimum).	20-Year Period (Residence or Non-Residence).	40-Year Period (Residence only).	2nd Year.	3rd Year.	4th Year.	6th Year.	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	
	Acres.	Acres.	£ s. d.	per Acre. £ s. d.	per Acre. £ s. d.	£ s. d.	£ s. d.	£ s. d.	Total. £ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	Total. £ s. d.	
1st	200	640	1 0 0	0 1 0	0 0 6	0 3 4	0 6 8	0 10 0	1 0 0	0 6 8	0 13 4	1 0 0	1 6 8	1 13 4	2 0 0	
2nd	320	1,000	0 15 0	0 0 9	0 0 4½	0 2 6	0 5 0	0 7 6	0 15 0	0 5 0	0 10 0	0 15 0	..	..	0 15 0	
3rd	640	1,280	0 10 0	0 0 6	0 0 3	..	0 5 0	..	0 10 0	0 3 4	0 6 8	0 10 0	..	..	0 10 0	

(*a*) Under Section 8 of the *Land Act* 1915, if the value of the land is greater than the minimum stated, the half-yearly payments may be increased *pro rata*.

(*b*) Any payment made by an incoming applicant for existing improvements is credited as expenditure, and improvements made in excess for any one year (if maintained) are set off against expenditure required in the next or following years.

Perpetual leases. Instead of selecting by way of selection purchase lease under which the freehold is obtained, a person may acquire a similar area of agricultural and grazing lands under perpetual lease. The annual rental is 4 per cent. of the unimproved value of the land, which is fixed at £1, 15s., or 10s. per acre for first, second, or third class lands respectively. The rent is subject to revision every ten years, but must not exceed 4 per cent. of the unimproved value of the land. Residence on or within 5 miles of the land for six months during the first year, and for eight months during each of the four following years, is necessary; but if one-fourth of the allotment be cultivated during the first two years, and one-half before the end of the fourth year, the residence covenant will not be enforced.

Mallee lands. The "mallee country"—so named from the scrub found growing there—occupies about 11,000,000 acres in the north-west portion of the State. The soil is light chocolate and sandy loam, and in its virgin state is covered with mallee scrub, interspersed with plains lightly timbered with box, she-oak and pines. Since the introduction of the "mallee roller" and the "stump-jump" plough, it has been possible to clear off the scrub at a moderate cost. With the extension of railway facilities and irrigation works successful settlement in this part of the country is rapidly extending. There are now 5,350,070 acres included in the general list of unalienated lands, portions of which, as opportunity offers, may become classified as first, second, or third class lands for selection. The terms of purchase by selection purchase lease are similar to those previously described, viz., for first, second, and third class land, not less than £1, 15s., and 10s. per acre respectively, payable during either 20 or 40 years. Larger areas may be held, however, the maximum being 640 acres, 1,000 acres, and 1,280 acres respectively. In the case of Mallee Perpetual Leases the rental must not exceed 1¼ per cent. of the unimproved value, and, if one-fourth of the area be cultivated within four years, and one-half by the end of the sixth year, or improvements be effected to the extent of 10s., 7s. 6d., or 5s. per acre, according to the classification, residence is unnecessary.

Auriferous lands. The "auriferous lands" unalienated comprise 612,769 acres, and are distributed over twenty counties in various parts of the State. Any portions which are found to be non-auriferous, or which can be alienated without injury to mining interests, may be reclassed as agricultural and grazing lands for selection. These lands are for the most part suitable for fruit culture and grazing. Annual licences are issued for areas of auriferous lands not exceeding 20 acres on payment of a yearly licence-fee of 5s. for areas of 3 acres or under, of 10s. for areas of from 3 to 10 acres, and of 1s. per acre for areas of over 10 acres. The licensee has the right to use the surface of the land only, cannot assign or sublet without permission, and must either reside on the land or within four months

enclose the same with a fence and cultivate one-fifth of the area. He must post notices on the land, indicating that it is auriferous; and miners must be allowed free access to any part of the land not occupied by buildings. If at any time the mining objections be removed, a licensee who has complied with conditions may surrender the licence—credit being given for all rent paid, occupation, and improvements effected—and obtain a selection purchase lease which enables the freehold to be obtained. Holders of miners' rights, issued under the *Mines Act* 1915, are entitled to occupy for the purpose of residence or business a maximum area of 1 acre or less as fixed by local mining by-laws. The fee is £5 per annum for a business licence, and 2s. 6d. for a miner's right, and a habitable dwelling must be erected on the area within four months. After having been in possession for two and a half years, and having erected buildings or other improvements, the holder may apply for leave to purchase his allotment at a price to be determined by the Board of Land and Works.

Special settlement areas.

Any area of Crown lands (not being auriferous, nor permanently reserved), on which expenditure has been incurred by the Crown, may be proclaimed a "Special Settlement Area," and surveyed into allotments not exceeding 200 acres. Such allotments may be acquired under Conditional Purchase Lease, with provisions that the land shall at all times be maintained and used for the purpose of residence and agriculture; and, further, that only one such allotment can be held or used by any one person.

Swamp or reclaimed lands.

The area of swamp or reclaimed lands unalienated amounts to 1,425 acres. The most important of these are situated at Koo-wee-rup, Moe, and Condah, which have been reclaimed at considerable cost to the Crown. These lands are divided into allotments not exceeding 160 acres. When the value of an allotment has been determined, it may be disposed of in one of four ways, viz., under a 21 years' lease; under perpetual lease, at a rental of 4 per cent. on the value of the land; under a conditional purchase lease, payment extending over 31½ years by 63 half-yearly instalments, including 4½ per cent. interest on the balance of the unpaid purchase money; or by public auction, on terms similar to those explained in the following paragraph.

Lands for sale by auction.

Country lands specially classed for sale by auction (not including swamp or reclaimed lands) and remaining unalienated on 31st December, 1915, comprised 11,250 acres. Any unsold land in a city, town, or borough, areas specially classed for sale, isolated pieces not exceeding 50 acres and sites for church or charitable purposes of not more than 3 acres may be sold by auction. The terms are cash, or a deposit of one-eighth of the purchase money and the balance in from 6 to 20 half-yearly instalments with interest at 4 per cent. per annum. There are stringent provisions prohibiting agreements which would prevent fair competition.

Unclassed lands. The "unclassed lands" unalienated comprise 3,678,186 acres, and are situated in the counties of Wonnangatta, Croajingolong, Tambo, Tanjil, Benambra, Dargo, Bogong, Delatite, Dundas, and Borung. Generally speaking, these lands are difficult of access, and large portions are in high altitudes, where cultivation is impossible and grazing impracticable except during the summer months. Areas which are found suitable may as occasion requires be reclassed Agricultural and Grazing lands for selection.

Annual grazing licences. Annual grazing licences may be issued to enter with cattle, sheep, or other animals upon reserves, "pastoral lands," "Mallee lands," or other Crown lands, not required in the meantime for other purposes. Such licences are renewable for a period not exceeding seven years, subject to cancellation at any time during the period. Any fencing erected by a licensee may be removed by him.

Bee ranges. Annual licences for bee farms may be granted (not exceeding three to one individual) for areas of not more than 10 acres in the whole at a rental of 1s. per acre per annum—for conditions see section 133, *Land Act* 1915. A bee range licence may be secured on payment of one half-penny for every acre of Crown land within a radius of 1 mile of the apiary, and for the purpose all suitable timber may be protected from destruction on any area, even though held under grazing lease or licence.

Other leases, purchases, &c. Leases up to 21 years at an annual rental of not less than £5, and annual licences at various rates are issued for different purposes, such as sites for residences, gardens, inns, stores, smithies, butter factories, creameries, brick-works, &c. Licensees who have been in possession of land for five years (if the land is outside the boundaries of a city), may purchase at a price to be determined. In such cases any rents previously paid are credited towards purchase money.

Village settlement. An Act (the *Settlement on Lands Act* 1893, No. 1311) was passed on 31st August, 1893, providing for the establishment of three descriptions of rural settlements, viz.:—Village Communities, Homestead Associations, and Labour Colonies, and certain lands were set apart in connexion therewith.

The Homestead Associations were originally combinations of not less than six persons who desired to settle near each other. These Associations, however, proved unsuccessful, and the section of the Act relating to them was repealed in 1904.

The area originally made available for Village Communities and Homestead Associations was 156,020 acres in 85 different localities in the State. A large portion of that area was, however, found to be unsuitable for Village Settlement purposes, and has been withdrawn from the operation of the Act. The area which a settler could acquire, viz., 20 acres, was altered by the *Land Act* No. 1957 to such an area as would not exceed £200 in value. The total area now occupied is 20,861 acres, on which there are 860 settlers. These

figures do not apply to a considerable number of settlers who have surrendered their Village Settlement leases and have become selectors under the *Land Act* No. 1749.

Monetary aid to the extent of £67,379 has been afforded to settlers in these communities and associations by way of loans, but no advances have been made since 1903. At 31st December, 1915, £42,495 of the amount advanced had been repaid by the settlers.

Official register of private farms for sale.

At the Lands Inquiry Office, in addition to particulars regarding Crown lands, &c., available for settlement, a register is kept of suitable private farms for sale. These are classified according to value and utility. The list is comprehensive and embraces the whole State, and intending purchasers can inspect with confidence any of the properties submitted. No charge is made by the Government for any work done in this connexion.

Transfer of Land Act.

The "Torrens System," whereby persons acquiring possession of land may receive a clear title, was introduced into Victoria in 1862. The system has been the means of simplifying procedure in connexion with the transferring of land. It gives a title to the transferee free of any latent defect and reduces the cost of dealing in real estate by reason of the simplicity of the procedure. All land parted with by the Crown since 1862 is under the operation of the Transfer of Land Act, and the Crown grant issues through the Titles Office; but, to bring under the Act land that was parted with prior to that year, application must be made accompanied by strict proofs of the applicant's interest in the property. During 1915 there were submitted 407 applications to have brought under the Act land amounting to 49,000 acres in extent, and to £724,681 in value; whilst the land actually brought under the Act during the year by application was 31,179 acres valued at £848,989. Up to the end of 1915 there had been brought under the Act 2,902,225 acres valued at £58,631,367. The number of certificates of title issued in 1915 was 14,561.

Assurance Fund.

When application is made to have land brought under the Transfer of Land Act, a contribution to the assurance fund of ½d. in the £1 on the value of the land is levied on the applicant, to assure and indemnify the Government in granting a clear title against all the world, as some other person may have a latent interest in the property, and it may be necessary for the Government to recompense such person out of the fund for the loss of his interest. The amount at credit of the fund at 1st July, 1914, was £177,213. Receipts during 1914–15 comprised contributions £2,563, interest on stock £2,845, and interest on £75,073, advanced for the purchase of land adjoining the Titles Office, £3,003. The expenditure during the year was £28, the whole of which represented claims paid. The balance at the credit of the fund on 30th June, 1915, was £185,596. The amount paid up to 30th June, 1915, as compensation and for judgments recovered, including costs, was £7,503, representing 39 claims.

CLOSER SETTLEMENT.

Closer Settlement.

Under the provisions of the Closer Settlement Act, the Lands Purchase and Management Board is empowered to expend at the rate of £500,000 per annum in the purchase, for the Crown, of privately owned lands throughout the State, for subdivision into suitable allotments according to the class of the land, and for disposal by the Board to eligible applicants, as stated hereafter. Lands well adapted for settlement are thus made available in those portions of the State in which railways, water supply and markets are provided, and in which roads and other facilities are good. The areas purchased comprise ordinary farming lands in a more or less improved condition, and lands in irrigated districts with plentiful supplies of water for irrigation.

Every application for a Closer Settlement allotment must be accompanied by the registration fee of 5s., a lease fee of £1, and a deposit (equal to 3 per cent. of the capital value of the land) which is deducted from the purchase money. The applicant is required to give evidence of suitability and fitness, &c., to occupy the land. If successful, a permit giving immediate possession is issued (followed by a lease as soon as practicable), and no further payment is required for six months. The deposit, less the 5s. registration fee, is at once returned to any unsuccessful applicant. Only one allotment of the maximum value can be granted to any one person and the principle of residence is a permanent condition in the title.

In addition to the provisions for the purchase of large estates for subdivision, the Closer Settlement Act provides that any one or more persons, who are eligible to acquire a farm allotment under the Closer Settlement Act, may enter into a provisional agreement with the owner of a block of private land for the purchase thereof, and acquire it through the Lands Purchase and Management Board. The value of the land must not exceed the maximum allowed under the Act unless two or more eligible persons agree to purchase it. Agreements with full details and an application on the proper forms must be filled in and lodged with the Board, together with a valuation fee of £4, when an inspection and valuation of the property will be made. The fee may be returned if, after a preliminary inspection, the Board does not approve of the application. Should the Board decide to acquire the land, the purchaser is required to deposit an amount not exceeding four half-yearly instalments, and is otherwise subject to all the provisions of the Closer Settlement Act with regard to payments, permanent residence, improvements, &c.

Repurchased lands are disposed of as farm allotments, agricultural labourers' allotments, and workmen's home allotments under conditional purchase lease, the terms of which are briefly stated herein, but are more particularly described in each title as issued.

Conditional purchase leases are granted to successful applicants under the Closer Settlement Act, and are for such a term not exceeding 31½ years as may be agreed upon between the lessee and the Board. The purchase money is payable by 63 or a less number of half-yearly instalments. In some cases the Board has granted applications made for extension of payments under a lease to 46½ years, the payments being by 93 half-yearly instalments. The deposit lodged with the application is credited as part of the principal, and the balance bears interest at 4½ per cent. Each instalment includes interest upon the balance of purchase money remaining unpaid, and is thus 3 per cent. half-yearly (6 per cent. per annum) of the capital value of the allotment (less the amount of the deposit). Payments in advance may be made at any time, at the option of the lessee, and a proportionate reduction of interest secured thereby.

In special cases, when a lessee is unable to meet the instalments of purchase money as they fall due, the Board has power to suspend such payments up to an amount not exceeding 60 per cent. of the value of the improvements effected by the lessee. Interest at the rate of 5 per cent. per annum is charged on the amount in arrears or on any instalments which may have been suspended.

The lessee must reside on the allotment. Personal residence by the lessee's wife, or child over 18 years of age, or parent dependent for support, may, with the approval of the Board, be considered personal residence by the lessee. A farm lessee cannot transfer, assign, mortgage, or sublet the whole or any part of his allotment within the first six years of the lease. The Crown grant may be issued to the lessee at the end of any half-year after the first twelve years have expired, on payment of the balance of purchase money, and the residence condition may be fulfilled thereafter by any one approved by the Governor in Council.

Farm allotments.

Lands for farm allotments are subdivided into suitable areas not exceeding in value a maximum amount of £2,500; and no lease thereof can issue to a person who at the date of application is directly or indirectly the owner of any other land in Victoria (township land excepted) which, together with the allotment applied for, exceeds such value. Improvements of a permanent and substantial character must be effected by the lessee of a farm allotment to the value of at least two instalments of the purchase money before the end of the first year from the date of the lease, 10 per cent. of the purchase money before the end of the third year, and a further 10 per cent. before the end of the sixth year. Improvements must thus be made to the value of at least 20 per cent. of the total purchase money payable for the allotment; and if they are made in excess of requirements during either of the two earlier periods mentioned the excess is set off against the expenditure necessary by the end of the sixth year.

Agricultural labourers' allotments.

Agricultural labourers' allotments are made available in the vicinity of larger holdings, with the object of providing workmen for the farmer, and of providing small areas for agricultural labourers, who in their spare time may work the allotments with the aid of their families. Lands for agricultural labourers' allotments are subdivided into suitable areas not exceeding in value a maximum amount of £350, and no lease thereof can be granted to any person who, at the date of application, is directly or indirectly the owner of any other land in Victoria which, together with the allotment applied for, exceeds such value. Improvements required to be effected by the lessee of an agricultural labourer's allotment are the erection of a substantial dwelling-house of the value of at least £30 within one year from the date of the lease; and the enclosure of the allotment with a substantial fence within two years from the date of the lease. A lessee who has complied with conditions may, at any time, with the Board's consent, transfer, sublet, or mortgage his lease.

Workmen's home allotments.

Workmen's home allotments are made available near centres of population, and, being of fair size comparatively and away from congested areas, provide open surroundings. Only one residence or place of business is permitted to be erected on each allotment. Lands for workmen's home allotments are subdivided into suitable areas not exceeding in value a maximum amount of £250, and no lease thereof can be granted except to a person (*a*) who is engaged in some form of manual, clerical, or other work for hire or reward, and whose salary is not more than £220 per annum; (*b*) who at the date of application is not the owner (either directly or indirectly) of any other land in Victoria which exceeds in area one-eighth of an acre if township or suburban, or 50 acres if country land; and (*c*) whose real and personal estate does not exceed £350. Improvements required to be effected by the lessee of a workman's home allotment are as follows:—The allotment must be fenced, and a substantial dwelling house of the value of at least £50 must be erected thereon within one year and additional improvements of a value of at least £25 made within two years from the date of the lease. A lessee who has complied with conditions may at any time transfer, mortgage, or sublet his allotment, subject to the Board's approval.

Advances to settlers.

The Closer Settlement Act provides for advances by the Lands Purchase and Management Board to settlers who are—

(*a*) Lessees under the *Closer Settlement Act* 1915.

(*b*) Licensees of an agricultural or grazing allotment under the *Land Act* 1915.

(*c*) Licensees under section 86 of the *Land Act* 1915 or corresponding sections of any repealed Act.

(*d*) Conditional purchase lessees under the *Land Act* 1915; or

(*e*) Conditional purchase lessees under the Murray Settlements Act, now Section 245 *Land Act* 1915.

(*f*) Selection purchase lessees under Sections 46 and 50, *Land Act* 1915.

(*g*) Perpetual lessees under Section 54, *Land Act* 1915.

Advances of not more than £500, and not exceeding 60 per cent. of the value of improvements effected on the land, may be made during the first six years of the lease for the following purposes :—

1. The erection of dwelling-houses or outbuildings, or the effecting of other improvements.
2. Carrying on farming, grazing, agricultural and horticultural pursuits.

After six years the lessee or grantee may obtain an advance up to £1,000 on a 60 per cent. basis of the value of his improvements and the purchase money paid for the land. The amounts allowed by the Board to lessees under the Closer Settlement Act towards the cost of erecting dwelling-houses and outbuildings are made on the following bases :—

For a farm allotment.—An amount not exceeding 10 per cent. of the value of the land ; but, where the land is valued at less than £500, a maximum not exceeding £50.

For an agricultural labourer's allotment.—An amount not exceeding £50.

For a workman's home allotment.—An amount not exceeding £50 where the lessee is in intermittent employment, but where in permanent employment the advance may be £150. (In special areas within the Metropolitan district the Board has power to advance up to £250.)

Advances are repayable by equal half-yearly instalments, extending over a period fixed by the Board not exceeding twenty years, with interest at 5 per cent. per annum ; but may be repaid at any time in whole or in part under a duly proportionate rebate of interest.

Wire netting advances.

Advances of wire netting may also be made under the Closer Settlement Act to owners of land—

(*a*) if such land is held as above mentioned ; or

(*b*) if such land immediately adjoins any unoccupied Crown land or is not included in any municipality.

The wire netting supplied is No. 17 gauge, 1½-in. mesh, 42 inches wide, weighs 28 cwt. to the mile, and is supplied in rolls of not less than 100 yards. Each advance is limited to a quantity sufficient for 6 miles of vermin-proof fencing, and the price of the wire netting is deemed to be the amount of the advance, which is repayable by a cash payment, or on terms over a period not exceeding ten years with interest at 4 per cent. per annum.

Estates purchased. The following is a complete statement of all estates acquired by the Closer Settlement Board for the purpose of closer settlement at 30th June, 1916, including the estates acquired under the provisions of the Small Improved Holdings Act, the administration of which has been transferred to the Board.

CLOSER SETTLEMENT ESTATES AT 30TH JUNE, 1916.

Estates.	Area.*	Purchase Money including Discount.	Price Paid Per Acre.	No. of Lessees.			Area Vacant and Available.
				Farm Allotments.	Workmen's Home Allotments.	Agricultural Labourers' Allotments.	
Dry Areas—	acres.	£	£ s. d.				acres.
Wando Vale ..	10,446	63,985	6 2 6	67	..	..	26
Walmer ..	13,769	44,751	3 5 0	42	..	2	6
Whitfield ..	4,247	36,096	8 10 0	33	..	1	236
Brunswick ..	91	2,793	29 0 0	..	56	..	9
Eurack	5,109	53,640	10 10 0	46	..	..	4
Footscray ..	31	2,494	80 0 0	..	85	..	..
Dal Campbell ..	45	2,357	47 8 0	..	63	..	2
Springvale ..	3,396	25,895	7 12 6	22	..	..	..
Memsie	10,028	57,159	5 14 0	44	..	..	11
Richmond Vale ..	1,851	11,000	8 11 6	11	..	1	255
Overnewton ..	11,336	71,492	6 4 6	67	..	..	..
Wyuna	23,016	120,876	5 5 0	120	..	10	39
Restdown ..	17,894	60,391	3 7 6	54	..	..	..
Strathkellar ..	10,227	74,150	7 5 0	55	..	6	229
Bona Vista ..	2,060	28,832	14 0 0	26	..	5	518
Cadman's ..	18	844	50 0 0	..	42	..	..
Lara	8,329	45,825	5 10 0	33	..	7	..
Tandarra ..	4,558	21,083	4 12 6	19	..	..	8
Exford	8,054	64,039	8 0 0	48	..	6	4
Colbinabbin ..	19,164	110,198	5 17 6	84	..	..	69
Pirron Yaloak ..	1,058	23,796	22 7 6	21	..	..	..
Numurkah ..	2,360	18,901	8 0 0	13	..	1	..
Allambee ..	5,025	31,794	6 6 4	16	..	..	2,580
Pender's Grove ..	233	23,337	100 0 0	..	250	..	2
Phœnix ..	23	968	40 0 0	..	47	..	2
Keayang ..	1,494	14,966	10 0 0	10	..	..	365
Werneth ..	6,588	31,043	4 15 0	21	..	..	11
Staughton Vale ..	9,857	66,466	6 15 0	45	..	..	236
Glenhuntly ..	74	7,040	94 0 0	..	158	..	..
The Heart ..	3,793	56,322	14 12 2	42	..	..	..
Mooralla ..	17,199	60,197	3 10 0	25	..	..	1,249
Maribyrnong ..	1,112	10,842	9 15 0	12	..	2	..
Kenilworth ..	18,440	55,321	3 0 0	22	..	14	3,007
Doogalook ..	4,640	29,002	6 5 0	17	..	..	..
Werribee ..	15,218	148,802	13 0 0	26	..	..	3,920
Konongwootong ..	10,181	104,363	10 3 0	65	..	16	53
Cornelia Creek ..	29,567	121,034	4 15 0	71	..	1	1,819
Koyuga.. ..	789	3,914	..	2	..	..	..
Meadowbank ..	313	9,085	29 0 0	5	..	..	..
Oaklands ..	8,069	26,309	3 5 0	12	..	..	..
Hurstwood ..	6,493	31,311	4 15 0	14	..	..	..
Eumeralla ..	10,034	57,570	5 13 7	23	..	6	3,861
Morven	8,029	39,533	4 17 6	18	..	..	1,322
Mt. Widderin ..	8,300	48,634	5 15 6	23	..	..	3
Tooronga ..	101	17,675	178 4 4	..	210	..	..
Nerrin Nerrin ..	6,809	58,497	8 10 0	15	..	..	3,217
Bellarine ..	204	5,457	26 15 0	4	..	..	80
Daylesford ..	70	2,957	42 5 2	14	..	..	8

* The area given is that to the nearest acre, and in some cases includes Crown lands transferred to the Board without purchase.

CLOSER SETTLEMENT ESTATES AT 30TH JUNE, 1916—*continued.*

Estates.	Area.*	Purchase Money including Discount.	Price Paid Per Acre.	No. of Lessees.			Area Vacant and Available.
				Farm Allotments.	Workmen's Home Allotments.	Agricultural Labourers' Allotments.	
	acres.	£	£ s. d.				acres.
Dry Areas—*continued.*							
Mordialloc ..	460	7,850	17 1 6	..	..	35	23
Thomastown ..	581	11,230	19 5 6	27	..	1	37
Wangaratta ..	796	9,660	12 3 4	19	..	..	379
Warragul ..	98	2,060	21 0 0	2	..	6	..
Belmont ..	113	3,161	28 0 0	..	..	17	..
Highton ..	425	11,032	26 0 0	10	..	..	201
Deepdene ..	2,985	35,742	12 0 0	18	..	..	..
Glenaladale ..	2,109	28,787	13 10 0	16	..	..	44
Cremona ..	1,292	20,140	Various	5	..	1	704
Boisdale ..	2,521	72,174	Various	38	..	..	571
Pannoo	15,102	98,455	Various	44	..	..	428
Marathon and Willow Grove ..	14,783	58,752	Various	26	..	..	1,975
Dunrobin ..	18,814	119,779	6 6 0	56	..	21	10
Kilmany ..	8,746	106,060	12 0 0	62	..	..	1,250
Westmere ..	934	9,418	10 0 0	..	..	..	709
Waubra	47	1,042	22 10 0	..	..	11	11
Nathalia ..	30	362	12 0 0	..	..	5	..
Moyhu	2,422	19,580	8 0 0	12	..	..	343
†Condah ..	157	1,725	10 19 8	..	..	..	..
‡Mackey ..	1,078	20,626	19 2 10	..	..	..	..
Ascot Park ..	488	3,671	Various	..	..	..	..
Nanneella ..	738	7,767	Various	6	..	12	18
Cohuna	223	2,215	Various	1	..	..	106
Bamawm ..	162	1,391	8 12 0	..	..	..	162
Thornbury ..	4	2,058	..	..	21	..	1
Crown Lands ..	2,904	20,043	Various	13	79	27	..
Sec. 6–11—Purchases ..	49,078	317,959	Various	251	..	31	1,451
Acquired, but not available ..	7	3,567	..	..	..	..	..
Irrigable Areas—							
Nanneella ..	8,565	78,654	Various	87	..	3	1,814
Bamawm ..	13,365	122,944	Various	141	..	11	1,749
Shepparton ..	9,086	133,672	Various	205	..	40	129
Swan Hill ..	6,878	71,717	Various	98	..	..	1,637
Cohuna	11,531	114,856	Various	85	..	4	3,122
Tongala	15,228	172,396	Various	178	..	21	3,099
Kyabram ..	993	14,025	Various	20	..	7	202
Koondrook ..	3,423	23,201	Various	23	..	..	1,730
Werribee ..	6,767	128,062	..	78	..	17	2,428
Koyuga ..	4,173	36,228	..	41	..	8	158
Echuca	2,913	26,727	Various	25	..	..	188
Dingee	472	4,160	Various	7	..	7	70
Cornelia Creek ..	2,507	16,501	..	14	..	..	240
Stanhope (including Lauderdale and Bonshaw) ..	7,984	94,913	Various	26	..	1	4,087
Sec. 6–11—Purchases ..	679	6,188	..	5	..	..	202
Acquired, but not available ..	16,670	187,173	..	..	..	..	..
Total ..	568,073	4,230,779	..	2,946	1,011	364	51,879

* The area given is that to the nearest acre, and in some cases includes Crown lands transferred to the Board without purchase.

† Disposed of to the Crown Lands Department.

‡ Disposed of for public purposes.

On 30th June, 1916, the Board had 99 properties, with a total area of 568,073 acres, of which 51,879 acres were available for allotment, and 16,677 acres had not at that date been made available for occupation. Portions of estates amounting in the aggregate to 25,451 acres have been sold by public competition and for public reserves without any restrictions, and are not under conditional purchase lease.

Extent of Closer Settlement.

The extent of the settlement effected by the Board at 30th June in each of the years 1912 to 1916 is summarized in the next statement.

CLOSER SETTLEMENT HOLDINGS 1912–1916.

		At 30th June.				
		1912.	1913.	1914.	1915.	1916.
In occupation—						
Number of Holdings ...	...	3,354	3,906	4,112	4,227	4,321
Area	acres	407,206	438,321	449,791	460,592	494,965
Resident Population	...	13,400	16,000	16,800	17,200	17,600
Area unallotted ...	acres	71,367	64,550	60,028	56,977	51,879

The sum of £1,661,427 had been repaid to the Closer Settlement Fund up to 30th June, 1916. Of this amount £1,004,599 has been transferred to revenue to meet interest due to stockholders, £10,000 has been invested to replace amounts written off estates re-valued, and £580,312 has been utilized for redemption and cancellation of stock and for capital and working expenditure, the balance to the credit of the fund on 30th June, 1916, being £66,516. The balance of unredeemed stock is now £4,878,785, on which the interest payable amounts to £176,148 per annum. Up to the 30th June, 1916, 10,562 applications for advances aggregating £857,870 had been approved, and that amount had been advanced to effect improvements, or upon improvements already effected by lessees.

Small Improved Holdings.

Under the *Closer Settlement Act* 1909 (No. 2) the administration of the *Small Improved Holdings Act* 1906 was placed in the hands of the Closer Settlement Board, subject to the Minister. The particulars of estates dealt with under the latter Act are shown in the table on page 681 relating to closer settlement estates at 30th June, 1916.

WATERWORKS.

Victorian Waterworks.

Victorian Waterworks are all controlled by official bodies, either State or local, and the following table summarizes those waterworks on which the Government has expended or advanced moneys. It is practically a summary of all waterworks in the State, although there are minor works constructed by municipalities out of municipal funds.

WATERWORKS—CAPITAL EXPENDITURE AND ADVANCES BY STATE TO 30TH JUNE, 1915.

Controlling Bodies.	Purposes of Supply.	Storage Capacity of Reservoirs.	Capital Expenditure and Advances by State.
		Gallons.	£
State Rivers and Water Supply Commission—			
Coliban System	Domestic and Mining	8,825,037,000	1,223,333
Broken River Works ...	Stock and Domestic	...	14,853
		Acre feet.	
Goulburn-Waranga ...	Irrigation, &c. ...	218,090	1,326,786
North-west (Kerang) Lakes	Stock and Domestic	82,650	9,587
Kow Swamp Works ...	Irrigation, &c. ...	40,860	187,084
Loddon River Works ...	" " ...	14,000	167,379
Sugarloaf Reservoir (1st stage)	" " ...	(Under construction.)	28,407
		Cubic feet.	
Lake Lonsdale Reservoir ...	Stock and Domestic	1,981,000,000	49,054
Lower Wimmera Compensation Works	" " ...	125,000,000	8,558
Long Lake Pumping Works	" " ...	160,000,000	27,346
		Acre feet.	
Pyke's Creek and Werribee Scheme	Irrigation, &c. ...	14,850	136,019
Irrigation and Water Supply Districts (19) ...	" " ...	...	1,572,527
Waterworks Districts (13)...	Stock and Domestic	...	994,111
First Mildura Irrigation and Water Supply Trust ...	Irrigation	...	87,232
		Gallons.	
Waterworks Trusts (94) ...	Stock and Domestic	1,110,387,500	1,173,365
Municipal Corporations (28)...	" " ...	3,093,189,000	693,258
Abolished Irrigation and Water Supply Trusts (8) ...	Irrigation	...	31,953
Miscellaneous Expenditure ...	... ...	...	157,819
Melbourne and Metropolitan Board of Works	Domestic	6,460,000,000	4,743,735
Geelong Waterworks Trust ...	"	1,468,157,000	587,454
Total	... ...	...	13,219,860

Of the expenditure given in the case of the Melbourne waterworks, £3,189,934 represents money borrowed by the State, £1,630,148 of which has been redeemed—£800,000 out of consolidated revenue, and £830,148 by payments from the Melbourne and Metropolitan Board of Works, to which body the waterworks were transferred in 1891. The loan liability to the State of the Melbourne and Metropolitan Board of Works on 30th June, 1915, was £1,559,786. Further particulars relating to this Board will be found on page 273, Part IV., of this work.

The Geelong Waterworks were sold by the Government to the Geelong Municipal Waterworks Trust in 1908 for £265,000. The expenditure shown in the above table includes, in addition to this amount, the outstanding State loan liability on account of the works, viz., £190,676, and the capital expenditure by the Trust since acquiring the works, viz., £131,778.

Expenditure and Advances for Waterworks.

The next table summarizes the amounts disbursed on State works and those granted and lent to local bodies by the State on account of waterworks. In addition to their receiving free grants large sums have been written off the liabilities of the local bodies.

CAPITAL EXPENDITURE AND LOANS FOR WATERWORKS.

—	Expenditure and Advances by State.	Interest Capitalized.	Free State Grants.	Capital Written Off.	Payments towards Redemption.	Amount standing at Debit, 30th June, 1915.
	£	£	£	£	£	£
State Works	3,178,406	..	2,798*	..	..	3,178,406
Irrigation and Water Supply Districts (18)	1,572,527	..	15,406	575,152	13,136	984,239
First Mildura Irrigation and Water Supply Trust ..	87,232	..	..	..	877	86,355
Waterworks Districts (15) ..	994,111	..	46,439	169,927	29,666	794,518
Waterworks Trusts (94) ..	1,135,951	6,871	37,414	130,989	100,046	911,787
Geelong Water Supply Works	455,676	..	..	..	265,000	190,676
Municipal Corporations (19) ..	683,715	43,633	..	165,870	114,131	447,347
,, ,, (9) ..	9,543	346	..	..	9,889	..
Melbourne and Metropolitan Waterworks System ..	3,189,934	..	..	..	1,630,148	1,559,786
Abolished Trusts (8) ..	31,710	..	243	31,680	80	..
Miscellaneous	157,819	..	..	..	..	157,819
Total	11,496,624	50,850	102,300	1,073,618	2,162,923	8,310,933

* Originally grants to Waterworks Trusts, the works on which spent having been taken over by the State.

In addition to the capital written off, as shown above, arrears of interest amounting to £579,786 have been written off certain liabilities to the State, viz., £342,773 from the liabilities of what were originally Irrigation and Water Supply Trusts, £85,556 from the liabilities of Waterworks Trusts, and £151,457 from the liabilities of Municipal Corporations. Thus the amount actually written off the liabilities of the Trusts (Irrigation and Waterworks) and Corporations is £1,653,404. Interest outstanding at 30th June, 1915, amounted to £28,097, viz., £12,022 against the First Mildura Trust, £14,071 against Waterworks Trusts, and £2,004 against Municipal Corporations.

IRRIGATION.

Progress of Irrigation.

Prior to 1905 the management of irrigation in Victoria was in the hands of various Irrigation Trusts, which were financed by the State. These Trusts drifted into financial difficulties and the State was compelled to assume control. In the year mentioned, by the authority of Parliament, the State Rivers and Water Supply Commission was constituted and intrusted with the management of all irrigation works, except those controlled by the first Mildura Trust. This authority is embodied in the *Water Act* 1915, which consolidates the Water Acts of 1905 and 1909, of which an epitome has been given in previous issues of this work. The chief difficulties under which the Irrigation

Trusts laboured were sparse settlement, and the absence of powers to make compulsory charges on the properties commanded by the irrigation channels. Since the assumption of control by the Commission, a policy of closer settlement on the lands served by the irrigation channels has been inaugurated and vigorously pushed on, and a system of compulsory rating enforced, along with which there has been the allotment of water as a right to properties in channelled areas.

An illustration of the influence of closer settlement and the allotment of water rights in extending irrigation is contained in the following table, which shows the progress made since 1909, the year in which these two factors were first put into operation.

PROGRESS OF IRRIGATION IN CLOSER SETTLEMENT AREAS.

District (having allotted Water Rights).	Area Irrigated.	
	1909–10.	1915–16.
Supplied from the Goulburn—	Acres.	Acres.
Shepparton	..	10,894
Rodney	32,356	42,262
Tongala	2,270	12,486
Rochester	500	21,745
Dingee	..	1,200
Tragowel Plains	20,000	40,462
Supplied from the Murray—		
Cohuna	12,000	18,088
Gannawarra	7,825	16,524
Koondrook	5,029	14,890
Swan Hill	5,410	9,214
Nyah	569	1,706
Merbein	202	5,274
Supplied from the Werribee—		
Bacchus Marsh	31	3,009
Total	86,192	197,754

The progress of settlement in irrigated areas since its commencement in 1909 is shown in the next table :—

CLOSER SETTLEMENT IN IRRIGATED AREAS.

Settlement.	Lands purchased by the State.		Land Subdivided.		No. of families thereon when purchased.	No. of Closer Settlement Blocks occupied.	Area not Subdivided.
	Total Area.	No. of Properties	Total Area.	No. of Blocks.			
	acres.		acres.				acres.
Shepparton	9,244	21	9,087	249	19	245	157
Kyabram	3,049	7	991	31	3	25	2,058
Tongala	15,228	31	15,228	247	30	196	..
Bamawm	13,364	28	13,364	172	21	152	..
Nanneella	8,565	16	8,565	110	6	92	..
Cornelia Creek and Koyuga	6,680	1	6,680	76	..	62	..
Cohuna	11,531	27	11,531	133	8	92	..
Swan Hill	6,878	19	6,878	138	10	100	..
Koondrook	3,423	5	3,423	38	3	23	..
Echuca	3,234	6	2,912	25	4	25	322
Dingee	471	3	471	17	1	15	..
Stanhope	20,889	6	8,012	157	7	31	12,877
Werribee	7,996	1	6,731	145	6	98	1,265
Nyah	3,000	1	3,000	137	..	117	..
Merbein (Crown Lands)	6,000		6,000	206	..	204	..
Total ..	119,552	172	102,873	1,881	118	1,477	16,679

The figures show that the settlements referred to in the above table were supporting more than twelve times as many families in 1916 as there were on the same areas when they were purchased. In addition to this, the improvements in cultivation rendered possible by irrigation must be taken into consideration.

During the year 1915–16 there was made available to settlers an area of 5,500 acres in 148 holdings. The total area now subdivided

is about 103,000 acres which, after making the necessary deductions for roads, channels, and township reserves, has been made available in 1881 blocks of an aggregate area of 98,000 acres.

The war conditions have had the effect of retarding settlement on irrigable estates, but there has been a fair demand for blocks, chiefly small fruit areas, on Burton's Estate, Swan Hill, and at Stanhope, where nearly one-half of the area made available has been settled, Taking the irrigation settlements as a whole, including Nyah and Merbein, there are 79,000 acres now settled, of which about two-thirds are under cultivation.

There are now available, including lands at Nyah and Merbein, 382 allotments, in sizes varying from 2 to 100 acres. These, with the 20 blocks about to be thrown open on Dudley's Estate, Shepparton, will bring the total available to 402 allotments of a total area of about 17,330 acres. The terms upon which these allotments may be acquired are explained on page 677.

In addition, there is in reserve an area of about 16,000 acres, mainly at Stanhope, which will be subdivided and made available as required.

Irrigation construction works, 1915-16.

The construction works carried on by the State Rivers and Water Supply Commission during 1915–16 were mainly directed towards providing additional storage to meet the increasing demands for water for irrigation and other purposes. The principal works for irrigation requirements are the enlargement of Waranga Reservoir by raising the embankment to provide for a further depth of water of 10 feet; the construction of the first stage of the Sugarloaf Reservoir on the Upper Goulburn, which will store from 240,000 to 300,000 acre-feet and make available an additional 80,000 acre-feet by direct diversion from the river; and the construction of the Melton Reservoir, on the Werribee River, which will impound about 17,000 acre-feet of water. To supplement the domestic and stock supplies to the extensive districts served by the Wimmera–Mallee system two very suitable natural basins—Fyans Lake and Taylor's Lake—are being converted into controllable storages which will impound 17,200 and 30,000 acre-feet respectively, while two minor storages will provide a further 6,000 acre-feet. The supply to Bendigo and Castlemaine districts for domestic use, irrigation, and mining is also being improved by the enlargement of the Upper Coliban Reservoir, the depth of which will be increased by 11 feet and the capacity by 2,000 million gallons.

When the works now in hand are completed the total storage capacity of the reservoirs under the Commission's control will be, in round figures, 960,000 acre-feet. The present capacity, including several natural basins more or less improved, which were not in last year's total, is 548,000 acre-feet, which is slightly more than three times the capacity—172,000 acre-feet—in 1902.

Total area irrigated.

The subjoined table shows the total extent of irrigated land in the State for 1909–10 and each of the last four years, and the purposes for which the land was utilized:—

IRRIGATED AREAS: HOW UTILIZED.

Crop.	1909–10.	1912–13.	1913–14.	1914–15.	1915–16.
	acres.	acres.	acres.	acres.	acres.
Cereals	23,715	64,110	74,927	74,658	61,663
Lucerne	24,124	44,470	55,535	71,217	70,372
Sorghum and other annual fodder crops	8,094	16,898	21,374	37,759	15,412
Pastures	50,541	76,704	110,193	81,463	82,622
Vineyards, orchards, and gardens ..	17,524	22,267	26,489	28,666	32,918
Fallow	4,988	4,600	8,536	13,368	5,621
Miscellaneous ..	785	1,934	2,233	2,214	2,399
	129,771	230,983	299,287	309,345	271,007
Details not available (private diversions)..	8,000	19,000	18,000	15,000	17,000
Total ..	137,771	249,983	317,287	324,345	288,007

The extent of irrigation in 1915–16, though less than that in 1914–15 or 1913–14, is still well above the average of the last five years, the figures for the two years referred to representing drought conditions when there was an abnormal demand for water. Of the total detailed area irrigated in 1915–16—271,007 acres—the percentages devoted to different purposes were as follows:—Pastures, 30; lucerne, 26; cereals, 23; vineyards, orchards, and gardens, 12; sorghum and other annual fodder crops, 6; fallow, 2; and miscellaneous, 1.

Mildura Irrigation Settlement.

The Mildura Irrigation Settlement, on the Murray River, was established in 1887 under the management of the Chaffey Brothers Limited, and in 1895 was vested in the First Mildura Irrigation Trust. Water is obtained by pumping from the river. The following particulars are an indication of the prosperity of the settlement:—

POPULATION OF MILDURA SHIRE, 1891 TO 1915.

1891	April (Census)	2,321	1913	December		6,300
1896	September	2,000	1914	"		7,250
1901	March (Census)	3,325	1915	"		7,618
1911	April (Census)	6,119				

The receipts and payments of the Mildura Irrigation Trust during the year ended 30th June, 1915, were as follows:—

RECEIPTS AND PAYMENTS OF FIRST MILDURA IRRIGATION TRUST, 1914–15.

Receipts.	£	*Payments.*	£
Horticultural Rates	18,652	Wages and Salaries	9,813
Town Rates	45	Firewood	10,421
Special Waterings, &c.	4,759	Interest, Sinking Fund and Depreciation	5,405
Miscellaneous	5,803	Miscellaneous	7,520
Total	29,259	Total	33,159

The area of land under cultivation in the settlement was 11,900 acres in April, 1909; 12,189 acres in April, 1910; 12,209 acres in April, 1912; 12,307 acres in September, 1914; and 12,822 acres in September, 1915. The extent of watering done represented 36,909 water acres in 1908–9, 35,475 acres in 1909–10, 40,860 acres in 1911–12, 36,553 acres in 1912–13, 39,541 acres in 1913–14, and 42,475 acres in 1914–15.

In the following statement the principal kinds of fruit, &c., grown are tabulated:—

ACREAGE UNDER CULTIVATION AT MILDURA, SEPTEMBER, 1915.

Vines.				Citrus.		Other Fruit Trees.				Miscellaneous				Total.
Gordos.	Sultanas.	Currants.	Wine.	Oranges.	Lemons.	Apricots.	Peaches.	Figs.	Unenumerated.	Lucerne.	Crop.	Household garden.	Vacant.	
1,399	4,470	1,882	55	677	200	350	195	48	452	551	815	270	958	12,822

State Waterworks Capital Debt.

The control of all State waterworks is vested in the State Rivers and Water Supply Commission. Such works

and their capital debit at 30th June, 1916, are set forth in the following statement:—

WATERWORKS UNDER CONTROL OF STATE RIVERS AND WATER SUPPLY COMMISSION.

(*a*) *Free Head-works.*	Capital Debit at 30th June, 1916.
	£
Broken River Works	14,853
Goulburn River Works	735,682
Kerang North-west Lakes Works	9,587
Kow Swamp Works	187,084
Lake Lonsdale Reservoir	49,054
Loddon River Works	167,476
Long Lake Pumping Works	27,346
Lower Wimmera Compensation Works	8,558
Total—Free Head-works	1,199,640

(*b*) *Waterworks Districts.*	Total Capital Expenditure.	Capital Written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debit at 30th June, 1916.	
	£	£	£	£	
Birchip					
Sea Lake	226,908	700	2,185	224,023	
Tyrrell					
Wycheproof					
Carwarp	6,989	..	..	6,989	
Coliban	1,243,519	..	..	1,243,519	
Karkarooc	93,252	..	2,493	90,759	
Kerang North-west Lakes (free head-works excluded)	2,000	..	..	2,000	
Long Lake (free head-works excluded)	45,708	..	571	45,137	
Ouyen	3,416	..	..	3,416	
Tyntynder	45,024	..	..	45,024	
Walpeup East	3,471	..	..	3,471	
Walpeup West	3,220	..	..	3,220	
Western Wimmera ..	249,357	132,835	13,966	102,556	
Wimmera United ..	185,888	36,392	11,064	138,432	
Wonthaggi	62,820	..	1,737	61,083	
Wimmera Main Channels ..	122,367	..	..	122,367	
Wimmera Storages ..	46,240	..	..	46,240	
Total ..	2,340,179	169,927	32,016	2,138,236	2,138,236

WATERWORKS UNDER CONTROL OF STATE RIVERS AND WATER SUPPLY COMMISSION—*continued.*

(c) *Irrigation and Water Supply Districts.*	Total Capital Expenditure.	Capital Written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debit at 30th June, 1916.	Capital Debit at 30th June, 1916.
	£	£	£	£	£
Bacchus Marsh	56,583	8,906	493	47,184	
Boort	54,818	35,259	394	19,165	
Campaspe	63,354	52,685	305	10,364	
Cohuna	125,594	49,197	521	75,876	
Deakin	93,655	34,748	2,144	56,763	
Dingee	12,740	..	..	12,740	
Dry Lake	1,704	686	299	719	
Gannawarra	81,497	33,179	180	48,138	
Kerang	84,046	35,338	710	47,998	
Koondrook	109,562	30,872	1,475	77,215	
Merbein	72,054	..	..	72,054	
Nyah	23,361	..	..	23,361	
Rochester	114,203	..	..	114,203	
Rodney	363,569	149,949	6,316	207,304	
Shepparton	47,610	..	..	47,610	
Swan Hill	53,961	19,799	342	33,820	
Tongala	60,492	..	..	60,492	
Tragowel Plains	185,964	124,534	444	60,986	
Total ..	1,604,767	575,152	13,623	1,015,992	1,015,992
(d) *Main Supply Works* (to be apportioned to Irrigation and Water Supply Districts benefited).					
1. Goulburn Main Channels—					
East Goulburn ..	..	..	..	129,623	
Waranga Reservoir to Campaspe ..	..	..	..	245,219	
Campaspe to Serpentine	..	..	..	194,278	
Main Distributary Channels	..	..	..	25,655	594,775
2. Goulburn Storages ..	..	..	..	..	135,035
3. Pyke's Creek and Werribee Scheme ..	..	..	..	..	167,027
(e) *Waterworks Trusts Districts.**					
Avoca Waterworks Trust ..	12,495	2,494	908	9,093	
Carrum Waterworks Trust	25,732	7,732	1,784	16,216	
Loddon United Waterworks Trust	21,234	1,717	1,964	17,553	
Grand Total ..	..	..	..	..	5,250,705

*In consequence of the undermentioned Trusts having made default in the payment of interest on loans, their districts have been temporarily placed under the Commission's control.

Receipts and Expenditure.

The receipts and disbursements of the State Rivers and Water Supply Commission during the year ended 30th June, 1916, were as follows:—

STATE RIVERS AND WATER SUPPLY COMMISSION.—RECEIPTS AND EXPENDITURE, 1915-16.

Works.	Receipts.	Expenditure.			Excess.	
		Total from Annual Votes.	On Capital Works from Annual Votes.	Net Expenditure on Management and Maintenance.	Revenue over Net Expenditure.	Net Expenditure over Revenue.
	£	£	£	£	£	£
Coliban	37,490	10,539	..	10,539	26,951	..
Goulburn	255	2,058	..	2,058	..	1,803
Loddon River ..	7	300	..	300	..	293
Kow Swamp ..	280	1,721	..	1,721	..	1,441
Broken River ..	7	230	..	230	..	223
North-West Lakes ..	344	271	..	271	73	..
Lake Lonsdale ..	7	438	..	438	..	431
Lower Wimmera ..	..	145	..	145	..	145
Irrigation Districts ..	110,052	50,807	..	50,807	59,245	..
Waterworks Districts ..	74,293	40,033	305	39,728	34,565	..
Licences, Diversions, Pumping, &c. ..	7,518	3,838	..	3,838	3,680	..
	230,253	110,380	305	110,075	120,178	..
Not Earning Revenue.						
River Gaugings, Surveys and Reports, New Projects	...	3,788	...	3,788	...	3,788
Irrigation Engineering Scholarships	...	163	...	163	...	163
Cost of Administration—Waterworks Trusts, Boring for water, Road Clearing, and Land Settlement ...	...	4,690	...	4,690	...	4,690
Loan Works	...	2,699	...	2,699	...	2,699
Total ...	230,253	121,720	305	121,415	108,838	...

NOTE.—This table does not take into consideration the questions of interest, redemption and depreciation.

Waterworks Trusts' Indebtedness.

The extent of Government assistance to the Water works Trusts which are not under the control of the State Rivers and Water Supply Commission, and the financial position of such Trusts are exhibited below.

WATERWORKS TRUSTS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1915.

Waterworks Trust.	Cost of Works at 30th June, 1915, defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1915.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1915.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Alexandra	..	3,800	..	..	290	3,510	..
Avenel	..	2,333	..	..	250	2,133	42
Avoca*	2,662	12,483	..	2,494	838	9,151	73
Avoca Township ..	..	10,000	..	..	72	9,928	250
Bairnsdale	..	43,822	..	23,439	1,191	19,192	382
Ballan	..	1,100	..	..	270	830	16
Benalla	..	15,579	..	..	3,320	12,259	245
Bet Bet Shire ..	1,384	5,694	..	..	1,549	4,145	..
Boort	28	1,150	..	150	87	913	..
Bright	..	4,990	..	..	403	4,587	79
Broadford	..	11,000	..	..	169	10,831	215
Carisbrook	..	8,400	..	2,400	342	5,658	227
Carrum*	..	25,732	..	7,732	1,629	16,371	..
Charlton	4,040	11,083	..	887	318	9,878	233
Cobram	..	4,500	..	..	382	4,118	82
Colac	..	44,574	..	..	918	43,656	862
Dandenong	..	27,628	..	5,128	898	21,602	713
Daylesford Borough ..	..	24,206	2,794	3,139	2,472	21,389	..
Donald	3,058	12,032	..	1,166	776	10,090	196
Donald Shire ..	1,691	4,353	..	..	1,280	3,073	..
Echuca Borough ..	..	26,422	..	..	1,546	24,876	631
Elmore	..	4,150	..	..	499	3,651	72
Euroa	..	21,992	..	..	2,099	19,893	..
Geelong†	..	..	..	..	..	..	..
Gisborne	..	4,986	..	..	1,024	3,962	79
Glenrowan	..	1,900	..	..	8	1,892	149
Hamilton	..	45,666	..	..	3,062	42,604	846
Healesville	..	4,661	..	..	673	3,988	..
Heathcote	..	8,480	..	..	700	7,780	313
Horsham Borough ..	..	30,713	..	7,712	1,236	21,765	..
Kara Kara Shire ..	1,522	9,447	..	..	730	8,717	..
Kerang	88	8,986	..	..	689	8,297	338
Kerang Shire ..	213	1,200	..	..	98	1,102	..
Kilmore	..	14,223	..	..	2,412	11,811	..
Koroit	..	5,502	..	2,047	717	2,738	..
Korumburra ..	..	11,492	..	..	1,608	9,884	..
Kowree	292	2,707	..	..	510	2,197	..
Kyabram	..	3,466	..	..	206	3,260	63
Kyneton Shire ..	..	31,345	..	..	16,711	14,634	290
Lancefield	..	7,082	..	..	696	6,386	127
Lawloit	1,302	12,095	..	..	1,018	11,077	220
Leongatha	..	8,459	..	..	398	8,061	160
Lilydale	..	6,784	..	..	357	6,427	129
Leddon United* ..	4,122	21,234	..	1,717	1,797	17,720	354
Longwood	..	3,070	..	550	153	2,367	96

(For footnotes, see end of table.)

WATERWORKS TRUSTS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1915—*continued.*

Waterworks Trust.	Cost of Works at 30th June, 1915, defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1915.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1915.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Lowan Shire ..	1,258	11,680	..	..	979	10,701	213
Macedon	..	2,824	..	..	284	2,540	50
Maffra	..	6,500	..	..	26	6,474	129
Mansfield	..	7,931	..	..	1,088	6,843	..
Maryborough ..	..	76,257	..	9,200	5,768	61,289	..
Mooroopna	..	4,278	..	1,400	173	2,705	..
Morwell	..	10,298	..	..	124	10,174	584
Murchison	..	3,052	..	..	270	2,782	52
Murtoa	..	4,540	..	..	89	4,451	1
Nagambie	..	3,275	..	..	465	2,810	56
Nhill	799	10,911	..	2,482	638	7,791	153
Numurkah Shire ..	1,278	25,194	..	1,376	4,713	19,105	380
Omeo	..	3,982	..	..	495	3,487	140
Pyramid Hill ..	..	2,409	..	..	83	2,326	42
Riddell's Creek ..	..	4,050	..	497	266	3,287	65
Rochester	..	5,574	..	..	217	5,357	97
Romsey	..	4,700	..	..	1,031	3,669	73
Rushworth	..	4,500	..	..	305	4,195	..
Rutherglen	..	21,735	..	..	1,457	20,278	403
Seymour	..	27,959	..	..	2,728	25,231	501
Shepparton Urban ..	24	20,789	..	2,416	2,210	16,163	321
Shepparton Shire ..	110	14,423	..	1,376	1,735	11,312	226
St. Arnaud Borough	57	45,076	4,077	15,077	2,558	31,518	..
Stawell Shire ..	545	1,370	..	250	1,120	..	..
Sunbury	..	16,497	..	..	410	16,087	363
Swan Hill	231	6,249	..	..	324	5,925	..
Swan Hill Shire‡ ..	6,421	36,043	..	36,043	..	..	..
Tallangatta ..	..	4,328	..	..	172	4,156	83
Tatura	..	5,909	..	650	419	4,840	..
Tongala	..	1,021	..	..	..	1,021	23
Traralgon	..	14,746	..	..	504	14,242	285
Trentham	..	5,000	..	..	62	4,938	98
Tungamah Shire ..	4,130	18,440	..	..	1,186	17,254	343
Upper Macedon ..	..	2,290	..	..	388	1,902	..
Violet Town	..	5,750	..	..	388	5,362	106
Wahgunyah	..	2,300	..	..	2	2,298	39
Wangaratta	..	9,889	..	..	583	9,306	186
Warburton	..	3,592	..	..	..	3,592	179
Warracknabeal ..	262	6,583	..	..	638	5,945	118
Warragul	..	15,776	..	..	484	15,292	..
Warrnambool ..	..	38,500	..	..	3,281	35,219	701
West Charlton ..	..	2,822	..	..	162	2,660	..
Winchelsea	..	96	..	..	..	96	2
Winchelsea Shire ..	..	5,689	..	..	396	5,293	105
Wodonga	..	7,722	..	..	675	7,047	..
Woodend	..	10,563	..	..	2,428	8,135	162
Yackandandah ..	..	1,014	..	..	..	1,014	3
Yarram	..	2,306	..	..	112	2,194	..
Yarrawonga Urban ..	1,897	8,800	..	..	1,655	7,145	143
Yatchaw	..	6,262	..	1,661	386	4,215	85
Yea	..	3,885	..	..	167	3,718	79
Total ..	27,414	1,135,950	6,871	130,989	100,045	911,787	14,071

* The property of this Trust has been taken possession of by the State Rivers and Water Supply Commission, under the provisions of the *Water Act* 1915.

† The Geelong Municipal Trust loan was not obtained from the Government.

‡ This Trust was abolished under the provisions of the *Water Act* 1905.

The free State grant to Waterworks Trusts for the construction of headworks was originally £100,000, but, owing to the transfer of works, portion of the grant now appears against Irrigation districts and other State works.

Waterworks Trusts—Receipts and Expenditure.

The following return contains full particulars of the receipts and expenditure of the Waterworks Trusts during the year ended 31st December, 1915:—

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1915.

Waterworks Trust.	Receipts from—				Expenditure on—				
	Water Rates.	Sale of Water.	Other Sources.	Total.	Maintenance and Management.	Salaries and Wages.	Interest and Redemption.	Other Services.	Total.
	£	£	£	£	£	£	£	£	£
Alexandra.. ..	478	36	18	527	127	257	167	..	551
Avenel	162	..	..	162	29	41	50	5	125
Avoca*	..	..	..	..	..	..	..	..	..
Avoca Township ..	553	69	7	629	18	109	500	..	627
Bairnsdale ..	1,755	448	72	2,275	477	514	906	16	1,913
Ballan	257	5	18	280	163	44	39	5	251
Benalla	820	831	3	1,654	966	1,035	291	54	2,346
Bet Bet Shire ..	321	4	..	325	70	35	209	..	314
Boort	288	51	1	340	156	32	43	13	244
Bright	338	107	5	450	186	68	155	3	412
Broadford ..	764	..	5	769	47	84	515	6	652
Carisbrook ..	325	..	53	378	52	46	131	53	282
Carrum*	..	..	..	..	..	..	..	..	..
Charlton	697	32	19	748	223	11	181	..	415
Cobram†	436	..	29	465	298	119	203	20	640
Colac	3,108	..	47	3,155	271	418	2,657	25	3,371
Dandenong ..	1,290	156	11	1,457	107	206	822	3	1,138
Daylesford Borough	1,347	783	162	2,292	715	215	1,539	16	2,485
Donald	881	453	79	1,413	180	204	564	13	961
Donald Shire ..	475	..	..	475	164	38	223	..	425
Echuca Borough ..	2,363	123	68	2,554	702	534	780	23	2,039
Elmore	358	187	10	555	202	154	149	19	524
Euroa	1,092	506	6	1,604	256	93	942	46	1,337
Geelong	15,947	6,582	2,332	24,861	3,530	2,130	18,499	99	24,258
Gisborne	340	79	4	423	176	59	188	..	423
Glenrowan ..	68	..	..	68	29	143	..	1	173
Hamilton ..	3,354	1,251	214	4,819	1,455	443	2,009	94	4,001
Healesville ..	471	9	1	481	780	83	190	37	1,090
Heathcote.. ..	361	91	1	453	104	52	367	12	535
Horsham Borough ..	1,878	427	114	2,419	563	302	1,017	37	1,919
Kara Kara Shire ..	665	..	3	668	699	41	427	2	1,169
Kerang	1,438	200	26	1,664	889	350	635	68	1,942
Kerang Shire‡ ..	..	..	..	..	..	..	..	..	..
Kilmore ..	518	501	5	1,024	361	257	576	..	1,194
Koroit	402	256	12	670	449	124	131	2	706
Korumburra ..	622	307	151	1,080	269	269	496	33	1,067
Kowree	278	2	5	285	76	120	118	1	315
Kyabram	413	227	4	644	113	247	141	..	501
Kyneton Shire ..	1,228	1,043	50	2,321	451	315	996	15	1,777
Lancefield ..	299	86	1	386	57	30	307	8	402
Lawloit	1,226	68	3	1,297	1,590	464	599	14	2,667
Leongatha ..	591	88	57	736	37	127	381	20	565
Lilydale	604	168	2	774	59	80	457	..	596
Loddon United* ..	..	..	..	..	..	..	..	..	..
Longwood.. ..	175	..	..	175	27	25	143	8	203
Lowan Shire ..	1,294	..	204	1,498	3,031	597	508	48	4,184

(For footnotes see end of table.)

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1915—*continued.*

Waterworks Trust.	Receipts from—				Expenditure on—				
	Water Rates.	Sale of Water.	Other Sources.	Total.	Maintenance and Management.	Salaries and Wages.	Interest and Redemption.	Other Services.	Total.
	£	£	£	£	£	£	£	£	£
Macedon	162	..	2	164	20	46	120	..	186
Maffra	617	75	8	700	151	240	311	..	702
Mansfield ..	451	167	2	620	66	173	326	15	580
Maryborough ..	3,214	951	22	4,187	323	374	2,915	9	3,621
Mooroopna ..	384	88	45	517	174	221	127	9	531
Morwell	384	231	3	618	34	68	662	..	764
Murchison ..	227	178	6	411	80	161	141	..	382
Murtoa	594	194	11	799	353	350	64	24	791
Nagambie ..	351	33	3	387	32	214	115	16	377
Nhill	1,025	53	124	1,202	777	350	354	..	1,481
Numurkah Shire ..	2,412	326	52	2,790	1,378	892	1,038	34	3,342
Omeo	312	8	4	324	125	52	165	10	352
Pyramid Hill ..	201	11	1	213	73	53	97	..	223
Riddell's Creek ..	215	..	1	216	13	53	156	..	222
Rochester ..	900	117	3	1,020	539	128	185	64	916
Romsey	302	2	9	313	93	47	262	..	402
Rushworth ..	589	107	12	708	243	160	200	26	629
Rutherglen† ..	1,450	42	2	1,494	554	249	957	118	1,878
Seymour† ..	530	1,409	50	1,989	306	250	1,348	138	2,042
Shepparton Urban ..	1,797	313	20	2,130	291	494	1,147	51	1,983
Shepparton Shire ..	1,038	8	1	1,047	108	457	272	48	885
St. Arnaud Borough	2,173	26	72	2,271	325	221	1,495	22	2,063
Stawell Shire‡ ..	..	..	..	..	..	..	..	..	..
Sunbury	383	447	12	842	36	103	1,150	24	1,313
Swan Hill ..	1,046	..	64	1,110	471	387	134	5	997
Swan Hill Shire§ ..	..	..	..	..	..	..	..	..	..
Tallangatta ..	430	87	30	547	173	152	195	20	540
Tatura	469	77	9	555	102	221	338	10	671
Tongala	175	12	1	188	54	45	26	5	130
Traralgon ..	796	110	14	920	84	141	664	16	905
Trentham ..	362	19	10	391	7	53	225	16	301
Tungamah Shire ..	1,400	115	7	1,522	403	689	808	48	1,948
Upper Macedon ..	257	91	1	349	379	106	91	..	576
Violet Town ..	389	..	8	397	106	77	381	22	586
Wahgunyah ..	278	2	..	280	1,007	116	61	13	1,197
Wangaratta ..	1,472	381	56	1,909	948	481	442	..	1,871
Warracknabeal ..	1,184	151	49	1,384	723	130	272	291	1,416
Warragul	1,155	456	40	1,651	302	253	742	32	1,329
Warrnambool ..	3,216	931	216	4,363	1,857	790	1,678	92	4,417
West Charlton ..	287	..	1	288	163	3	167	..	333
Winchelsea Shire† ..	427	..	2	429	54	79	250	5	388
Wodonga	421	59	16	496	93	213	336	2	644
Woodend	431	200	2	633	83	66	383	18	550
Yackandandah ..	..	..	1	1	46	33	4	12	95
Yarram	356	57	1	414	348	20	110	11	489
Yarrawonga Urban ..	965	117	5	1,087	396	140	340	11	887
Yatchaw	357	..	13	370	8	40	100	11	159
Yea	497	28	2	527	194	240	106	2	542
Total ..	86,361	22,855	4,810	114,026	34,249	20,346	60,711	2,069	117,375

* The property of this trust has been taken possession of by the State Rivers and Water Supply Commission. † Year ended 31st December, 1914. ‡ This trust is inoperative. § This trust was abolished under the provisions of the *Water Act* 1905.

Municipal Waterworks.

Of the waterworks controlled by Municipalities, the most important are those at Ballarat vested in the Ballarat Water Commission and having reservoirs with a storage capacity of nearly 2,226 million gallons. Other important reservoirs in this group are those supplying Beechworth, Clunes, and Talbot, their respective storage capacities being 191, 267, and 200 million gallons.

The following statement shows the financial position existing between the State and corporations on account of these Waterworks:—

WATERWORKS OF MUNICIPAL CORPORATIONS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1915.

Local Body.	Cost of Works to 30th June, 1915, defrayed from Loan Advances made by State.	Capital Indebtedness.				Interest outstanding at 30th June, 1915.
		Increased by Interest Capitalized	Reduced by—		At 30th June, 1915.	
			Amounts written off.	Payments towards Redemption.		
	£	£	£	£	£	£
Arapiles Shire ..	3,600	..	..	1,441	2,159	..
Ararat Borough ..	49,935	..	18,266	2,820	28,849	..
Ballarat Water Commission	348,934	41,869	2,111	63,056	325,636	604
Beechworth Shire ..	30,426	1,256	5,958	4,910	20,814	..
Bet Bet Shire ..	1,000	..	985	15	..	..
Castle Donnington (Swan Hill) Shire ..	777	..	..	644	133	2
Chiltern Shire ..	4,500	508	508	871	3,629	72
Clunes Borough Water Commission ..	70,195	..	62,395	604	7,196	261
Creswick Borough ..	3,500	..	..	3,500	..	..
Dimboola Shire ..	687	..	..	406	281	4
Dunolly Borough ..	3,123	..	..	868	2,255	45
Inglewood Borough ..	6,131	..	..	1,748	4,383	88
Kerang Shire ..	2,566	..	..	434	2,132	32
Korong Shire ..	1,565	..	..	455	1,110	..
Ripon Shire ..	3,000	..	..	1,379	1,621	..
Stawell Borough ..	108,506	..	61,661	4,380	42,465	845
Talbot Borough ..	15,000	..	13,986	101	913	..
Tarnagulla Borough ..	1,380	..	..	174	1,206	..
Wimmera Shire ..	28,890	..	..	26,328	2,562	51
Total ..	683,715	43,633	165,870	114,134	447,344	2,004

The corporations of Echuca Borough and Ballan and Melton Shires also have waterworks, the first purchased from the State, and the other two constructed out of Shire funds.

In addition to the above, £9,889 (including £346 capitalized interest) was paid towards redemption by municipal corporations whose liabilities to the State have been transferred to Waterworks Trusts, and £3,591 by municipalities whose works have been transferred to the State Rivers and Water Supply Commission.

Artesian Bores. The following particulars relating to artesian boring have been supplied by the State Rivers and Water Supply Commission :—

ARTESIAN AND SUB-ARTESIAN BORING.

Number of Bores Sunk.		Total Depth Bored.	
State.	Private.	State.	Private.
		Feet.	Feet.
97	140	39,783	30,000

In 83 of the Government bores fresh water was struck at depths varying from 150 to 700 feet, the water rising to heights varying from 200 to 7 feet below the surface. In three cases the water rises from 4 feet to 17 feet above the surface.

METEOROLOGY.

Meteorological Records. Particulars in regard to climate and weather conditions have been furnished by the Commonwealth Meteorologist, and are given in the following tables. In the first are shown the rainfall for each of the years 1913, 1914, and 1915, and the average yearly amount of rainfall deduced from all available records to December, 1915, in each of the 26 river basins or districts constituting the State of Victoria :—

RAINFALL—YEARLY RECORDS AND AVERAGES.

Basin or District.	Rainfall.			
	During 1913.	During 1914.	During 1915.	Yearly Average to December, 1915.
	Inches.	Inches.	Inches.	Inches.
Glenelg and Wannon Rivers ..	24.20	16.41	28.10	26.80
Fitzroy, Eumeralla, and Merri Rivers	26.52	19.86	31.05	29.02
Hopkins River and Mt. Emu Creek..	23.46	14.66	21.86	25.19
Mt. Elephant and Lake Corangamite	23.66	16.82	23.65	25.01
Cape Otway Forest	37.66	26.69	39.35	38.49
Moorabool and Barwon Rivers ..	26.05	16.39	20.97	24.75
Werribee and Saltwater Rivers ..	21.88	16.90	18.78	23.49
Yarra River and Dandenong Creek	32.33	23.83	27.26	33.55
Koo-wee-rup Swamp	32.38	26.74	32.72	35.84
South Gippsland	36.06	23.89	30.92	38.94
Latrobe and Thomson Rivers ..	38.15	26.10	33.56	37.65
Macallister and Avon Rivers ..	26.10	16.11	17.74	24.26
Mitchell River	26.56	17.83	20.44	29.34
Tambo and Nicholson Rivers ..	28.47	21.56	21.60	27.92
Snowy River	38.75	27.01	23.36	35.18
Murray River	18.45	8.40	14.64	16.27
Mitta Mitta and Kiewa Rivers ..	32.19	19.06	33.64	32.10
Ovens River	30.10	20.13	35.04	32.07
Goulburn River	23.57	14.56	27.77	26.08
Campaspe River	21.94	12.07	22.01	23.15
Loddon River	15.95	9.84	17.87	19.66
Avoca River	18.14	7.96	15.46	17.11
Avon and Richardson Rivers ..	14.53	7.74	17.10	16.11
Eastern Wimmera	16.45	11.75	22.37	20.73
Western Wimmera	16.63	9.37	21.26	19.73
Mallee	12.08	6.26	10.83	12.13
Weighted Averages.. ..	22.96	14.66	22.35	24.06

The wettest portions of the State are the South Gippsland and the Cape Otway Forest districts, and the driest district is the Mallee, where the average rainfall is only 12·13 inches, as compared with an average of 24·06 for the State.

The actual areas of the State in square miles, subject to different degrees of rainfall, are as follows:—

DISTRIBUTION OF AVERAGE RAINFALL.

Rainfall.	Area in Square Miles.
Under 15 inches	19,912
From 15 to 20 inches	12,626
From 20 to 25 inches	14,070
From 25 to 30 inches	15,247
From 30 to 40 inches	14,029
From 40 to 50 inches	7,055
From 50 to 60 inches	3,348
Over 60 inches	1,597

The rainfall recorded for each quarter in 1915, and the quarterly averages up to 1915 deduced from all available records are as follows:—

RAINFALL—QUARTERLY RECORDS AND AVERAGES.

Basin or District.	First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.	
	Amount.	Average.	Amount.	Average.	Amount.	Average.	Amount.	Average.
	Pts.	Pts.	Pts.	Pts.	Pts.	Pts.	Pts.	Pts.
Glenelg and Wannon Rivers	181	388	1,073	805	1,148	888	408	599
Fitzroy, Eumerella, and Merri Rivers	260	450	1,167	871	1,149	947	529	634
Hopkins River and Mt. Emu Creek	171	432	756	761	917	764	342	562
Mt. Elephant and Lake Corangamite	280	470	768	719	870	726	447	586
Cape Otway Forest	444	604	1,452	1,167	1,347	1,258	692	820
Moorabool and Barwon Rivers	239	486	776	689	705	698	377	602
Werribee and Saltwater Rivers	267	526	682	641	606	606	323	576
Yarra River and Dandenong Creek	325	698	981	900	836	870	584	887
Koo-wee-rup Swamp	335	688	1,255	1,016	991	984	691	896
South Gippsland	488	772	924	1,111	993	1,116	687	895
Latrobe and Thomson Rivers	446	717	1,058	996	1,018	1,068	834	984
Macallister and Avon Rivers	504	608	290	583	498	577	482	653
Mitchell River	620	704	361	749	547	705	516	776
Tambo and Nicholson Rivers	705	669	402	730	499	661	554	732
Snowy River	622	813	537	980	545	901	632	824
Murray River	95	320	554	487	565	440	250	380
Mitta Mitta and Kiewa Rivers	173	608	1,235	917	1,307	923	649	762
Ovens River	162	553	1,407	967	1,342	975	593	712
Goulburn River	178	448	1,047	800	1,080	780	472	590
Campaspe River	185	407	787	727	962	684	267	497
Loddon River	145	345	634	605	790	575	218	441
Avoca River	131	282	478	551	770	501	167	377
Avon and Richardson Rivers	101	258	521	509	918	487	170	357
Eastern Wimmera	117	301	837	651	1,076	653	207	468
Western Wimmera	99	253	870	632	976	656	181	430
Mallee	66	237	322	353	572	338	121	285
The whole State	226	443	765	704	867	699	377	580

N.B.—100 points=1 inch.

The averages of the climatic elements for the seasons in Melbourne deduced from all available official records are given below :—

AVERAGES OF CLIMATIC ELEMENTS IN MELBOURNE.

Meteorological Elements.	Spring.	Summer.	Autumn.	Winter.
Mean pressure of air in inches	29·972	29·925	30·081	30·082
Monthly range of pressure of air—Inches	·892	·777	·808	·978
Mean temperature of air in shade—° Fahr.	57·6	66·5	59·4	50·0
Mean daily range of temperature of air in shade—° Fahr.	18·8	21·2	17·4	14·0
Mean relative humidity. Saturation = 100	69	64	72	78
Mean rainfall in inches	7·05	5·78	6·69	5·73
Mean number of days of rain	37	23	33	41
Mean amount of spontaneous evaporation in inches	10·13	17·19	7·74	3·63
Mean daily amount of cloudiness—Scale 0 to 10	5·9	5·2	5·9	6·4
Mean number of days of fog	1	1	5	10

In the subjoined statement are shown the yearly averages of the climatic elements in Melbourne for 1915 and for the past 59 years as well as the extremes between which the yearly average values of such elements have oscillated in the latter period.

METEOROLOGY, 1857 TO 1915.

Meteorological Elements.	Yearly Averages and Extremes.			
	Year 1915.	Average for 59 Years.	Extremes between which the Yearly Average Values have oscillated in 59 years.	
			Highest.	Lowest.
Mean atmospheric pressure (inches) ...	29·967	30·015	30·106	29·961
Highest ,, ,, ,, ...	30·509	30·608	30·762	30·488
Lowest ,, ,, ,, ...	29·153	29·256	29·445	28·942
Range (inches)	1·356	1·352	1·719	1·169
Mean temperature of air in shade (°Fahr.)	58·7	58·4	59·9	57·3
Mean daily maximum ... ,,	67·1	67·3	69·0	66·0
Mean daily minimum ... ,,	50·4	49·4	51·2	47·2
Absolute maximum ... ,,	103·8	105·3	111·2	96·6
Absolute minimum ... ,,	32·7	30·7	33·9	27·0
Mean daily range ... ... ,,	16·7	17·9	20·4	15·0
Absolute annual range ... ,,	71·1	74·6	82·6	66·0
Solar Radiation (maximum)... ,,	115·4	118·2	127·6	106·0
Terrestrial Radiation (minimum) ,,	43·9	43·8	46·7	39·5
Rainfall (in inches)...	20·95	25·25	36·61	15·61
Number of wet days	167	134	171	102
Year's amount of free evaporation (in inches)	42·79	38·69	45·66	31·59
Percentage of humidity (saturation = 100)	63	71	76	62
Cloudiness (scale 10 = overcast, 0 = clear)	4·8	5·9	6·4	4·8
Number of days of fog	19	17	39	5

AGRICULTURAL RESEARCH AND EDUCATION.

Department of Agriculture. This Department is controlled by a Minister of the Crown, under whom there is a large staff of experts with the Director of Agriculture as permanent head. These officers are actively engaged in supervising all matters relating to the Agricultural, Pastoral, Fruit and Dairying Industries of the State, and in giving instruction to those engaged therein. The Department publishes a monthly journal.

Government Experimental Farming. The great expansion in our rural industries during recent years has been largely brought about by the general adoption of better methods of farming, and by the introduction of more prolific wheats, and it is claimed that these improvements have been adopted as the result of the experimental and demonstration work of the Department of Agriculture. For many years the Department carried out research work on a large number of experimental plots on private farms throughout the State, but in 1912 the great majority of these plots were discontinued, and a commencement was made towards a policy of concentration in experimental investigation. In furtherance of this policy a Central Research Farm has been established at Werribee, and it is there that the initiative with regard to all experimental and research work will be undertaken. The State farms at Rutherglen, Longerenong, and Wyuna are used as district experimental stations for the North-East, the Wimmera, and the Goulburn Valley respectively.

Central Research Farm. It was not intended that the Central Research Farm should be a paying concern, but that by means of investigations and trials conducted thereon under practical and accurately recorded conditions it should confer upon agriculture the benefits of modern scientific advances. The problems to be investigated comprise—

(*a*) Improvements of wheat and other cereals, grasses and economic plants by selection, stud-breeding, and hybridizing;

(*b*) Soil renovation, fertilizing, and tillage methods;

(*c*) Rotation of crops, and improved cropping practices;

(*d*) Irrigation practices; drainage and aeration of soils;

(*e*) Improvement of natural pastures, and trials of artificial grassing with exotic and native grasses;

(*f*) The breeding and feeding of live stock, the improvement of milk yields, and the production of standard export types of lambs;

(*g*) Research concerning soil moisture, temperatures, biological conditions, and nutrification processes, and the nutrition of plants;

(*h*) Meteorological observations relating to agriculture.

The farm is within 1 mile of the Werribee railway station and 18 miles of Melbourne, so that it is within close touch of the Department and easy of access by farmers from all parts of the State. It contains dry farming and irrigation areas in proper proportion, and consists of comparatively good and definitely poor land. These are combined advantages that could hardly be secured elsewhere in the State. Much of the soil closely resembles in physical character and chemical constitution that of the Goulburn Valley and Wimmera cereal-growing districts, and the annual rainfall (19·5in.) is practically the same as in those districts.

The area of the farm is 1,167 acres, of which approximately 837 acres is poor to fair (grey-blue pug clay and shallow red stony loam), and 330 acres fair to good (red volcanic loam, 6 to 7 inches, overlying clay). About 200 acres of the latter land is irrigable, and commanded by the main farm irrigation channel.

The principal experiments laid down so far comprise permanent rotation plots, stud cereal, selection and crossbred plots, permanent fertilizer experiments, top-dressing of natural and artificial pastures, cultural and tillage experiments, permanent green manurial and feeding-off tests and tests with irrigated lucerne, comprising top-dressing, soil inoculation, and fertilizer tests, also rate of seeding and variety trials. The experiments are designed to test the practicability of various systems of crop rotation for regions of low rainfall, and the most practical and economical mode of restoring the organic matter to the soil.

Wyuna Irrigation Farm.

The State Irrigation Farm at Wyuna is devoted chiefly to the raising, under irrigation, of all kinds of fodder crops, the carrying on of dairying, and the experimental feeding of stock; but experiments are also being conducted with pipe, cigar, and cigarette tobaccos to prove the suitability of varieties and for the purpose of acclimatizing seed for distribution. The average rainfall of the district is about 16 inches, and an abundant supply of water for the farm is derived from the Waranga Basin by means of the channels of the State Rivers Commission, which intersect the property. The farm has an area of 540 acres, of which 150 acres have been cleared, cultivated, and graded, and 130 acres permanently laid down to lucerne and provided with a system of irrigation and drainage channels.

A considerable amount of experimental work is carried out at this centre. On the irrigation area permanent irrigation has been established with the object of obtaining exact information as to the manurial requirements of lucerne under irrigation conditions, and the values of different top-dressings. The experiments with lucerne also include variety, cultural and tillage tests. A series of 30 irrigated plots sown with various grasses and clovers has been laid down with the object of finding out the best permanent pastures for grazing on small irrigated dairy holdings on which lucerne is the staple crop. In addition, systematic tests are being carried out with various summer forages. These include millet, amber-cane, sorghum, maize, kaffir corn, and mangolds. Experiments are also being conducted with various winter forages and ensilage crops, including peas, vetches, oats, barley, rye, beans, and beerseem. On the dry-farming area selected seed wheats true to type are grown for distribution among farmers, and variety wheat tests, manurial and cultural, are carried out.

Rutherglen Research Farm.

The experimental farm for the North-eastern District of the State is established on the Rutherglen Viticultural College Reserve. The farm area consists of 900 acres, of which 750 acres have now been cleared and converted into arable land. The greater part of the area consists of poor soil of greyish clay more or less interspersed with buckshot gravel, but it is relieved by occasional patches of reddish brown clay loam. The primary purpose kept in view in developing this farm area has been to carry out a comprehensive plan of continuous experimentation with the object of assisting agricultural practice in the North-East. With this end in view a series of permanent plots has been laid out. The investigations are very similar in character to those already described as being undertaken at the Central Research Farm at Werribee.

Government Viticultural Station.

The Government Viticultural Station is situated near Rutherglen, and has an area of 90 acres planted with vines. The chief work being done at the station is in connexion with the propagation and grafting of the American and Franco-American resistant vines for the reconstitution of phylloxerated vineyards. All American vines are not equally suitable for all soils, nor adapted as graft-bearers for all European varieties, hence the work undertaken

at the viticultural station is to discover the most eligible kinds. To test their adaptability to the different soils, sub-stations were founded in each viticultural district of the State, and data carefully collected regarding the growth of each variety in the very diverse soils purposely selected for these tests. To ascertain the grafting affinities of each kind of stock and scion, the principal wine and table varieties are grafted on each kind of resistant stock, after which they are planted out permanently and the results noted. Growers are thus enabled to see readily which stock suits a certain variety best. The grafting on suitable resistant stocks, of the European vines of wine, table, and drying varieties, in greatest demand, is carried out extensively during the season. A few rootlings are used as stocks, but the majority of the grafts are cuttings. A large number of the cuttings grown at the station are utilized in grafting chosen varieties for vignerons, who may not have the facilities or time to carry out this operation for themselves.

A considerable area of land more suitable for nursery purposes has been taken up on the banks of the Murray, at Wahgunyah. Here a large irrigation plant, grafting and callusing houses, &c., have been erected. The callusing is done in a heated compartment, and the cuttings are packed in boxes with seaweed and sawdust.

To practically prove the efficacy of resistant stocks, grafted vines have been planted on sites previously occupied by phylloxerated vines. These are growing luxuriantly, thus affording striking testimony to their resistant value.

In the vineyards attached to the Rutherglen station interesting and useful experiments are being conducted in methods of pruning, cultivation, manuring, &c.

Wines from the newer varieties of grapes introduced are all made separately, and although manufactured in small quantities and under great difficulties they have won high commendation from experts. The bulk wines made invariably command the highest market value.

Agricultural Colleges. An Act for the establishment of Agricultural Colleges was passed in 1884, and 14,460 acres, comprising 5,957 acres at Dookie, 2,386 acres at Longerenong, 2,500 acres at Gunyah Gunyah, 2,800 acres at Olangolah, and 817 acres at Bullarto, were reserved as sites for colleges and experimental farms. The areas at Dookie and Longerenong are being used for the purpose for which they were reserved, but the other three are devoted to other uses.

In addition to the college and farm lands, provision was made by the Act of 1884 to permanently reserve from sale an area of not more than 150,000 acres of Crown lands, and to vest it in trustees to be appointed, who should hold it in trust for the benefit of and by

way of an endowment for State agricultural colleges and experimental farms. The land so reserved now amounts to 71,678 acres, which are let for grazing and agricultural purposes.

The fees for students in residence at the agricultural colleges are :— Maintenance—£20 per annum ; medical attendance and medicines, £1 5s., and books and other school materials, £4 per annum. Conduct, deposit, and sports fees are also payable. No charge is made for instruction.

School of Horticulture. This school is situated in Richmond Park, Burnley, about 3 miles from Melbourne. The site covers 33 acres of ground. Model orchard blocks, gardens, and a students' training ground have been prepared, a complete orchard equipment has been provided, and a large variety of instructive implements has been obtained for use in class and field work. Domestic and farm animals are kept, a poultry run is provided, and an apiary has been established ; there are also such other conveniences as will insure a thoroughly practical training for students. The estate includes orchard, grazing and arable land where garden and vegetable crops are largely grown. The collection of fruit trees embraces over 2,000 varieties, and is unequalled anywhere in Australia.

The course for the Certificate of Horticulture covers two years, at the end of which time four successful students may be selected each year for continued training. Two of these will be trained in fruit-growing at Burnley, and two in floriculture and gardening work at the Melbourne Botanic Garden. The continued term will last for two years, the students being paid £40 for the first and £52 for the second year.

The school course includes regular lectures in horticultural science, poultry breeding, bee-keeping, and kindred subjects. Classes are also held for women students on two afternoons in each week, the fee being £2 per annum.

Practical work includes the propagation and management of orchard trees, citrus, table grapes and bush fruits, the harvesting, storing, packing, marketing and drying of fruit, vegetable culture, the clearing, grading and trenching of land, and the management of soils, manures, and drainage.

The egg-laying competitions are carried on here, and 100 competition poultry pens, with manager's house, sheds, &c., have been built. The competition pens are open to public inspection on Wednesday and Saturday afternoons.

Prior to 1903 instruction was free, but a fee of £5 per annum is now charged. There has been a steady advance in the number of students, and there is every indication that the school is doing generally helpful work in the service of the State.

Various particulars relating to the State Experimental Farms and Agricultural Colleges are embodied in the appended statement.

GOVERNMENT EXPERIMENTAL FARMS AND AGRICULTURAL COLLEGES, 1915.

Particulars.		Central Research Farm, Werribee.	Wyuna Irrigation Farm.	Rutherglen Farm, &c.	Dookie Agricultural College.	Longerenong Agricultural College.	Burnley School of Horticulture.
Professional Staff ..	No.	1	1	2	12	5	3
Hands employed ..	„	25	5	38	29	14	8
Students	„	..	..	19	81	38	39
Value of plant and machinery	£	1,619	929	1,000	5,250	1,490	155
Value of produce for year	„	..	..	4,400	3,470	3,864	150
Capacity of tanks or dams	gals.	600,000	..	1,000,000	2,000,000	1,250,000	..
Receipts—							
Fees	£	..	..	..	1,144	871	91
Sale of produce, &c.	„	4,944	1,119	424	4,557	2,000	909
Other.. ..	„	56	41	..	..	..	..
Total receipts	„	5,000	1,160	424	5,701	2,871	1,000
Expenditure—							
Salaries—							
Professional Staff	„	300	208	536	2,430	1,175	428
General staff	„	2,813	644	2,908	1,910	1,140	847
Buildings and maintenance..	„	1,281	128	270	230	795	999
Other.. ..	„	2,006	872	5,021	5,550	4,164	..
Total expenditure	„	6,400	1,852	8,735	10,120	7,274	2,274
Area under—							
Cereals for Grain	acres	831	100	361	830	400	..
Hay	„	340	65	73	221	177	..
Fruit trees, &c.	„	..	..	1	15	17	14
Vines ..	„	..	1	60	20	10	½
Green fodder ..	„	220	36	..	119	36	½
Root Crops ..	„	..	..	..	..	..	..
Other crops ..	„	40	..	104	26	..	..
Total area under crop	„	1,431	202	599	1,231	640	15
Area of land in fallow	„	38	206	80	465	381	..
Area under artificially sown grasses ..	„	..	50	..	..	..	9
Area resting ..	„	660	..	147	600	550	..
Total area of arable land ..	„	2,129	458	826	2,296	1,571	24
Balance of area	„	80	82	487	3,610	815	9
Total area of farm	„	2,209	540	1,313	5,906	2,386	33
Live stock—							
Horses ..	No.	68	21	38	107	41	1
Dairy cows ..	„	72	19	12	50	37	2
All other cattle	„	70	23	7	53	9	2
Sheep ..	„	412	6	538	1,250	1,176	..
Pigs	„	..	21	45	100	39	..

Inspection of Orchards, Nurseries, &c.

The orchards, nurseries, and gardens of the State are systematically inspected by the officers of the Vegetation Diseases Branch of the Department of Agriculture. Nurseries are inspected every six months, and certified to by the departmental supervisor if clean and free from disease. Old, worn-out, and infected orchards are destroyed.

There has been considerable alteration in the departmental policy with respect to experimental orchards. The small and comparatively valueless demonstration orchards are being replaced by larger areas

on which experimental and demonstration works have been concentrated. Two of these orchards have been commenced—one at Bamawm and the other at Creswick.

Experiments are carried out in the treatment of diseases; lectures and demonstrations are given on the various phases of horticulture; and sites are selected on the farms of intending fruit-growers, to whom advice is given as to the most suitable varieties to be planted and their after treatment.

The fear of introducing the fruit-flies *Tephritis tryoni* and *Halterophora capitata* and diseases arising from other causes has necessitated a thorough examination of fruit from Queensland, New South Wales, and elsewhere. The fruit-fly question is a very grave one, and should either of the above-named insects obtain a footing in Victoria, a great portion of the large and important fruit industry of our State would be practically ruined.

Plants and cuttings coming from foreign parts are fumigated at the new fumigation building at Melbourne wharf if a certificate that they have been treated at the port of shipment does not accompany the consignment. Even when they have been thus certified, the Chief Horticultural Officer has the right of examination and, if necessary, of ordering a second fumigation.

Agricultural High Schools.

Agricultural High Schools under the direction of the Department of Public Instruction have been established at Warrnambool, Sale, Shepparton, Wangaratta, Ballarat, Colac, Mansfield, Warragul, Leongatha, and Mildura. During 1914–15 the expenditure on these schools, including buildings, amounted to £21,116. They were established under condition that—

(*a*) At least one-half of the cost of the necessary buildings and equipment shall be contributed by local subscriptions.

(*b*) An area of land of not less than 20 acres, situated in a convenient position to the High School, shall be provided and vested in the Minister of Public Instruction.

(*c*) At least 50 students paying prescribed fees shall be guaranteed before the proposal to establish an Agricultural High School is entertained.

Pupils for these schools must have passed the qualifying examination or an approved equivalent examination. During the first two years they take what is termed the common course, and during the last two years they may elect to take the Agricultural Course.

A local council appointed for each school exercises a general oversight of the work, particularly in regard to the farm operations and the expenditure thereon. It also nominates for free instruction students who possess the required qualifications, subject to the provision that the number of students so nominated shall not, in any one year, exceed 10 per cent. of the total number paying full fees at the school.

As High Schools these institutions have been very successful on the whole, but the number of pupils taking the agricultural course has been very disappointing.

Forestry. The State has about 12,000,000 acres of woodland, and of this area 4,160,342 acres are set aside as climatic reserves and for the production of timber. Of the State forest domain, some 3,000,000 acres are situated on the slopes of high mountain ranges, and their protection is essential for the maintenance of streams and springs; over half-a-million acres are situated in the extreme Eastern part of the State and, owing to difficulties of transport, are not at present accessible for practical working; half-a-million acres, chiefly in the central district, which have been cut over, are closed for the protection of the young timber; while in the remaining area (over 500,000 acres) timber cutting is carried on in various parts. The bulk of the forest revenue is derived from a total area of about 250,000 acres. The trees are felled on the selection system of treatment; but for the supply of mine-props and fuel large blocks are allotted and worked as coppice, or coppice under standards, thinnings only, light or severe as the circumstances require, being taken out in many districts. The open timber licence system has been abolished in Victoria, and strict control is enforced over the operations of timber-getters.

As is usual in newly-settled countries, little care was formerly exercised in respect to the forests, and, though Victoria is the best-wooded of the Australian States, the fact is due to the extent of its mountain territory and its ample rainfall. In many districts, particularly in the moister portions of the State, re-afforestation by natural process has been going on.

The timbers of commercial value in Victoria number twenty, all species of the eucalyptus family. Alarmist statements to the effect that there is an increasing scarcity of commercial timber here are ill-founded, as large supplies of hardwood are assured for many years to come.

A forest nursery, with provision for an annual output of from four to five million tree plants, has been completed at Creswick, the nursery at Macedon has been remodelled, and a large new nursery has been established at Broadford. The plantations at Creswick, Lara, and Mt. Alexander are being gradually extended, and large new plantations have been formed in the Wimmera district, in southern Gippsland, and in coastal areas near Frankston. In the past much of this work was experimental, but the experience gained in the propagation and growing of Australian hardwoods, as well as exotic conifers, has proved of great benefit to the community. Transplants are distributed to farmers, municipalities, and State schools. Farmers particularly benefit by planting trees around their homesteads, as the home is thereby protected from wind and weather, and shelter and shade are afforded to live stock, thus insuring healthier flocks and herds and increased returns. In addition to the three nurseries, there are fourteen plantation trial stations having a total area of 19,760 acres.

The persons employed in connexion with the State forests and nurseries comprise administrative and professional staff, 17; protective and general staff, 78; and nursery staff, 41. The revenue from

licences and royalties in 1915 amounted to £59,189. The expenditure was £65,142, of which sum about 50 per cent. was devoted to the improvement of the natural forests and the extension of plantations.

It is estimated that the quantity of timber produced in the rough in 1915 amounted to 100,000,000 super feet.

Agriculture, expenditure and revenue connected with.

The State has rendered substantial assistance to the various branches of the agricultural and pastoral industries during past years. The appended table summarizes for the last five years the items of State expenditure from consolidated revenue in this direction, and shows the amount of revenue received by the Department of Agriculture, which consists chiefly of payments by exporters for packing produce for export:—

EXPENDITURE AND REVENUE CONNECTED WITH AGRICULTURE, ETC., 1910–11 TO 1914–15.

——	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.
Expenditure.	£	£	£	£	£
Department of Agriculture	12,790	18,454	21,182	25,211	26,297
Grants to Agricultural and Horticultural Societies, &c.	3,535	3,846	4,523	4,473	7,880
To promote the Agricultural, Dairying, Fruit, and Wine Industries	87	625	16	...	...
Development of Export Trade	38,699	37,185	32,819	40,505	34,275
Viticultural Education and Inspection of Vineyards ...	4,509	5,000	5,499	5,917	3,642
Vegetation Diseases ...	9,049	...	...	...	...
Maffra Beet Sugar Factory ...	13,019	37,975	28,341	32,493	25,228
Fruit Cool Stores	7,368	2,244	3,188	3,650	4,115
Technical Agricultural Education, &c.	22,648	30,588	27,985	18,478	21,451
Traction Engine, Boring Plant, &c.	10,854	...	...	...	...
Veterinary Institute—Works and Buildings	1,498	...	...	...	...
Settlers Stock Fund ...	1,000	...	...	...	...
Publishing Agricultural Reports	2,841	2,833	2,513	2,834	2,555
Advances to Settlers on account of Losses by Bush Fires, &c.	...	1,839	347	182	6,157
Rabbit and Vermin Extermination	23,123	29,524	27,309	29,596	32,211
Stock and Dairy Supervision Scab Prevention and Stock Diseases	19,693	22,471	21,957	23,602	23,813
Labour Colonies	545	2,992	395	...	...
State Forests and Nurseries	40,399	54,061	52,808	60,977	72,757
Miscellaneous	...	...	...	1,885	2,160
Total	211,657	249,637	228,882	249,803	262,541
Revenue.					
Department of Agriculture ...	50,319	49,932	47,713	49,320	54,410
State Forests	41,550	48,585	54,754	60,733	65,840

In addition to the expenditure shown, various sums have been advanced from loans and votes for the purpose of aiding closer settlement, for the resumption of mallee lands, for relief to farmers on account of bush fires and flood losses, and for purchase of seed wheat and fodder, which advances are gradually being repaid.

The loan expenditure in 1914–15 was £173,752 on account of closer settlement, and £19,731 on account of wire netting.

AGRICULTURAL AND HORTICULTURAL SOCIETIES.

Agricultural and Horticultural Societies, founded on the principle of voluntary membership, and having for their object the improvement of the agricultural, pastoral, and horticultural industries, have been established throughout the State. Ninety-six agricultural societies furnished returns for the year 1915, in regard to which condensed particulars are set out below :—

AGRICULTURAL SOCIETIES, 1911 TO 1915.

Societies.	Area of Grounds.	Number of Members.	Government Grant.	Total Receipts (including Government Grant).	Total Expenditure.	Bank Overdraft and Loan Liability.
	Acres.		£	£	£	£
Royal (Melbourne), 1914	53	1,108	675	19,696	24,425	41,714
Ballarat	10	300	81	1,244	1,375	506
Benalla	12	355	46	1,038	856	746
Bendigo	10	250	115	1,600	1,837	237
Colac	13	304	57	1,121	1,121	161
Geelong, 1914 ...	130	277	50	935	1,010	...
Hamilton	21	273	55	1,194	1,194	100
Horsham and Wimmera	29	556	47	1,066	903	1,060
Korumburra	16	206	39	677	694	950
Ovens and Murray ...	39	352	66	1,617	1,743	352
Shepparton	23	457	95	1,717	1,668	2,550
Others	1,310	11,288	1,927	26,899	26,145	16,837
Total, 1915 ...	1,666	15,726	3,253	58,204	62,971	65,213
Total, 1914 ...	1,748	19,118	4,022	72,339	82,707	40,715
Total, 1913 ...	1,637	19,916	3,496	76,770	78,708	30,358
Total, 1912 ...	1,774	21,382	2,837	72,214	74,069	28,183
Total, 1911 ...	1,741	20,879	2,708	68,962	68,606	25,865

The Horticultural Societies furnishing returns for 1915 numbered 41, their membership being 3,227, the receipts for the year £3,754 (including Government grant £430), the expenditure £5,235, and the liability on account of loans and bank overdraft £2,170.

AGRICULTURE.

Progress of cultivation.

All divisions of the State are suitable for cultivation, but the Wimmera, Mallee, Northern, and Western are the principal wheat-growing districts and furnish about 95 per cent. of the total area under this crop. It was only comparatively

recently that the Mallee was devoted to agriculture and that a new, fertile and important wheat area was added to the resources of the State. The addition of this district is due to the fact that good and payable wheat returns are obtainable with a rainfall which was at one time considered to be wholly inadequate, to the extension of railway lines and to the great improvements in agricultural machinery. Its growing importance is indicated by figures for recent periods which show that of the wheat produced in the State the proportion obtained from the Mallee was more than 23 per cent. in 1915–16, as against slightly less than 5 per cent. in 1891–2. The area under cultivation in the Mallee last season was 1,777,010 acres, or one-fourth of the total for the State.

Statistics show that the increase in agricultural activities has been fairly general throughout the State. The area cultivated in 1915–16 was 7,069,608 acres as against an annual average of 2,648,213 acres for the seasons 1890–95—an increase of 167 per cent. in the intervening years. Notwithstanding the great increase in the area cultivated the dairying and pastoral industries showed considerable expansion until temporarily checked by a severe drought in 1914. The value of butter and cheese exported to oversea countries increased from £537,978 in 1893 to £1,688,247 in 1913, while the value of oversea exports of frozen meat increased from £74,732 to £1,565,061 during the same period.

The increase in cultivation has been associated with new and improved farming methods. The chief of these are the practice of fallowing, the use of fertilizers, the selection of suitable seeds and the increasing attention given to crop rotation. The more general adoption of improved methods in recent years has contributed greatly to the production of the State. The following table shows the progress of cultivation from period to period during the past 61 years :—

ACREAGE CULTIVATED ANNUALLY 1855 TO 1916.

Period ended March.	Crop, Annual Average.	Fallow, Annual Average.	Total Cultivation, Annual Average.
	Acres.	Acres.	Acres.
1855–60	233,245	3,444	236,689
1860–65	418,108	20,848	438,956
1865–70	548,952	40,693	589,645
1870–75	699,802	73,855	773,657
1875–80	982,421	103,958	1,086,379
1880–85	1,631,420	171,114	1,802,534
1885–90	1,986,028	312,976	2,299,004
1890–95	2,232,625	415,588	2,648,213
1895–1900	2,838,381	395,734	3,234,115
1900–05	3,207,447	652,661	3,860,108
1905–10	3,375,273	1,029,071	4,404,344
1910–11	3,952,070	1,434,177	5,386,247
1911–12	3,640,241	1,469,608	5,109,849
1912–13	4,079,356	1,627,223	5,706,579
1913–14	4,391,321	1,738,572	6,129,893
1914–15	4,622,759	1,346,545	5,969,304
1915–16	5,711,265	1,358,343	7,069,608

Areas under principal crops compared.

The principal crops grown in the State are wheat, oats, barley, potatoes and hay. The annual acreage of these for five-year periods from 1855 to 1910 and for each of the last six seasons are given in the next table :—

ANNUAL ACREAGE OF FIVE PRINCIPAL CROPS
1855 TO 1916.

Period ended March.	Average Annual Area of—				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Acres.	Acres.	Acres.	Acres.	Acres.
1855–60 ..	79,079	50,148	3,723	21,129	70,489
1860–65 ..	158,923	116,444	5,963	27,118	89,746
1865–70 ..	230,505	123,435	16,024	35,460	110,293
1870–75 ..	325,650	135,334	22,501	38,028	124,493
1875–80 ..	537,238	129,317	28,354	38,517	170,777
1880–85 ..	1,014,824	165,369	54,022	39,661	282,774
1885–90 ..	1,140,327	206,962	65,267	46,210	434,175
1890–95 ..	1,332,675	214,840	63,354	49,808	440,000
1895–1900 ..	1,794,131	301,317	61,090	45,669	495,337
1900–05 ..	2,002,429	380,597	44,568	44,817	585,608
1905–10 ..	1,965,320	379,078	56,016	52,897	743,167
1910–11 ..	2,398,089	392,681	52,687	62,904	832,669
1911–12 ..	2,164,066	302,238	53,541	47,692	860,205
1912–13 ..	2,085,216	439,242	71,631	47,575	1,203,728
1913–14 ..	2,565,861	442,060	83,351	74,574	977,684
1914–15 ..	2,863,535	434,815	62,492	65,495	895,755
1915-16 ..	3,679,971	353,932	61,400	56,910	1,330,455

Production of Principal Crops.

The annual production of the five principal crops for quinquennial periods from 1855 to 1910 and for each of the last six seasons was as follows :—

ANNUAL PRODUCTION OF PRINCIPAL CROPS 1855 TO 1916.

Period ended March.	Average Annual Production of—				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Bushels.	Bushels.	Bushels.	tons.	tons.
1855–60 ..	1,734,895	1,444,018	97,042	61,048	110,220
1860–65 ..	2,662,854	2,693,278	110,108	64,399	113,392
1865–70 ..	4,298,676	2,902,655	352,265	99,490	149,110
1870–75 ..	4,472,952	2,370,839	428,410	124,110	158,594
1875–80 ..	6,547,299	2,688,761	618,456	128,156	219,352
1880–85 ..	10,639,318	3,906,176	981,421	143,073	334,190
1885–90 ..	10,948,554	4,391,916	1,209,948	164,068	504,758
1890–95 ..	13,589,257	4,906,870	1,164,066	177,743	589,427
1895–1900 ..	11,631,934	5,229,188	973,661	133,122	563,809
1900–05 ..	16,432,357	8,069,719	921,499	135,593	782,155
1905–10 ..	22,052,448	8,063,570	1,182,288	149,022	1,006,061
1910–11 ..	34,813,019	9,699,127	1,340,387	163,312	1,292,410
1911–12 ..	20,891,877	4,585,326	1,024,584	119,092	1,032,288
1912–13 ..	26,223,104	8,323,639	1,744,527	191,112	1,572,933
1913–14 ..	32,936,245	8,890,321	1,812,890	176,602	1,350,374
1914–15 ..	3,940,947	1,608,419	600,599	189,225	568,956
1915-16 ..	58,521,706	9,328,894	1,734,511	173,821	2,342,094

In 1915-16 the production of wheat and hay exceeded by 68 per cent. and 49 per cent. respectively the highest totals previously recorded. The production of barley was exceeded previously on only three, that of oats on four, and that of potatoes on eight occasions. The poor returns for 1914-15 are accounted for by an exceptionally severe drought which was experienced in the year 1914.

Principal crops in Districts.

The percentage of total area under the principal crops in each district during last season was as given below :—

PERCENTAGE OF AREA IN EACH DISTRICT TO TOTAL AREA UNDER EACH OF THE PRINCIPAL CROPS, 1915-16.

District.	Percentage in each District of Area under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central ..	·88	9·00	38·40	47·12	20·76	36·43	3·36
North-Central	1·05	6·83	6·73	16·37	6·14	3·02	·86
Western ..	4·70	16·65	20·74	16·43	11·77	8·11	5·80
Wimmera ..	26·93	22·75	4·43	·40	17·44	2·64	35·51
Mallee ..	34·65	7·20	3·50	..	10·33	8·70	23·34
Northern ..	28·91	28·07	15·42	·15	23·64	14·75	29·04
North-Eastern	2·35	6·52	1·45	2·47	4·44	7·34	1·73
Gippsland ..	·53	·2·98	9·33	17·06	5·48	19·01	·36

NOTE.—For counties contained in each District, see table on page 718.

This statement shows that during last season 90 per cent. of the area under wheat was in the Wimmera, Mallee and Northern districts; 51 per cent. of that under oats was in the Wimmera and Northern districts; 59 per cent. of that under barley was in the Central and Western districts, and 80 per cent. of that under potatoes was in the Central, North-Central and Western districts. Hay was more uniformly cultivated over the whole State, though the proportion was somewhat small in the North-Central, North-Eastern and Gippsland districts. The Central district accounted for more than one-third of the area under minor crops, principally through a much larger area being used for gardens and orchards and for peas than in other portions of the State. Naturally, the fallowing of land is confined mainly to the wheat-growing districts.

The area under the principal crops in proportion to the cultivation in each district during last season was as follows :—

PERCENTAGE OF AREA UNDER PRINCIPAL CROPS TO TOTAL CULTIVATION IN EACH DISTRICT, 1915–16.

District.	Percentage of Total Cultivation under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central	6·24	6·13	4·53	5·17	53·14	16·01	8·78
North-Central ..	21·98	13·67	2·34	5·27	46·19	3·91	6·64
Western	34·06	11·60	2·51	1·84	30·83	3·65	15·51
Wimmera ..	55·21	4·49	·15	·02	12·92	·33	26·88
Mallee	71·76	1·43	·12	..	7·73	1·12	17·84
Northern	55·54	5·19	·50	..	16·42	1·76	20·59
North-Eastern ..	40·92	10·92	·42	·66	27·99	7·94	11·15
Gippsland ..	11·[illegible]	6·33	3·42	5·81	43·67	26·10	2·90
Total of Victoria ..	52·05	5·01	·87	·81	18·82	3·23	19·21

NOTE.—For counties contained in each District, see table on page 718.

It is apparent that cultivation was confined mainly to wheat in the Wimmera, Mallee and Northern districts, and to wheat and hay in the Western and North-Eastern districts; largely to hay in the Central and North-Central districts, and to hay and minor crops in the Gippsland district.

Principal crops compared with population. The area and produce of the principal crops per head of population are given in the next table for the past fifteen years.

AREA AND PRODUCTION PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1901–2 TO 1915–16.

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Area per Head of Population.				
	Acres.	Acres.	Acres.	Acres.	Acres.
1902	1·45	·27	·03	·03	·54
1903	1·65	·36	·03	·04	·48
1904	1·62	·36	·04	·04	·61
1905	1·88	·28	·04	·04	·37
1906	1·70	·26	·03	·04	·49
1907	1·66	·31	·04	·04	·51
1908	1·47	·32	·05	·04	·54
1909	1·40	·33	·05	·04	·75
1910	1·63	·30	·05	·05	·67
1911	1·83	·30	·04	·05	·64
1912	1·62	·23	·04	·04	·64
1913	1·54	·32	·05	·03	·89
1914	1·84	·32	·06	·05	·70
1915	2·01	·31	·04	·05	·63
1916	2·58	·25	·04	·04	·93

AREA AND PRODUCTION PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1901-2 TO 1915-16—*continued.*

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Produce per Head of Population.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1902	10·01	5·56	·57	·10	·73
1903	2·12	3·63	·46	·14	·50
1904	23·60	11·11	1·01	·14	1·02
1905	17·47	5·14	·72	·08	·42
1906	19·22	5·94	·87	·10	·71
1907	18·43	7·21	1·02	·14	·72
1908	9·62	4·13	·84	·11	·54
1909	18·33	8·74	1·19	·12	1·11
1910	22·42	6·16	·80	·14	.92
1911	26·63	7·42	1·[illegible]	·13	·99
1912	15·62	3·43	·77	·09	·77
1913	19·36	6·15	1·29	·14	1·16
1914	23·64	6·38	1·30	·13	·97
1915	2·77	1·13	·42	·13	·40
1916	41·04	6·54	1·22	·12	1·64

Except in the three seasons 1895-6, 1902-3, and 1914-15, the wheat produced during each year since 1870 was more than sufficient to supply home consumption.

Values of five principal crops.

The following table gives the annual values of the five principal crops, based upon prices realized upon farms, for each of the past ten years; also the value of each crop per acre for the average of the five years 1910-14 and for the year 1915 :—

VALUES OF FIVE PRINCIPAL CROPS.

Year.	Annual Value of—				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	£	£	£	£	£
1906	3,109,980	810,851	205,832	333,678	1,681,768
1907	2,443,906	791,162	241,567	383,145	3,023,128
1908	4,405,303	989,844	253,309	411,840	3,256,308
1909	5,501,605	777,547	165,181	517,775	2,432,840
1910	5,512,060	909,295	227,382	534,515	2,455,560
1911	3,547,266	663,916	261,443	614,540	3,200,109
1912	4,343,202	953,750	332,430	678,448	4,010,979
1913	5,352,141	777,903	236,804	573,227	2,565,740
1914	1,391,647	397,078	161,899	800,269	4,181,827
1915	10,972,820	942,607	294,597	1,017,563	4,098,664
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Value per acre 1910-14 average	1 13 4	1 16 10	3 15 5	10 14 8	3 8 10
Value per acre 1915	2 19 7	2 13 3	4 16 0	17 17 7	3 1 7

On the average of the five years 1910 to 1914 the value of the five principal crops was £8,936,686, as against £17,326,251 in 1915, of which £10,972,820 referred to wheat.

Wheat production.

On the experience of the past five seasons the area under wheat for grain represented nearly 60 per cent. of the total under crop. The area harvested for, and the production of wheat last season were the largest recorded, and the yield per acre was the highest experienced in the State since 1872-3. The acreage under wheat for grain, the total production and the yield per acre are given in the next table for quinquennial periods from 1860 to 1905, and for each of the past eleven seasons :—

WHEAT PRODUCTION, 1860-1916.

Season ended March.	Wheat.		
	Acres, Annual Average.	Total Production, Annual Average.	Yield per Acre.
		Bushels.	Bushels.
1860–65	158,923	2,662,854	16·76
1865–70	230,505	4,298,676	18·65
1870–75	325,650	4,472,952	13·74
1875–80	537,238	6,547,299	12·19
1880–85	1,014,824	10,639,318	10·48
1885–90	1,140,327	10,948,554	9·60
1890–95	1,332,675	13,589,257	10·20
1895–1900	1,794,131	11,631,934	6·48
1900–1905	2,002,429	16,432,357	8·21
1906	2,070,517	23,417,670	11·31
1907	2,031,893	22,618,043	11·13
1908	1,847,121	12,100,780	6·55
1909	1,779,905	23,345,649	13·12
1910	2,097,162	28,780,100	13·72
1911	2,398,089	34,813,019	14·52
1912	2,164,066	20,891,877	9·65
1913	2,085,216	26,223,104	12·58
1914	2,565,861	32,936,245	12·84
1915	2,863,535	3,940,947	1·38
1916	3,679,971	58,521,706	15·90

Although a large area in districts of limited rainfall has been brought under cultivation for wheat growing during late years, the yield per acre for the State on the average of the past eleven seasons was 11·24 bushels, which is better than the corresponding averages for periods back to 1880. This satisfactory result is largely due to the use of more prolific varieties of seed and to the more general practice of fallowing and fertilizing. In addition to the area shown for grain, 333,449 acres of wheat were cut for hay last season, so that the total area sown under wheat in 1915–16 was 4,013,420 acres. Early in August 1916 it was estimated that the area under this grain for 1916–17 was 3,338,000 acres—a decrease of about 675,000 acres as compared with the previous season.

Wheat growing in counties.

The principal wheat growing areas are the Wimmera, Mallee and Northern districts. Although other districts provide only small proportions of the area they are not to be regarded as unsuitable for wheat growing as their average yield per acre is greater than in the areas mentioned. The production of wheat in different counties for each of the past three seasons is shown in the next table :—

WHEAT YIELDS IN COUNTIES FOR THE LAST THREE SEASONS.

Districts and Counties.	Year ended March.								
	Area.			Produce.			Average per Acre.		
	1914.	1915.	1916.	1914.	1915.	1916.	1914.	1915.	1916.
	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bush.	Bush.	Bush.
Central—									
Bourke ..	5,182	4,658	9,238	54,958	45,276	185,479	10·61	9·72	20·08
Grant ..	10,613	9,655	21,241	110,200	59,484	421,775	10·38	6·16	19·86
Mornington ..	727	507	1,592	9,669	8,922	30,312	13·30	17·60	19·04
Evelyn ..	63	144	364	1,085	1,791	7,257	17·22	12·44	19·94
North-Central—									
Anglesey ..	2,960	2,730	3,887	34,709	4,539	74,504	11·73	1·66	19·17
Dalhousie ..	4,337	3,705	7,310	67,314	26,361	147,034	15·52	7·11	20·11
Talbot ..	16,270	19,378	27,659	248,872	59,565	555,143	15·30	3·07	20·07
Western—									
Grenville ..	35,058	28,944	41,153	441,964	291,907	866,497	12·61	10·09	21·06
Polwarth ..	267	53	606	2,700	444	13,604	10·11	8·38	22·45
Heytesbury ..	38	95	91	800	1,444	1,514	21·05	15·20	16·64
Hampden ..	22,688	18,266	28,218	362,185	234,443	597,211	15·96	12·83	21·16
Ripon ..	78,959	69,302	84,202	1,223,912	348,364	1,816,962	15·50	5·03	21·58
Villiers ..	1,770	2,103	3,458	24,203	14,692	58,748	13·67	6·99	16·99
Normanby ..	970	1,034	1,684	13,590	11,990	26,375	14·01	11·60	15·66
Dundas ..	8,530	9,632	12,936	131,616	68,651	151,259	15·43	7·13	11·69
Follett ..	331	409	627	6,823	3,128	11,285	20·61	7·65	18·00
Wimmera—									
Lowan ..	167,817	180,777	245,654	2,725,563	331,734	4,128,207	16·24	1·84	16·78
Borung ..	340,497	390,251	540,588	6,183,257	372,455	10,417,851	18·16	·95	19·27
Kara Kara ..	135,172	159,767	204,592	2,328,769	174,463	3,961,785	17·23	1·09	19·36
Mallee—									
Millewa ..	1,053	1,590	1,895	3,937	833	15,477	3·74	·52	8·17
Weeah ..	145,333	180,537	222,972	710,359	32,452	2,733,097	4·89	·18	12·26
Karkarooc ..	445,108	497,189	607,873	2,423,352	174,612	6,454,452	5·44	·35	10·62
Tatchera ..	276,983	333,682	442,382	2,398,988	124,989	4,464,386	8·66	·37	10·09
Northern—									
Gunbower ..	46,736	63,413	67,785	573,205	14,473	1,039,108	12·26	·23	15·33
Gladstone ..	128,797	149,919	176,646	2,238,428	227,481	3,169,007	17·38	1·52	17·94
Bendigo ..	154,551	182,890	206,309	2,410,296	130,927	3,956,310	15·60	·72	19·18
Rodney ..	145,756	146,087	186,466	2,150,101	154,082	3,756,512	14·75	1·05	20·15
Moira ..	305,662	337,485	426,410	4,932,209	587,557	7,623,010	16·14	1·74	17·88
North-Eastern—									
Delatite ..	16,438	14,642	24,971	203,386	75,721	412,773	12·37	5·17	16·53
Bogong ..	54,021	44,942	60,460	719,445	209,560	979,887	13·32	4·66	16·21
Benambra ..	624	196	1,012	9,742	1,955	17,021	15·61	9·97	16·82
Wonnangatta ..	138	12	15	1,398	91	225	10·13	7·58	15·00
Gippsland—									
Croajingolong ..	12	21	36	171	280	1,021	14·25	13·33	28·36
Tambo ..	624	457	668	11,876	8,992	11,257	19·03	19·68	16·85
Dargo ..	534	492	788	8,215	8,448	11,196	15·38	17·17	14·21
Tanjil ..	10,379	7,798	15,135	154,407	116,733	338,158	14·88	14·97	22·34
Buln Buln ..	863	773	3,048	14,541	12,108	71,057	16·85	15·66	23·31
Total ..	2,565,861	2,863,535	3,679,971	32,936,245	3,940,947	58,521,706	12·84	1·38	15·90

The figures show that the production of wheat in 1915–16 was 78 per cent. more than in 1913–14. In each of these years 88 per cent. of the total yield was obtained in the Wimmera, Mallee, and Northern districts, which last season supplied 32 per cent., 23 per cent., and 33 per cent. respectively of the wheat yield, as against 34 per cent., 17 per cent., and 37 per cent., in 1913–14.

The table which follows gives the average yield of wheat per acre in the principal wheat growing counties for each of the last ten years :—

AVERAGE YIELD OF WHEAT PER ACRE IN WHEAT GROWING COUNTIES, 1906–7 TO 1915–16.

District and County.	Average Yield of Wheat per Acre (in Bushels) during Year ended March.									
	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Western District—										
Ripon	14·96	15·05	22·09	14·77	15·97	8·14	19·96	15·50	5·03	21·58
Wimmera District—										
Lowan	10·72	9·99	12·46	12·77	9·80	9·93	13·69	16·24	1·84	16·78
Borung	14·02	9·84	17·62	17·06	15·79	11·92	14·81	18·16	·95	19·27
Kara Kara ..	14·64	10·04	17·20	14·60	14·80	12·11	14·70	17·23	1·09	19·36
Mallee District—										
Weeah	9·21	6·23	12·01	11·66	12·52	4·95	10·03	4·89	·18	12·26
Karkarooc ..	8·15	2·51	9·11	10·17	11·41	5·84	7·58	5·44	·35	10·62
Tatchera ..	9·00	1·02	6·57	10·34	12·44	6·48	7·03	8·66	·37	10·09
Northern District—										
Gunbower ..	10·58	3·67	10·51	12·90	16·12	9·91	10·54	12·26	·23	15·33
Gladstone ..	14·43	7·64	15·19	14·28	14·15	11·63	13·00	17·38	1·52	17·94
Bendigo	14·54	6·29	15·84	16·71	18·92	12·22	14·37	15·60	·72	19·18
Rodney	10·38	7·32	15·88	15·21	15·23	11·50	14·60	14·75	1·05	20·15
Moira	8·99	5·61	10·77	14·49	16·25	10·83	14·52	16·14	1·74	17·88

The average yield of wheat for the whole State last season was nearly 1½ bushels more than in the next best of the past ten seasons. It may be observed that in each of the principal wheat-growing counties, with the exception of one in 1908–9, one in 1909–10, and four in 1910–11, there was a substantially increased return per acre in 1915–16 as compared with other years of the period 1906–16.

Wheat standard.

The weight of an imperial bushel of wheat is 60 lbs., but the actual weight of a bushel of Victorian wheat of the fair average quality standard annually fixed by the

Chamber of Commerce was 62½ lbs. on the average of the past ten years. The following statement shows the variation in the f.a.q. standard weight of a bushel of Victorian wheat for each season since 1899-1900 :—

F.A.Q. WHEAT STANDARD, 1901 TO 1916.

Season ended March.	Weight of Bushel (f.a.q.).	Season ended March.	Weight of bushel (f.a.q.).
	lbs.		lbs.
1901..	62½	1909..	62½
1902..	62½	1910..	62½
1903..	61	1911..	62½
1904..	60½	1912..	61½
1905..	61½	1913..	63
1906..	63	1914..	62½
1907..	62½	1915..	62
1908..	62½	1916..	61

Stocks of wheat and flour.

It is estimated that about 9,500,000 bushels of wheat are required locally for food and seed. The stocks of wheat and flour in the State at 30th June, 1916, and at the same date in each of the previous six years, were as follows :—

WHEAT AND FLOUR ON HAND, 30TH JUNE, 1910 TO 1916.

At 30th June.	Quantity in Bushels.		
	Wheat.	Flour (equivalent in Wheat).	Total.
1910	9,698,000	652,200	10,350,200
1911	15,388,600	746,400	16,135,000
1912	7,337,316	786,926	8,124,242
1913	8,780,673	585,688	9,366,361
1914	8,002,311	940,138	8,942,449
1915	582,448	510,300	1,092,748
1916	42,578,379	519,162	43,097,541

Wheat Marketing Scheme.

Owing to the insufficiency of freight to transport the abnormally large wheat harvest of 1915-16, it became necessary for the Governments of Victoria and the other wheat-producing States to make arrangements for marketing the

grain. A scheme was therefore entered into between the Governments of the Commonwealth and of the States of New South Wales, Victoria, South Australia, and Western Australia, with a view to the equitable participation by all growers in the sale of the wheat crop and the proceeds thereof.

For this purpose it was decided that oversea shipping should be under the control of chartering agents appointed by the Government, and that all freights should be allotted between the States in accordance with the exportable surplus of each. It was agreed that local realizations should be controlled by local administrations in each State, subject, however, to the general control of prices by the central body.

The Australian Wheat Board, consisting of Ministerial representatives of the Commonwealth and of the States, has the duty of realizing the crop overseas. Oversea sales are generally arranged by the London Wheat Committee and the States concerned, who have the advice of London representatives of certain shipping agents who constitute an Advisory Board to the Australian Wheat Board.

In this State the crop was bought by the State Government and the internal operations are controlled by a body known as the Victorian Wheat Commission. The authority under which the crop is dealt with is conferred by the *Wheat Marketing Act* 1915. Practically the whole of the 1915–16 harvest has been delivered under the scheme, except wheat required for seed purposes.

Arrangements were made with various banking corporations whereby advances of 2s. 6d. per bushel (equivalent to 3s. f.o.b.) were made to growers upon delivery of their crops. A further advance of 6d. per bushel was made to growers early in September, 1916. Repayment of the amount due by each State to the banks has been guaranteed by the Commonwealth Government. Advances were made by means of certificates issued by the various agents. These certificates were payable at banks named by the growers. The rate of interest payable to the banks on the net balances due to them under the scheme is 5 per cent.

A loan of £11,000,000 was made by the Imperial Government against the unshipped portion of the Australian harvest. The amount paid to this State on this account amounted to £4,082,000. The following figures illustrate the progress of the scheme up to the 9th October, 1916:—

	Bushels.
Total number of bushels received	59,058,000
	£
Amount for which certificates have been issued (on basis of 3s. 6d. per bushel) ..	10,335,000
Total receipts from sales	5,717,000
Bank overdraft	627,000
Net indebtedness to banks and to Imperial Government	3,983,000

Wheat production of the world.

The wheat production of the world was 20 per cent. greater in 1915 than in the preceding year. The quantity produced was 4,371,058,000 bushels in 1915, as against 3,645,437,000 bushels in the previous year, 4,128,711,000 bushels in 1913, 3,791,951,000 bushels in 1912, and 3,551,795,000 bushels in 1911. On the average of the last five years the production was 3,898 million bushels as compared with a yearly average yield of 3,332 million bushels in 1905–9 and 3,008 million bushels in the period 1900–4. The production for all countries of commercial importance is given in the subjoined table for the year 1915. The information (excepting that for Australasia) is based upon figures appearing in the United States Year Book of Agriculture. The countries are arranged according to their aggregate production :—

WHEAT PRODUCTION OF THE WORLD, 1915.

Country.	Production (Bushels).	Country.	Production (Bushels).
United States ...	1,011,505,000	Persia	16,000,000
Russia	833,965,000	Tunis	11,023,000
British India ...	383,376,000	Servia	10,000,000
Canada	336,258,000	Sweden	9,000,000
France	258,102,000	Belgium	8,000,000
Austria-Hungary ...	230,934,000	Denmark	7,975,000
Australia	179,624,000	New Zealand ...	7,108,000
Argentina	178,221,000	Portugal	6,571,000
Italy	170,541,000	Netherlands ...	6,143,000
Germany	160,000,000	South African Union	6,034,000
Spain	139,298,000	Greece	6,000,000
Roumania	89,241,000	Mexico	4,000,000
England and Wales ...	70,067,000	Switzerland	3,830,000
Bulgaria	46,212,000	Uruguay	3,417,000
Egypt	39,148,000	Ireland	3,238,000
Turkey (Asia Minor) ...	35,000,000	Scotland	3,053,000
Algeria	34,654,000	Other Countries ...	2,599,000
Japan	23,869,000		
Chili	19,002,000	Total ...	4,371,058,000
Turkey in Europe ...	18,000,000		

On the average of the past five years the quantity of wheat produced in Australia represented about 2½ per cent. of the yield for the world. The return per acre is greatest in highly cultivated European countries. On the average of the five years 1908 to 1912 there were 41 bushels per acre in Denmark, 36 in Belgium, 34 in The Netherlands, nearly 33 in the United Kingdom, and 30 in Germany, as compared with 19 in Canada, 14 in the United States, 11 in Australia, and 10 in Argentina.

Oats.

In 1915-16 the area harvested for oats in Victoria was 353,932 acres, from which a yield of 9,328,894 bushels was obtained, giving an average of 26·36 bushels to the acre. The return per acre was, with one exception, the highest since 1903–4. The following statement shows the harvest results for this crop for each

of the past eleven seasons and for five-year periods prior thereto back to 1865 :—

OATS GROWN, 1865 TO 1916.

Period ended March.	Area under Crop (Annual Average).	Produce (Annual Average).	Average per Acre.
	Acres.	Bushels.	Bushels.
1865–70	123,435	2,902,655	23·52
1870–75	135,334	2,370,839	17·52
1875–80	129,317	2,688,761	20·79
1880–85	165,369	3,906,176	23·62
1885–90	206,962	4,391,916	21·22
1890–95	214,840	4,906,870	22·84
1895–1900	301,317	5,229,188	17·35
1900–05	380,597	8,069,719	21·20
1906	312,052	7,232,425	23·18
1907	380,493	8,845,654	23·25
1908	398,749	5,201,408	13·04
1909	419,869	11,124,940	26·50
1910	384,226	7,913,423	20·60
1911	392,681	9,699,127	24·70
1912	302,238	4,585,326	15·17
1913	439,242	8,323,639	18·95
1914	442,060	8,890,321	20·11
1915	434,815	1,608,419	3·70
1916	353,932	9,328,894	26·36

In addition to the area for grain shown for last season there were 964,318 acres of oats cut for hay, so that the total area sown with oats in 1915-16 was 1,318,250 acres. In August, 1916, it was estimated that the area under this grain for 1916-17 was 1,146,000 acres, or a decrease of about 172,000 acres as compared with the previous season. Imports into Victoria from oversea countries during 1915-16 included 996,372 bushels of oats, as well as 11,644 lbs. of oatmeal, whilst in the same year there were exported from Victoria to these countries 321,633 bushels of oats and 15,184 lbs. of oatmeal.

Barley. The area under barley in 1915-16 was 61,400 acres, of which 29,473 were under malting, and 31,927 under other barley. There is a remarkable fluctuation in the area of land sown with barley, which seems strange, seeing that the average yield of the product and the market for it are uniformly good. The figures

in the table given below show the acreage, production and yield per acre for the last ten years :—

CULTIVATION OF BARLEY, 1906–07 TO 1915–16.

Year ended March.	Area under Crop.		Produce.		Average per Acre.		
	Malting.	Other.	Malting.	Other.	Malting.	Other.	Total.
	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1907 ..	30,052	22,764	674,043	581,399	22·43	25·54	23·77
1908 ..	41,940	21,134	747,315	311,980	17·82	14·76	16·79
1909 ..	42,382	21,766	1,013,384	497,797	23·63	22·87	23·38
1910 ..	38,762	19,841	658,105	365,279	16·98	18·41	17·46
1911 ..	30,609	22,078	804,893	535,494	26·30	24·25	25·44
1912 ..	36,748	16,793	725,803	298,781	19·75	17·79	19·14
1913 ..	52,311	19,320	1,269,634	474,893	24·27	24·58	24·35
1914 ..	44,584	38,767	971,334	841,556	21·79	21·71	21·75
1915 ..	31,268	31,224	368,647	231,952	11·79	7·43	9·61
1916 ..	29,473	31,927	868,879	865,632	29·48	27·11	28·25

During 1915, 1,179,748 bushels of barley were used locally in the production of 1,187,527 bushels of malt.

Potatoes. The area planted with potatoes in 1915–16 was 56,910 acres, and the production was 173,821 tons, which represented a yield of 3·05 tons per acre as compared with 2·89 tons in the previous season and 2·37 tons in 1913–14. The following table shows the potato returns for the past eleven years and for earlier years in five-year periods back to 1860 :—

POTATO PRODUCTION, 1860–1916.

Period ended June.	Area under Crop (Annual Average).	Produce (Annual Average).	Average per Acre.
	Acres.	Tons.	Tons.
1860–65	27,118	64,399	2·37
1865–70	35,460	99,490	2·81
1870–75	38,028	124,110	3·26
1875–80	38,517	128,156	3·33
1880–85	39,661	143,073	3·61
1885–90	46,210	164,068	3·55
1890–95	49,808	177,743	3·57
1895–1900	45,669	132,122	2·91
1900–05	44,817	135,593	3·03
1906	44,670	115,352	2·58
1907	55,372	166,839	3·01
1908	54,149	135,110	2·50
1909	47,903	152,840	3·19
1910	62,390	174,970	2·80
1911	62,904	163,312	2·60
1912	47,692	119,092	2·50
1913	47,575	191,112	4·02
1914	74,574	176,692	2·37
1915	65,496	189,225	2·89
1916	56,910	173,821	3·05

The estimated value of the potatoes produced last season was £1,017,563, as against an average of £640,200 for the preceding five years.

Hay. In 1915 the production of hay amounted to 2,342,094 tons, which was the highest recorded, and over 100 per cent. above the average of the preceding five years. The yield per acre was higher than in any other year since 1857. The quantity of straw returned for the season 1915–16 was 104,495 tons as against 40,704 tons for the previous year. The hay returns for five-year periods from 1860 to 1904 and for each of the past eleven seasons are shown in the following table :—

HAY PRODUCTION, 1860 TO 1915.

Period.	Area cut for Hay (Annual Average).	Produce (Annual Average).	Average per Acre.
	Acres.	Tons.	Tons.
1860–64	89,746	113,392	1·26
1865–69	110,293	149,110	1·35
1870–74	124,493	158,594	1·27
1875–79	170,777	219,352	1·28
1880–84	282,774	334,190	1·18
1885–89	434,175	504,758	1·16
1890–94	440,000	589,427	1·34
1895–99	495,337	563,809	1·14
1900–04	585,608	782,155	1·34
1905	591,771	864,177	1·46
1906	621,139	881,276	1·42
1907	682,194	682,370	1·00
1908	956,371	1,415,746	1·48
1909	864,356	1,186,738	1·37
1910	832,669	1,292,410	1·55
1911	860,205	1,032,288	1·20
1912	1,203,728	1,572,933	1·31
1913	977,684	1,350,374	1·38
1914	895,755	568,956	·64
1915	1,330,455	2,342,094	1·76

The hay return for 1915 was exceptionally good, but on account of the low price prevailing the crop was not so valuable as the very poor one of 1914. The estimated value was £4,098,664 for 1915, as compared with £4,181,827 for the preceding year. Of the total hay produced in 1915, 1,756,399 tons were oaten, 543,280 tons were wheaten, and 42,415 tons were made from lucerne and other crops, and the yields per acre were 1·82, 1·63, and 1·30 tons respectively.

Crops in Australian States and New Zealand.

The following return shows the yield of the principal crops in the various Australian States and New Zealand for each of the ten years ended March, 1916 :—

YIELD OF PRINCIPAL CROPS IN AUSTRALASIA, 1906–7 TO 1915–16.

Year ended March.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
WHEAT.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1907 ...	22,618,043	21,817,938	1,108,902	17,466,501	2,758,567	651,408	5,605,252
1908 ...	12,100,780	9,155,884	693,527	19,135,557	2,925,690	644,235	5,567,139
1909 ...	23,345,649	15,483,276	1,202,799	19,397,672	2,460,823	700,777	8,772,790
1910 ...	28,780,100	28,532,029	1,571,589	25,133,851	5,602,368	793,660	8,661,100
1911 ...	34,813,019	27,913,547	1,022,373	24,344,740	5,897,540	1,120,744	8,273,926
1912 ...	20,891,877	25,318,092	285,109	20,352,720	4,358,904	659,615	8,290,221
1913 ...	26,223,104	32,475,813	1,975,505	21,496,216	9,168,594	630,315	5,179,626
1914 ...	32,936,245	38,029,082	1,769,432	16,936,988	13,331,350	349,736	5,231,700
1915 ...	3,940,947	12,830,530	1,585,087	3,527,428	2,624,190	384,220	6,644,336
1916 ...	58,521,706	67,323,390	414,438	34,134,504	18,236,355	993,790	7,108,360
OATS.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1907 ...	8,845,654	1,404,574	28,884	896,166	457,155	1,979,574	11,201,789
1908 ...	5,201,408	851,776	9,900	874,388	721,753	1,526,002	15,021,861
1909 ...	11,124,940	1,119,558	38,811	1,280,235	739,303	1,946,010	18,906,788
1910 ...	7,913,423	1,966,586	50,018	1,209,131	1,248,162	2,347,548	13,804,000
1911 ...	9,699,127	1,702,706	50,469	1,136,618	776,233	2,063,303	10,093,564
1912 ...	4,585,326	1,155,164	5,783	1,349,480	961,385	1,504,633	10,118,917
1913 ...	8,323,639	1,670,181	82,420	1,673,508	2,105,812	2,257,258	13,583,924
1914 ...	8,890,321	1,834,824	56,236	1,200,740	1,655,681	1,593,664	14,740,946
1915 ...	1,608,419	513,910	43,607	368,425	464,976	1,341,800	11,436,301
1916 ...	9,328,894	1,414,000	2,454	2,134,374	1,538,092	2,189,467	7,653,208
BARLEY.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1907 ...	1,255,442	152,739	158,283	491,246	48,827	141,895	1,035,346
1908 ...	1,059,295	75,148	64,881	566,937	76,205	149,186	1,163,406
1909 ...	1,511,181	166,536	137,667	825,740	74,433	158,645	1,938,452
1910 ...	1,023,384	272,663	193,586	691,424	101,673	153,654	1,304,000
1911 ...	1,340,387	82,005	83,621	544,471	33,566	142,318	920,536
1912 ...	1,024,584	130,998	15,369	702,855	37,011	148,009	927,112
1913 ...	1,744,527	338,179	146,847	1,318,734	93,418	265,908	1,377,610
1914 ...	1,812,890	302,940	115,975	1,332,714	167,915	187,484	1,205,628
1915 ...	600,599	46,500	105,613	447,310	24,090	104,798	596,828
1916 ...	1,734,511	97,000	8,130	1,697,670	130,870	115,523	820,173
POTATOES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1907 ...	166,839	114,856	15,830	22,277	5,028	182,323	169,875
1908 ...	135,110	55,882	13,177	20,263	5,671	145,483	142,999
1909 ...	152,840	71,794	11,550	21,588	6,695	121,605	195,206
1910 ...	174,970	100,143	13,544	18,569	5,948	73,862	180,500
1911 ...	163,312	121,033	15,632	23,920	5,864	70,090	138,025
1912 ...	119,092	75,166	13,087	22,668	9,312	62,164	141,510
1913 ...	191,112	84,232	16,386	33,078	13,558	72,565	147,689
1914 ...	176,602	95,704	16,548	32,950	17,803	80,389	157,194
1915 ...	189,225	40,709	16,014	18,035	14,724	78,907	132,635
1916 ...	173,821	†	7,439	12,991	14,118	79,890	128,807
HAY.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1907 ...	881,276	621,846	94,343	398,866	158,112	104,797	140,402*
1908 ...	682,370	376,800	77,601	376,170	137,511	98,406	160,870*
1909 ...	1,415,746	730,014	92,947	591,141	170,008	137,518	173,134*
1910 ...	1,186,738	981,201	96,854	574,475	195,182	118,746	†
1911 ...	1,292,410	843,044	151,252	595,064	178,891	115,190	†
1912 ...	1,032,288	728,533	94,553	605,239	299,695	107,684	†
1913 ...	1,572,933	1,089,002	119,867	714,766	255,751	183,079	†
1914 ...	1,350,374	954,592	103,935	571,616	278,565	112,958	†
1915 ...	568,956	613,235	102,193	210,437	156,784	81,971	†
1916 ...	2,342,094	1,460,610	53,858	1,100,127	395,172	168,450	†

* Estimated. † No information.

Prices of agricultural produce.

The following information regarding prices in February and March, except that relating to potatoes, has been procured direct from the growers. The table gives the average price of each product for the last fifteen years :—

PRICES OF PRODUCE, 1902 TO 1916.

Year.	Average Price in February and March.					
	Wheat.	Oats.	Barley.		Hay.	Potatoes.
			Malting.	Other.		Early Crop.	Main Crop (after March).
	Per bushel.	Per bushel.	Per bushel.	Per bushel.	Per ton.	Per ton.	Per ton.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1902.. ..	2 10¼	2 4	3 9½	2 9¼	55 5	77 7	84 4
1903.. ..	6 0	3 2¾	4 5¾	3 8	100 1	91 3	47 1
1904.. ..	2 8	1 1½	2 10½	1 9½	27 2	52 6	26 1
1905.. ..	2 11½	1 6	3 2½	2 1	33 6	110 0	84 0
1906.. ..	2 10½	1 10½	3 11	2 8½	38 0	115 6	101 5
1907.. ..	2 9	1 10¼	4 2	2 2¾	38 2	59 1	37 6
1908.. ..	4 0½	3 0½	4 11½	3 7	88 7	70 4	54 11
1909.. ..	3 9¼	1 9¼	3 9¾	2 5	46 0	80 0	51 0
1910.. ..	3 9¾	1 11½	3 8¼	2 4¾	41 0	78 0	57 0
1911.. ..	3 2	1 10½	4 3½	2 0½	38 0	82 0	63 0
1912.. ..	3 4¾	2 10¾	5 7	3 11¼	62 0	116 0	101 0
1913.. ..	3 3¾	2 3½	4 1	3 1	51 0	116 0	66 0
1914.. ..	3 3	1 9	3 1½	2 0¼	38 0	81 0	62 0
1915.. ..	7 0¾	4 11¼	5 8¾	4 10¼	147 0	80 0	85 0
1916.. ..	3 9	2 0¼	3 11½	2 10	35 0	201 0	106 0

In Melbourne the price of wheat in 1915 ranged from 5s. per bushel in November to 8s. 6d. per bushel in March. The highest and lowest prices in Melbourne during each month in the last three years were as follows :—

PRICES OF WHEAT IN MELBOURNE, 1913, 1914, AND 1915.

Month.	Price per Bushel.					
	1913.		1914.		1915.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January ..	3 7	3 6	3 7	3 5	7 6	6 8¼
February ..	3 7	3 6	3 10	3 6½	8 4	7 8
March ..	3 8½	3 7	3 10¾	3 8¾	8 6	7 10
April	3 9½	3 8	3 9½	3 9	8 0	7 9
May	3 10	3 9	3 11	3 9¾	8 1½	8 0
June ..	3 9	3 8	3 11½	3 10	8 0	7 10
July	3 8½	3 8	3 11	3 10	8 3¼	7 11
August ..	3 9	3 8½	4 8½	4 2	8 3	7 6
September ..	3 9	3 8	5 1½	4 9	8 3	7 0
October ..	3 7½	3 5½	4 9	4 9	8 0	7 8
November ..	3 6¾	3 5	5 6	4 9	7 0	5 0
December ..	3 6	3 5½	6 9	6 6	5 3½	5 2

Other Crops. The area under other than principal crops and the production since March, 1910, are shown in the subjoined table :—

OTHER THAN PRINCIPAL CROPS, 1910-11 TO 1915-16.

Crop.	Area.	Production.	Area.	Production.	Area.	Production.
	1910-11.		1911-12.		1912-13.	
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Maize	20,151	982,103	18,223	792,660	19,986	715,299
Rye	2,640	32,647	1,098	9,981	1,428	17,141
Peas	11,068	223,284	11,535	181,113	11,875	232,856
		Tons.		Tons.		Tons.
Mangel-wurzel	1,254	17,654	797	9,568	1,121	14,615
Beet, Carrots, Parsnips, and Turnips ..	872	7,481	658	4,953	627	5,628
Onions ..	6,161	37,484	3,652	20,911	4,977	28,641
Green Forage ..	71,826	..	75,177	..	84,460	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds ..	1,295	16,262	1,188	9,503	2,429	23,206
		Cwt.		Cwt.		Cwt.
Hops ..	121	937	122	777	131	1,387
Tobacco ..	329	1,090	356	3,686	138	661
Vines—Grapes..	23,412	592,438	24,193	683,250	24,579	733,579
Flax	600	748 fibre 2,457 seed	443	1,327 fibre 1,958 seed	648	1,189 fibre 4,536 seed
Gardens and Orchards ..	68,153	..	70,316	..	73,623	..
Minor Crops ..	5,158	..	4,741	..	5,942	..
Land in Fallow	1,434,177	..	1,469,608	..	1,627,223	..
Artificial Grasses	991,195	..	1,041,772	..	1,085,346	..
	1913-14.		1914-15.		1915-16.	
		Bushels.		Bushels.		Bushels.
Maize.. ..	17,962	800,529	19,433	1,018,419	22,258	999,886
Rye	1,779	19,029	1,955	13,415	3,137	42,857
Peas	11,774	206,846	12,159	114,493	8,221	147,488
		Tons.		Tons.		Tons.
Mangel-wurzel	952	15,642	893	8,921	1,091	13,067
Beet, Carrots, Parsnips, and Turnips ..	470	3,166	563	2,249	758	4,938
Onions ..	6,121	24,755	8,937	31,528	9,294	37,587
Green Forage ..	98,963	..	139,654	..	60,426	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds ..	1,452	16,349	149	1,100	2,435	24,087
		Cwt.		Cwt.		Cwt.
Hops.. ..	117	961	115	903	107	855
Tobacco ..	284	2,037	196	1,192	160	†
Vines—Grapes ..	22,435	836,493	21,801	620,876	22,353	1,084,766
Flax ..	1,046	1,096 fibre 3,768 seed	671	1,318 fibre 1,827 seed	361	1,987 fibre 1,370 seed
Gardens and Orchards ..	77,960	..	87,237	..	91,499	..
Minor Crops ..	6,476	..	6,904*	..	6,497*	..
Land in Fallow	1,738,572	..	1,346,545	..	1,358,343	..
Artificial Grasses	1,094,566	..	1,202,130	..	1,182,995	..

* For details see page 737. † Not available.

Maize. The area under maize for grain in 1915–16 was 22,258 acres, and the production was 999,886 bushels, which was the third largest total recorded and represented a yield of 44·92 bushels per acre as compared with 52·41 bushels in the preceding season, 44·57 bushels in 1913–14, 35·79 bushels in 1912–13, and 43·50 bushels in 1911–12. Of the total production for last season, 83 per cent. was obtained from the Gippsland district. The area, total production and produce per acre are given in the next table for each of the past eleven seasons and for five-year periods prior thereto back to 1890:—

MAIZE PRODUCTION, 1890 TO 1916.

Period ended June.	Area under Maize for Grain (Annual Average).	Total Production (Annual Average).	Produce per Acre.
	Acres.	Bushels.	Bushels.
1890–5	7,483	376,844	50·36
1895–1900	9,894	528,970	53·46
1900–5	10,704	699,630	65·36
1906	11,785	641,216	54·41
1907	11,559	704,961	60·99
1908	10,844	508,761	46·92
1909	14,004	650,462	46·45
1910	19,112	1,158,031	60·59
1911	20,151	982,103	48·74
1912	18,223	792,660	43·50
1913	19,986	715,299	35·79
1914	17,962	800,529	44·57
1915	19,433	1,018,419	52·41
1916	22,258	999,886	44·92

On the average of the past five seasons the yield per acre was 44·2 bushels as against 65·4 in 1900–5, 53·5 in 1895-1900, and 50·4 in 1890–5. The relatively light yield per acre for the latest five-year period was probably due to the cultivation of new areas which are less fertile than the rich river flats upon which this cereal was grown in earlier periods.

Rye. The area under rye in 1915–16 was 3,137 acres, from which 42,857 bushels of grain were obtained. The production was 13,415 bushels in the previous season, and 19,029 bushels in 1913–14. Although rye was grown in all districts, except the Mallee, the North-Eastern district supplied 53 per cent. of the total area and 55 per cent. of the production in 1915–16.

Peas. The area under peas increased from 8,297 acres in 1901-2 to 12,253 acres in 1905-6, and to 13,613 acres in 1907-8; there was a decline in 1909-10 to 9,824 acres, and a partial recovery in later years to 12,159 acres in 1914–15. In 1915–16 the area was 8,221 acres, and the return 147,488 bushels, the former being 3,938 acres less and the latter 32,995 bushels more than in the previous year. Last season peas were grown to some extent in all the counties except Millewa, Weeah, and Gunbower. Those from which

the largest returns were obtained were Buln Buln with 35,467 bushels, Mornington 17,882 bushels, Grant 16,357 bushels, Bourke 15,170 bushels, and Tanjil 13,601 bushels. The production of peas in the five counties mentioned was equal to 67 per cent, of the total for the whole State.

Mangel-wurzel. In 1915–16 there were 1,091 acres under mangel-wurzel, as against 893 in the previous season, 952 in 1913–14, 1,121 in 1912–13, 797 in 1911–12, 1,254 in 1910–11, 1,119 in 1909–10, 1,370 in 1908–9, and 1,184 in 1907–8. The production last year was 13,067 tons, as compared with an average of 13,280 tons for the preceding five-year period. Mangolds are grown principally in the counties of Villiers, Grant, Buln Buln, Tanjil, Mornington, and Grenville. The production for last season in the counties mentioned represented 79 per cent. of the total for the State.

Beet, carrots, parsnips, and turnips. The cultivation of beet, carrots, parsnips and turnips, exclusive of those grown in market gardens, showed an increase in area and production as compared with the previous season. In 1915–16 the extent of land sown was 758 acres, as against 563 in the preceding year, 470 in 1913–14, 627 in 1912–13, 658 in 1911–12, 872 in 1910–11, 573 in 1909–10, and 702 in 1908–9. The produce for last year was 4,938 tons, which was 243 tons above the average for the previous five-year period.

Onions. Onions are grown in nearly every county south of the Dividing Range. The returns for last season show that in Bourke the yield was 8,884 tons from 1,338 acres; in Grenville, 7,105 tons from 2,186 acres; in Villiers, 5,136 tons from 982 acres; in Buln Buln, 4,500 tons from 1,172 acres; in Mornington, 4,132 tons from 1,237 acres; in Grant, 3,837 tons from 1,279 acres; and in Polwarth, 3,044 tons from 703 acres. The following is a statement showing the area and yield for the last twenty years :—

ONION CULTIVATION, 1896–7 TO 1915–16.

Year.	Area.	Produce.	Year.	Area.	Produce.
	Acres.	Tons.		Acres.	Tons.
1896–7 ..	3,735	11,256	1906–7 ..	4,705	28,000
1897–8 ..	3,751	11,217	1907–8 ..	4,249	22,649
1898–9 ..	4,472	17,308	1908–9 ..	5,340	24,384
1899–1900 ..	4,436	19,905	1909–10 ..	6,434	31,715
1900–1 ..	2,815	12,766	1910–11 ..	6,161	37,484
1901–2 ..	4,151	20,859	1911–12 ..	3,652	20,911
1902–3 ..	5,565	27,467	1912–13 ..	4,977	28,641
1903–4 ..	4,176	25,218	1913–14 ..	6,121	24,755
1904–5 ..	2,862	12,969	1914–15 ..	8,937	31,528
1905–6 ..	4,889	25,597	1915–16 ..	9,294	37,587

The area under and the production of onions last season were the largest recorded, but the yield per acre was only 4·04 tons, as against 4·80 tons on the average of the preceding five seasons.

Green forage. The area devoted to green forage has shown a considerable expansion in recent years. During the eight years, 1907–8 to 1914–15, the yearly average —81,204 acres—was 146 per cent. higher than that for the five years ended 1906–7. In 1915–16, however, only 60,426 acres were utilized for green forage as compared with 139,654 acres in the previous season, 98,963 acres in 1913–14, 84,460 acres in 1912–13, 75,177 acres in 1911–12, 71,826 acres in 1910–11, and 56,586 acres in 1909–10.

Ensilage. The practice of preserving forage in a green state has existed in Victoria for many years, but up to the present only a small number of farmers have adopted it. The returns for the past ten seasons are given in the next table.

ENSILAGE RETURNS, 1906–7 TO 1915–16.

Year ended March.	Number of Farms on which made.	Number of Silos (Pits and Stacks).	Weight of Materials used.
			Tons.
1907	210	278	10,581
1908	203	260	11,031
1909	392	494	18,205
1910	518	656	27,280
1911	460	555	25,969
1912	371	450	20,888
1913	287	385	17,877
1914	270	362	19,505
1915	161	221	9,055
1916	269	353	16,356

Grass and clover seed. The area harvested for grass and clover seed last season was 2,435 acres, as compared with 149 acres in the previous year, 1,452 acres in 1913–14, and 2,429 acres in 1912–13. The production in 1915–16 was 24,087 bushels as against 1,100 bushels in 1914–15, 16,349 bushels in 1913–14, and 23,206 bushels in 1912–13.

Hops. The hop-growing industry attained its maximum development in 1883-4, when 1,758 acres yielded 15,717 cwt. In 1915-16 there were only 20 growers whose return from 107 acres was 855 cwt. The area cultivated last year was the smallest since 1872-3, and the production was less than in any previous season with one exception since 1873–4. Delatite, Bogong, Dargo, Polwarth, Heytesbury, Tanjil, and Buln Buln were the only counties in which hops were grown last season.

Flax. The flax (Linum Usitatissimum) growing industry is assisted by the Commonwealth Government, which gives producers a bounty of 10 per cent. on the market value of the fibre produced. This, together with the satisfactory price obtained and the fact that a very large market exists for the fibre, should enable the industry to make considerable progress. The whole of last season's produce came from the counties of Buln Buln, Grant, Polwarth, and

Moira. Particulars of the crop for the last seven years are given in the following statement :—

FLAX: 1909-10 TO 1915-16.

Year.	No. of Growers.	Area under Crop.	Seed Produced.	Fibre Produced.	Straw awaiting Treatment.
		Acres.	Cwt.	Cwt.	Tons.
1909-10	106	1,213	1,515	676	836
1910-11	33	600	2,457	748	235
1911-12	29	443	1,958	1,327	75
1912-13	55	648	4,536	1,189	615
1913-14	62	1,046	3,768	1,096	652
1914-15	49	671	1,827	1,318	25
1915-16	22	361	1,370	1,987	..

In 1915-16 imports into Victoria from countries outside Australia included linseed to the value of £3,105, linseed oil worth £42,302, and fibre worth £244,302.

Tobacco. Tobacco production reached its maximum in 1880-1, when 17,333 cwt. of dry leaf was produced. The subsequent sixteen years were marked by great variations in area and produce, and since 1896-7 the industry has fallen to small proportions. The area devoted to tobacco last year was the second smallest since 1906-7. There are tobacco plantations in Delatite, along the banks of the King River, and in Bogong; last season there was also a small area cultivated in Moira. Particulars relating to the cultivation of tobacco for the last twenty years are as follows :—

CULTIVATION OF TOBACCO, 1896-7 TO 1915-16.

Year.	Number of Growers.	Area.	Produce.
		Acres.	Cwt. (dry).
1896-7	233	1,264	7,890
1897-8	77	522	3,419
1898-9	31	78	190
1899-1900	28	155	1,365
1900-1	16	109	311
1901-2	17	103	345
1902-3	24	171	781
1903-4	25	129	848
1904-5	20	106	1,112
1905-6	31	169	1,405
1906-7	30	133	603
1907-8	49	345	2,764
1908-9	60	413	2,647
1909-10	50	321	2,704
1910-11	57	329	1,090
1911-12	58	356	3,686
1912-13	54	138	661
1913-14	67	284	2,037
1914-15	46	196	1,192
1915-16	39	160	..

Vines, wine, raisins, &c.

The area under vines showed a steady increase from 4,284 acres in 1879–80, to 30,307 acres in 1894–5. In 1900–1 the area was 30,634 acres, but since then there has been a falling off to 25,855 acres in 1906–7, and 21,801 acres in 1914–15. Vineyards are distributed fairly well over the State, but there are certain districts where the principal industries are connected with vine-growing. The Shire of Mildura produced last season 873,861 cwt. of grapes; Rutherglen, 62,967 cwt.; and Yackandandah, 3,280 cwt. In the Goulburn Valley wine-making is a flourishing industry. In the County of Borung there are many vineyards, particularly in the Stawell Shire, where 8,977 cwt. of grapes was produced in 1915–16. At Mildura the crop was principally dried for raisins and currants. The results of fifteen years' operations are given below :—

VINE PRODUCTION, 1902 TO 1916.

Year ended June.	Number of Growers.	Area	Produce.			
			Grapes gathered.	Wine Made.	Raisins Made.	Currants Made.
		Acres.	Cwt.	Gallons.	Cwt.	Cwt.
1902 ..	2,469	28,592	497,269	1,981,475	27,533	2,546
1903 ..	2,347	28,374	444,966	1,547,188	35,534	3,722
1904 ..	2,260	28,513	654,965	2,551,150	53,447	7,490
1905 ..	2,253	28,016	452,433	1,832,386	30,295	5,974
1906 ..	2,009	26,402	498,590	1,726,444	42,975	6,403
1907 ..	1,860	25,855	752,826	2,044,833	98,127	11,730
1908 ..	1,967	26,465	535,804	1,365,600	68,617	10,440
1909 ..	1,637	24,430	561,679	1,437,106	69,536	11,929
1910 ..	1,606	22,768	548,828	991,941	81,044	27,408
1911 ..	1,652	23,412	592,438	1,362,420	79,318	26,394
1912 ..	1,650	24,193	683,250	983,423	102,924	46,789
1913 ..	1,808	24,579	733,579	1,206,111	109,677	48,337
1914 ..	1,776	22,435	836,493	1,121,491	120,303	62,098
1915 ..	1,739	21,801	620,876	605,636	111,006	28,527
1916 ..	1,700	22,353	1,084,766	1,380,367	180,104	70,556

Of the total quantity of grapes gathered in 1916, 185,775 cwt. was used for making wine, 828,513 cwt. for raisins and currants, and 70,478 cwt. for table consumption and export. Of the 180,104 cwt. of raisins made, 134,304 cwt. were sultanas almost entirely from Mildura.

Raisins are produced in Victoria upon a scale far in excess of the State's requirements. It is estimated that a year's consumption of raisins is about 20,000 cwt.; consequently, about 160,000 cwt. of the production in 1916 is available for Inter-State or oversea export. A year's consumption of currants is about 30,000 cwt., which would enable approximately 40,000 cwt. of last season's production to be exported to other States or oversea.

Orchards.

The total number of persons in the State growing fruit for sale was 7,319 in 1915–16, as against 6,811 in the previous season, 6,498 in 1913–14, 6,285 in 1912–13, 5,955 in 1911–12, and 5,780 in 1910–11. The area under orchards in each of those years was 76,382, 70,392, 63,058, 59,119, 55,769, and 53,325 acres

respectively. The orchards are fairly spread over the whole State. The counties having the largest areas last season were as follows :— Evelyn, 14,557 acres ; Bourke, 14,000 acres ; Mornington, 12,022 acres ; Rodney, 7,484 acres ; Moira, 3,685 acres ; Karkarooc (including Mildura), 3,451 acres ; Talbot, 3,293 acres ; Bendigo, 2,919 acres ; Borung, 1,947 acres ; Grant, 1,815 acres ; Bogong, 1,337 acres ; Buln Buln, 1,288 acres ; and Tatchera, 1,139 acres.

In the following table will be found a statement of the number of bearing and non-bearing fruit trees and plants for the seasons 1910–11 and 1913–14—the latest years for which this information is available :—

RETURN SHOWING THE NUMBER OF FRUIT TREES, PLANTS, ETC., IN ORCHARDS AND GARDENS WHERE FRUIT WAS GROWN FOR SALE, 1910–11 AND 1913–14.

Fruit.	Number of Trees, Plants, &c.					
	1910–11			1913–14.		
	Not Bearing.	Bearing.	Total.	Not Bearing.	Bearing.	Total.
Apples ..	764,890	1,449,381	2,214,271	989,176	1,606,321	2,595,497
Pears ..	268,330	364,638	632,968	398,290	445,276	843,566
Quinces ..	22,820	58,116	80,936	30,010	66,040	96,050
Plums ..	134,129	355,332	489,461	137,246	350,887	488,133
Cherries ..	73,739	242,891	316,630	67,331	250,229	317,560
Peaches ..	179,240	292,054	471,294	321,991	353,134	675,125
Apricots ..	44,641	236,536	281,177	99,985	255,413	355,398
Nectarines ..	2,951	4,279	7,230	6,418	6,266	12,684
Oranges ..	45,403	40,190	85,593	136,657	54,698	191,355
Lemons ..	20,070	47,880	67,950	33,335	38,687	72,022
Loquats ..	1,621	4,926	6,547	1,503	5,060	6,563
Medlars ..	93	361	454	82	153	235
Figs	8,965	35,132	44,097	13,213	27,835	41,048
Passion-fruit ..	5,293	9,795	15,088	10,356	8,794	19,150
Guavas ..	323	162	485	538	1,081	1,619
Pomegranates ..	87	117	204	130	87	217
Persimmons ..	242	504	746	243	486	729
Total Large Fruits	1,572,837	3,142,294	4,715,131	2,246,504	3,470,447	5,716,951
Raspberries ..	..	663,315	663,315	..	558,288	558,288
Strawberries ..	..	4,018,944	4,018,944	..	3,458,859	3,458,859
Gooseberries ..	..	177,661	177,661	..	227,858	227,858
Mulberries ..	465	1,220	1,685	782	1,037	1,819
Olives ..	3,037	3,473	6,510	3,886	4,198	8,084
Currants (Red, White, and Black) ..	13,572	49,282	62,854	5,470	59,259	64,729
Almonds ..	9,690	21,053	30,743	11,039	19,022	30,061
Walnuts ..	4,252	4,461	8,713	8,988	4,044	13,032
Filberts ..	1,214	3,637	4,851	439	3,800	4,239
Chestnuts ..	498	533	1,031	451	600	1,051
Total Nuts ..	15,654	29,684	45,338	20,917	27,466	48,383

The area under orchards growing fruit for sale increased from 5,800 acres in 1872–3 to 10,048 in 1882–3, 31,370 in 1892–3, 44,502 in 1902–3, 59,119 in 1912–13, 70,392 acres in 1914–15, and 76,382

acres in 1915–16, which is the largest area recorded. With the exception of cherries, peaches, oranges, lemons, raspberries, currants and nuts the quantities of fruit grown in 1915–16 were above the averages of the previous two seasons. Details of the produce from orchards growing fruit for sale for each of the past ten years are as follows :—

ORCHARDS GROWING FRUIT FOR SALE, 1906-7 TO 1915-16.

Year ended March.	Number of Fruit-growers.	Area under Gardens and Orchards.	Large Fruits Gathered.			
			Apples.	Pears.	Quinces.	Plums.
		Acres.	Bushels.	Bushels.	Bushels.	Bushels.
1907	5,367	49,086	1,010,381	303,647	77,277	237,468
1908	5,241	49,212	618,424	182,609	47,871	157,366
1909	5,586	50,675	1,241,826	373,145	99,608	167,012
1910	5,647	51,578	1,121,702	253,195	50,559	232,657
1911	5,780	53,325	1,667,271	640,436	86,355	325,677
1912	5,955	55,769	1,330,961	239,431	54,425	151,936
1913	6,285	59,119	2,036,756	669,898	90,119	260,830
1914	6,498	63,058	1,653,035	476,430	67,799	292,389
1915	6,811	70,392	509,697	401,301	32,949	88,698
1916	7,319	76,382	2,953,968	601,357	100,566	337,154

Year ended March.	Large Fruits Gathered—*continued.*						
	Cherries.	Peaches.	Apricots.	Oranges.	Lemons.	Figs.	Others.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels	Bushels
1907	120,496	276,077	258,049	23,431	37,662	29,549	16,817
1908	71,798	290,178	239,735	28,620	46,827	20,460	10,753
1909	95,012	282,040	149,262	22,363	38,548	23,687	17,462
1910	100,054	291,766	292,496	34,027	51,130	22,675	10,566
1911	121,756	317,317	160,884	59,723	71,041	31,054	21,200
1912	96,663	260,258	281,460	48,982	65,833	17,891	10,259
1913	152,257	289,731	138,881	44,039	48,170	25,223	19,496
1914	151,262	361,414	308,307	63,542	57,562	23,764	15,639
1915	48,411	277,435	109,301	83,220	66,704	17,362	16,040
1916	98,382	303,992	256,229	63,434	56,569	21,433	16,546

	Small Fruits Gathered.					Nuts Gathered.			
	Raspberries.	Strawberries.	Gooseberries.	Currants, Red, Black, & White.	Others.	Almonds.	Walnuts.	Filberts.	Chestnuts.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	lbs.	lbs.	lbs.	lbs.
1907	13,816	5,487	12,276	2,054	3,307	69,378	15,863	5,339	3,506
1908	12,466	3,645	8,526	3,705	2,145	62,921	20,266	1,928	5,047
1909	8,640	4,874	6,950	1,278	2,747	91,230	23,100	3,323	3,355
1910	6,143	6,472	5,876	1,428	1,738	81,008	25,368	1,760	5,003
1911	9,231	7,788	6,430	1,334	2,607	126,877	24,242	3,209	8,546
1912	6,658	6,103	4,173	1,429	1,333	100,982	26,329	1,473	8,821
1913	5,207	3,839	3,874	876	1,179	90,317	22,127	1,220	8,305
1914	4,580	4,351	4,912	802	1,233	92,621	21,649	2,143	11,361
1915	6,011	2,290	223	183	1,072	70,139	26,026	2,664	9,316
1916	3,534	3,347	5,061	491	2,069	62,148	18,173	660	8,344

The following return shows the average produce per tree for all trees, and for bearing trees, for the years 1910-11 and 1913-14 —the latest years for which such particulars are available :—

PRODUCE OF FRUIT TREES, 1910-11 AND 1913-14.

Fruit Trees.	Average per Tree.			
	1910-1911.		1913-1914.	
	All Trees.	Bearing Trees.	All Trees.	Bearing Trees.
	Bushels.	Bushels.	Bushels.	Bushels.
Apples	·75	1·15	·64	1·03
Pears	1·01	1·76	·56	1·07
Quinces	1·07	1·49	·71	1·03
Plums	·67	·92	·60	·83
Cherries	·38	·50	·48	·80
Peaches	·67	1·09	·54	1·02
Apricots	·57	·68	·87	1·21
Nectarines	·66	1·11	·58	1·18
Oranges	·70	1·49	·33	1·16
Lemons	1·05	1·48	·80	1·49
Loquats	·89	1·19	·18	·24
Medlars	·11	·14	·19	·29
Figs	·70	·88	·58	·85
Passion Vines	·64	·98	·34	·75
Guavas	·05	·14	·02	·02
Pomegranates	·99	1·73	·22	·54
Persimmons	1·01	1·50	·46	·68
Total Large Fruits only	·74	1·11	·61	1·00
	lbs.	lbs.	lbs.	lbs.
Almonds	4·13	6·03	3·08	4·87
Walnuts	2·78	5·43	1·66	5·35
Filberts	·66	·88	·51	·56
Chestnuts	3·44	6·65	10·81	18·94

This table shows a decrease in the average production of nearly all of the principal large fruits between 1910-11 and 1913-14, whether all trees or only bearing trees be taken into consideration.

In addition to the fruits shown (p. 735), large quantities of melons, rhubarb and tomatoes were produced in the orchards, the following being the quantities returned for 1915-16—Melons, 25,536 cwt.; rhubarb, 24,718 dozen bundles; and tomatoes, 27,789 cwt. There were also 3,738 acres laid down in private fruit gardens, the value of the produce from which was estimated at about £7,476.

Value of fruit sold.

According to prices received by growers the value of fruit which reaches market was estimated to be £345,844 in 1905-6, £451,672 in 1906-7, £386,807 in 1907-8, £373,600 in 1908-9, £423,500 in 1909-10, £524,380 in 1910-11, £558,604 in 1911-12, £629,863 in 1912-13, £742,900 in 1913-14, £470,970 in 1914-15, and £742,100 in 1915-16 This, of course, does not

represent the actual value of all the fruit grown, as large quantities are privately consumed in various ways. No very reliable estimate of the value of such fruit can be prepared, but it may be set down at about £35,000.

Cider making. Cider-making is now an established industry in the State. The output of the various firms engaged in making the beverage is increasing each season, the quality is good, and the demand is improving.

Market gardens. The area under market gardens for the year 1915–16 was 11,379 acres. As these gardens are generally situated near large centres of population, and the producers are consequently able to dispose of the bulk of their goods with a minimum of loss from waste, &c., an average return of £25 per acre is regarded as a fair estimate. On this basis, the total value of the produce may be given as £284,475. This does not include crops of one acre and over of potatoes, onions, mangel-wurzel, beet, carrots, parsnips, and turnips grown in market gardens, such crops being tabulated under their respective heads in the returns relating to agriculture.

Dried fruit. The quantity of dried fruit (weight after drying) was for the first time collected in 1895–6, when 179,460 lbs. were returned, and it increased to 636,294 lbs. in 1900–1, after which date the quantity, principally by reason of a reduction in apricots, declined to 306,603 lbs. in 1902–3. In 1909–10 the maximum production—811,935 lbs.—was recorded. In 1915–16 the production was 605,823 lbs., which exceeded the average for the previous five years by 80,854 lbs. The details for the last ten seasons are as follows :—

DRIED FRUIT, 1906–7 TO 1915–16.

Year ended June.	Apples.	Prunes.	Peaches.	Apricots.	Figs.	Pears.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1907 ..	42,113	64,648	109,958	143,970	37,716	..	398,405
1908 ..	35,544	25,504	87,383	223,091	13,112	8,077	392,711
1909 ..	69,120	56,183	84,514	170,620	26,796	30,322	437,555
1910 ..	46,767	76,015	109,661	539,910	22,160	17,422	811,935
1911 ..	26,391	80,123	84,211	334,111	9,554	31,819	566,209
1912 ..	21,929	72,400	143,112	492,041	31,027	16,502	777,011
1913 ..	48,853	84,053	56,151	61,465	27,274	38,633	316,429
1914 ..	39,899	155,031	118,187	363,356	33,151	7,900	717,524
1915 ..	16,817	28,788	70,897	43,606	31,981	55,581	247,670
1916 ..	290,258	128,520	61,667	69,215	33,939	22,224	605,823

A striking feature of the returns for last season was the increase in dried apples and prunes. Of the former 261,415 lbs. came from the counties of Evelyn and Mornington, and of the latter 72,304 lbs. were obtained from Rodney. The bulk of the other dried fruit comes from Mildura, where in 1915–16 there were made, in addition to fruits included above, 19,485,200 lbs. of raisins, or 7,343,168 lbs. more than in the previous season.

Minor crops. The following is a return of the minor crops for the last two seasons. The items do not in all cases represent the

whole of the respective crops grown, but refer only to such as were taken cognisance of by the collectors. The return therefore indicates the nature of the crops rather than the full extent of their cultivation.

MINOR CROPS, 1914-15 AND 1915-16.

Crop.	1914-15.		1915-16.	
	Area.	Produce.	Area.	Produce.
	Acres.		Acres.	
Beans	785	10,119 bushels	342	4,020 bushels
Chicory	595	380 tons (dry)	805	595 tons (dry)
Flowers	140	...	116	...
Garlic	...	...	1	29 cwt.
Herbs	33	...	11	...
Millet—Broom ...	663	2,685 cwt. fibre 3,210 cwt. seed	656	4,904 cwt. fibre 4,414 cwt. seed
,, Japanese ...	33	60 cwt. seed	59	367 cwt. seed
Nursery	1,188	...	1,236	...
Opium poppies ...	1	9 lbs.	2	5 lbs.
Peanuts	...	...	59	1,729 lbs.
Pumpkins	2,329	18,334 tons	2,440	18,380 tons
Rice	10	70 cwt.	4	...
Seeds—Agricultural and Garden ...	71	...	227	...
Sugar Beet	990	10,343 tons	461	4,928 tons
Sunflowers	66	3,951 bushels	78	5,124 bushels
Total	6,904	...	6,497	...

Production on Closer Settlement Estates.

Statistics of Closer Settlement Estates in working order have shown in successive years an increasing diversity in production, as well as a great expansion in the area cultivated. A marked feature of the returns for the past four seasons has been the greatly increased area devoted to hay, green forage, and orchards. The area under crop on these estates in 1915 was 201,583 acres, or nearly 37 per cent. of the area of the holdings, as compared with an area of 34,167 acres, representing a proportion of 20 per cent., in 1907. The acreage of the principal crops on Closer Settlement Estates in working order is given in the following table for each of the past eight years :—

ACREAGE OF PRINCIPAL CROPS ON CLOSER SETTLEMENT ESTATES.

Crop.	Area of Crop in—							
	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat for grain..	20,398	36,600	44,124	35,806	41,161	67,366	77,971	97,578
Oats for grain ..	7,566	8,987	10,838	8,420	17,510	22,334	14,280	17,746
Barley for grain..	1,732	2,528	2,032	2,548	4,246	6,929	5,991	4,506
Maize for grain ..	73	38	76	72	480	633	768	780
Rye for grain ..	69	28	49	47	38	36	31	81
Peas for grain ..	52	59	80	120	234	238	329	234
Potatoes ..	304	373	461	498	644	1,569	912	517
Onions.. ..	115	90	70	56	96	163	227	248
Mangel-Wurzel and Beet ..	54	47	64	407	718	877	165	235

ACREAGE OF PRINCIPAL CROPS ON CLOSER SETTLEMENT ESTATES—*continued.*

Crop.	Area of Crop in—							
	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Hay, Wheaten ..	4,293	2,973	4,701	7,596	10,063	6,943	6,376	11,485
„ Oaten ..	12,547	14,338	13,684	18,940	31,206	31,562	38,242	46,776
„ Other ..	552	423	703	2,960	6,410	7,813	6,392	10,720
Green Forage ..	1,070	918	2,417	4,093	8,957	12,424	22,439	4,937
Market Gardens..	18	10	44	54	97	167	149	132
Orchards and Gardens ..	48	68	191	428	769	1,847	3,719	4,682
Vines ..	5	1	14	88	81	108	140	320

The next table gives the production of the principal crops on Closer Settlement Estates in working order for each of the last eight years:—

PRODUCTION OF PRINCIPAL CROPS ON CLOSER SETTLEMENT ESTATES.

Crop.	Production in—							
	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Wheat bushels	355,722	603,278	764,037	391,671	607,262	982,164	145,502	1,775,232
Oats „	270,658	228,959	311,941	186,058	476,307	536,764	99,849	493,020
Barley „	37,812	40,316	58,046	38,913	101,334	137,749	43,719	116,626
Maize „	2,007	1,027	3,152	2,180	14,999	21,278	27,155	22,473
Rye „	970	405	573	658	740	345	329	1,058
Potatoes tons	1,003	1,189	1,493	1,132	2,612	3,233	1,868	1,482
Onions „	339	294	319	247	385	590	670	784
Mangel-Wurzel and Beet „	563	539	841	2,304	4,498	4,050	1,338	2,399
Hay, Wheaten „	5,852	4,815	6,635	8,950	11,312	7,810	2,991	19,386
„ Oaten „	19,605	25,003	22,232	27,021	39,947	43,626	24,294	83,384
„ Other „	673	519	920	2,691	6,316	8,753	7,195	9,878

Land in fallow.

While the fallowing of land in Victoria commenced in 1858, and increased in popularity in later years, it is only within the past eleven years that this method of cultivation has become fairly general throughout the State. The area fallowed in 1915-16 was 1,358,343 acres, as compared with 853,829 acres in 1904-5, and 517,242 acres in 1898-9. The acreage so treated in each of the last eighteen years was as follows :—

LAND IN FALLOW.

Year ended March.	Acres.	Year ended March.	Acres.
1899	517,242	1908	894,300
1900	509,244	1909	1,034,422
1901	602,870	1910	1,175,750
1902	681,778	1911	1,434,177
1903	492,305	1912	1,469,608
1904	632,521	1913	1,627,233
1905	853,829	1914	1,738,572
1906	1,049,915	1915	1,346,545
1907	990,967	1916	1,358,343

Nearly all of the fallowed area is devoted to wheat production. Of the 1,358,343 acres in fallow last season 482,386 were in the Wimmera, 394,404 in the Northern District, and 316,971 in the Mallee. The area for these three districts represented 88 per cent. of the total for the State.

Manure used.

The yearly increase in the proportion of farmers using manure indicates the popularity and the value of this method of treating the soil. Last year the number of farmers who used manure was 33,378 as compared with 21,586 in 1905, and 7,318 in 1898. The following table shows the number of farmers using manure, and the quantity used in each of the last fifteen years :—

MANURE USED FOR FERTILIZATION, 1901 TO 1915.

Year.	Farmers using.	Area used on.	Manure used—	
			Natural.	Artificial.
		Acres.	Tons.	Tons.
1901	11,439	556,777	153,611	23,535
1902	18,537	1,099,686	206,676	36,630
1903	19,921	1,205,443	207,817	41,639
1904	20,167	1,521,946	190,903	45,940
1905	21,586	1,791,537	210,507	54,674
1906	23,072	1,985,148	205,906	60,871
1907	23,738	2,018,079	232,394	62,337
1908	24,437	2,053,987	235,492	64,715
1909	26,690	2,407,331	197,446	77,579
1910	27,845	2,714,854	203,884	86,316
1911	26,159	2,676,408	205,739	82,581
1912	29,524	3,029,418	222,253	94,010
1913	33,610	3,401,013	219,423	105,612
1914	31,874	3,728,279	209,534	117,935
1915	33,378	4,336,252	187,602	128,667

The area on which manure was used represented only 7 per cent. of that under crop in 1898, but since then the proportion manured has rapidly increased. In 1901, it was 19 per cent.; in 1903, 36 per cent.; in 1905, 56 per cent.; in 1909, 66 per cent.; in 1911 and 1912, 74 per cent.; in 1913, 77 per cent.; in 1914, 81 per cent.; and in 1915, 76 per cent. During 1915–16 the quantity of manure imported into Victoria from oversea countries was 75,228 tons, and its value £170,504. Sixty-two per cent. of the quantity, representing 63 per cent. of the value, consisted of rock phosphates imported from Ocean Island.

Characteristics of Victorian soils.

The soils of Victoria vary widely in their physical and chemical conditions. Colour alone is not always an index to productivity, yet to the average mind a darkish colour in soils is generally accepted as indicating a higher potential fertility than exists in lighter coloured soils. There is some logic in

this reasoning on account of darkish coloured soils containing generally more organic matter, and, other things being equal, having thus a better absorptive and retentive power for moisture. Fertility, however, is the harmonious operation of a number of factors, some of which are difficult to control. The absorption, retention, and movement of the soil moisture are entirely dependent on the composition, size and nature of the soil particles, and, in this particular, many farmers do not sufficiently appreciate the far-reaching effects of cultivation as the most economical manner in which the latent wealth of the soil may be made available to the needs of crops. Porosity or natural drainage controls the temperature of the soil, especially during the period when growth is most abundant, viz., the Spring, hence it is that many soils whose drainage is imperfect remain cold at that season, and the crops grown upon them are restricted in yield. Capillarity, or the power of the soil to transfer moisture from the subsoil to the upper cultivated portion wherein the roots of crops develop, is exemplified in the case of the two extreme types of sand and clay. In the former case the surface dries rapidly during summer although there may be an abundant supply of moisture a few feet down; in the latter case, owing to the facility with which moisture rises from the subsoil to the surface and is lost by evaporation, the soil becomes hard and dry. It is usually regarded that the true measure of fertility is the amount of the mineral elements of plant food in the soil. Without food no plant can thrive, but without an adequate supply of moisture no seed can even germinate, much less produce a mature plant. Hence it is that the chemical condition of a soil is subordinate in importance to its physical composition.

Some thousands of chemical analyses of Victorian soils have been made by the Chemical Branch of the Department of Agriculture, and the tabulation of the figures has given a general knowledge of the characteristics of soils in every district of the State.

To divide the State into three broad divisions of coastal plain, northern plain and hill country is sufficient classification for the general statement that the soils of each locality are somewhat below the standard in phosphoric acid, hence the universal suitability of manures containing that ingredient. In the extensive areas stretching from the coast to the hills throughout Gippsland and the Western District field experiments have indicated the necessity for a supplementary application of manures containing nitrogen. The greater rainfall of these southern districts permits a more luxuriant growth of vegetation, and, as the function of nitrogen is to build up the framework of the plant, it is logical enough that the soils should require feeding in that direction. As regards potash, there is evidence that the majority of Victorian soils, particularly those of the clay type, are well furnished, and for some time, except it may be for special crops, there would appear to be little necessity for manures supplying this element. It must not be forgotten, however, that plant

foods produce their best results when in correct proportions to one another, and on sandy soils, when root crops and legumes are grown, potash fertilization may be found necessary.

The percentage of lime present forms a distinct feature in soils of the northern plain, but in the south, with the exception of certain places where the geological formation is of limestone, this most essential element is lacking. It is not too much to say that many thousands of acres in Southern Victoria stand in more need of drainage and liming than of manures. As a corrector of soil acidity, and as a base, wherewith other plant foods may combine and be held in such a manner as to become gradually available for the needs of plants, lime will be found of great service. For the breaking down of adhesive clay soils so as to render the passage of implements easier, lime well repays the application of from 5 to 10 cwt. per acre once every two or three years.

Useful as the work of soil analysis has been, its value will be made more manifest when the agriculturist has standards of fertility with which to meet the requirements of different soil types under varying climatic conditions.

A better appreciation on the part of the farmer of the powerful influence that soil treatment exerts on the production of crops, and a clearer conception of the rational principles of fertilization will gradually lead to a higher standard of farming and an all round increase in the average yields of all crops grown within the State.

Persons employed on Farming, Dairying, and Pastoral Holdings.

Information is obtained by the collectors of agricultural statistics each year as to the number of persons ordinarily employed upon the land occupied. For the last ten years the numbers were as follows :—

NUMBER OF PERSONS EMPLOYED UPON FARMING, DAIRYING, AND PASTORAL HOLDINGS, 1906 TO 1915.

Year.	Males.	Females.	Total.
1906	92,652	51,993	144,645
1907	93,981	51,905	145,886
1908	94,990	52,410	147,400
1909	96,873	52,782	149,655
1910	99,948	54,083	154,031
1911	100,689	55,040	155,729
1912	100,665	52,868	153,533
1913	101,353	51,837	153,190
1914	98,354	49,242	147,596
1915	98,617	49,038	147,655

Persons absent from their farms for the greater portion of the year following other occupations, as well as temporary hands engaged

in harvesting, &c., are not included in the above tabulation, neither are domestic servants nor cooks; but females partly engaged in outdoor duties in connexion with the holdings are included therein. It is estimated that the temporary labour employed on farms and pastoral holdings is equivalent to about 24,000 men employed continuously throughout the year.

Wages—agricultural and pastoral.

In the next return will be found particulars of the rates of wages paid (with rations) upon farms and pastoral holdings during 1915–16. The information has been furnished by the occupiers of holdings:—

WAGES, AGRICULTURAL AND PASTORAL, 1915–16.

Occupations.	Range.	Prevailing Rate.
Ploughmen	25s. to 50s. per week ..	27s. 6d. per week
Farm labourers	20s. to 40s. ,, ..	25s. ,,
Threshing machine hands ..	8d. to 1s. per hour ..	10d. per hour
Harvest hands	6s. to 10s. per day ..	8s. per day
Milkers	15s. to 30s. per week ..	22s. 6d. per week
Maize pickers (without rations) ..	5d. to 7d. per bag ..	6d. per bag
Hop pickers ,, ,, ..	3d. to 5d. per bushel ..	4d. per bushel
Married couples	30s. to 60s. per week ..	40s. per week
Female servants	10s. to 20s. ,, ..	15s. ,,
Men cooks	25s. to 50s. ,, ..	30s. ,,
Stockmen	£52 to £80 per annum ..	£65 per annum
Shepherds	£45 to £70 ,, ..	£52 ,,
Generally useful men	20s. to 30s. per week ..	22s. 6d. per week
Shearers, hand*	20s. to 25s. per 100 sheep	24s. per 100 sheep
,, machine*	20s. to 25s. ,, ..	24s. ,,
Bush carpenters	25s. to 60s. per week ..	30s. per week
Gardeners, market	20s. to 30s. ,, ..	27s. 6d. ,,
,, orchard	20s. to 40s. ,, ..	27s. 6d. ,,
Vineyard hands	20s. to 30s. ,, ..	25s ,,

* It is believed that in cases of some of the highest rates rations are not found.

Farm implements.

The numbers of engines, horseworks, machines and other implements on agricultural, dairying, and pastoral holdings in March, 1916, were as follows:—

MACHINERY AND IMPLEMENTS ON FARMS AND PASTORAL HOLDINGS IN EACH DISTRICT, 1916.

District.	Number of —													
	Engines.		Horseworks.	Harvesters.	Threshing Machines.	Winnowing Machines.	Reapers and Binders.	Strippers.	Ploughs.	Harrows.	Cultivators.	Grain Drills.	Chaff-cutters.	Cream Separators.
	Steam.	Oil.												
1916.														
Central ..	437	1,603	1,675	375	91	265	4,457	59	19,705	13,177	7,156	3,412	6,012	6,510
North-Central	242	465	871	284	44	271	2,055	51	5,703	3,982	1,468	1,457	2,042	3,382
Western ..	286	1,813	1,496	1,297	98	215	3,646	91	11,419	7,797	2,775	2,935	3,659	6,113
Wimmera ..	124	1,704	2,165	4,049	94	1,570	3,796	2,271	9,015	6,209	4,777	4,417	4,130	3,846
Mallee ..	120	626	1,004	1,934	28	1,642	1,870	3,684	6,365	3,279	3,642	3,291	1,673	1,905
Northern ..	574	832	1,557	6,133	107	1,850	5,765	1,450	14,718	9,462	8,380	5,970	2,783	6,550
North-Eastern	408	341	732	588	45	318	1,853	256	5,696	3,608	1,507	1,267	1,534	2,677
Gippsland ..	397	786	622	172	99	136	1,430	22	9,503	6,723	3,177	1,341	2,412	5,366
Total, 1916	2,588	8,220	10,122	14,832	606	6,267	24,872	7,884	82,124	54,237	32,882	24,090	24,245	36,349
,, 1915	2,612	7,436	10,408	12,988	525	6,604	23,421	8,403	81,810	53,261	31,241	22,810	23,688	35,187
,, 1914	2,709	6,586	10,598	13,427	574	6,553	23,701	8,287	80,197	52,876	30,447	22,128	24,050	34,733
,, 1913	2,664	5,274	10,994	12,575	515	6,828	23,088	8,556	77,847	52,196	28,274	20,962	23,754	32,561
,, 1912	2,873	4,271	11,376	12,027	475	6,870	21,973	8,621	75,368	50,208	26,752	19,865	23,172	30,891
,, 1911	2,701	2,918	11,556	10,727	453	7,182	21,739	8,988	72,396	49,092	24,837	18,568	22,521	27,307

NOTE.—The returns collected in March, 1916, showed that there were also in use 1,510 milking machine plants, 4,420 shearing machines, 4,027 wool presses, and 1,776 grain graders.

The numbers of all kinds of machinery and implements, except steam-engines, horse-works, winnowing machines and strippers, were greater in 1916 than in 1911. In the intervening period the increase per cent. was 181 for milking machine plants, 182 for oil engines, 39 for shearing machines, 38 for harvesters, 34 for threshing machines, 33 for cream separators, 32 for cultivators, and 30 for grain drills.

PASTORAL AND DAIRYING INDUSTRIES.

Live stock.

The pastoral and dairying industries have always been important sources of wealth to the State, and their increasing value in recent years, despite the larger areas devoted to cultivation, indicates that both pastures and stock are, on the whole, steadily improving. The progress of stock breeding for 50 years is shown in the next

table, which gives the numbers of horses, milch cows, other cattle, sheep and pigs, and their numbers per head of population and per square mile in each of the last six census years.

LIVE STOCK IN VICTORIA AT SIX CENSUS PERIODS.

Census Year.	Horses (including foals).	Cattle—		Sheep.	Pigs.
		Milch Cows.	Other.		
	Number.	Number.	Number.	Number.	Number.
1861	76,536	197,332	525,000	5,780,896	61,259
1871	209,025	212,193	564,534	10,477,976	180,109
1881	275,516	329,198	957,069	10,360,285	241,936
1891	436,469	395,192	1,387,689	12,692,843	282,457
1901	392,237	521,612	1,080,772	10,841,790	350,370
1911	472,080	668,777	878,792	12,882,665	333,281
	Per Head of Population.				
1861	·14	·37	·97	10·70	·11
1871	·29	·29	·77	14·32	·25
1881	·32	·38	1·11	12·01	·28
1891	·38	·35	1·22	11·13	·25
1901	·33	·43	·90	9·03	·29
1911	·36	·51	·67	9·79	·25
	Per Square Mile.				
1861	·87	2·25	5·97	65·78	·70
1871	2·38	2·41	6·42	119·22	2·05
1881	3·14	3·75	10·89	117·88	2·75
1891	4·97	4·50	15·79	144·43	3·21
1901	4·46	5·94	12·30	123·36	4·00
1911	5·37	7·61	10·00	146·59	3·79

There were more horses and milch cows and fewer sheep per head of population in 1911 than in 1891. The great increase in milch cows since 1891 indicates the growth of the dairying industry which followed the regular and successful transport of Victorian butter to England. By reducing horses and cattle to an equivalent in sheep on the assumption that one of the former will eat as much as ten, and one of the latter as much as six sheep, interesting comparisons of the carrying capacity of the land at different periods may be instituted. Calculations made on this basis show that each square mile carried an equivalent of 306 sheep in 1911 as against 237 in 1881—an increase of 29 per cent. in the carrying capacity of the land in 30 years.

Size of holdings, showing areas cultivated and grazed.

Information relating to land occupied and cultivation and live stock thereon was collected in March, 1913. The land privately owned was summarized according to different-sized holdings, and in the instances where Crown lands were held in conjunction therewith these were, regardless of size, scheduled with the holdings to which they were attached. The particulars are given in the two succeeding tables :—

SIZE OF HOLDINGS SHOWING AREAS UNDER CULTIVATION AND PASTURE, MARCH, 1913.

Size of Holdings. (In Acres.)	Privately-owned Land		Crown Land held in conjunction with that privately owned.	Total Area Occupied.	Area under—	
	Number of Holdings.	Area Occupied.			Cultivation.	Pasture, &c.
		Acres.	Acres.	Acres.	Acres.	Acres.
1 to 5	4,158	12,627	44,966	57,593	3,458	54,135
6 „ 15	5,052	51,293	13,442	64,735	16,894	47,841
16 „ 30	5,259	117,141	58,577	175,718	36,188	139,530
31 „ 50	4,288	175,898	111,784	287,682	50,606	237,076
51 „ 100	7,356	558,534	145,742	704,276	138,352	565,924
101 „ 200	9,891	1,477,244	334,088	1,811,332	329,657	1,481,675
201 „ 300	5,698	1,428,071	428,597	1,856,668	311,947	1,544,721
301 „ 320	2,894	914,365	454,144	1,368,509	233,921	1,134,588
321 „ 400	3,179	1,149,040	351,048	1,500,088	263,975	1,236,113
401 „ 500	3,073	1,390,510	283,553	1,674,063	363,700	1,310,363
501 „ 600	2,451	1,352,613	402,941	1,755,554	362,674	1,392,880
601 „ 640	2,509	1,583,779	154,348	1,738,127	433,671	1,304,456
641 „ 700	1,267	851,486	334,013	1,185,499	207,262	978,237
701 „ 800	1,608	1,210,856	278,910	1,489,766	302,622	1,187,144
801 „ 900	1,135	966,221	224,076	1,190,297	245,126	945,171
901 „ 1,000	1,211	1,158,447	404,668	1,563,115	319,990	1,243,125
1,001 „ 1,500	2,784	3,417,332	1,074,628	4,491,960	875,165	3,616,795
1,501 „ 2,000	1,208	2,091,974	293,421	2,385,395	457,373	1,928,022
2,001 „ 2,500	552	1,239,679	484,480	1,724,159	214,073	1,510,086
2,501 „ 3,000	305	840,565	714,723	1,555,288	119,619	1,435,669
3,001 „ 4,000	348	1,208,523	148,751	1,357,274	163,726	1,193,548
4,001 „ 5,000	167	754,331	222,295	976,626	68,913	907,713
5,001 „ 7,500	185	1,125,383	253,977	1,379,360	71,262	1,308,098
7,501 „ 10,000	82	700,479	88,871	789,350	40,648	748,702
10,001 „ 15,000	78	963,016	391,783	1,354,799	21,926	1,332,873
15,001 „ 20,000	38	646,029	7,460	653,489	7,084	646,405
20,001 „ 30,000	20	494,237	396	494,633	8,747	485,886
30,001 „ 40,000	11	362,726	3,839	366,565	1,023	365,542
40,001 „ 50,000	3	135,558	1,232	136,790	596	136,194
50,001 and upwards ..	1	51,400	..	51,400	230	51,170
Total ..	66,811	28,429,357	7,710,753	36,140,110	5,670,428	30,469,682

Size of holdings and live stock thereon.

The last table shows the areas devoted to cultivation and grazing on different-sized holdings in March, 1913, whilst the next table, which is a supplementary one, gives the numbers of horses, cattle, sheep, and pigs on these holdings at the same date.

SIZE OF HOLDINGS AND LIVE STOCK THEREON, MARCH, 1913.

Size of Holdings. (In Acres.)	Live Stock on Land Occupied.				
	Horses.	Cattle.		Sheep.	Pigs.
		Dairy Cows.	Other Cattle.		
1 to 5	4,633	5,480	4,039	2,808	1,684
6 „ 15	7,343	10,182	6,813	4,424	4,250
16 „ 30	10,500	14,825	10,766	12,697	6,643
31 „ 50	10,831	19,056	13,923	17,652	8,662
51 „ 100	25,605	55,362	38,211	68,230	23,323
101 „ 200	48,133	119,585	87,462	228,752	48,969
201 „ 300	38,494	83,342	70,488	302,428	31,535
301 „ 320	22,265	35,668	35,541	197,667	12,345
321 „ 400	27,441	47,801	48,253	303,947	17,085
401 „ 500	30,435	42,224	49,042	395,625	14,109
501 „ 600	25,791	32,928	41,697	392,867	9,716
601 „ 640	22,835	16,648	26,125	292,312	5,480
641 „ 700	12,719	13,015	20,998	237,750	4,289
701 „ 800	19,358	16,147	27,360	387,856	5,118
801 „ 900	15,935	13,715	25,960	358,213	5,228
901 „ 1,000	18,099	14,164	26,848	436,856	4,198
1,001 „ 1,500	47,940	33,438	77,594	1,427,735	10,206
1,501 „ 2,000	24,208	12,998	38,953	977,380	3,751
2,001 „ 2,500	12,519	7,693	25,304	649,203	2,261
2,501 „ 3,000	6,983	4,332	15,699	515,414	1,351
3,001 „ 4,000	9,616	5,411	19,939	726,481	1,355
4,001 „ 5,000	4,750	2,872	13,590	473,833	507
5,001 „ 7,500	6,776	3,952	29,987	831,290	1,495
7,501 „ 10,000	3,933	1,583	13,167	504,726	258
10,001 „ 15,000	3,611	1,512	17,905	761,201	457
15,001 „ 20,000	1,918	777	8,344	504,279	104
20,001 „ 30,000	1,398	544	4,748	334,753	104
30,001 „ 40,000	1,069	180	5,794	269,172	35
40,001 „ 50,000	278	74	820	116,723	61
50,001 and upwards ..	220	12	250	41,650	3
Total ..	465,636	615,520	805,618	11,773,924	224,582

The figures in the last two tables are exclusive of live stock travelling and those in cities, towns, &c.; also of 1,892 holdings containing 1,078,688 acres of Crown lands not held in conjunction with any private land, on which there were 36,151 acres of cultivation, 5,277 horses, 20,882 cattle, 84,737 sheep, and 3,901 pigs. The position disclosed was that 61,029 persons holding up to 1,000 acres each of private land occupied in the aggregate 14,398,125 acres of such land, as well as 4,024,897 acres of Crown land—a total of 18,423,022 acres, or 51 per

cent. of the total area in occupation. These occupiers controlled 64 per cent. of the total cultivation, and 49 per cent. of the pasture, and possessed 73 per cent. of the horses, 88 per cent. of the dairy cows, 66 per cent. of the other cattle, 90 per cent. of the pigs, and 31 per cent. of the sheep.

Size of holdings in 1910 and 1913. Particulars of land occupied and cultivation thereon are given in the following table for the years 1910 and 1913:—

SIZE OF HOLDINGS AND CULTIVATION THEREON.

Size of Holdings. (In acres.)	Year	Privately-owned Land. Number of Holdings.	Privately-owned Land. Area Occupied.	Crown Land held in conjunction with that privately owned.	Total Area Occupied.	Area under— Cultivation.	Area under— Pasture, &c.
			Acres.	Acres.	Acres.	Acres.	Acres.
1 to 100	1910	23,305	836,826	442,413	1,279,239	228,227	1,051,012
	1913	26,113	915,493	374,511	1,290,004	245,498	1,044,506
101 „ 320	1910	17,583	3,686,498	1,209,660	4,896,158	839,664	4,056,494
	1913	18,483	3,819,680	1,216,829	5,036,509	875,525	4,160,984
321 „ 640	1910	9,676	4,623,839	1,900,058	6,523,897	1,182,254	5,341,643
	1913	11,212	5,475,942	1,191,890	6,667,832	1,424,020	5,243,812
641 „ 1,000	1910	4,354	3,553,261	1,800,551	5,353,812	863,080	4,490,732
	1913	5,221	4,187,010	1,241,667	5,428,677	1,075,000	4,353,677
1,001 „ 2,500	1910	4,159	6,178,744	2,464,135	8,642,879	1,254,392	7,388,487
	1913	4,544	6,748,985	1,852,529	8,601,514	1,546,611	7,054,903
2,501 „ 5,000	1910	749	2,571,444	1,348,979	3,920,423	298,146	3,622,277
	1913	820	2,803,419	1,085,769	3,889,188	352,258	3,536,930
5,001 „ 10,000	1910	239	1,651,979	1,397,984	3,049,963	85,379	2,964,584
	1913	267	1,825,862	342,848	2,168,710	111,910	2,056,800
10,001 and upwards	1910	175	3,298,227	145,420	3,443,647	45,770	3,397,877
	1913	151	2,652,966	404,710	3,057,676	39,606	3,018,070
Total	1910	60,240	26,400,818	10,709,200	37,110,018	4,796,912	32,313,106
	1913	66,811	28,429,357	7,710,753	36,140,110	5,670,428	30,469,682

The influence of legislation and the growing demand for land are evidenced by the steady decline from year to year in the number and the aggregate acreage of the largest sized privately owned holdings. The number of holdings of over 10,000 acres was 195 in 1906, 175 in 1910, and 151 in 1913, and the aggregate areas comprised therein were 4,134,067 acres, 3,298,227 acres, and 2,652,966 acres in the corresponding years. The reduction was equivalent to 22·6 per cent. in the number and 35·8 per cent. in the acreage of such estates during the seven years ended March, 1913. In all other holdings of the sizes mentioned in the above table there were increases in both numbers and acreage in the seven years referred to.

Size of holdings and how they were utilized, 1910 and 1913.

To illustrate the uses to which the land was applied in 1910 and 1913, various percentages relating to holdings of different sizes are given for those years in the succeeding table, which also shows the live stock carried by the holdings, reduced to their equivalent in sheep :—

SIZE OF HOLDINGS AND HOW UTILIZED, 1910 AND 1913.

Size of Holdings of Private Land. (In Acres.)	Year.	Percentage in each Division to Total of—				Live Stock Grazed reduced to equivalent in Sheep.	
		Area Occupied.	Area under Cultivation.	Area used for Pasture, &c.	Equivalent in Sheep Grazed.	Total.	Per Acre used for Grazing, &c.
1 to 100	1910	3·45	4·76	3·25	6·28	1,586,653	1·51
	1913	3·57	4·33	3·43	7·08	1,766,873	1·69
101 „ 320	1910	13·19	17·50	12·55	17·50	4,415,168	1·09
	1913	13·94	15·44	13·66	17·67	4,410,283	1·06
321 „ 640	1910	17·58	24·65	16·53	17·00	4,290,653	·80
	1913	18·45	25·12	17·21	17·14	4,278,079	·82
641 „ 1,000	1910	14·42	17·99	13·90	12·18	3,075,406	·68
	1913	15·02	18·95	14·29	12·15	3,031,015	·70
1,001 „ 2,500	1910	23·29	26·15	22·87	20·10	5,074,837	·69
	1913	23·80	27·27	23·15	20·34	5,076,868	·72
2,501 „ 5,000	1910	10·57	6·22	11·21	8·81	2,224,312	·61
	1913	10·76	6·22	11·61	9·22	2,300,276	·65
5,001 „ 10,000	1910	8·22	1·78	9·17	6·29	1,589,021	·54
	1913	6·00	1·98	6·75	6·95	1,735,240	·84
10,001 and upwards	1910	9·28	·95	10·52	11·84	2,989,460	·88
	1913	8·46	·69	9·90	9·45	2,358,478	·78
Total	1910	100·00	100·00	100·00	100·00	25,245,510	·78
	1913	100·00	100·00	100·00	100·00	24,957,112	·82

Horses and cattle have been reduced to an equivalent in sheep on the assumption that one head of the former will eat as much as ten, and one of the latter as much as six sheep. From this return it will be seen that, in 1913, 51 per cent. of the land occupied was in areas not exceeding 1,000 acres, and, while this portion furnished 64 per cent. of the cultivation, it contained nearly 49 per cent. of the total area under pasture, and supported 54 per cent. of the grazing stock. Dairying was carried on principally in the small holdings and pigs were most numerous where dairying prevailed. Nearly 56 per cent. of the dairy cows and about 61 per cent. of the pigs were on holdings of not more than 320 acres. The sheep-carrying capacity per acre of the total grazing area in 1913 was slightly in excess of that for 1910. The proportionate decrease of pastoral areas in estates of from 5,001 to 10,000 acres between the years mentioned is very noticeable, especially as it was accompanied by an increase in the number of live stock grazed.

Land occupied in different districts.

The following tables show the land in occupation in March, 1916, in districts, and the uses to which the land was applied :—

LAND IN OCCUPATION IN EACH DISTRICT OF VICTORIA, MARCH, 1916.

(Areas of 1 acre and upwards.)

District.	Number of Occupiers.	Acres Occupied.				
		For Agricultural Purposes.	For Pasture.		Other Purposes and Unproductive.	Total.
			Sown Grasses, Clover, or Lucerne.	Natural Grasses.		
Central ...	17,207	519,762	178,269	2,050,472	106,782	2,855,285
North-Central	5,985	176,772	28,932	1,781,400	94,627	2,081,731
Western ...	11,806	507,850	172,694	5,803,079	274,398	6,758,021
Wimmera ...	6,390	1,794,589	83,696	4,020,156	89,091	5,987,532
Mallee ...	5,628	1,777,010	3,052	3,206,835	846,730	5,833,627
Northern ...	11,985	1,915,119	38,979	3,302,065	37,390	5,293,553
North-Eastern	5,298	211,302	7,362	3,648,675	253,330	4,120,669
Gippsland ...	8,705	167,204	670,011	3,706,193	766,106	5,309,514
Total ...	73,004	7,069,608	1,182,995	27,518,875	2,468,454	38,239,932
		Percentage of Total Occupied in each District.				
Central ...	...	18·20	6·24	71·82	3·74	100·00
North-Central	...	8·49	1·39	85·57	4·55	100·00
Western ...	...	7·51	2·56	85·87	4·06	100·00
Wimmera ...	...	29·97	1·40	67·14	1·49	100·00
Mallee ...	...	30·46	·05	54·97	14·52	100·00
Northern ...	. .	36·18	·73	62·38	·71	100·00
North-Eastern	...	5·12	·18	88·55	6·15	100·00
Gippsland ...	...	3·15	12·62	69·80	14·43	100·00
Total ...	...	18·49	3·09	71·97	6·45	100·00
		Percentage in each District of Total in State.				
Central ...	23·57	7·35	15·07	7·45	4·33	7·47
North-Central	8·20	2·51	2·44	6·47	3·84	5·44
Western ...	16·17	7·18	14·60	21·09	11·11	17·67
Wimmera ...	8·75	25·38	7·07	14·61	3·61	15·66
Mallee ...	7·71	25·14	·25	11·65	34·30	15·26
Northern ...	16·42	27·09	3·29	12·00	1·52	13·85
North-Eastern	7·26	2·99	·62	13·26	10·26	10·77
Gippsland ...	11·92	2·36	56·66	13·47	31·03	13·88
Total ...	100·00	100·00	100·00	100·00	100·00	100·00

It will be seen from these tables that the greatest area under cultivation and the greatest proportion of cultivation to land occupied are found in the Northern, Wimmera and Mallee districts. About 36 per cent. of the land occupied in the Northern and about 30 per cent. of that occupied in the Wimmera and Mallee districts are devoted to agriculture, and these divisions supply 78 per cent. of the cultivation in

Victoria. In the North-Central, Western, and North-Eastern districts the land occupied is largely devoted to grazing; and in Gippsland considerable attention has been given to the cultivation of grasses, 57 per cent. of all the sown grasses in the State being found in that district.

Areas occupied and stock thereon, in districts.

The next table contains particulars of the distribution of horses, cattle, and sheep on agricultural and pastoral lands in March, 1916.

AREA OCCUPIED AND STOCK THEREON, 1916.

District.	Acres Occupied for—		Number of—		
	Agriculture.	Pasture.	Horses.	Cattle.	Sheep.
Central	519,762	2,228,741	105,705	186,120	1,009,687
North-Central ...	176,772	1,810,332	27,830	61,484	940,711
Western	507,850	5,975,773	71,498	244,502	3,482,636
Wimmera ...	1,794,589	4,103,852	64,867	35,473	1,466,544
Mallee	1,777,010	3,209,887	43,236	20,975	347,350
Northern ...	1,915,119	3,341,044	93,278	108,086	1,470,653
North-Eastern ...	211,302	3,656,037	36,750	122,400	772,422
Gippsland ...	167,204	4,376,204	50,615	264,564	1,055,629
Total ...	7,069,608	28,701,870	493,779	1,043,604	10,545,632

The area occupied does not include 2,468,454 acres which are mostly in an unproductive state. Compared with 1915, horses decreased by 58,274, or 10·6 per cent., cattle by 318,938, or 23·4 per cent., and sheep by 1,506,053, or 12·5 per cent.

Live stock in Victoria, 1912 to 1916.

The following return shows the live stock in Victoria in each of the last five years. Tables showing the stock classified in conjunction with holdings and sheep further classified in different sized flocks in March, 1913, are given on pages 747 and 760 :—

LIVE STOCK IN VICTORIA, 1912 TO 1916.

Live Stock.	1912.	1913.	1914.	1915.	1916.
Horses (including foals) ...	507,813	530,494	562,331	552,053	493,779
Cattle—					
Dairy Cows ...	699,555	655,939	656,080	610,517	451,088
Other (including calves) ...	947,572	852,150	872,473	752,025	592,516
Sheep	13,857,804	11,892,224	12,113,682	12,051,685	10,545,632
Pigs	348,069	240,072	221,277	243,196	192,002

The numbers of all classes of live stock were smaller in March, 1916, than in the preceding year.

Prices of Live stock.

In the subjoined table will be found a statement of the average and the range of prices ruling in Melbourne during the years 1914 and 1915 for live stock. The information has been extracted from the Melbourne *Stock and Station Journal* :—

PRICES IN MELBOURNE OF LIVE STOCK, 1914 AND 1915.

Stock.	Prices in 1914.						Prices in 1915.					
	Average.			Range.			Average.			Range.		
	£ s. d.			£ s. d.			£ s. d.			£ s. d.		
Horses.												
Extra heavy draught ..	43 7 6			29 0 0	to	50 10 0	39 17 6			28 0 0	to	50 0 0
Medium draught ..	26 7 6			16 0 0	to	35 10 0	30 17 6			21 0 0	to	36 0 0
Delivery Cart	20 15 0			15 0 0	to	27 0 0	24 0 0			19 0 0	to	28 10 0
Indian Remounts ..	22 12 6			20 0 0	to	23 10 0	22 15 0			21 10 0	to	26 0 0
Saddle and Harness ..	10 7 6			6 0 0	to	13 0 0	10 2 6			8 0 0	to	12 0 0
Ponies	18 7 6			12 0 0	to	22 10 0	11 15 0			9 0 0	to	15 0 0
Fat Cattle.												
Bullocks—												
Extra Prime.. ..	15 18 0			12 13 0	to	18 10 0	24 15 0			15 15 0	to	37 12 0
Prime	14 3 0			10 12 0	to	16 2 0	21 14 0			14 15 0	to	31 12 0
Good	12 1 0			9 7 0	to	14 0 0	17 18 0			12 11 0	to	24 17 0
Good Light and Handy Weights	10 7 0			8 0 0	to	12 8 0	15 9 0			10 10 0	to	20 15 0
Second	8 2 0			6 15 0	to	9 8 0	10 7 0			8 0 0	to	14 11 0
Cows—												
Best	9 15 0			7 15 0	to	11 14 0	15 3 0			9 16 0	to	22 10 0
Others	8 0 0			5 10 0	to	9 6 0	11 11 0			7 15 0	to	17 15 0
Dairy Cattle.												
Best Milkers	9 19 0			9 0 0	to	11 2 0	12 16 0			9 0 0	to	15 5 0
Springers, best ..	7 13 0			6 0 0	to	9 0 0	10 2 0			6 0 0	to	13 0 0
Fat Sheep.												
Wethers (cross)—												
Extra Prime.. ..	1 4 10			0 16 3	to	1 12 3	1 16 1			1 1 6	to	2 15 3
Prime	1 1 6			0 14 3	to	1 6 6	1 9 5			0 18 3	to	2 4 0
Good	0 18 3			0 12 1	to	1 2 6	1 2 9			0 14 0	to	1 12 4
Ewes (cross)—												
Extra Prime ..	1 2 3			0 15 8	to	1 10 1	1 14 4			0 19 3	to	2 16 0
Prime	0 19 3			0 13 4	to	1 4 6	1 8 2			0 16 4	to	2 3 0
Good	0 16 1			0 10 6	to	1 0 9	1 1 9			0 11 9	to	1 12 7
Wethers (merino)—												
Extra Prime.. ..	..			..		..	1 9 2			0 17 6	to	2 8 4
Prime	0 18 11			0 11 9	to	1 4 6	1 4 1			0 14 6	to	1 16 6
Good	0 15 6			0 8 9	to	1 0 3	0 19 2			0 10 9	to	1 9 0
Ewes (merino) best ..	0 12 9			0 7 9	to	0 17 0	0 19 7			0 10 4	to	1 10 3
Fat Lambs.												
Extra Prime	0 18 3			0 14 10	to	1 3 0	1 5 11			0 16 3	to	1 18 1
Prime	0 15 5			0 12 0	to	0 18 3	1 1 6			0 14 0	to	1 11 1
Good	0 12 4			0 9 0	to	0 14 6	0 17 3			0 11 0	to	1 4 9
Second	0 9 10			0 6 0	to	0 12 0	0 14 1			0 8 1	to	1 0 10
Pigs.												
Back Fatters—												
Extra Heavy Prime ..	6 12 0			4 15 0	to	7 11 0	8 12 0			6 0 0	to	13 0 0
Extra Prime and Weighty	4 12 0			3 12 0	to	5 7 0	4 15 0			3 8 0	to	9 0 0
Baconers—												
Extra Prime.. ..	3 18 0			3 10 0	to	4 9 0	4 12 0			3 4 0	to	5 17 0
Prime	3 8 0			2 16 0	to	3 18 0	3 15 0			2 5 0	to	5 0 0
Porkers	2 1 0			1 11 0	to	2 9 0	2 7 0			1 12 0	to	3 4 0
Stores	1 11 0			1 5 0	to	1 16 0	1 11 0			1 3 0	to	1 19 0
Slips and Suckers ..	0 17 0			0 11 0	to	1 2 0	0 16 0			0 11 0	to	1 0 0

The heavy losses in stock during the drought of 1914 necessitated a replenishment of the herds, and the strong demand thus created largely accounted for the exceptionally high prices shown in the above table. The range of prices indicates not only fluctuations in value during each year, but also unevenness in the quality of all classes of stock.

Stock Slaughtered. The following is a statement of the stock slaughtered on farms and stations, as well as in municipal abattoirs, during each of the last ten years :—

STOCK SLAUGHTERED : 1906 TO 1915.

Year.	Number Slaughtered.		
	Sheep and Lambs.	Cattle.	Pigs.
1906	2,826,144	261,034	274,391
1907	3,226,141	289,709	257,695
1908	3,309,865	279,710	225,162
1909	3,708,512	287,548	210,613
1910	4,245,881	319,665	257,287
1911	4,348,363	347,926	345,547
1912	4,153,269	368,512	331,364
1913	4,742,231	410,694	286,931
1914	4,550,272	470,011	260,017
1915	2,973,803	356,174	216,003

The purposes for which the slaughtered animals were used were as follows:—

PURPOSES FOR WHICH STOCK WERE SLAUGHTERED : 1906 TO 1915.

Year.	For Butcher and Private Use.			For Freezing.			For Preserving and Salting.			For Boiling Down.		
	Sheep.	Cattle.	Pigs.	Sheep.	Cattle.	Pigs.	Sheep.	Cattle.	Pigs.	Sheep.	Cattle.	Pigs.
1906	2,170,581	251,004	96,618	651,914	8,009	2,580	2,522	1,476	175,120	1,127	545	73
1907	2,255,308	282,403	81,116	866,498	2,805	1,585	11,760	3,141	174,970	92,575	1,360	24
1908	2,480,072	260,529	71,309	773,396	15,789	2,296	10,775	2,015	151,478	45,622	1,377	79
1909	2,718,344	276,759	67,117	941,309	7,399	225	10,962	2,235	143,206	37,897	1,155	65
1910	2,592,514	302,282	91,850	1,573,516	13,009	1,557	41,420	3,624	163,844	38,431	750	36
1911	2,678,517	321,251	134,546	1,578,132	17,354	1,609	69,486	7,640	209,177	22,228	1,681	215
1912	2,610,665	344,706	148,394	1,409,243	10,793	3,120	104472	10,129	179,717	28,889	2,884	133
1913	2,587,895	355,868	107,089	2,107,180	36,692	..	41,034	15,383	179,710	6,122	2,751	132
1914	2,783,802	385,548	76,464	1,710,152	64,838	1,713	34,141	15,276	181,756	22,177	4,349	84
1915	2,910,848	338,475	86,580	47,546	175	..	9,762	12,082	129,259	5,647	5,442	164

The increase which took place in the number of sheep and lambs slaughtered for freezing, until it was checked by a drought in 1914, shows the growing importance of the frozen meat trade of the State. Of the 4,742,231 sheep and lambs slaughtered in Victoria in 1913, 2,107,180, or 44 per cent., were frozen, as compared with 651,914, or 23 per cent., in 1906. In 1914-15 the oversea exports included 34,322,271 lbs. of lamb and 31,093,023 lbs. of mutton, valued at £690,676 and £557,409 respectively, all of which, excepting about 1½ per cent., was sent to the United Kingdom.

Mutton and Lamb frozen for Export. The soil and climate of Victoria are well suited to the economical production of both mutton and lamb, and properly selected breeds of sheep are profitable, not only as

meat, but also as wool producers. The climate permits of flocks being kept on open pasture all the year round, and there are certain districts where, in consequence of the exceptionally mild conditions prevailing, the industry can be carried on with absolute success.

As there is practically no limit to the demand for mutton and lamb in Europe, the possibilities for those engaged in raising sheep for export are very great, especially as the number of sheep in the world is not keeping pace with the increase in population. The importance of this export trade to Victorian sheep owners is evidenced by the figures in the appended statement showing the numbers of carcasses frozen for export in 1894, a few years after the inception of the trade, and in each of the past five years :—

MUTTON AND LAMB FROZEN FOR EXPORT.

Year.	Number of Carcasses frozen for Export.		
	Mutton.	Lamb.	Total.
1894	250,000	..	250,000
1911	624,940	953,192	1,578,132
1912	566,541	842,702	1,409,243
1913	948,162	1,159,018	2,107,180
1914	653,329	1,056,823	1,710,152
1915	..	47,546	47,546

Dairying. The dairying industry is one of the principal sources of the wealth of the community and, judging by the steadily increasing number of dairy farmers, it is becoming more general throughout the State. The following table shows the numbers of cowkeepers and cows, the total production of butter and cheese, and the number of cream separators in use for each of the last ten years :—

DAIRYING, 1906 TO 1915.

Year.	Number of Cow-keepers.	Number of Dairy Cows at end of Year.	Butter Made.	Cheese Made.	Number of Cream Separators in use.
			lbs.	lbs.	
1906	47,741	701,309	68,088,168	4,877,593	19,446
1907	49,406	709,279	63,746,354	4,397,909	20,599
1908	49,158	609,166	48,461,398	4,328,644	22,395
1909	50,870	625,063	55,166,555	5,025,834	24,358
1910	52,610	668,777	70,603,787	4,530,893	27,307
1911	53,319	699,555	86,500,474	4,549,843	30,891
1912	54,447	655,939	67,655,834	4,176,778	32,561
1913	55,423	656,080	73,381,567	4,856,321	34,733
1914	55,553	610,517	62,421,288	4,395,502	35,187
1915	53,381	451,088	42,345,113	3,497,278	36,349

The reduction in the figures relating to 1915 is due to a severe drought which occurred in the preceding year.

Butter and cheese made on farms.

The next table shows the quantities of butter and cheese made on farms in each of the past ten years:—

BUTTER AND CHEESE MADE ON FARMS.

Year.	Butter.	Cheese.
	lbs.	lbs.
1906	4,856,946	2,024,906
1907	4,696,123	1,705,952
1908	4,078,230	1,854,962
1909	5,611,927	1,857,879
1910	5,540,271	1,823,263
1911	5,233,355	1,502,582
1912	5,428,690	2,004,865
1913	5,679,670	2,008,370
1914	4,845,529	1,722,506
1915	4,750,866	1,367,243

Butter and cheese made in factories.

Of the total butter and cheese produced in 1915, 89 per cent. of the former and nearly 61 per cent. of the latter were made in butter and cheese factories. The quantities of butter, cheese, and concentrated, condensed, &c., milk made, and of cream sold, in these factories during each of the last ten years were as follows:—

BUTTER, CHEESE, ETC., MADE IN FACTORIES, 1906 TO 1915.

Year.	Butter Made.	Cream Sold.	Cheese Made.	Concentrated, Condensed, &c., Milk Made.
	lbs.	gallons.	lbs.	lbs.
1906 ...	63,231,222	20,332	2,852,687	3,709,656
1907 ...	59,050,231	25,442	2,691,957	4,684,656
1908 ...	44,383,168	17,527	2,473,682	3,781,548
1909 ...	49,554,628	19,417	3,167,955	3,894,859
1910 ...	65,063,516	29,910	2,707,630	3,004,842
1911 ...	81,267,119	34,028	3,047,261	13,697,691
1912 ...	62,227,144	41,952	2,171,913	18,456,094
1913 ...	67,701,897	45,762	2,847,951	21,479,263
1914 ...	57,575,759	54,388	2,672,996	19,093,750
1915 ...	37,594,247	27,934	2,130,035	16,690,426

The quantity of milk received at factories and creameries was 137,866,515 gallons in 1907, 104,980,863 gallons in 1908, 116,034,058 gallons in 1909, 149,490,103 gallons in 1910, 191,128,362 gallons in 1911, 150,079,730 gallons in 1912, 166,339,178 gallons in 1913, 144,317,040 gallons in 1914, and 93,846,750 gallons in 1915.

Exports of butter and cheese.

In 1915-16 there were exported from Victoria to countries outside Australia 11,417,311 lbs. of butter, valued at £719,653, practically all of which was Australian produce. Of this export, a quantity representing nearly 73 per cent. of the value was

sent to the United Kingdom. The quantity of cheese exported to oversea countries was 16,227 lbs., and the value thereof £766.

Wool production. Information relating to the wool clip is obtained direct from the growers, and an allowance is made for the wool on Victorian skins, both stripped and exported. On this basis the production of wool in 1915–16 and earlier seasons was as follows:—

VICTORIAN WOOL CLIP AND ESTIMATED TOTAL PRODUCTION FOR THE SEASON, 1915–16.

Districts.		Wool Clip, 1915–16.		
		Sheep.	Lambs.	Total.
		lbs.	lbs.	lbs.
Central		5,173,300	426,825	5,600,125
North-Central		4,946,268	381,203	5,327,471
Western		20,070,743	1,197,192	21,267,935
Wimmera		8,430,378	338,643	8,769,021
Mallee		1,858,038	81,908	1,939,946
Northern		7,050,766	402,668	7,453,434
North-Eastern		3,565,376	280,429	3,845,805
Gippsland		4,706,324	616,387	5,322,711
Total Clip	1915–16	55,801,193	3,725,255	59,526,448
	1914–15	65,005,305	5,085,597	70,090,902
	1913–14	74,157,932	5,868,688	80,026,620
	1912–13	65,666,190	4,170,780	69,836,970
	1911–12	81,902,229	6,504,990	88,407,219
	1910–11	73,959,226	6,115,044	80,074,270
	1909–10	71,006,003	5,673,606	76,679,609
	1908–9	65,289,108	3,641,093	68,930,201
	1907–8	72,542,779	6,577,194	79,119,973
	1906–7	67,943,784	6,739,416	74,683,200

—	1912-13.	1913-14.	1914-15.	1915-16.
	lbs.	lbs.	lbs.	lbs.
Wool clip	69,836,970	80,026,620	70,090,902	59,526,448
Wool stripped from Victorian skins (estimated)	18,925,642	26,807,070	25,315,965	22,803,750
Wool on Victorian skins exported (estimated) ...				
Total production ...	88,762,612	106,833,690	95,406,867	82,330,198
Total value ...	£3,751,083	£4,032,954	£3,410,913	£4,066,003

The wool produced last season was nearly 14 per cent. less than in the previous season. This result was wholly due to a large number of sheep having been lost as the result of a drought in 1914.

Weight of a fleece.

The next table shows the production of wool per sheep and per lamb shorn for each of the last eight years :—

WEIGHT OF A FLEECE, 1903 TO 1915.

Year.	Weight of a Fleece.		
	Sheep.	Lambs.	Sheep and Lambs combined.
	lbs.	lbs.	lbs.
1908	5·98	2·11	5·45
1909	6·70	2·29	5·86
1910	6·99	2·50	6·15
1911	7·28	2·33	6·29
1912	6·31	2·20	5·68
1913	7·50	2·35	6·46
1914	6·37	2·16	5·58
1915	6·44	2·31	5.79

The average wool clips for sheep and lambs in 1915 were ·07 lb. and ·15 lb. respectively heavier than the averages for the previous year.

The production of wool in Victoria, the quantity and value of that used locally for manufacturing purposes and the balance available for export in each of the last nine years were as follows :—

WOOL PRODUCTION: HOME CONSUMPTION AND EXPORTABLE BALANCE, 1907 TO 1915.

Year.	Production.		Used in Manufactures.		Available for Export.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	£
1907	93,082,341	3,878,431	5,600,873	199,403	87,481,468	3,679,028
1908	87,536,450	3,556.168	5,470,740	190,197	82.065.710	3,365,971
1909	95,332,829	4,044,755	5,239,806	180,036	90,093,023	3,864,719
1910	101,803,644	4,318,100	5,309,730	186,648	96,493,914	4,131,452
1911	110,463,041	4,142,747	5,774,870	228,920	104,688,171	3,913,827
1912	88,762,612	3,751,083	5,535,483	247,943	83,227,129	3,503,140
1913	106,833,690	4,032,954	5,917,410	240,395	100,916,280	3,792,559
1914	95,406,867	3,410,913	6,118,450	254,935	89,288,417	3,155,978
1915	82,330,198	4,066,003	11,052,250	460,510	71,277,948	3,605,493

Prices of wool.

The following information as to the average prices of wool per lb. prevailing during the past three seasons has been obtained from Melbourne wool brokers :—

PRICES OF WOOL, 1913–14 TO 1915–16.

Class of Wool.	Average Price per lb. in—		
	1913–14.	1914–15.	1915–16.
GREASY MERINO.			
Extra Super (Western District)	15d. to 20½d.	17½d. to 18¾d.	23d. to 24¾d.
Super	14d. to 14½d.	16d. to 17d.	20d. to 22d.
Good	12½d. to 13½d.	12d. to 13½d.	14d. to 16d.
Average	12d. to 13d.	11d. to 12d.	12d. to 13d.
Wasty and Inferior	8d. to 9d.	6½d. to 8d.	7d. to 9d.
Extra Super Lambs	24d. to 29½d.	16d. to 17¾d	18d. to 20d.
Super Lambs	20d. to 24d.	13d. to 15d.	15d. to 17d.
Good Lambs	15d. to 18d.	11d. to 12½d.	12d. to 14d.
Average Lambs	10d. to 12d.	8d. to 10d.	9d. to 11d.
Inferior Lambs	5d. to 7d.	4d. to 6d.	5d. to 7d.
GREASY CROSSBRED.			
Extra Super Comebacks	14d. to 15½d.	16d. to 17d.	22d. to 24d.
Super Comebacks	13d. to 14½d.	15d. to 16d.	20d. to 23d.
Fine Crossbred	12d. to 13d.	13d. to 14d.	17d. to 18d.
Medium Crossbred	9½d. to 10½d.	12d. to 13d.	14d. to 16d.
Coarse Crossbred and Lincoln	8d. to 9d.	12d. to 13d.	13d. to 15d.
Super Fine Crossbred Lambs	13d. to 15d.	12d. to 14½d.	15d. to 19d.
Good Crossbred Lambs	11d. to 13d.	10d. to 11d.	11d. to 12d.
Coarse and Lincoln Lambs	10d. to 11d.	8d. to 9d.	9d. to 10d.
SCOURED.			
Extra Super Fleece	23d. to 25d.	25d. to 26¼d.	31d. to 34d.
Super Fleece	21d. to 22½d.	23d. to 24d.	27d. to 30d.
Good Fleece	19d. to 20½d.	22d. to 23d.	22d. to 26d.
Average Fleece	18d. to 19d.	19d. to 20d.	20d. to 22d.
RECORD PRICES FOR THE SEASON.			
Greasy Merino Fleece	20½d.	18¾d.	24¾d.
" Comeback Fleece	15½d.	17d.	24d.
" Merino Lambs	29½d.	17¾d.	20d.
" Comeback Lambs	15d.	14½d.	19½d.
Scoured Fleece	25d.	26¼d.	38¼d.

The most striking feature of the figures for 1914–15 and 1915–16 was the increased price for crossbred wool, owing to its being more suitable than finer wool for the manufacture of khaki for the army.

Flocks of sheep.

Returns which were collected in March, 1913, gave full information in regard to the flocks of sheep in Victoria. The numbers of flocks and of sheep at that time in the different districts were as follows :—

NUMBERS OF FLOCKS AND OF SHEEP IN DISTRICTS, 1913.

District.	Number of—		Average Number of Sheep to a Flock.	Percentage of—	
	Flocks.	Sheep.		Flocks.	Sheep.
Central	2,489	1,027,426	413	10·02	8·66
North-Central ..	2,077	925,271	445	8·36	7·80
Western	5,574	4,201,708	754	22·45	35·43
Wimmera	4,031	1,927,837	478	16·23	16·26
Mallee	1,358	565,135	416	5·47	4·77
Northern	4,724	1,512,729	320	19·02	12·76
North-Eastern ..	2,148	693,881	323	8·65	5·85
Gippsland	2,433	1,004,674	413	9·80	8·47
Total	24,834	11,858,661	478	100·00	100·00

The figures do not include 33,563 sheep which were travelling on roads or were located in cities and towns. There were some very large-sized flocks in the Western District, and, as a consequence, it contained 35½ per cent. of the total sheep in the State, though it possessed only 22½ per cent. of the total flocks. In the Central, North-Eastern, and Gippsland districts, which contained 28½ per cent. of the flocks, but only 23 per cent. of the sheep, there was a much better distribution, and also evidence that the raising of lambs and the production of wool were combined more with cultivation than in other districts of the State. The average number of sheep to a flock was 478 in 1913, as compared with 531 in 1910, 642 in 1908, and 706 in 1906. The number of flocks increased from 16,067 in 1906 to 24,834 in 1913, there being a larger number in each division of the State. During the seven years the flocks increased by 871 in the Central, 740 in the North-Central, 2,011 in the Western, 764 in the Wimmera, 807 in the Mallee, 1,504 in the Northern, 882 in the North-Eastern, and 1,188 in the Gippsland District. In that period the total number of sheep increased by 518,529, the principal increases being in the Gippsland and Mallee Districts. The decrease in the average size of flocks, combined with the increase in the number of sheep, was evidence of the growing popularity of sheep-farming.

Sizes of Flocks.

Excluding sheep travelling and those in cities and towns, the following table contains a classification for the whole State of sheep according to sizes of flocks :—

SHEEP ACCORDING TO SIZES OF FLOCKS, 1913.

Size of Flocks.	Number of—		Percentage of—	
	Flocks.	Sheep.	Flocks.	Sheep.
Under 500	19,582	2,692,122	78·85	22·70
500 to 1,000 ..	3,016	2,098,348	12·14	17·70
1,001 „ 2,000 ..	1,302	1,844,901	5·24	15·56
2,001 „ 3,000 ..	358	890,989	1·44	7·51
3,001 „ 5,000 ..	270	1,057,673	1·09	8·92
5,001 „ 7,000 ..	102	608,199	·41	5·13
7,001 „ 10,000 ..	89	747,315	·36	6·30
10,001 „ 15,000 ..	61	753,801	·25	6·36
15,001 „ 20,000 ..	29	497,143	·12	4·19
Over 20,000	25	668,170	·10	5·63
Total	24,834	11,858,661	100·00	100·00

A comparison of the above figures with those for 1910 and earlier years shows that the number of large sheep-owners had substantially declined, while the number of those owning the smallest-sized flocks had very greatly increased. Flocks of 20,000 and over numbered 25 in 1913, as against 37 in 1910, 52 in 1908, and 56 in 1906. Flocks of 15,000 to 20,000 numbered 29 in 1913, 35 in 1910, 39 in 1908, and 50 in 1906. Flocks of less than 500 were 19,582 in 1913, as compared with 18,589 in 1910, 15,797 in 1908, and 11,647 in 1906. From these figures it will be seen that, while flocks of over 15,000 decreased by 48 per cent., those of less than 500 increased by 68 per cent. during the seven years 1906 to 1913. Owners of more than 15,000 sheep possessed 9·8 per cent. of the sheep in the State in 1913, as against 22·5 in 1906. On the other hand, owners of less than 500 sheep possessed 22·7 per cent. of the total sheep in 1913, as compared with 15·1 per cent. in 1906. Twenty of the 25 largest and 23 of the 29 second largest flocks in 1913 were in the Western District.

Breed of sheep.

The numbers of sheep of different breeds in Victoria in March, 1916, have been estimated as follows:—

SHEEP ACCORDING TO BREED, MARCH, 1916.

Breed of Sheep.	Number.
Merino	3,800,000
Comeback	2,420,000
Crossbred, coarse	1,370,000
,, Shropshire and Southdown	1,270,000
Lincoln	740,000
Shropshire	420,000
Other	525,632
Total	10,545,632

Live stock in Australia and New Zealand.

In the following statement are given the numbers of horses, cattle, sheep and pigs in the various Australian States and New Zealand, according to returns dated March, 1916, in the cases of Victoria and Tasmania; December, 1915, in the cases of Queensland, South Australia, and Western Australia; and June, 1915, in the case of New South Wales. The returns for the Northern Territory are for December, 1912, and those for New Zealand relate to April, 1916, in the case of sheep, and to January, 1916, for other stock.

LIVE STOCK IN AUSTRALASIA, 1915.

State, etc.	Horses.	Cattle.		Sheep.	Pigs.
		Milch Cows.	Other.		
Victoria	493,779	451,088	592,516	10,545,632	192,002
New South Wales ..	733,341	426,173	2,051,419	33,009,038	286,704
Queensland ..	686,871	335,243	4,445,650	15,950,154	117,787
South Australia ..	253,333	78,515	148,050	3,674,547	66,237
The Northern Territory	18,382	..	405,552*	75,808	1,500
Western Australia ..	163,016	28,342	792,706	4,803,850	58,231
Tasmania ..	41,423	..	169,575*	1,624,450	37,778
New Zealand ..	347,345	734,506	1,656,325	24,788,150	288,231

* Including milch cows.

In 1915, as compared with the preceding year, the number of cattle had decreased in each State, the number of horses had decreased in all States except New South Wales and Western Australia, and the number of sheep had decreased in all States except Western Australia. Live stock, in proportion to area, are most numerous in New Zealand, which possesses horses, cattle, and sheep equal to about 411 sheep to the square mile; Victoria comes next with 247; then

follow New South Wales with 178; Tasmania with 117; Queensland with 77; South Australia with 20; and Western Australia with 12; after which comes the Northern Territory with stock equivalent to 5 sheep to the square mile.

Horses, cattle, sheep and pigs in the world.

The estimated numbers of horses, cattle, sheep and pigs in the world are given in the next table. The figures, except those for Australia and New Zealand, are taken from the Year-Book of the United States' Department of Agriculture :—

HORSES, CATTLE, SHEEP, AND PIGS IN THE WORLD, 1915.

Country.	Horses.	Cattle.	Sheep.	Pigs.
United Kingdom ..	1,851,000	12,185,000	27,964,000	3,953,000
France	2,227,000	12,287,000	13,483,000	5,491,000
Russia (European) ..	23,860,000	34,547,000	42,736,000	11,945,000
Italy	956,000	6,199,000	11,163,000	2,508,000
Germany	3,441,000	21,817,000	5,452,000	25,339,000
Austria-Hungary ..	4,380,000	17,649,000	12,337,000	14,948,000
Other European Countries ..	4,756,000	22,772,000	55,962,000	13,735,000
Australia and New Zealand	2,737,000	12,316,000	94,472,000	1,048,000
Canada	2,996,000	6,066,000	2,039,000	3,112,000
United States ..	24,437,000	63,786,000	49,636,000	69,472,000
Mexico	859,000	5,142,000	3,424,000	616,000
Other North American Countries ..	931,000	4,968,000	649,000	953,000
Argentine	9,239,000	29,123,000	83,546,000	3,045,000
Brazil	7,289,000	30,705,000	10,653,000	18,399,000
Uruguay	556,000	8,193,000	26,286,000	180,000
Other South American Countries ..	756,000	4,817,000	6,969,000	1,980,000
Asia	13,672,000	163,088,000	81,392,000	6,939,000
Africa	1,147,000	15,211,000	61,737,000	2,014,000
Total ..	106,090,000	470,871,000	589,900,000	185,677,000

BEE FARMING.

The returns for 1915–16 show that there were in that year 3,633 bee-keepers, who owned 25,611 frame and 5,622 box hives, producing 844,768 lbs. and 89,165 lbs. of honey respectively, and 18,707 lbs. of beeswax. The number of beekeepers and the production of honey were greater than in the previous season, but the number of hives was less. The quantity of honey produced in the Wimmera, the chief producing district, was 390,494 lbs. in 1915–16, as compared with 345,747 lbs. in the previous season, and 691,263 lbs. in 1913–14.

The more important particulars of the industry for the past ten years are as follows:—

BEE-FARMING, 1906-7 TO 1915-16.

Season ended May.	Number of Bee-farmers.	Number of Hives.	Honey produced.	Beeswax produced.
			lbs.	lbs.
1907	4,974	48,005	2,965,299	46,780
1908	4,745	43,212	1,138,992	24,521
1909	4,303	40,595	2,373,628	38,674
1910	3,976	42,632	1,611,284	22,369
1911	4,043	52,762	2,308,405	34,695
1912	3,787	53,711	1,635,260	28,405
1913	4,796	52,723	3,277,590	45,354
1914	5,643	55,565	1,961,746	37,323
1915	2,639	35,051	700,672	20,017
1916	3,633	31,233	933,933	18,707

A feature of the industry is the alternate occurrence of good and "off" seasons on account of the particular variety of eucalyptus from which the supplies of honey are chiefly drawn flowering only every other year. The poor results for the last two seasons were due to the prolonged drought of 1914.

POULTRY FARMING.

The numbers of the various kinds of poultry in the State, in March, 1911, were as follows:—

Fowls	3,855,538
Ducks	288,413
Geese	59,851
Turkeys	190,077

Taking the above figures as a basis, it is estimated that the gross value of poultry and egg production for the year 1915 was £1,747,000.

The following table shows the numbers of poultry and poultry-owners as ascertained in each of the last four census years:—

POULTRY AND POULTRY-OWNERS: 1881, 1891, 1901, AND 1911.

Census.	Poultry-owners.	Fowls.	Ducks.	Geese.	Turkeys.
1881	97,152	2,332,529	181,698	92,654	153,078
1891	142,797	3,487,989	303,520	89,145	216,440
1901	132,419	3,619,938	257,204	76,853	209,823
1911	144,162	3,855,538	288,413	59,851	190,077

Relatively to population poultry-owners and poultry were fewer in 1911 than in the previous census year.

RABBITS, HARES, AND WILD-FOWL.

State expenditure on rabbit destruction.

Active operations for the destruction of rabbits, &c., on Crown lands were first undertaken by the Government in 1880, and from that date to 30th June, 1915, sums amounting to £686,419 had been expended in connexion therewith, including subsidies to Shire Councils for the destruction of wild animals. The following are the amounts spent since 1879 :—

EXPENDITURE ON DESTRUCTION OF RABBITS, ETC.

	£		£
1879–80 to 1888–9 ...	142,963	1906–7	16,513
1889–90 to 1898–9 ...	208,638	1907–8	17,585
1899–1900	14,801	1908–9	22,756
1900–1...	15,817	1909–10	23,005
1901–2...	17,250	1910–11	23,123
1902–3...	16,489	1911–12	29,524
1903–4...	15,759	1912–13	27,309
1904–5...	16,603	1913–14	29,596
1905–6...	16,477	1914–15	32,211

In addition to the expenditure of £686,419 referred to above, a loan of £150,000 for the purchase of wire-netting to be advanced to land-holders was allocated to shires in 1890, and one of £50,000 in 1896, both of which have been repaid. Further sums amounting to £45,850 in 1908–9, £10,734 in 1909–10, £43,648 in 1910–11, £21,116 in 1911–12, £54,061 in 1912–13, £62,428 in 1913–14, and £19,731 in 1914–15, were advanced from loans for the purchase of wire-netting for supply to municipalities and land-owners. A complete system, administered by an officer called the Chief Inspector under the Vermin Destruction Act, exists for effectually keeping the rabbits under control.

Rabbits, &c., sold, Melbourne Fish Market.

The quantity of rabbits, hares, and wild-fowl sold at the Melbourne Fish Market during each of the past ten years was as shown in the following statement :—

RABBITS, HARES, AND WILD-FOWL SOLD AT THE MELBOURNE FISH MARKET, 1906 TO 1915.

Year.	Rabbits.	Hares.	Wild-fowl.
	pairs.	brace.	brace.
1906 ...	275,166	535	28,610
1907 ...	298,024	260	58,210
1908 ...	231,216	148	20,634
1909 ...	235,548	163	42,240
1910 ...	245,208	130	34,180
1911 ...	320,292	222	24,420
1912 ...	480,192	363	29,562
1913 ...	605,724	93	23,598
1914 ...	732,444	488	19,614
1915 ...	508,324	51	6,934

Frozen rabbits, &c., exported. Large quantities of frozen rabbits and hares and of rabbit and hare skins have been exported to the United Kingdom and other oversea countries during recent years, the numbers and values for ten years being as follows :—

RABBITS AND HARES AND RABBIT AND HARE SKINS EXPORTED OVERSEA.

Year.	Frozen Rabbits and Hares.		Rabbit and Hare Skins.	
	Quantity.	Value.	Quantity.	Value.
	pairs.	£	lbs.	£
1906	4,622,307	221,064	3,215,125	128,442
1907	3,251,231	154,789	3,418,315	125,294
1908	1,743,466	84,835	3,545,687	139,388
1909	1,675,578	82,182	3,293,652	161,156
1910	1,372,087	68,469	3,395,283	199,562
1911	1,373,501	69,426	3,435,928	156,877
1912	1,111,902	57,233	3,904,379	221,614
1913	2,044,501	107,818	4,182,044	271,463
1914–15 ...	2,478,273	127,721	1,827,557	68,777
1915–16 ...	1,420,182	90,588	1,195,455	44,325

The value of skins exported was 36 per cent. lower, and the value of rabbits and hares exported was 29 per cent. lower in 1915–16 than in 1914–15.

FISHERIES.

Fishing industry. In the following table is given information relating to the fishing industry in Victoria, details being shown in respect of the various fishing stations on the coast, and on the Murray and Goulburn Rivers.

VICTORIAN FISHERIES—MEN AND BOATS EMPLOYED, 1915.

Fishing Stations.	Number of Men.	Boats.		Value of Nets and other Plant.
		Number.	Value.	
			£	£
Anderson's Inlet	9	7	198	85
Barwon Heads and Ocean Grove ..	8	5	795	32
Brighton	8	7	172	63
Corner Inlet, Welshpool, and Toora ..	47	37	2,813	2,430
Dromana	14	14	418	81
Echuca	2	2	5	26
Frankston	11	11	414	128
Geelong	73	39	1,407	546
Gippsland Lakes	184	197	11,382	6,178
Kerang	7	7	24	100
Lorne	4	2	29	17
Mallacoota	34	17	4,967	988

VICTORIAN FISHERIES—MEN AND BOATS EMPLOYED, 1915—*continued.*

Fishing Stations.	Number of Men.	Boats.		Value of Nets and other Plant.
		Number.	Value.	
			£	£
Mentone	9	9	102	84
Mordialloc	17	17	428	125
Mornington	21	23	987	411
Portarlington and St. Leonards ..	37	29	1,228	559
Portland	45	29	2,322	499
Port Albert	42	28	2,855	770
Port Fairy	37	24	2,990	302
Port Melbourne	63	42	1,882	569
Queenscliff	95	66	6,866	164
Sandringham	17	15	633	137
Sorrento, Portsea, and Rye ..	23	20	1,228	263
St. Kilda	12	5	77	172
Warrnambool	4	3	264	73
Western Port (Cowes, Hastings, Grantville, Flinders, San Remo, and Tooradin)	88	69	4,013	1,157
Williamstown	31	16	645	154
Total	942	740	49,144	16,113

Melbourne Fish Market. The quantities and values of fish sold in the Melbourne Fish Market during each of the last two years were as shown hereunder:—

FISH SOLD IN THE MELBOURNE FISH MARKET, 1914 AND 1915.

—	1914.		1915.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Fresh Fish (Victorian) lbs	9,191,660	86,172	9,009,860	94,603
Crayfish .. doz.	32,499	11,375	31,974	14,388
Imported Fish (fresh or frozen) .. .. lbs.	2,486,548	49,213	3,055,404	68,747
Oysters .. .. bags	16,030	26,263	14,900	27,875
Total	..	173,023	..	205,613

In addition to the above, 4,283 cwt. of smoked fish, and 194 baskets of prawns were sold in this market in 1915.

Victorian Fish sold.

The quantity and value of fish caught in Victorian waters and sold in the Melbourne and Ballarat markets and elsewhere in 1915 were as follows :—

VICTORIAN FISH SOLD IN 1915.

Markets.	Quantity.		Value.	
	Fish.	Crayfish.	Fish.	Crayfish.
	lbs.	doz.	£	£
Melbourne	9,009,860	15,952	94,603	7,178
Ballarat	647,580	2,164	5,143	542
Other	173,601	345	1,808	155
Total	9,831,041	18,461	101,554	7,875

Fish Imported.

In connexion with this subject, the quantities and values of the different classes of fish imported are of interest. The available figures for 1909 and 1915–16 are appended :—

FISH IMPORTED, 1909 AND 1915–16.

—	1909.—Interstate.		1909.—Oversea.		1915–16.—Oversea.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish—		£		£		£
Fresh or Frozen lbs.	1,772,999	22,720	758,545	11,076	1,469,989	32,969
Smoked .. „	127,616	662	99,793	3,322	33,548	1,686
Fresh Oysters cwt.	16,941	8,529	7,935	4,145	4,031	2,694
Potted, &c. ..	..	41	..	4,559	..	10,359
Preserved in tins, &c. .. lbs.	117,177	3,266	4,823,366	116,931	6,336,829	194,785
N.E.I. .. cwt.	214	356	5,815	9,434	3,959	11,180
Total ..	..	35,574	..	149,467	..	253,673

The most important item in this table is fish preserved in tins and other air-tight vessels, of which 5,023,320 lbs., or 79 per cent. of the imports from oversea countries, came from the United Kingdom, the United States, and Canada in 1915–16.

Imports by United Kingdom of staple articles produced in Victoria.

In Victoria the natural conditions are eminently suitable for agricultural and pastoral pursuits, and there is room for considerable expansion in these avenues of production. There is little need to fear over-production, as the United Kingdom offers an almost unlimited market for many articles which could be supplied from this State. This is readily seen.

from the figures in the subjoined table, which show the average annual values of certain articles imported into the United Kingdom from Australia, other British Possessions, and Foreign Countries for the pre-war period 1907 to 1913, and for the year ended 31st December, 1915—a year representing war conditions :—

AVERAGE ANNUAL IMPORTS OF CERTAIN ARTICLES INTO UNITED KINGDOM FROM AUSTRALIA, OTHER BRITISH POSSESSIONS, AND FOREIGN COUNTRIES, 1907–13 AND 1915.

Articles.	Period.	Annual Value of Imports into United Kingdom from—			
		Australia.	Other British Possessions.	Foreign Countries.	All Countries.
		£	£	£	£
Butter	1907–13	3,131,811	1,762,922	18,884,656	23,779,389
	1915	2,551,214	2,865,692	21,605,839	27,022,745
Cheese	1907–13	13,102	5,704,495	1,256,492	6,974,089
	1915	91,729	8,323,321	2,692,050	11,107,100
Wheat	1907–13	4,497,088	14,371,951	23,170,834	42,039,873
	1915	94,167	21,480,332	35,731,500	57,306,499
Wheatmeal and Flour ..	1907–13	216,477	1,512,672	4,384,282	6,113,431
	1915	1,300	2,740,910	5,568,643	8,310,853
Meat	1907–13	4,108,980	6,651,731	34,457,389	45,218,100
	1915	9,741,690	15,088,379	61,321,165	86,151,234
Fruit—Fresh, Dried and Preserved	1907–13	395,110	1,409,440	12,933,186	14,737,736
	1915	276,487	1,491,176	15,299,872	17,067,535
Wine	1907–13	127,388	29,076	3,848,344	4,004,808
	1915	120,636	43,668	2,752,972	2,917,276
Wool	1907–13	13,621,012	13,085,172	5,697,694	32,403,878
	1915	19,477,337	18,685,278	3,864,720	42,027,335
Skins, Furs, and Hides ..	1907–13	1,928,626	4,105,504	7,937,906	13,972,036
	1915	2,261,727	5,488,680	6,691,344	14,441,751
Tallow and Stearine ..	1907–13	1,352,280	725,532	1,464,682	3,542,494
	1915	1,333,612	846,678	931,175	3,111,465
Leather	1907–13	409,128	3,034,535	6,498,324	9,942,487
	1915	1,186,888	4,655,284	9,817,554	15,659,726
Total—Eleven Articles ..	1907–13	29,801,002	52,393,030	120,534,289	202,728,321
	1915	37,136,787	81,709,898	166,276,834	285,123,519

The value of the above-mentioned articles imported into the United Kingdom from Australia amounted to £37,136,787 in 1915 as compared with £29,801,002 on the average of the years 1907–13. The values of leather, meat, and wool imported into the United Kingdom from Australia in 1915 exceeded by 190,137, and 43 per cent., respectively, those for the average of the years 1907–13. The practical failure of the Australian harvest of 1914–15 accounted for the small value of the wheat and flour sent from Australia to the United Kingdom in 1915.

Agriculture in Victoria and Great Britain.

The figures relating to agriculture and live stock in Victoria and Great Britain in 1915 are for comparative purposes placed side by side in the table which follows :—

AGRICULTURE AND LIVE STOCK IN VICTORIA AND GREAT BRITAIN, 1915.

—		Victoria.	Great Britain.
Area	acres	56,245,760	56,208,959
Wheat produced	bushels	58,521,706	70,677,280
Oats produced	,,	9,328,894	122,176,776
Barley produced	,,	1,734,511	41,248,480
Peas produced	,,	147,488	2,397,048
Potatoes produced	tons	173,821	3,830,177
Turnips and swedes produced	,,	4,938*	19,340,049
Mangolds produced	,,	13,067	7,889,650
Hay produced	,,	2,342,094	7,352,011
Horses	No.	493,779	1,485,886
Cattle	,,	1,043,604	7,288,087
Sheep	,,	10,545,632	24,598,375
Pigs	,,	192,002	2,579,084

* Includes beet, carrots, and parsnips.

MINING.

The supervision of mining and the inspection of mines are regulated by Act of Parliament. Authority for all mining operations, whether on Crown or private lands, must be obtained in the prescribed manner, and mining leases giving the right to enter on private land for mining purposes may be issued to another than the owner.

Miners' Rights.

The taking out of a " miner's right " entitles the holder to prospect for gold on Crown lands. The right may be had on payment of a sum at the rate of 2s. 6d. per annum and remains in force for any number of years not exceeding fifteen. It confers the privilege to take possession for mining purposes of a defined parcel of Crown lands, which is called a " claim." The revenue in 1914-15 from miners' rights was £2,781.

Mining Leases.

Leases for the purpose of mining for gold are granted for a term not exceeding fifteen years at a yearly rental of 2s. 6d. per acre. For mining leases of land to be worked by means of dredging or hydraulic sluicing the yearly rent is 5s. per acre. Other mineral and coal mining leases are also issued at varying rates. The revenue from these sources in 1914-15 was £7,382.

Area occupied for mining.

The area of Crown and private lands under occupation for mining purposes at 31st December, 1915, was 108,773 acres. The subjoined table shows the area being worked for different minerals :—

AREA UNDER OCCUPATION FOR MINING PURPOSES, 31ST DECEMBER, 1915 (CROWN LANDS AND PRIVATE LAND).

Nature of Mineral, &c.	Area.
	Acres.
Gold	92,474
Coal (ordinary)	4,498
Coal (brown)	358
Antimony	68
Clay Slam	37
Copper	150
Copper and Silver	71
Gypsum	834
Infusorial Earth	59
Iron	1,379
Kaolin	113
Lime	71
Magnesite	114
Manganese	2,152
Marble	127
Molybdenite	94
Oil	124
Pigments and Clay	14
Pigments and Limestone	345
Pigments and Oil	133
Porphyry	12
Quicksilver	55
Silicate of Alumina	51
Silver, Bismuth, Wolfram, and Phosphates	48
Slate	32
Tin	3,843
Water-right Licences	1,437
Wolfram	75
Total	108,773

Mining development.

The mining industry has been well fostered by the Government, not only in the way of financial assistance but also by means of geological surveys and boring. Apart from the annual expenditure of the Mining Department from consolidated revenue, of which a statement is appended, loan moneys amounting to £511,777 (including £240,755 expended on the State Coal Mine), and portions of surplus revenues of past years amounting to

£84,171, have been expended or advanced for developmental purposes since 1st July, 1904.

STATE EXPENDITURE ON MINING: 1910-11 TO 1914-15.

—	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.
	Expenditure from consolidated revenue.				
	£	£	£	£	£
Mining Department	25,738	25,980	25,272	26,921	26,922
State Coal Mine	152,573	189,049	170,884	201,578	211,415
Coal Mines Regulation—Sinking Fund and Depreciation Fund ...	15,575	6,046	40,918	36,653	55,204
Victorian coal—Allowance to Railway Department on carriage of	7,098	10,018	11,503	9,006	9,063
Diamond drills for prospecting ...	17,124	16,938	15,756	14,576	16,945
Testing plants	3,793	3,374	3,368	4,283	6,457
Geological and underground surveys of mines	5,941	6,354	6,357	7,009	5,422
Mining Development—					
Advances to companies, &c., boring for gold, coal, &c. ...	15,421	6,850	12,698	14,877	26,010
Miscellaneous	4,619	4,170	3,576	2,729	2,606
	247,882	268,779	290,242	317,632	360,044
	Expenditure from Surplus Revenue.				
Mining Development—					
Advances to companies, &c., boring for gold, coal, &c.	2,095	737	831	635	1,195
	Expenditure from Loan Moneys.				
State Coal Mine	65,278	48,369	446	69,992	20,764
Total	315,255	317,885	291,519	388,259	382,003

Yearly grants are also made to Schools of Mines, particulars of which will be found on page 515 of this work. Since 1st July, 1896, £511,777 has been apportioned from loan receipts and expended on mining development, details of which expenditure appear in the next statement:—

LOAN MONEY EXPENDED ON MINING DEVELOPMENT.

	£
Advances to companies—Development of mining ..	62,740
„ „ Boring for gold and coal, &c. ..	62,532
Construction of roads and tracks for mining	57,579
Plant for testing metalliferous material	12,357
Construction of races and dams	8,260
Advances to miners for prospecting	27,839

LOAN MONEY EXPENDED ON MINING DEVELOPMENT—*continued.*

	£
Purchase of cyanide process patent rights	20,000
Equipping Schools of Mines with mining appliances ..	9,975
State Coal Mine	240,755
Miscellaneous	9,740
Total	511,777

The advances from loan moneys and revenue to mining companies to 30th June, 1915, for the development of mining totalled £168,360, of which sum £20,969 had up to that date been repaid, £30,539 realized, and £76,053 written off, leaving £40,799 outstanding. Interest received during 1914-15 amounted to £211 and interest outstanding on 30th June, 1915, to £1,063. Advances to miners for prospecting amounted to £58,864 at 31st December, 1915, of which sum only £2,489 had been repaid at that date.

Total mineral production. The mineral production of the State is summarized in the subjoined statement, which contains particulars of the recorded production of all metals and minerals up to the end of the year 1915.

TOTAL MINERAL PRODUCTION TO 31ST DECEMBER, 1915.

Metals and Minerals.	Recorded prior to 1915.		Recorded during 1915.		Total Recorded to end of 1915.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Fine. ozs.	£	Fine. ozs.	£	Fine. ozs.	£
Gold	69,521,018	295,306,164	329,068	1,397,793	69,850,186	296,703,957
Silver ..	1,389,864*	209,909	11,687*	1,250	1,401,551*	211,159
Silver ..	30,577	7,880	..	..	30,577	7,880
Platinum ..	311	1,671	..	..	311	1,671
	tons.		tons.		tons.	
Coal, black ..	5,878,500	2,998,923	588,104	274,770	6,466,604	3,273,693
,, brown ..	78,884	27,507	2,864	573	81,748	28,080
Ore—copper ..	18,730	218,590	..	..	18,730	218,590
,, tin ..	15,825	794,594	96	9,447	15,921	804,041
,, antimony ..	51,650	301,663	11,113	49,320	62,763	350,983
,, silver-lead ..	793	5,760	..	..	793	5,760
,, iron ..	5,434	12,540	..	..	5,434	12,540
,, manganese ..	65	282	97	337	162	619
Wolfram ..	66	5,719	15	883	81	6,602
Diamonds ..	..	128	..	..	..	128
Sapphires, &c. ..	..	630	..	..	..	630
Gypsum ..	23,951	17,760	690	621	24,641	18,381
Magnesite ..	510	1,578	189	567	699	2,145
Kaolin	7,861	13,971	402	547	8,263	14,518
Diatomaceous earth	5,893	23,927	274	1,050	6,167	24,977
Pigment clays ..	106	156	..	..	106	156
Bluestone, freestone, granite, &c.† .. Limestone, &c.‡ ..	..	4,533,150	..	218,289	..	4,751,439
Total ..	..	304,482,502	..	1,955,447	..	306,437,949

* Extracted from gold at the Melbourne Mint. † From 1866 only. ‡ Record from 1900.

Gold mining. Gold was first found in Victoria in 1849 in the Pyrenees Ranges, but it was not until 1851 that the first discovery of any importance took place. In the latter part of that year the Clunes, Anderson's Creek, Ballarat, and Bendigo fields were successively discovered and over 200,000 ounces of gold were produced. Next year the gold rush took place, and it is estimated that, in 1852, 40,000 men were camped at Ballarat, 25,000 at Castlemaine and 40,000 at Bendigo. The production of gold in 1852 amounted to 2,286,535 ounces and in the ten years 1852–1861 it totalled over 25,000,000 ounces; the maximum production for any one year being 3,053,744 ounces in 1856. The annual value of the output for the ten years 1852–1861 averaged over £10,000,000 sterling. The estimated value of gold produced from 1851 to 1915, as shown in the preceding statement, is £296,703,957. This sum is based on the average value of Victorian gold received at the Melbourne Mint, which in 1915 was £3 19s. 2d. per ounce.

Gold raised in Australasia. The production of gold in Australia dates from 1851. The following table shows the quantity recorded as having been raised in the respective States and New Zealand at different periods. Prior to 1898, Victoria was almost invariably the leading gold-producing State of the group, but since then Western Australia has taken first place :—

GOLD RAISED IN AUSTRALASIA, 1851 TO 1915.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	The Northern Territory	New Zealand.
	gross ozs.	gross ozs.	gross ozs.	gross ozs.	gross ozs.	gross ozs.	gross ozs.	gross ozs.
1851–60	23,334,263	3,280,963	75,000	..	..	..	..	35,845
1861–70	16,276,566	3,542,912	250,000	..	..	3,504	..	5,507,004
1871–80	10,456,297	2,251,666	3,187,855	84,593	..	180,178	..	4,009,345
1881–90	7,103,448	1,164,452	3,925,620	209,275	46,967	397,983	*	2,265,616
1891–00	7,476,038	2,958,295	7,358,129	355,208	5,870,662	605,519	*	2,788,398
1851–00	64,346,612	13,198,288	14,796,604	649,076	5,917,629	1,187,184	*	14,606,208
	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.
1901 ..	730,453	216,888	598,382	4,918	1,703,416	69,491	17,028	412,876
1902 ..	720,866	254,435	640,463	7,231	1,871,037	70,996	15,182	459,406
1903 ..	767,297	254,260	668,546	8,650	2,064,801	59,891	12,597	461,648
1904 ..	765,600	269,817	639,151	17,897	1,983,230	65,921	938	467,897
1905 ..	747,166	274,267	592,620	10,983	1,955,316	73,540	7,103	492,955
1906 ..	772,290	253,987	544,636	8,037	1,794,547	60,023	11,085	534,617
1907 ..	695,576	247,363	466,476	4,834	1,697,553	65,354	4,389	477,312
1908 ..	671,208	224,792	465,085	2,898	1,647,911	57,085	5,624	471,968
1909 ..	654,222	204,709	455,576	7,111	1,595,269	44,777	5,685	472,465
1910 ..	570,383	188,857	441,400	6,603	1,470,632	37,048	5,100	446,434
1911 ..	504,000	181,121	386,164	3,537	1,370,868	31,101	7,277	427,385
1912 ..	480,131	165,295	347,946	6,592	1,282,658	37,973	7,811	310,963
1913 ..	434,932	149,657	265,735	6,545	1,314,043	33,400	3,119	343,595
1914 ..	413,218	124,507	249,468	6,258	1,232,977	26,243	2,532	328,250†
1915 ..	329,068	132,498	249,711	6,081	1,211,118	18,547	2,657	398,931

* Included with South Australia. † Estimated.

The total production of Australasia from 1851 to 1900 inclusive was 114¾ million ounces (gross), of which more than one-half was produced in Victoria. During the fifteen years 1901–1915, the Australasian production amounted to 51 million ounces (fine), to which Western Australia contributed over 24 million ounces. The Victorian

yield in the same period amounted to 9¼ million ounces. It has been on the down grade since 1906, the yield for 1915 being the lowest for the State since 1851.

World's production of gold and silver since 1850.

The total production of gold and silver in the world since 1860, as compiled by the Director of the Mint, Washington, U.S.A., from information furnished by foreign Governments, is as follows :—

WORLD'S PRODUCTION OF GOLD AND SILVER SINCE 1860.

Period.	Gold.		Silver.	
	Ounces—Fine.	Value.	Ounces—Fine.	Value—Commercial.
		£		£
1860 to 1869	61,314,500	260,450,800	378,311,600	103,714,600
1870 to 1879	82,764,400	224,131,700	628,717,300	159,639,000
1880 to 1889	51,405,100	218,357,900	921,103,100	197,783,000
1890 to 1899	95,081,700	403,886,400	1,568,876,900	235,663,700
1900	12,315,100	52,312,000	173,591,400	22,115,800
1901	12,625,500	53,630,500	173,011,300	21,330,900
1902	14,354,700	60,975,600	162,763,500	17,726,200
1903	15,852,600	67,338,500	167,689,300	18,607,200
1904	16,804,400	71,381,300	164,195,300	19,569,200
1905	18,396,500	78,144,200	172,317,700	21,599,400
1906	19,471,100	82,708,900	165,054,500	22,957,200
1907	19,977,300	84,859,000	184,207,000	24,982,500
1908	21,422,200	90,923,000	203,131,400	22,327,200
1909	21,965,100	93,303,000	212,149,000	22,678,400
1910	22,022,200	93,545,500	221,715,700	24,602,300
1911	22,348,800	94,922,400	226,192,900	25,098,900
1912	22,551,800	95,784,700	224,310,700	28,333,300
1913	22,249,600	94,511,700	223,907,900	27,791,300
1914	22,040,900	93,641,200	211,839,700	24,111,100

Mining district gold yields.

The yield of gold for the past two years in each mining district of the State, as estimated by the mining registrars, is shown in the following table. The aggregate figures, which represent gross ounces, fall short of the total output for the years 1914 and 1915 by 12,953 ounces and 2,454 ounces respectively.

DISTRICT YIELDS OF GOLD, ALLUVIAL AND QUARTZ, 1914 AND 1915.

Mining District.	1914.			1915.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
Ararat and Stawell ...	32,284	4,309	36,593	26,786	6,006	32,792
Ballarat	10,386	48,218	58,604	10,010	33,436	43,446
Beechworth	47,151	17,397	64,548	39,150	22,261	61,411
Bendigo	2,860	155,623	158,483	3,583	118,966	122,549
Castlemaine ...	11,422	47,280	58,702	8,944	39,940	48,884
Gippsland	4,678	9,628	14,306	3,902	5,082	8,984
Maryborough ...	27,273	11,885	39,158	25,091	6,661	31,752
Total	136,054	294,340	430,394	117,466	232,352	349,818

Gold-mining dividends.

The amount of dividends declared in each of the last five years by gold-mining companies operating in each mining district of the State was as follows:—

DIVIDENDS PAID BY GOLD MINING COMPANIES IN EACH MINING DISTRICT, 1911 TO 1915.

Mining District.	Amount Distributed.				
	1911.	1912.	1913.	1914.	1915.
	£	£	£	£	£
Ararat and Stawell	19,781	2,637	40,550	36,675	30,950
Ballarat	22,896	6,850	19,767	19,167	5,000
Beechworth	43,187	38,627	27,324	35,447	44,910
Bendigo	123,158	113,189	133,744	126,548	61,911
Castlemaine	53,462	41,937	46,414	47,225	39,300
Gippsland	2,250	675	650	750	1,350
Maryborough	20,950	12,867	5,750	5,000	10,000
Total	285,684	216,782	274,199	270,812	193,421

By comparison with 1914 the amount of the dividends declared in 1915 shows a decrease of 28·6 per cent.

Depth of gold mines. On 31st December, 1914, the latest date for which this information is available, there were 16 mines on the Bendigo gold-field with shafts over 3,000 feet deep, namely, Victoria Reef Quartz, 4,614 feet; New Chum Railway, 4,318 feet; Lazarus New Chum, 3,682 feet; New Chum and Victoria, 3,579 feet; North Johnson's, 3,498 feet; Great Extended Hustler's, 3,493 feet; Carlisle, 3,460 feet; Lansell's 180, 3,365 feet; Clarence, 3,310 feet; Ironbark, 3,250 feet; New Shenandoah, 3,182 feet; Victoria Consols, 3,114 feet; New Chum Consolidated, 3,099 feet; Eureka Extended, 3,060 feet; Princess Dagmar, 3,040 feet; and Johnson's Reef No. 2, 3,020 feet. The total number of shafts over 2,000 feet in depth, at Bendigo, was 53.

The following were the deepest mines on other gold-fields:—Long Tunnel, Walhalla, 4,051 feet incline and 600 feet vertical, equal to 3,625 feet vertical; Magdala, Stawell, 2,425 feet; Lord Nelson, St. Arnaud, 2,405 feet; South German, Maldon, 2,225 feet; and Jubilee, Scarsdale, 2,014 feet.

Gold miners. The average number of men employed in mining is estimated annually by the Mines Department. The figures for the last ten years are given below:—

NUMBER OF MEN EMPLOYED IN GOLD MINING, 1906 TO 1915.

Year.	Alluvial Miners.	Quartz Miners.	Total.
1906	10,951	14,353	25,304
1907	10,390	12,901	23,291
1908	8,673	12,180	20,853
1909	7,925	10,746	18,671
1910	6,638	9,915	16,553
1911	5,144	8,871	14,015
1912	4,156	7,700	11,856
1913	4,222	7,709	11,931
1914	3,637	6,761	10,398
1915	2,867	5,888	8,755

The number of men employed in each mining district in 1915 was as follows:—Ararat and Stawell, 702; Ballarat, 1,108; Bendigo, 3,124; Beechworth, 1,305; Castlemaine, 1,182; Gippsland, 335; and Maryborough, 999.

Value of machinery on gold-fields.

The value of the mining plants employed in alluvial and quartz mining during each of the last five years was as shown hereunder :—

VALUE OF MACHINERY ON GOLD-FIELDS, 1911 TO 1915.

Year.	Approximate Value of Machinery Employed in—		
	Alluvial Mining.	Quartz Mining.	Total.
	£	£	£
1911	604,925	1,475,418	2,080,343
1912	552,856	1,208,798	1,761,654
1913	538,279	1,129,513	1,667,792
1914	448,742	1,051,689	1,500,431
1915	479,004	1,011,300	1,490,304

Of the machinery used in connexion with alluvial mining in 1915, dredging plants were valued at £257,947, and hydraulic sluicing plants at £14,600.

The Government has appointed a Sludge Abatement Board, whose duty it is to regulate the disposal of mining sludge and to prevent the silting of streams and injury to lands by battery sand and infertile *débris*.

Dredging and sluicing.

A feature of alluvial mining in Victoria for the past sixteen years has been the treatment in bulk of low-grade auriferous alluvial deposits and their overburden by bucket dredges and pump hydraulic sluicing plants on barges. The number of bucket dredges at work in 1915 was 42, and the number of pump hydraulic sluices 17, in addition to which 9 jet elevators and 5 gravitation hydraulic sluices were operating in that year. Particulars relating to these dredging and sluicing plants for the past five years are as follows :—

DREDGING AND SLUICING.

Year.	Number of Plants.	Area Worked.	Quantity of Material Treated.	Gold Obtained.	Tin Obtained.
		Acres.	cub. yds.	ozs.	tons.
1911	103	706	20,144,347	81,594	6
1912	99	676	19,722,227	73,781	21
1913	97	565	16,796,585	65,433	32
1914	85	459	13,979,696	56,796	45
1915	73	366	11,788,247	50,152	87

These plants employed 923 men in 1915, and paid £91,257 in wages. The yield of gold per cubic yard of material was 2·0 grains in 1915, which was 0·1 grain more than in the previous year.

Cyanidation. The treatment of tailings during the past five years at old lode and alluvial mines by the cyanide process, and the yield of gold therefrom, are shown in the subjoined table :—

CYANIDATION.

Year.	Number of Plants.	Quantity of Tailings Treated.	Yield of Gold.	Value of Yield.
		tons.	ozs.	£
1911	248	1,102,956	59,986	215,411
1912	209	881,306	55,470	200,277
1913	207	392,256	45,397	163,371
1914	194	607,260	39,920	144,969
1915	140	317,636	21,511	79,160

Records show that the total amount of tailings which have been treated by the cyanide and other processes is 15,424,882 tons, and that the gold that has been won thereby amounts to 1,227,546 ounces, which is equal to an average yield of 1 dwt. 14 grs. per ton.

Government batteries. Batteries for testing small quantities of ore for prospectors have been erected by the Government in various mining districts. The number of these plants and their operations in the last five years were as follows :—

GOVERNMENT BATTERIES.

Year.	Number of Batteries.	Quantity of Ore Treated.	Yield of Gold.	Net Cost of Batteries to Mines Department.
		tons.	ozs.	£
1911	24	2,723	2,013	3,036
1912	25	2,887	2,491	2,418
1913	26	2,742	2,127	2,503
1914	27	2,128	1,321	3,009
1915	28	4,761	3,012	2,608

Since 1897, the year in which the first battery was erected, 51,315 tons of ore have been crushed for 33,275 ounces.

Coal mining. Bituminous coal is found in three main areas in the southern portion of the State, viz., the Wannon, the Otway, and South Gippsland. The Wannon area is comparatively unprospected, owing to almost the whole of the land having been sold. In the Otway area bores have been sunk without disclosing seams of payable thickness. The South Gippsland area occupies about 2,000 square miles, and coal mining is being carried on at Wonthaggi, Kilcunda, Outtrim, Jumbunna, and Korumburra.

Brown coal. The brown coal beds of Victoria have an approximate area of 1,200 square miles, and are reputed to be the thickest known. At Morwell, 780 feet of coal were passed through in a bore 1,010 feet deep. It is estimated that the average thickness

of the coal in the deposits at Morwell, Alberton, and Altona is 50 feet, and that the total deposits in the State amount to 30,000,000,000 tons. These deposits are practically untouched, as the output of brown coal in 1915 was only 2,864 tons, and the total output for all years has been only 81,748 tons.

The State coal-field. There is a State coal mine at Wonthaggi, on the Powlett River Coalfield, the development of which was undertaken in November, 1909. In June, 1911, the control of the mine was transferred to the Railways Commissioners. The area reserved for mining is about 17 square miles. Boring has proved that about 28,000,000 tons of coal existed in the central area of 5 square miles. The output of coal for the year ended 31st December, 1915, was 528,912 tons, valued at £238,010. The average number of men employed at the mine throughout the year ended 30th June, 1915, was 1,015, and comprised 442 coal miners, 93 wheelers, 206 others below ground, and 274 surface men. The mine worked 247 days during the year, and the earnings of the miners averaged 14s. 6·16d. per day after deducting the cost of explosives and lights.

Victorian Coal production and value. The quantity of coal, exclusive of brown coal, raised in Victoria up to the end of 1915 was 6,466,604 tons, valued at £3,273,693. The total production prior to 1892, and the annual production for the years 1892 to 1915, together with the value per ton at the pit's mouth, are given in the following table :—

COAL PRODUCTION AND VALUE PER TON.

Period.	Production.	Value per ton at pit's mouth.	Period.	Production.	Value per ton at pit's mouth.
	Tons	*s. d.*		Tons	*s. d.*
Prior to 1892	77,914	18 8	1904 ..	121,742	11 6
1892 ..	23,363	17 2	1905 ..	155,136	10 2
1893 ..	91,726	10 9	1906 ..	160,631	10 0
1894 ..	171,660	11 1	1907 ..	138,585	11 6
1895 ..	194,226	12 2	1908 ..	113,462	11 5
1896 ..	226,562	10 0	1909 ..	128,173	12 0
1897 ..	236,277	9 2	1910 ..	369,059	10 3
1898 ..	242,859	8 6	1911 ..	653,864	9 2
1899 ..	262,380	8 8	1912 ..	589,143	8 9
1900 ..	211,596	9 7	1913 ..	593,913	9 3
1901 ..	209,329	14 1	1914 ..	617,536	9 4
1902 ..	225,164	13 11	1915 ..	588,104	9 4
1903 ..	64,200	12 9			

In addition to the above there were raised, up to the end of 1915, 81,748 tons of brown coal, valued at £28,080. The quantity produced in 1915 was 2,864 tons, valued at £573.

Coal produced in Australasia. The quantities of coal raised in Victoria, the other Australian States, and New Zealand from the date of the

earliest records are given below. There is no record of any coal mining having been done in South Australia.

COAL PRODUCED IN AUSTRALASIA.

Period.	Tons of Coal raised in—					
	Victoria.	New South Wales.	Queensland.	Western Australia.	Tasmania.	New Zealand.
Prior to 1878	13,747	17,538,869	507,226	..	92,176	709,931
1878 to 1882	1,987	8,503,937	305,692	..	54,110	1,408,893
1883 to 1887	10,196	13,902,101	911,416	..	60,744	2,506,631
1888 to 1892	107,454	17,738,842	1,444,669	..	208,060	3,179,846
1893 to 1897	940,954	18,982,101	1,587,973	..	211,990	3,785,485
1898 to 1902	1,154,348	26,721,213	2,440,078	434,716	235,221	5,566,597
1903	69,861	6,354,846	507,801	133,000	49,069	1,420,193
1904	121,742	6,019,809	512,015	138,550	61,109	1,537,838
1905	155,186	6,632,138	529,326	127,364	51,993	1,585,756
1906	160,631	7,626,362	606,772	149,755	52,896	1,729,536
1907	138,634	8,657,924	683,272	142,372	58,891	1,831,009
1908	113,962	9,147,025	696,332	175,248	61,067	1,860,975
1909	128,673	7,019,879	756,577	214,302	61,162	1,911,247
1910	369,709	8,173,508	871,166	262,166	82,445	2,197,362
1911	659,998	8,691,604	891,568	249,899	57,067	2,066,073
1912	593,155	9,885,815	902,166	295,079	53,560	2,177,615
1913	596,896	10,414,165	1,037,944	313,828	55,043	1,888,005
1914	620,251	10,390,622	1,053,990	319,210	60,794	2,275,593
1915	590,968	9,449,008	1,024,273	286,666	64,536	2,208,624

The figures for Victoria include 81,748 tons of brown coal produced up to the end of 1915.

Coal production of the world.

The total known coal production of the world (exclusive of brown coal and lignite) in 1912, the latest year for which complete figures are available, was about 1,100 million tons, of which the United Kingdom produced nearly one-fourth, and the United States three-sevenths. In the following return is shown the production of coal in the principal coal-producing countries of the world. The consumption may be obtained by adding to the production the net imports or deducting therefrom the net exports :—

COAL PRODUCED IN VARIOUS COUNTRIES, 1912.

Country.	Production.	Value per ton at Collieries.	Excess of Imports (+) or Exports (−)	Number of Men Employed under and over ground.
	Tons.	s. d.	Tons.	
Australia	11,730,000	7 6½	−3,807,000	21,642
New Zealand	2,178,000	10 11¼	+134,000	4,328
Austria	15,544,000	8 8½	+11,976,000*	75,114
Belgium	22,603,000	13 5½	+2,761,000	145,670
British India	14,706,000	4 6	−147,000	132,567
Canada	12,958,000	11 5¼	+11,823,000	27,437
France	39,745,000	12 8½	+18,879,000	198,998
German Empire	172,065,000	10 6¼	−31,324,000	628,307†
Japan†	17,349,000	6 5¾	−5,001,000	145,412
Russian Empire	25,998,000†	...	+5,721,000†	169,079‡
United Kingdom	260,416,000	9 0¾	−85,634,000	1,068,751
United States	477,202,000	6 1	−17,714,000	722,662

* Austria-Hungary. † Figures for 1911. ‡ Figures for 1909.

Minimum wage of miners.

The minimum wage, fixed by Wages Boards, for each of the principal occupations connected with coal and gold mining is given in the subjoined statement. The gold mining rates apply to the whole of Victoria, except the mining districts of Ararat, Gippsland, and Beechworth :—

MINIMUM WAGE OF MINERS.

Occupation.	Minimum wage per week of 48 hours.	Occupation.	Minimum wage per week of 48 hours.
Coal Mining—	s.	Gold Mining—	s.
Miners	60	Miners (quartz), shaft or winze sinking—	
„ in wet places	65	Machine labour	64
Shaft sinkers	66	Hand labour	62
„ in wet shafts	66*	Other quartz miners—	
Wheelers	50	Machine labour	60
Timbermen and repairers	60	Hand labour	58
Blacksmiths	60	Miners (alluvial), shaft or winze sinking—	
Carpenters	60	Machine labour	69
Brushers	60	Hand labour	67
Bracemen	50	Other alluvial miners—	
Winch drivers	49	Machine labour	62
Screen hands	46	Hand labour	60
Labourers (underground)	49	Other underground workers	52
„ (surface)	45	Retortmen	54
Engine-drivers	66	Bracemen	55
		Winch drivers	55
		Timber dressers	57
		Timbermen repairing shafts	65
		Carpenters	63
		Blacksmiths	64
		Batterymen	54
		Engine-drivers	66

* Per week of 36 hours.

The wages of miners in coal mines are contract rates. As stated on page 779, the earnings of the miners in the State coal mine averaged 14s. 6·16d. per day in the year 1914–15, after deducting the cost of explosives and lights.

Mining accidents.

The numbers of fatal and non-fatal accidents in gold and coal mines during the last ten years are shown below. Only those non-fatal accidents have been recorded which rendered the injured unfit for work for a period of at least fourteen days.

MINING ACCIDENTS.

Year.	Gold Mines.			Coal Mines.		
	Miners Employed.	Persons Killed.	Persons Injured.	Miners Employed.	Persons Killed.	Persons Injured.
1906	25,304	25	99	693	..	5
1907	23,291	27	91	599	1	3
1908	20,853	19	87	542	1	7
1909	18,671	15	99	607	7	..
1910	16,553	12	66	1,532	3	22
1911	14,051	19	65	1,754	..	23
1912	11,856	16	76	1,486	2	19
1913	11,931	9	61	1,377	4	24
1914	10,398	15	45	1,405	2	21
1915	8,755	10	34	1,312	3	20

As a result of gold mining accidents during the past ten years 167 persons were killed and 723 were injured and rendered unfit for work for a period of at least fourteen days. These numbers were equivalent to annual rates of 1·03 and 4·47 respectively per 1,000 employed. Coal mining accidents during the same period accounted for 23 deaths and 144 injuries resulting in disablement for at least fourteen days, these being equal to yearly rates of 2·03 and 12·74 respectively per 1,000 employees.

Boring for gold, coal, &c.

The record of boring operations conducted by the Mines Department during the past five years is as follows :—

GOVERNMENT BORING OPERATIONS.

Year.	Drills worked by—		Bores put down for—			Total Depth Bored.
	Steam.	Other Power.	Gold.	Coal.	Total.	
						feet.
1911	6	7	31	97	128	45,834
1912	6	7	8	94	102	37,738
1913	6	7	58	55	113	39,185
1914	3	7	84	21	105	29,038
1915	1	14	153	2	155	28,780

Quarries.

The quantity and value of stone raised from Victorian quarries during the last five years are set forth in the following table :—

QUARRIES : 1911 TO 1915.

Year.	Number of Quarries.	Quantity of Stone Operated on—				Approximate Total Value of Stone Raised.
		Bluestone.	Free-stone.	Granite.	Limestone.	
		c. yds.	c. yds.	c. yds.	c. yds.	£
1911 ...	86	760,699	3,936	310	62,610	151,426
1912 ...	88	837,088	8,351	1,687	58,755	161,843
1913 ...	89	841,803	2,861	1,485	60,566	167,567
1914 ...	93	914,310	2,886	953	57,733	183,376
1915 ...	102	1,157,280	1,384	1,392	49,121	209,539

In 1915 the number of persons employed in quarries was 1,555, and the wages paid amounted to £175,034. These figures include the employees and wages connected with stone-breaking and tar-paving works, most of which are carried on in conjunction with quarries and cannot be separated therefrom.

MANUFACTURING INDUSTRIES.

Industrial progress.

The earliest year for which there are statistical records of the factories in the State is 1850, at which date the number of manufacturing establishments is shown to have been 68. Subsequently fair and regular progress was made in the industry until in 1900, the year before Federation, there were 3,097 factories working. The years immediately following Federation were marked by increased industrial activity, which has been well maintained in the last ten years, during which period nearly all existing lines of manufacture have shown a notable expansion, and many industries new to the State have been firmly established. Since 1904 the number of factories has increased by 29 per cent., the number of employees by 49 per cent., the amount of salaries and wages paid by 130 per cent., the value of output by 123 per cent., the value of machinery and plant by 84 per cent., and the engine power of factories by 188 per cent. The difference between the cost of materials used and the value of the output was equivalent to an added value of £182 3s. per person employed in 1915, as compared with £128 in 1904. This favorable economic result coincides with a larger proportion of establishments using mechanical power in 1915, when 75½ per cent. were so equipped, as against 60½ per cent. in 1904, and with the increased aggregate engine power of factories previously referred to. The increase in the added value relatively to employees, the larger proportion of factories using power, and the higher aggregate power of establishments as a whole connote increasing industrial efficiency. Concurrent with an increase in the output per person employed, there has been a decrease of 33 per cent. in the proportion of child labor in factories during the past ten years.

An interesting feature of manufacturing activities is the great increase in the strength of the largest sized factories. Since 1904 the number of factories employing over 100 hands has increased by 60 per cent., and the number of hands employed therein by 95 per cent., as against increases of 28 per cent. in the number of, and 26 per cent. in the hands engaged in, factories employing less than 100. The cost of treating raw materials in factories was higher in 1911–15 than in the preceding five-year period. For every £100 worth of raw material dealt with the cost in salaries and wages was £36 19s. 9d. in 1911–15, as against £33 10s. 1d. in 1906–10. The expenditure on fuel and light on a similar basis was £2 12s. 9d. in 1911–15, and £2 15s. 1d. in 1906–10, being slightly less in the later than in the earlier period.

A very gratifying feature disclosed by the figures relating to distinct industries is the remarkable progress made by those connected with ship building, fitting, &c.; arms and explosives; cement and cement

pipes; sail, tent, &c.; saddle and harness; electric light; chaff cutting, &c.; woollen mills; rubber goods; and the good progress made by many others as shown in the table on page 792.

The appended table summarizes the position of the industries at various stages since 1871, but except for the period 1903-15 the information for different years is not strictly comparable, for the reason that it has not been compiled upon the same basis throughout.

GROWTH IN THE MANUFACTURING INDUSTRIES.

Year.	Number of Factories.	Number of Persons employed.	Amount of Salaries and Wages paid.	Value of Plant, Machinery, Land and Buildings.	Value of Output.
			£	£	£
1871	1,740	19,468	*	4,725,125	*
1881	2,488	43,209	*	8,044,296	†13,370,836
1891	3,141	52,225	*	16,472,859	‡22,390,251
1901	3,249	66,529	*	12,298,500	§19,478,780
1904	4,208	76,287	4,794,365	13,668,185	23,126,180
1911	5,126	111,948	8,911,019	18,257,889	41,747,863
1912	5,263	116,108	10,102,244	19,457,795	45,410,773
1913	5,613	118,744	10,714,336	20,775,738	47,936,647
1914	5,650	118,399	11,099,940	21,975 646	49,439,985
1915	5,413	113,834	11,036,345	22,529,072	51,466,093

* Particulars not available. † 1880. ‡ 1890. § 1900.

Factories and Wages Board Legislation.

The first Factories Act in Victoria was passed in 1873, and since that year many other Acts dealing with the subject have been placed upon the statute-book, the latest, No. 2558, having come into force at the beginning of 1915. All these Acts were consolidated by the *Factories and Shops Act* 1915 (No. 2650). The general provisions of factory legislation, including "Wages Boards," are fully dealt with in Part "Social Condition" of this work.

Production of different Industries, 1915.

In the year 1902 the classification of industries for statistical purposes, as shown in the next table, was adopted by the Statisticians of Australia. A factory was defined as an establishment employing on the average four persons or more, or an establishment employing less than four persons where machinery is worked by other than manual power, whether the business carried on is that of making or repairing for the trade (wholesale or retail), or for export. The number of factories in each industry, the power used, the number of persons employed, the wages paid, the

FACTORIES—POWER, WORKERS, WAGES, ETC., AND PRODUCTION, 1915.

values of materials used and of fuel and light used, also the value of articles produced or work done in 1915, were as follows :—

Nature of Industry.	Number of Manufactories.	Actual Horse-power of Engines used.	Average Number of Persons Employed.				Value of—			
			Males.		Females.		Wages paid exclusive of Amounts drawn by Working Proprietors.	Fuel and Light used.	Materials Used.	Articles Produced or Work Done.
			Working Proprietors.	Employees.	Working Proprietors.	Employees.				
							£	£	£	£
Class I.—Treating Raw Material the product of Pastoral Pursuits, or Vegetable Products, not otherwise classed.										
Boiling down	15	136	8	116	..	..	13,823	3,120	82,520	111,951
Bone milling	16	612	15	88	..	1	11,208	4,080	43,156	69,127
Tanning	52	1,883	66	1,645	..	9	219,596	13,701	1,606,586	2,106,358
Fellmongering	30	627	31	414	..	..	49,288	8,115	939,524	1,095,097
Chaffcutting and grain crushing ..	201	2,540	182	628	..	..	43,818	6,936	903,962	1,072,846
Other	8	125	3	139	..	..	16,275	152	30,284	48,372
Total	322	5,923	305	3,030	..	10	354,008	36,104	3,606,032	4,503,751
Class II.—Oils and Fats, Animal and Vegetable.										
Oil, grease, glue	8	131	3	88	..	10	11,346	2,358	101,519	136,709
Soap and candle	17	464	12	552	..	75	71,282	12,587	457,900	721,845
Total	25	595	15	640	..	85	82,628	14,945	559,419	858,554

FACTORIES—POWER, WORKERS, WAGES, ETC., AND PRODUCTION, 1915—*continued.*

Nature of Industry.	Number of Manufactories.	Actual Horse-power of Engines used.	Average Number of Persons Employed.				Value of—			
			Males.		Females.		Wages paid exclusive of Amounts drawn by Working Proprietors.	Fuel and Light used.	Materials Used.	Articles Produced or Work Done.
			Working Proprietors.	Employees.	Working Proprietors.	Employees.				
							£	£	£	£
Class III.—Processes relating to Stone, Clay, Glass, &c.										
Brick, pottery, &c.	9	4,472	67	1,771	..	68	230,969	72,012	32,989	434,856
Cement, including cement pipes ..	6	413	..	315	..	3	42,242	19,564	43,832	170,368
Glass, including bottles	7	100	9	754	..	2	97,295	24,317	27,361	189,271
,, bevelling	21	74	21	181	..	2	21,888	636	40,240	78,268
Marble and stone dressing ..	39	147	54	278	..	2	39,307	1,083	43,209	109,488
Modelling	9	31	9	86	..	1	11,525	263	5,970	24,540
Other	18	148	17	182	..	..	21,648	8,011	7,360	53,861
Total	189	5,385	177	3,567	..	78	464,874	125,886	200,961	1,060,652
Class IV.—Working in Wood.										
Cooperage	8	36	5	86	..	..	13,246	383	10,357	28,386
Saw-milling (forest) ..	138	2,489	139	1,564	..	..	169,027	..	..	308,728
Saw-milling, moulding, &c. ..	211	6,088	222	3,693	..	49	471,348	14,179	1,019,488	1,702,227
Mantelpiece	11	63	13	145	..	3	18,556	317	25,790	50,640
Wood carving, turning	34	376	40	240	..	4	26,171	1,806	27,550	72,559
Other	8	82	14	100	..	28	12,609	476	21,989	42,217
Total	410	9,134	433	5,828	..	84	710,957	17,161	1,105,174	2,204,757

Class V.—Metal Works, Machinery, &c.										
Agricultural implement	64	1,372	75	1,588	..	15	206,764	15,337	213,257	526,756
Engineering, iron foundry, &c. ..	364	7,999	411	8,066	3	72	1,056,075	106,483	1,349,270	3,029,713
Railway workshop	17	1,503	..	5,484	..	7	793,114	28,621	869,498	1,828,874
Sheet-iron, tin, &c.	79	364	71	1,117	..	207	129,430	5,024	262,881	477,995
Brass, copper smithing	65	433	91	763	..	30	87,428	6,166	104,730	248,413
Wireworking	20	182	19	190	..	9	23,388	1,196	63,830	110,993
Metallurgical, &c., cyanide ..	52	356	64	208	..	..	24,322	4,529	79,674	138,241
Oven, range	19	99	23	156	..	..	18,737	1,199	18,210	50,501
Other	51	1,005	56	487	..	5	59,751	5,417	173,829	298,786
Total	731	13,313	810	18,059	3	345	2,399,009	173,972	3,135,179	6,705,272
Class VI —Connected with Food and Drink or the preparation thereof.										
Bacon curing	25	933	32	347	..	15	49,672	5,488	666,534	767,778
Butter, cheese, butterine ..	194	3,033	49	1,122	3	67	145,419	24,895	2,460,767	2,836,570
Meat freezing, preserving ..	14	4,572	2	851	..	24	117,610	21,722	867,568	1,076,450
Biscuit	7	362	5	827	..	529	111,794	9,925	424,234	669,841
Flourmilling	51	3,887	43	606	..	2	70,982	15,029	2,368,489	2,739,730
Jam, sauce, &c.	30	393	21	876	2	790	135,768	8,918	666,122	1,009,533
Oatmeal, starch, &c.	28	1,105	21	356	..	217	56,277	10,429	381,108	523,374
Sugar, confectionery, &c. ..	38	3,554	38	1,355	4	1,111	207,744	38,917	1,846,496	2,301,371
Aerated water, cordial, &c. ..	144	451	127	897	10	59	106,543	3,460	150,060	394,994
Malt	21	261	6	214	..	4	32,794	7,035	285,778	409,332
Brewing	22	3,199	10	893	..	..	159,870	23,692	481,327	1,061,196
Distilling	9	217	5	87	..	..	10,883	2,947	32,209	61,604
Condiments, coffee, cocoa, &c. ..	12	629	3	193	1	104	32,318	4,174	264,100	355,271
Tobacco, &c.	13	375	10	949	..	642	185,889	2,916	731,948	1,199,660
Other	23	1,440	14	216	3	16	30,818	6,794	31,245	108,261
Total	631	24,411	386	9,789	23	3,580	1,454,381	186,341	11,657,985	15,514,965

FACTORIES—POWER, WORKERS, WAGES, ETC., AND PRODUCTION, 1915—*continued.*

Nature of Industry.	Number of Manufactories.	Actual Horse-power of Engines used.	Average Number of Persons Employed.				Value of—			
			Males.		Females.		Wages paid exclusive of Amounts drawn by Working Proprietors.	Fuel and Light used.	Materials Used.	Articles Produced or Work Done.
			Working Proprietors.	Employees.	Working Proprietors.	Employees.				
Class VII.—Clothing and Textile Fabrics, and Fibrous Material.							£	£	£	£
Woollen mill	10	2,679	10	950	..	1,103	170,888	21,962	487,140	931,774
Clothing, tailoring, &c.	466	467	436	1,842	35	7,934	633,545	13,398	1,279,278	2,315,842
Dressmaking and millinery ..	446	291	89	167	300	7,551	373,607	6,879	736,727	1,348,923
Underclothing, shirt	157	539	73	216	105	5,503	276,112	6,515	712,506	1,157,430
Hat, cap	42	460	41	626	5	979	142,365	5,534	220,792	457,453
Hosiery	49	307	28	106	27	1,160	77,337	1,959	257,530	426,294
Oilskin, waterproof clothing ..	4	13	3	49	2	168	18,906	404	33,189	69,282
Boot, shoe	174	1,362	223	4,094	5	2,525	625,886	11,742	1,502,285	2,436,673
Fur	21	12	18	47	10	137	12,847	365	31,508	59,456
Rope, twine, &c.	8	1,306	7	456	..	326	67,576	6,122	299,798	445,436
Sail, tent, &c.	18	33	13	130	1	131	22,144	327	109,762	157,416
Other	20	69	11	144	7	248	28,335	1,613	39,602	100,520
Total	1,415	7,538	952	8,827	497	27,765	2,449,548	76,820	5,710,117	9,906,499

Class VIII.—Books, Paper, Printing, Engraving, &c.										
Printing	360	3,179	405	4,768	7	1,257	790,384	24,380	731,723	2,169,018
Account-book, stationery, paper, &c.	23	350	26	559	3	552	92,263	2,913	132,715	284,905
Fancy box	28	118	22	124	5	517	40,358	953	66,494	138,285
Die sinking, engraving, &c. ..	16	50	18	171	1	4	23,407	538	20,564	59,951
Other	16	1,351	13	397	..	32	47,817	13,657	75,000	177,346
Total	443	5,048	484	6,019	16	2,362	994,229	42,441	1,026,496	2,829,505
Class IX.—Musical Instruments ..	5	233	3	136	..	6	15,692	233	10,343	27,310
Class X.—Arms and Explosives ..	12	519	2	555	..	767	136,660	6,188	338,875	537,170
Class XI.—Vehicles and Fittings, Saddlery, Harness, &c.										
Coachbuilding	305	670	377	1,926	1	18	200,629	7,756	222,557	542,212
Bicycle, &c.	167	531	177	1,214	3	30	148,413	5,712	105,612	323,833
Saddle, harness	46	45	55	551	1	99	80,416	659	175,306	285,322
Other	11	39	11	125	..	1	14,203	287	15,732	36,668
Total	529	1,285	620	3,816	5	148	443,661	14,414	519,207	1,188,035
Class XII.—Shipbuilding, Fitting, &c.	12	1,405	8	1,077	..	..	143,261	3,289	98,730	296,995
Class XIII.—Furniture, Bedding, &c.										
Upholstery, bedding, &c. ..	42	250	26	311	2	158	45,345	1,479	114,407	195,278
Cabinet, including billiard table ..	187	916	235	1,460	..	60	168,399	3,585	217,306	479,520
Picture frame	23	82	22	125	1	26	14,464	534	28,180	53,771
Other	13	151	14	234	..	15	26,418	1,991	59,889	96,972
Total	265	1,399	297	2,130	3	259	254,626	7,589	419,782	825,541

FACTORIES—POWER, WORKERS, WAGES, ETC., AND PRODUCTION, 1915—*continued.*

Nature of Industry.	Number of Manufactories.	Actual Horse-power of Engines used.	Average Number of Persons Employed.				Value of—			
			Males.		Females.		Wages paid exclusive of Amounts drawn by Working Proprietors.	Fuel and Light used.	Materials Used.	Articles Produced or Work Done.
			Working Proprietors.	Employees.	Working Proprietors.	Employees.				
Class XIV.—Drugs, Chemicals, and By-products.							£	£	£	£
Blacking, blue, &c.	13	189	9	162	..	151	25,601	943	137,970	232,645
Chemicals, drugs, &c.	32	592	21	411	2	251	65,400	5,021	150,828	296,195
Fertilizers	5	830	..	643	..	..	84,206	9,926	456,943	724,871
Other	29	125	34	168	..	8	15,410	729	43,842	80,018
Total	79	1,736	64	1,384	2	410	190,617	16,619	789,583	1,333,729
Class XV.—Surgical and Scientific Appliances	23	33	18	89	..	8	10,394	426	9,706	29,498
Class XVI.—Timepieces, Jewellery, and Plateware	94	200	109	655	..	61	83,194	2,751	156,433	313,990

Class XVII.—Heat, Light, and Energy.										
Electric apparatus	24	197	27	185	..	5	20,611	796	58,022	121,196
Electric light	63	33,127	3	941	..	13	135,045	77,149	..	536,251
Gas, coke	47	1,686	4	2,163	..	8	347,434	4,610	306,043	1,035,941
Other	8	1,149	5	187	..	471	50,278	5,403	110,082	228,965
Total	142	36,159	39	3,476	..	497	553,368	87,958	474,147	1,922,353
Class XVIII.—Leatherware (except Saddlery and Harness) ..	33	173	37	323	..	244	46,091	1,509	179,785	286,920
Class XIX.—Wares, not elsewhere included.										
Umbrella	8	11	8	46	1	115	10,607	267	40,688	61,167
Rubber goods	11	3,213	9	1,424	1	400	203,100	19,565	610,354	923,754
Brush, broom	17	100	19	189	1	86	26,315	467	70,639	113,611
Basket, wickerware	17	2	19	98	..	1	9,125	21	9,018	22,065
Total	53	3,326	55	1,757	3	602	249,147	20,320	730,699	1,120,597
Grand Total	5,413	117,815	4,814	71,157	552	37,311	11,036,345	834,966	30,728,743	51,466,093

Increase in value of output of each industry 1910 to 1915.

Nearly every manufacturing industry in the State has shown a substantial increase in the value of output during the past five years. The output for the years 1910 and 1915 is shown in the following table, the industries being arranged in order of increase in value : —

OUTPUT OF INDUSTRIES, 1910-15.

Industry.	Value of Output.		Increase in Five Years.	
	1910.	1915.	Total.	Per cent.
	£	£	£	
Tanning and fellmongering ..	1,739,850	3,201,455	1,461,605	84·0
Engineering, iron foundries, &c.	1,805,199	3,029,713	1,224,514	67·8
Boot, shoe	1,620,179	2,436,673	816,494	50·4
Railway workshop	1,013,124	1,828,874	815,750	80·5
Sugar, confectionery ..	1,635,728	2,301,371	665,643	40·7
Clothing, tailoring, &c. ..	1,676,148	2,315,842	639,694	38·2
Chaffcutting and grain crushing	476,318	1,072,846	596,528	125·2
Dress, millinery, and hosiery ..	1,213,169	1,775,217	562,048	46·3
Woollen mill	426,336	931,774	505,438	118·6
Rubber goods	424,839	923,754	498,915	117·4
Printing	1,684,601	2,169,018	484,417	28·8
Saw-mills, moulding, &c. ..	1,533,515	2,010,955	477,440	31·1
Arms and explosives ..	122,066	537,170	415,104	340·1
Meat freezing and preserving ..	663,776	1,076,450	412,674	62·2
Electric light and fittings ..	257,518	657,447	399,929	155·3
Underclothing, shirt ..	801,145	1,157,430	356,285	44·5
Jam, sauce, &c.	676,484	1,009,533	333,049	49·2
Gas, coke	733,910	1,035,941	302,031	41·2
Oil, grease, glue, soap and candle	565,989	858,554	292,565	51·7
Bacon-curing	483,469	767,778	284,309	58·8
Ship, boat-building, dock, slip	34,184	296,995	262,811	768·8
Flourmills	2,486,741	2,739,730	252,989	10·2
Biscuit	432,367	669,841	237,474	54·9
Chemicals	794,009	1,021,066	227,057	28·6
Brewing	836,485	1,061,196	224,711	26·9
Oatmeal, starch, &c. ..	320,540	523,374	202,834	63·3
Malt	228,141	409,332	181,191	79·4
Coach	692,861	866,045	173,184	25·0
Saddle, harness	118,776	285,322	166,546	140·2
Rope, twine, &c.	289,755	445,436	155,681	53·7
Sheet-iron, tin, &c.	328,468	477,995	149,527	45·5
Match	59,450	198,598	139,148	234·1
Cement, including cement pipes	39,823	170,368	130,545	327·8
Condiments, coffee, cocoa, &c.	243,621	355,271	111,650	45·8
Sail, tent, &c.	47,736	157,416	109,680	229·8
Brass, copper	162,829	248,413	85,584	52·6
Hat, cap	376,154	457,453	81,299	21·6
Glass, including bottles ..	120,174	189,271	69,097	57·5
Leatherware, except saddlery ..	223,256	286,920	63,664	28·4
Blacking, blue, &c.	170,788	232,645	61,857	36·2
Cabinet, including billiard table	419,600	479,520	59,920	14·3
Others	8,681,733	8,796,091	114,358	1·3
	36,660,854	51,466,093	14,805,239	40·4

INDIVIDUAL INDUSTRIES.

The salient features in connexion with the chief industries are set forth in the succeeding pages.

Tanneries, &c.

The development of the tanning and fellmongering industry during the past ten years is shown by the particulars contained in the next two tables :—

TANNERIES, ETC.: 1906 TO 1915.

Year.	Number of Establishments.	Horse-power of Engines.	Value of Machinery and Plant in Use.	Number of Persons Employed	Number of Working Proprietors.	Amount of Wages Paid.
			£			£
1906	84	1,152	114,951	1,657	88	123,677
1907	90	1,223	124,064	1,893	100	140,436
1908	92	1,379	133,376	2,001	98	160,091
1909	93	1,941	142,429	1,999	96	163,853
1910	89	1,990	141,702	1,956	99	175,364
1911	88	2,005	165,964	2,123	97	198,692
1912	90	2,161	176,947	1,996	103	205,050
1913	84	2,398	196,848	1,824	86	194,948
1914	79	2,434	190,460	1,875	82	210,007
1915	82	2,510	193,350	2,165	97	268,884

The quantity of bark used in connexion with tanning operations in 1915 was 14,600 tons. The output of tanneries for each of the last ten years was as follows :—

OUTPUT OF TANNERIES, ETC.: 1906 TO 1915.

Year.	Number Tanned of—			Sheep Skins Stripped.	Wool Washed (weight after washing).	Value of Articles produced or Work done.
	Hides.	Calf Skins.	Sheep and other Skins.			
				No.	lbs.	£
1906	485,620	132,210	518,139	612,598	5,676,464	1,320,401
1907	492,572	188,007	548,765	851,516	7,230,675	1,512,009
1908	498,947	127,798	1,027,460	1,253,875	7,803,992	1,441,651
1909	495,964	175,563	1,020,656	1,090,967	8,089,643	1,636,197
1910	496,200	186,993	1,007,343	1,241,693	8,242,456	1,739,850
1911	523,989	199,257	817,866	1,301,298	9,356,529	1,843,189
1912	536,343	194,441	891,971	1,085,196	8,182,610	1,891,816
1913	538,117	181,643	863,580	1,128,302	7,424,263	1,961,653
1914	554,242	210,894	936,975	1,639,161	7,816,250	2,132,935
1915	765,088	166,197	1,150,449	1,463,775	12,224,184	3,201,455

The figures for 1909 and subsequent years do not include skins and wool dealt with in small tanneries. The work done in such tanneries in 1908 was the tanning of 1,540 hides, 1,620 calf skins, and 4,916 sheep and other skins. The value of the leather imported into Victoria from oversea countries during the year ended 30th June, 1916, was £196,848.

Soap and candle works.

Particulars in regard to the soap and candle works in the State for the past ten years are given below :—

SOAP AND CANDLE WORKS—1906 TO 1915.

Year	Number of Establishments.	Value of Machinery and Plant in Use.	Number of Employees.	Amount of Wages Paid.	Products.		Value of Output.
					Soap.*	Candles.	
		£		£	cwt.	cwt.	£
1906 ..	15	104,244	514	41,635	154,570	43,094	355,771
1907 ..	15	106,326	499	43,429	153,478	47,688	404,251
1908 ..	17	109,768	523	43,463	162,757	37,705	402,306
1909 ..	17	111,252	550	56,382	176,162	45,460	485,954
1910 ..	16	113,418	528	51,518	187,433	44,768	516,508
1911 ..	16	113,664	528	53,474	189,048	41,557	572,000
1912 ..	17	117,034	593	61,398	215,629	40,157	562,013
1913 ..	18	117,692	561	60,703	223,598	39,099	610,881
1914 ..	17	120,215	604	65,155	243,558	37,564	641,104
1915 ..	17	121,946	627	71,282	267,426	41,031	721,845

* Not including soap made in small soap works not classified as factories, viz., 11,706 cwt. in 1906, 10,527 cwt. in 1907, 7,125 cwt. in 1908, 5,458 cwt. in 1909, 5,479 cwt. in 1910, 6,216 cwt. in 1911, 4,732 cwt. in 1912, 3,564 cwt. in 1913, 3,489 cwt. in 1914, and 1,664 cwt. in 1915.

The quantity of tallow used in 1915 in the manufacture of soap and candles was 184,623 cwt. in factories, and 692 cwt. in minor works.

The imports from oversea countries in 1915-16 included 389,369 lbs. of soap valued at £24,854, and 48,013 lbs. of candles valued at £1,944.

Brickyards, potteries, &c.

Particulars relating to brickyards and potteries for the ten years 1906-15 are shown in the following statement. The value of the land, plant, buildings, &c., used in connexion with such works in 1915 was £499,644.

BRICKS, POTTERY, PIPES, AND TILES: 1906 TO 1915.

Year.	Number of Establishments.	Number of Employees.	Amount of Wages Paid.	Number of Bricks Made.*	Value of—	
					Pipes and Tiles.	Pottery.
			£		£	£
1906 ..	123	1,568	145,725	112,966,300	58,349	27,570
1907 ..	117	1,714	155,768	123,281,100	66,390	29,070
1908 ..	119	1,711	165,246	124,985,500	72,024	33,029
1909 ..	108	1,588	164,192	129,302,800	77,305	32,624
1910 ..	122	1,730	178,868	145,809,500	83,397	31,897
1911 ..	120	1,856	197,282	153,944,800	97,478	35,522
1912 ..	119	2,047	236,526	180,724,200	123,944	44,788
1913 ..	106	1,974	233,157	175,644,900	132,709	32,839
1914 ..	109	2,117	260,877	188,238,420	124,826	47,948
1915 ..	89	1,839	230,969	142,601,380	134,623	52,732

*In addition there are bricks made in small brickyards not tabulated as factories.

The estimated value of bricks made in 1915 was £247,501, being a decrease of £84,075 as compared with the value of those made in the preceding year.

Forest saw-mills.

Particulars in regard to the forest saw-mills in the State for the ten years 1906-15 are given in the table which follows :—

FOREST SAW-MILLS: 1906 TO 1915.

Year.	Number of Mills.	Value of Machinery and Plant in Use.	Number of Employees.	Amount of Wages Paid.	Timber Sawn.	
					Quantity.	Value.
		£		£	Super. ft.	£
1906 ..	112	90,305	1,488	105,017	51,103,000	153,309
1907 ..	119	99,723	1,548	118,258	55,873,500	181,590
1908 ..	120	98,804	1,486	126,409	54,602,200	177,460
1909 ..	133	115,121	1,635	131,108	56,039,200	189,130
1910 ..	139	125,528	1,767	158,733	70,947,200	248,320
1911 ..	142	148,136	1,892	170,579	70,931,500	265,990
1912 ..	150	170,437	1,814	183,169	73,374,900	265,980
1913 ..	167	262,964	2,118	211,454	81,769,800	290,280
1914 ..	167	273,086	2,127	232,305	84,374,300	316,400
1915 ..	138	233,343	1,564	169,027	62,588,760	234,710

In addition to forest saw-mills there were 272 other factories working in wood. The particulars for 1915 relating to these are given on page 786.

Firewood, &c.

It is estimated that the approximate value of the production of firewood for consumption in the year is £506,260. In addition, there are supplies of railway sleepers, piles, posts and rails, shingles, and timber for mines obtained from the forests, but it has been found impossible to procure reliable information as to their value.

Engineering, iron foundry, &c.

During the past decade there has been a very marked expansion in engineering works and iron foundries. Since 1904 the number of factories has increased by 57 per cent., the number of persons employed therein by 83 per cent., the amount of wages paid by 170 per cent., the value of machinery and plant by 78 per cent., the value of materials used by 198 per cent., and the value of the output by 175

per cent. The chief particulars of the industry for the years 1906 to 1915 are given in the next table :—

ENGINEERING, IRON FOUNDRY, ETC., 1906-15.

Year.	Number of Factories.	Horse Power of Engines.	Value of Machinery and Plant.	Number of Persons Employed	Amount of Wages Paid.	Value of—		
						Materials Used.	Fuel and Light Used.	Output.
			£		£	£	£	£
1906 ..	251	2,615	445,667	5,643	478,805	586,850	45,522	1,356,555
1907 ..	262	2,990	486,649	5,847	531,398	667,867	55,541	1,515,440
1908 ..	278	3,130	491,208	5,928	549,868	650,990	58,629	1,535,907
1909 ..	293	3,238	481,562	5,810	547,192	644,273	58,648	1,561,011
1910 ..	290	3,583	496,232	6,366	615,704	757,270	66,693	1,805,199
1911 ..	304	4,746	553,685	7,372	762,824	913,476	77,674	2,194,805
1912 ..	326	5,857	635,481	8,649	988,802	1,154,377	83,841	2,640,453
1913 ..	345	6,670	715,909	8,745	1,029,136	1,206,001	90,005	2,824,892
1914 ..	354	7,899	762,392	8,601	1,038,622	1,298,255	94,284	2,961,187
1915 ..	364	7,999	784,447	8,552	1,056,075	1,349,270	106,483	3,029,718

The above figures are exclusive of railway workshops, which in 1915 numbered 17, and gave employment to 5,491 hands, who were paid £793,114; the value of the materials dealt with was £869,498, and the value of the output was £1,828,874, of which nearly 77 per cent. was from the Newport Workshops.

Agricultural implement works.

The subjoined statement contains the leading particulars relating to agricultural implement works for the last ten years :—

AGRICULTURAL IMPLEMENT WORKS, 1906 TO 1915.

Year.	No. of Factories.	No. of Employees.	Wages Paid.	Approximate Value of—		
				Fuel, &c., Used.	Materials Used.	Output.
			£	£	£	£
1906	53	1,685	148,610	8,928	194,730	478,509
1907	55	1,553	147,675	9,554	188,173	452,841
1908	52	1,381	134,884	9,253	177,488	437,023
1909	52	1,831	181,391	12,697	242,922	611,293
1910	50	2,193	231,919	21,537	300,718	742,326
1911	59	2,651	297,824	19,299	345,665	831,474
1912	67	2,590	309,789	19,388	329,397	799,217
1913	66	2,166	268,880	16,915	324,063	710,832
1914	65	1,895	242,158	16,866	278,283	638,827
1915	64	1,678	206,764	15,337	213,257	526,756

The industry attained its greatest development in 1911, when the employees numbered 2,651, and the value of output was £831,474. Decreases are shown for the last four years, the number of hands employed and the value of output having each been 37 per cent. lower in 1915 than in 1911.

The wages averaged for each employee £89 19s. 5d. in 1904 and £123 4s. 5d. in 1915. The stripper-harvester, which is a Victorian invention, is one of the principal implements manufactured.

Bacon curing.

In the following table particulars of bacon and ham curing establishments are given for the ten years 1906-15. The value of the machinery, plant, land and buildings in connexion with these establishments was £63,388 in 1906 and £152,879 in 1915.

BACON CURING: 1906 TO 1915.

Year.	Number of Establishments.	Number of Employees.	Amount of Wages Paid.	Pigs Slaughtered for Curing.	Weight of Bacon and Hams Cured.	Value of Output.
			£	No.	lbs.	£
1906 ..	28	306	25,606	135,492	12,910,575	394,584
1907 ..	27	316	27,472	145,513	13,609,144	447,585
1908 ..	26	310	27,862	129,677	11,518,404	446,199
1909 ..	26	310	28,454	123,067	11,245,195	443,277
1910 ..	25	307	30,035	142,429	13,455,397	483,469
1911 ..	26	349	39,041	177,029	15,190,449	549,748
1912 ..	29	399	45,794	179,717	16,044,228	634,366
1913 ..	28	423	49,305	179,710	16,345,955	726,906
1914 ..	26	442	57,965	181,756	16,298,474	772,318
1915 ..	25	362	49,672	129,259	11,451,031	767,778

This table does not include pigs slaughtered for curing, nor bacon and hams cured in small curing works; the pigs so slaughtered numbered 2,680 in 1906, 2,771 in 1907, 2,263 in 1908, 2,691 in 1909, 1,637 in 1910, 695 in 1911, 671 in 1912, 666 in 1913, 974 in 1914, and 439 in 1915; the quantity (in pounds) of bacon and hams cured was 252,348 in 1906, 244,837 in 1907, 194,328 in 1908, 294,088 in 1909, 142,524 in 1910, 70,440 in 1911, 50,500 in 1912, 51,620 in 1913, 87,258 in 1914, and 45,030 in 1915.

In addition, the following quantities of bacon and hams were returned as having been cured on farms:—4,888,243 lbs. in 1906,

3,691,739 lbs. in 1907, 2,698,669 lbs. in 1908, 2,375,290 lbs. in 1909, 2,983,440 lbs. in 1910, 4,356,323 lbs. in 1911, 3,999,478 lbs. in 1912, 2,943,303 lbs. in 1913, 2,476,023 lbs. in 1914 and 2,208,943 lbs. in 1915. The total quantity of bacon and hams cured in 1915 was thus 13,705,004 lbs.—a decrease of 5,156,751 lbs. as compared with 1914.

Butter and cheese factories.

The number of butter, cheese, and kindred factories was 190 in 1915. Of these factories, 146 made butter, 4 butter and cheese, 1 butter and cheese and concentrated milk, 1 butter and concentrated milk, 1 condensed, concentrated and powdered milk, 2 condensed and concentrated milk, 1 powdered milk, and 2 casein, while 32 made cheese only. There were 40 creameries attached to the factories. The number of factories, the value of machinery, plant, land, and buildings, the number of employees and the amount of their wages, and the total value of the output for the ten years 1906–15 were as follows :—

BUTTER AND CHEESE FACTORIES: 1906 TO 1915.

Year.	Number of Factories.	Value of Machinery, Plant, Land, and Buildings.	Number of Employees.	Amount of Wages Paid.	Value of Output.
		£		£	£
1906	221	549,282	1,415	115,889	2,928,540
1907	223	560,035	1,384	119,684	2,831,670
1908	215	526,700	1,235	108,152	2,327,328
1909	211	515,966	1,134	109,412	2,391,893
1910	203	513,292	1,209	121,128	2,980,669
1911	199	626,331	1,489	147,897	3,964,312
1912	197	635,358	1,374	152,922	3,636,174
1913	197	649,931	1,311	159,529	3,562,057
1914	197	643,677	1,290	161,740	3,228,640
1915	190	644,960	1,145	139,543	2,715,784

The reduction in the value of the output in 1915, as compared with that in each of the preceding five years, was due to a severe drought which occurred in 1914. Further particulars relating to butter and cheese factories will be found under the heading of Dairying on page 755.

Meat freezing and preserving works.

Meat freezing and preserving works numbered fourteen in 1915, and gave employment to 875 hands and two working proprietors, the wages of the hands amounting to £117,610. The approximate value of machinery, plant, land and buildings in the same year was £526,114. The output for each of the last ten years is given in the following table :—

MEAT FREEZING AND PRESERVING, 1906 TO 1915.

Year.	Frozen.			
	Cattle.	Sheep.	Rabbits.	Poultry.
	Qrs.	No.	No.	No.
1906	4,248	651,914	9,538,535	72,410
1907	10,760	866,498	6,413,560	56,275
1908	16,508	773,396	4,057,896	22,826
1909	17,360	941,309	2,832,924	22,440
1910	36,464	1,573,516	2,660,604	60,312
1911	40,184	1,578,133	2,312,928	35,388
1912	29,752	1,409,243	2,101,704	28,824
1913	126,568	2,107,180	4,674,588	25,284
1914	212,520	1,710,152	3,778,164	30,504
1915	...	47,546	3,584,388	8,652

Year.	Preserved.			
	Beef.	Mutton.	Rabbits.	Other Meats, &c.
	Cwt.	Cwt.	Cwt.	Cwt.
1906	6,011	1,700	496	1,512
1907	11,944	2,478	64	2,229
1908	7,557	2,309	1,730	1,391
1909	8,382	2,349	540	1,267
1910	13,589	8,876	1,389	2,534
1911	28,654	14,890	3,422	2,679
1912	37,984	22,387	...	3,056
1913	49,445	8,793	63	3,321
1914	49,103	7,316	2,368	5,936
1915	38,835	2,092	422	3,448

NOTE.—In addition to the above, there were treated at freezing works 6,947 calves, 2,580 pigs, and 38,397 hares in 1906 ; 8,047 calves, 2,196 pigs, and 55,196 hares in 1907 ; 11,662 calves, 2,296 pigs, and 29,796 hares in 1908 ; 3,059 calves, 225 pigs, and 8,724 hares in 1909 ; 3,893 calves, 1,557 pigs, and 29,532 hares in 1910 ; 7,308 calves, 1,609 pigs, and 58,008 hares in 1911 ; 8,355 calves, 3,120 pigs, and 43,224 hares in 1912 ; 5,050 calves, and 39,420 hares in 1913 ; 11,708 calves, 1,713 pigs, and 57,576 hares in 1914; and 3,072 hares in 1915.

Imports and exports of meats.

The following statement shows the imports from and exports to oversea countries of frozen and preserved meats, other than bacon and ham, during the year ended 30th June, 1916 :—

MEATS IMPORTED AND EXPORTED OVERSEA, 1915–16.

—	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
Meats, Frozen—		£		£
Lamb	...	...	1,727,366 lbs.	47,348
Pork	151,906 lbs.	5,526	...	...
Rabbits and Hares	...	...	1,420,182 prs.	90,588
Game	3,351 lbs.	141	28,780 lbs.	818
Other	...	...	90,927 "	2,219
Meats—Potted and concentrated	...	14,096	...	3,528
" Preserved in tins ..	387,522 lbs.	19,923	391,171 lbs.	12,345
" Not elsewhere included	18 cwt.	55	14 cwt.	26
Total value ...	...	39,741	...	156,872

Flour mills.

The value of the machinery, plant, land and buildings used in connexion with flour mills was estimated at £466,011 in 1906, and at £461,801 in 1915. Particulars of the industry for the ten years 1906–15 are as follows :—

FLOUR MILLS: 1906 TO 1915.

Year.	Number of Mills.	Number of Employees.	Amount of Wages Paid.	Wheat Ground into Flour.	Flour Made.	Value of Total Output.
			£	bushels.	tons.	£
1906 ..	64	744	80,261	10,892,056	219,166	2,029,483
1907 ..	68	788	85,544	11,731,183	235,185	2,370,957
1908 ..	63	728	78,906	9,564,068	192,687	2,275,024
1909 ..	59	688	79,547	10,644,123	215,547	2,639,519
1910 ..	62	734	84,863	11,218,870	225,282	2,486,741
1911 ..	61	784	93,503	12,266,013	247,434	2,456,533
1912 ..	61	790	95,266	11,185,138	225,376	2,565,014
1913 ..	61	790	102,882	12,459,988	252,763	2,633,604
1914 ..	57	836	109,910	12,173,943	246,136	2,726,878
1915 ..	51	608	70,982	6,574,753	134,401	2,739,730

In addition to the flour made, the wheat ground in 1915 produced 3,626,262 bushels of bran and 2,403,857 bushels of pollard. Other

grain operated on amounted to 111,719 bushels in 1906, 123,885 bushels in 1907, 123,879 bushels in 1908, 45,487 bushels in 1909, 35,507 bushels in 1910, 84,707 bushels in 1911, 98,243 bushels in 1912, 39,826 bushels in 1913, 38,992 bushels in 1914, and 43,618 bushels in 1915.

Exports of bread-stuffs.

During the year 1915–16, 3,470,666 lbs. of biscuits valued at £74,819, and 55,600 tons of flour valued at £653,490, were exported from Victoria to countries beyond Australia.

Jam, pickle, and sauce works.

In 1915 there were 30 establishments in which the manufacture of jams, pickles, and sauces was carried on, and the number of persons employed therein was 1,689, of whom 23 were working proprietors. The wages paid to the employees amounted to £135,768, and the value of machinery, plant, land and buildings was £184,496. The fruit and sugar used and the output for each of the last ten years were as shown below :—

JAM, PICKLE, AND SAUCE WORKS, 1906 TO 1915.

Year.	Fruit Used.	Sugar Used.	Jams and Jellies Made.	Fruit Preserved.	Fruit Pulped.	Sauce Made.	Pickles Made.
	cwt.	cwt.	cwt.	cwt.	cwt.	pints.	pints.
1906 ...	195,902	107,194	203,038	43,138	56,619	2,943,380	889,938
1907 ...	218,276	105,518	190,211	33,819	95,885	3,257,471	1,253,280
1908 ...	191,282	133,283	226,481	31,336	18,783	3,014,835	1,187,136
1909 ...	265,353	143,427	268,927	40,746	49,797	3,607,968	1,324,392
1910 ...	311,168	159,439	303,733	49,797	38,017	4,173,936	1,264,728
1911 ...	315,362	156,376	286,543	53,562	52,427	4,348,500	1,617,156
1912 ...	307,458	154,381	258,470	63,133	56,488	5,886,336	1,482,252
1913 ...	400,048	179,243	265,727	102,608	100,690	6,458,748	1,752,396
1914 ...	341,189	175,538	271,755	81,425	75,299	5,648,280	1,840,920
1915 ...	300,861	193,243	305,445	52,939	40,993	5,827,176	1,285,476

These works also candied fruit peel amounting to 3,283 cwt. in 1908, 4,802 cwt. in 1909, 3,902 cwt. in 1910, 3,549 cwt. in 1911, 2,763 cwt. in 1912, 5,519 cwt. in 1913, 6,892 cwt. in 1914, and 4,628 cwt. in 1915. The value of the output in 1915 was £1,009,533.

Beet sugar industry.

In 1896 Parliament passed an Act making available £100,000, of which £62,000 was expended in promoting the establishment of the beet sugar industry on the basis of £2 for every £1 of private capital subscribed. A company was formed, and a substantial building, equipped with a modern plant, was erected at Maffra, in Gippsland. Starting with every essential for success, and with a guarantee that 1,500 acres of beet would be sown by local land-holders, the industry, after various vicissitudes, was compelled to cease operations after two manufacturing campaigns, and the building and plant, which fell into the hands of the Government under the terms of its mortgage, remained idle for twelve years.

In 1910 a definite campaign to revive the industry was commenced, numerous experimental beet plots were established throughout Gippsland in order to familiarize land-holders with beet-growing, lectures were given explanatory of the Government proposals and different phases of the industry, a system of field labour was organized, and manufacturing operations were recommenced.

With the view of putting the industry on a sound footing, the Government purchased large areas at Boisdale and Kilmany Park. These estates, which are in railway communication with Maffra, were cut up into small holdings under the Closer Settlement Board, and allotted to settlers, subject to the proviso that each must grow a certain area of beet. The compulsory beet-growing conditions were removed in 1914, and the supply of beet became dependent on voluntary growers.

The following particulars summarize the results of the last six seasons :—

Season.	Area. Harvested.	Sugar Beet Harvested.	Sugar Produced.
	acres.	tons.	tons.
1910–11	458	5,969	482
1911–12	752	4,000	519
1912–13	900	6,207	648
1913–14	1,000	7,431	920
1914–15	990	8,843	1,181
1915–16	461	4,928	560

The area harvested in 1915–16 was considerably less than in the previous year owing to various local difficulties and the uncertainty of securing beet seed. Considering the small acreage and the fact that there was a low sugar content in consequence of the autumn rains, the manufacturing results were satisfactory. The grade of sugar was superior. For the forthcoming season (1916–17) the price of beet has been increased to 27s. 6d. per ton, and 1,500 acres of good land have been secured.

Breweries. Particulars regarding breweries for the ten years 1906–15 are set forth in the next table. Machinery and plant were valued at £235,980 in 1906 and at £419,896 in 1915, whilst land and buildings were valued at £487,967 in 1906 and at £434,295 in 1915. The wages paid in 1915 amounted to £159,870.

BREWERIES: 1906 TO 1915.

Year.	Number of Breweries.	Number of Employees.	Materials Used—			Beer Made.	Value of Output.
			Sugar.	Malt.	Hops.		
			cwt.	bushels.	lbs.	gallons.	£
1906 ...	39	1,002	101,692	533,531	623,249	16,409,465	895,104
1907 ...	37	1,005	106,004	542,806	665,236	16,900,336	810,321
1908 ...	35	1,107	109,347	556,040	684,879	17,582,833	832,459
1909 ...	32	996	103,146	503,761	632,339	16,552,594	771,779
1910 ...	31	1,016	112,240	540,390	663,394	18,605,737	836,485
1911 ...	33	1,009	111,314	548,341	649,892	19,077,420	912,829
1912 ...	29	984	119,667	566,779	659,323	20,247,337	980,927
1913 ...	26	966	123,073	586,375	653,803	20,925,354	1,024,708
1914 ...	25	1,036	133,707	678,526	738,953	23,865,467	1,196,306
1915 ...	22	893	111,363	600,333	661,299	20,339,924	1,061,196

Distilleries. The number of distilleries working in 1915 was 9, and the persons employed numbered 92, of whom 5 were working proprietors. The estimated value of the machinery, plant, land, and buildings was £180,534. The materials used in manufacture and the quantity of spirits distilled in each of the last ten years were as follows:—

DISTILLERIES: 1906 TO 1915.

Year.	Materials Used.				Spirits Distilled.
	Wine.	Malt.	Other Grain.	Sugar and Molasses.	
	Gal.	Bush.	Bush.	lbs.	Proof gal.
1906	324,005	13,038	...	101,024	94,674
1907	413,242	141,876	...	49,280	375,183
1908	591,248	53,761	...	...	220,690
1909	379,979	117,197	...	...	314,370
1910	605,204	25,345	3,560	649,152	223,560
1911	370,119	61,981	752	1,293,152	298,237
1912	580,976	...	...	791,056	152,645
1913	944,277	54,544	...	1,057,280	335,251
1914	1,248,957	39,043	118	1,649,760	409,815
1915	984,817	34,896	118	1,592,640	386,152

Spirits made by vine-growers for fortifying wine are not included in the foregoing table. The following quantities were distilled in vineyards for that purpose during the last ten years:—60,521 gallons in 1906, 53,517 gallons in 1907, 50,954 gallons in 1908, 30,976 gallons in 1909, 13,427 gallons in 1910, 29,745 gallons in 1911, 23,874 gallons in 1912, 13,357 gallons in 1913, 12,256 gallons in 1914, and 9,995 gallons in 1915.

Tobacco factories.

The number of tobacco, cigar and cigarette factories licensed in 1915 was thirty-five, of which twenty-two were too small to be classified as ordinary factories and were consequently not included in the statistical tabulation. In the year mentioned the remaining thirteen employed 1,591 hands, who were paid £185,889 in wages, also ten working proprietors; and the machinery, plant, land, and buildings used were valued at £288,775. The subjoined table shows the quantity of tobacco leaf used by, and the output of the full number of licensed establishments for the last ten years:—

TOBACCO FACTORIES: 1906 TO 1915.

Year.	Unmanufactured Leaf Operated on.		Quantity Manufactured of—			
	Australian	Imported.	Tobacco.	Snuff.	Cigars.	Cigarettes.
	lbs.	lbs.	lbs.	lbs.	No.	No.
1906... ...	431,941	4,172,065	4,650,113	516	18,762,205	131,161,460
1907... ...	332,271	4,479,073	4,782,061	993	17,740,782	146,699,600
1908... ...	269,354	5,566,522	5,331,117	605	19,741,355	178,776,650
1909... ...	202,723	4,759,856	5,162,959	610	19,368,491	141,105,750
1910... ...	195,279	5,225,078	5,510,099	577	21,310,111	135,108,700
1911... ...	180,501	4,972,275	5,521,175	603	22,424,806	116,435,800
1912... ...	165,156	5,137,331	5,641,647	702	23,333,951	97,400,400
1913... ...	254,561	5,113,935	5,605,566	500	25,019,435	103,382,600
1914... ...	340,296	4,708,548	5,140,695	746	23,533,572	140,100,500
1915... ...	515,969	4,414,921	5,022,910	565	22,676,586	138,111,000

Woollen mills.

There were ten woollen mills working in 1915, and the number of persons employed therein was 2,063, of whom ten were working proprietors. The wages paid to employees amounted to £170,888, and the approximate value of the machinery, plant, land, and buildings to £401,662. The value of the raw materials used in mills during the year was £487,140, and that of

the goods manufactured in the same period, £931,774. The quantities of wool and cotton used and of goods manufactured in each of the last ten years were as follow :—

WOOLLEN MILLS : 1906 TO 1915.

Year.	Quantity of Scoured Wool Used.	Quantity of Cotton Used.	Goods Manufactured—				Value of Output.
			Tweed and Cloth.	Flannel.	Blankets.	Shawls and Rugs.	
	lbs.	lbs.	yards.	yards.	No. of Pairs.	No.	£
1906	2,825,218	658,882	840,649	3,637,846	146,628	8,383	296,971
1907	3,311,097	914,003	867,789	4,088,383	199,743	12,089	368,784
1908	3,210,925	965,042	922,176	4,396,862	228,621	15,222	388,218
1909	3,093,383	880,934	949,674	4,713,571	225,148	15,189	403,106
1910	3,136,442	955,894	890,281	4,640,401	191,651	18,185	426,336
1911	3,409,105	897,804	901,348	4,691,255	240,961	13,718	473,686
1912	3,265,390	1,061,201	1,013,444	4,604,654	265,637	14,476	473,880
1913	3,489,150	1,068,214	1,017,776	4,965,527	287,814	19,443	513,252
1914	3,607,690	1,075,666	1,036,079	5,546,841	258,859	22,455	577,434
1915	6,521,130	702,653	1,331,137	5,136,258	347,988	6,418	931,774

During the period 1906–15 the value of output of woollen mills increased by 214 per cent. The quantity of tweed and cloth manufactured increased by 58 per cent., of flannel by 41 per cent., and of blankets by 137 per cent.

Boot factories.

The development which has taken place in the boot industry in recent years is exhibited by the following tables:—

BOOT FACTORIES : 1906 TO 1915.

Year.	Number of Factories.	Persons Employed.	Value of Land, Buildings, and Machinery.	Wages Paid.
			£	£
1906 ...	134	5,755	253,436	332,538
1907 ...	139	6,303	292,474	368,503
1908 ...	139	6,348	284,982	371,081
1909 ...	136	6,894	294,167	415,011
1910 ...	144	6,832	324,529	455,997
1911 ...	154	7,001	363,540	542,707
1912 ...	151	6,774	378,501	570,025
1913 ...	162	6,951	426,573	578,503
1914 ...	172	6,924	455,158	603,318
1915 ...	174	6,847	483,683	625,886

OUTPUT OF BOOT FACTORIES: 1906 TO 1915.

Year.	Goods Manufactured—		Value of Materials Used.	Value of Output.
	Boots and Shoes.	Slippers.*		
	No. of pairs.	No. of pairs.	£	£
1906	4,001,580	175,575	719,960	1,194,575
1907	4,290,122	182,039	808,879	1,322,893
1908	4,164,410	193,949	780,760	1,307,329
1909	4,649,130	231,791	884,329	1,487,789
1910	4,847,368	191,204	963,110	1,620,179
1911	5,198,030	164,313	1,103,653	1,878,308
1912	4,966,768	220,616	1,132,045	1,951,998
1913	5,013,143	254,844	1,230,725	2,094,866
1914	4,913,593	272,866	1,281,352	2,160,500
1915	5,257,415	191,044	1,502,285	2,436,673

* Includes canvas shoes and house-boots.

During the period 1906–15 the wages paid increased by 88 per cent., the value of materials used by 108 per cent., and the value of output by 104 per cent., while the quantity of boots and shoes manufactured increased by only about 31 per cent.

Dress (exclusive of boot) factories.

The value of the output of establishments connected with the manufacture of dress, *i.e.*, clothing, tailoring, dressmaking, millinery, underclothing, hats and caps, &c., but exclusive of boots and shoes, was £5,901,238 in 1915, as compared with £2,650,658 in 1906. During the period 1906–15 the hands employed increased by 23 per cent., the wages paid by 89 per cent., the value of materials used by 129 per cent., and the value of the output by 123 per cent. Particulars of the industry for each of the last ten years are as follow:—

DRESS (EXCLUSIVE OF BOOT) FACTORIES.

Year.	Number of Factories.	Number of Hands employed.			Amount of Wages paid.	Value of Materials used.	Value of Output.
		Males.	Females.	Total.			
					£	£	£
1906 ..	999	2,848	19,905	22,753	822,471	1,435,939	2,650,658
1907 ..	1,040	3,032	21,132	24,164	903,320	1,603,583	2,952,393
1908 ..	1,064	3,191	22,124	25,315	965,425	1,693,450	3,112,211
1909 ..	1,125	3,387	23,174	26,561	1,057,278	2,033,925	3,743,940
1910 ..	1,160	3,620	24,069	27,689	1,181,534	2,259,826	4,174,402
1911 ..	1,213	3,921	26,114	30,035	1,384,678	2,557,287	4,756,604
1912 ..	1,205	4,067	26,255	30,322	1,532,559	2,760,001	5,184,535
1913 ..	1,296	4,221	25,955	30,176	1,579,957	2,868,302	5,430,240
1914 ..	1,298	4,019	25,660	29,679	1,591,133	3,001,379	5,568,744
1915 ..	1,198	3,833	24,126	27,959	1,554,921	3,295,009	5,901,238

Electric light and power works.

Particulars relating to the electric light and power works of the State are shown in the next table :—

ELECTRIC LIGHT AND POWER WORKS: 1906 TO 1915.

Year.	Number of Stations.	Horse-power of Machinery.	Value of Machinery and Plant.	Persons Employed.	Wages Paid.	Electricity Supplied.	Value of Output.
			£		£	British Units.	£
1906 ..	9	9,130	491,171	363	38,398	9,760,046	141,784
1907 ..	11	9,948	496,314	398	44,489	12,542,614	177,044
1908 ..	12	11,702	541,489	441	50,442	14,310,482	191,317
1909 ..	13	13,293	577,403	442	54,621	16,471,368	207,959
1910 ..	16	13,962	645,333	523	62,266	18,832,467	231,604
1911 ..	20	15,819	733,769	590	75,722	23,011,340	270,498
1912 ..	24	20,005	912,712	666	89,435	27,579,734	309,156
1913 ..	51	26,213	1,165,020	860	114,874	35,637,971	400,192
1914 ..	58	28,485	1,418,511	924	131,854	44,890,249	473,918
1915 ..	63	33,127	1,569,553	957	135,045	53,209,990	536,251

The electricity supplied in 1915 represents an increase of 445 per cent. on that supplied in 1906.

Gasworks.

The approximate value of the machinery and plant, land and buildings connected with gasworks in Victoria was £1,702,758 in 1906, and £1,819,657 in 1915. The gas made in the latter year was 127 per cent. in excess of that made in 1906. Particulars in regard to these works are given below.

GASWORKS: 1906 TO 1915.

Year.	Number of Works.*	Persons Employed.	Wages Paid.	Coal Used.	Gas Made.	Coke Produced.	Value of Output.
			£	Tons.	Cubic Feet.	Tons.	£
1906 ..	48	1,125	138,701	178,251	1,810,405,800	105,909	519,365
1907 ..	48	1,272	157,525	189,190	1,975,892,500	112,050	574,002
1908 ..	47	1,298	168,077	206,408	2,144,834,000	126,530	618,501
1909 ..	47	1,390	181,965	217,473	2,292,988,400	131,695	676,528
1910 ..	47	1,421	199,308	235,532	2,476,523,100	139,423	733,910
1911 ..	47	1,601	230,626	261,848	2,813,159,700	155,488	810,414
1912 ..	47	1,835	275,755	284,670	3,108,555,700	171,750	873,134
1913 ..	47	1,973	302,354	294,541	3,480,180,200	176,810	935,910
1914 ..	47	2,117	332,971	300,152	3,806 380,100	195,178	979,229
1915 ..	47	2,175	347,434	307,902	4,107,573,600	204,957	1,035,941

* Including one establishment manufacturing coke only.

Oil was used as well as coal in the manufacture of gas, the number of gallons consumed each year being 154,486 in 1906, 163,215 in 1907, 187,237 in 1908, 196,176 in 1909, 228,034 in 1910, 274,353 in 1911, 306,405 in 1912, 348,385 in 1913, 332,586 in 1914, and 328,230 in 1915.

Number and Location of Factories 1903–15.

The facilities afforded in the metropolitan area have had the effect of bringing within that area the more important of the manufactories. The distribution of factories by classes as between the metropolis and the remainder of the State for the years 1903, 1907, 1911, and 1915 is exhibited in the following statement:—

NUMBER AND LOCATION OF FACTORIES.

Class of Industry.	Number of Factories.							
	Metropolis.				Remainder of State.			
	1903.	1907.	1911.	1915.	1903.	1907.	1911.	1915.
Treating raw material, product of pastoral pursuits, &c. ..	97	76	84	77	227	247	253	245
Treating oils and fats, animal, vegetable, &c.	12	12	12	14	12	9	11	11
Processes in stone, clay, glass, &c. ..	79	86	96	96	112	117	119	93
Working in wood ..	107	125	168	194	161	165	207	216
Metal works, machinery, &c.	304	363	440	507	241	256	234	224
Connected with food and drink, &c. ..	160	182	197	201	461	474	454	430
Clothing and textile fabrics, &c. ..	827	938	1,128	1,100	281	282	288	315
Books, paper, printing, &c.	193	223	255	283	104	118	165	160
Musical instruments, &c.	2	3	5	5	..	..	..	..
Arms and explosives	2	2	6	8	3	3	3	4
Vehicles, saddlery, harness, &c. ..	164	192	219	249	170	185	191	280
Ship and boat building and repairing ..	6	10	11	11	2	2	1	1
Furniture, upholstery, and bedding ..	169	176	222	239	18	18	20	26
Drugs, chemicals, and by-products ..	45	42	50	53	17	22	31	26
Surgical and other scientific appliances	9	11	16	22	..	..	1	1
Jewellery, time-pieces, and platedware ..	47	50	74	89	5	7	6	5
Heat, light, and power	25	24	29	46	43	46	54	96
Leatherware, n.e.i. ..	20	23	32	33	1	1	..	..
Minor wares, n.e.i. ..	25	40	44	51	..	..	..	2
Total ..	2,293	2,578	3,088	3,278	1,858	1,952	2,038	2,135

Since 1903 the number of factories has increased by 1,262, the greatest numerical increase in the classes being that of the clothing and textile factories, of which there were 307 more in 1915 than in 1903.

Employment in Factories. The employment afforded in each class of industry is set forth in the next statement:—

AVERAGE NUMBER OF PERSONS EMPLOYED IN FACTORIES.

Class of Industry.	1903.	1912.	1913.	1914.	1915.
Treating raw materials, product of pastoral pursuits, &c. ..	2,976	3,379	3,246	3,310	3,345
Treating oils and fats, animal, vegetable, &c.	528	663	656	711	740
Processes in stone, clay, glass, &c.	3,076	4,207	4,137	4,283	3,822
Working in wood	3,713	7,191	7,653	7,472	6,345
Metal works, machinery, &c. ..	10,350	20,126	20,138	19,694	19,217
Connected with food and drink, &c.	10,602	14,335	15,153	15,308	13,778
Clothing and textile fabrics, &c...	26,301	39,984	40,140	39,446	38,041
Books, paper, printing, &c. ..	6,525	8,901	9,118	9,153	8,881
Musical instruments, &c. ..	25	189	181	170	145
Arms and explosives	342	707	856	970	1,324
Vehicles, saddlery, harness, &c. ..	2,973	4,748	5,230	5,086	4,589
Ship and boat building and repairing	98	240	433	593	1,085
Furniture, bedding, and upholstery	1,978	3,263	3,240	2,986	2,689
Drugs, chemicals, and by-products	987	1,804	1,931	1,834	1,860
Surgical and other scientific appliances	35	90	102	114	115
Jewellery, time-pieces, and plated ware	594	1,037	951	925	825
Heat, light, and power	988	3,052	3,419	3,769	4,012
Leatherware, n.e.i.	283	605	568	566	604
Minor wares, n.e.i.	855	1,587	1,592	2,009	2,417
Total	73,229	116,108	118,744	118,399	113,834

The total increase in the number of hands employed during the period covered by the above table is 40,605, and represents an advance of about 55 per cent. The greatest development has taken place in clothing factories, metal works, and industries connected with food, drink, &c., which show increases of 11,740, 8,867, and 3,176 respectively in the number of persons employed in 1915 as compared with the number in 1903.

Size of Factories. An examination of the figures relating to different factories in 1903 and 1915 reveals the great increase in the number of hands employed which has taken place in factories of the largest size. During the past twelve years the number of factories employing over 100 hands has increased by 59 per cent., and the number of hands engaged therein by 107 per cent., whilst the factories employing less than 100 and their employees have increased by only 29 and 30 per cent. respectively. Particulars of

factories of different sizes in 1903 and 1915 are given in the next two tables :—

FACTORIES ACCORDING TO NUMBER OF HANDS EMPLOYED.

Size of Factory.	Number of Factories.		Average Number of Hands employed.	
	1903.	1915.	1903.	1915.
Under 4 hands	587	1,147	1,714	2,631
4 „	487	624	1,948	2,496
5 to 10 „	1,631	1,805	11,293	12,390
11 to 20 „	722	827	10,509	12,011
21 to 50 „	471	608	14,520	19,621
51 to 100 „	135	214	9,109	14,693
Over 100 „	118	188	24,136	49,992
Total	4,151	5,413	73,229	113,834

PROPORTION OF FACTORIES OF DIFFERENT SIZES.

Size of Factory.	Percentage to Total.			
	Factories.		Hands.	
	1903.	1915.	1903.	1915.
Under 4 hands	14·14	21·19	2·34	2·31
4 „	11·73	11·53	2·66	2·19
5 to 10 „	39·29	33·34	15·42	10·89
11 to 20 „	17·40	15·29	14·35	10·55
21 to 50 „	11·35	11·23	19·83	17·24
51 to 100 „	3·25	3·95	12·44	12·90
Over 100 „	2·84	3·47	32·96	43·92
Total	100·00	100·00	100·00	100·00

Occupations in Factories. In the following table the persons employed in factories are grouped according to their occupational status :—

OCCUPATIONS OF PERSONS EMPLOYED IN FACTORIES.

Occupations.	1903.	1912.	1913.	1914.	1915.
Working proprietors ..	4,190	5,325	5,649	5,707	5,366
Managers, overseers ..	2,520	3,091	3,314	3,283	3,347
Clerks, accountants ..	2,213	3,676	3,927	3,981	4,062
Engine-drivers, firemen ..	1,441	1,712	1,821	1,835	1,685
Workers in factory or works	57,721	96,324	98,112	97,923	94,338
Outworkers	955	1,959	1,910	1,737	1,473
Carters, messengers ..	2,778	2,999	2,925	2,835	2,657
Others	1,411	1,022	1,086	1,098	906
Total	73,229	116,108	118,744	118,399	113,834

Outworkers. The term "outworker" used in the above table relates to factory workers working in their own homes, but does not include individuals working for themselves. The employment of outworkers is regulated by a special provision of the Factories Act. They are required to register their names and addresses with the Chief Inspector of Factories, and factory proprietors are forbidden to give work to those who are not registered.

Sex Distribution in Factories.

The average numbers of males and females employed in factories, and their proportions to the male and female populations for the years 1903-15 were as follows:—

EMPLOYMENT OF MALES AND FEMALES IN FACTORIES.

Year.	Males.		Females.		Total.	
	Number.	Average per 10,000 of Male Population.	Number.	Average per 10,000 of Female Population.	Number.	Average per 10,000 of Total Population.
1903 ..	49,434	813	23,795	392	73,229	602
1904 ..	50,554	833	25,733	422	76,287	627
1905 ..	52,925	868	27,310	445	80,235	656
1906 ..	56,339	914	28,890	465	85,229	689
1907 ..	59,691	957	31,212	496	90,903	726
1908 ..	60,873	965	32,935	518	93,808	741
1909 ..	62,822	984	34,533	537	97,355	760
1910 ..	66,309	1,023	35,867	550	102,176	786
1911 ..	73,573	1,118	38,375	579	111,948	848
1912 ..	77,565	1,145	38,543	567	116,108	856
1913 ..	80,054	1,151	38,690	554	118,744	852
1914 ..	79,772	1,119	38,627	543	118,399	832
1915 ..	75,971	1,097	37,863	522	113,834	798

Males formed 67·5 per cent. in 1903 and 66·7 per cent. in 1915 of the total persons employed. The increase during the period 1903–15, in the number of males employed was 26,537, or 53·7 per cent., and in the number of females employed 14,068, or 59·1 per cent.

Employment of Females.

Of the total females in factories 74·6 per cent. are engaged in the textile and clothing industries, and 7·8 per cent. in the preparation of food and drink. The extent of female employment in certain industries is shown in the next table.

FEMALE EMPLOYMENT IN FACTORIES, 1915.

Industry.	Numbers employed.		Females per 100 Males.
	Males.	Females.	
Biscuit	832	529	63·53
Jam, pickle, and sauce	897	792	88·29
Confectionery	911	1,076	118·11
Tobacco, &c.	959	642	66·94
Woollen mills	960	1,103	114·90
Clothing, tailoring, &c.	2,278	7,969	349·82
Dressmaking, millinery	256	7,851	3,066·80
Underclothing	289	5,608	1,940·48
Hats, caps, &c.	667	984	147·53
Hosiery	134	1,187	885·82
Waterproof clothing	52	170	326·92
Boots and shoes	4,317	2,530	58·61
Printing, &c.	5,173	1,264	24·43
Bookbinding, stationery, &c. ..	585	555	94·87
Fancy-box, &c.	146	522	357·53
All other factories	57,515	5,081	8·83
Total	75,971	37,863	49·84

Child labour in Factories. A very favorable feature of factory statistics in the past few years has been the small proportion of children, especially girls, engaged in factories. Of the male and female employees, boys and girls under 16 represented only 4·42 and 5·80 per cent. respectively in 1915, as against 6·05 and 11·47 per cent. in 1904. The number of children employed in factories and their proportion to the total employees are given in the subjoined table for the years 1906 to 1915 :—

CHILDREN EMPLOYED IN FACTORIES.

Year.	Boys under 16.	Girls under 16.	Total Children.	Proportion per cent. of—		
				Boys to Male Employees.	Girls to Female Employees.	Children to Tota Employees.
1906	3,213	2,997	6,210	5·70	10·37	7·29
1907	3,253	3,095	6,348	5·45	9·92	6·98
1908	3,049	3,065	6,114	5·01	9·31	6·52
1909	2,817	2,496	5,313	4·48	7·23	5·46
1910	2,753	2,174	4,927	4·15	6·06	4·82
1911	2,623	1,937	4,560	3·57	5·05	4·07
1912	2,652	1,740	4,392	3·42	4·51	3·78
1913	2,743	1,840	4,583	3·43	4·76	3·86
1914	2,898	1,816	4,714	3·63	4·70	3·98
1915	3,355	2,197	5,552	4·42	5·80	4·88

Machinery in Factories. In the following table are shown the number of factories using mechanical power, the total horse-power of the engines used, and the value of the machinery and plant for the ten years, 1906-15 :—

MACHINERY IN FACTORIES.

Year.	Number of Factories equipped with Machinery.	Value of Machinery and Plant.	Horse-power of Engines.
		£	
1906	2,676	6,450,355	48,765
1907	2,835	6,771,458	52,703
1908	2,923	6,957,606	58,945
1909	3,069	7,140,304	63,761
1910	3,239	7,601,085	69,373
1911	3,474	8,336,373	79,515
1912	3,653	9,095,134	89,290
1913	3,990	10,022,429	105,224
1914	4,106	10,727,526	110,055
1915	4,089	11,068,949	117,815

The nature of the power used and the capacity of the machinery in the factories of the State are set out in the next table.

POWER USED IN FACTORIES.

Year.	Number of Factories using—					
	Steam.	Gas.	Electricity.	Oil.	Water, Wind, and Horses.	Manual Labour.
1906	1,255	709	439	155	118	1,684
1909	1,192	779	802	186	110	1,686
1910	1,169	794	954	215	107	1,634
1911	1,147	811	1,164	255	97	1,652
1912	1,134	821	1,327	269	102	1,610
1913	1,114	883	1,579	335	79	1,623
1914	1,040	858	1,782	348	78	1,544
1915	961	824	1,915	330	59	1,324

Year.	Actual Horse-power of Engines.				
	Steam.	Gas.	Electricity.	Oil.	Total.
1906	40,807	3,706	3,286	966	48,765
1909	47,403	8,446	6,746	1,166	63,761
1910	49,013	9,415	9,629	1,316	69,373
1911	54,282	11,862	11,764	1,607	79,515
1912	59,262	13,745	14,505	1,778	89,290
1913	67,262	16,759	18,732	2,471	105,224
1914	67,649	17,432	22,584	2,390	110,055
1915	71,223	17,935	26,385	2,272	117,815

Although steam is the principal motive power, and was used to supply 60 per cent. of the total mechanical power employed in factories in 1915, a remarkable development is shown in the use of electricity, which in 1906 was used by 439, and in 1915, by 1,915 factories, the actual horse-power rising from 3,286 to 26,385 in the same interval.

Wages in factories.

The total amount and the average amount of salaries and wages paid to male and female employees in factories are shown in the following table :—

SALARIES AND WAGES PAID IN FACTORIES.

Year.	Salaries paid to Managers and Clerks.		Wages paid to Factory Workers.		Average Salary of Managers and Clerks.		Average Wage of Factory Workers.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	£	£	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1910	634,826	43,224	5,639,095	1,283,787	127 3 11	38 4 4	98 18 6	37 13 0
1911	796,957	68,458	6,560,778	1,484,826	148 19 3	55 11 4	103 1 2	40 13 6
1912	917,125	85,793	7,471,488	1,627,833	165 9 1	70 1 10	111 0 8	44 6 6
1913	1,097,574	109,381	7,828,240	1,679,141	183 12 0	86 12 1	113 6 10	45 12 11
1914	1,187,114	125,610	8,065,222	1,721,994	198 9 7	97 18 1	117 6 10	46 18 6
1915	1,232,981	133,362	7,928,871	1,741,131	205 10 7	94 11 8	121 13 9	48 10 0

Owing to the lack of data, a comparison of the wages of males and females is not possible prior to 1910, but from that date the particulars shown in the above table reveal a steady and continued increase in the average earnings of males and females, both as regards the salaries of managers, overseers, and clerks, and the wages of factory workers generally.

The amount of wages paid during the year 1915, £11,036,345, represents an average payment for all employees of £101 15s., which is an increase of £3 5s. on the average wage for 1914, of £7 on that for 1913, of £10 11s. on that for 1912, of £18 5s. on that for 1911, of £23 11s. on that for 1910, of £28 4s. on that for 1909, and of £30 3s. on that for 1908. Concurrently with this increase there was a slight change in the relative proportions of male and female workers during the eight years, the percentages of male to total employees being 67 in 1915, 66 in 1911, 1912, 1913 and 1914, 64 in 1908 and 1910, and 63 in 1909. The above average wage for 1915 is very much below the general rate of wages as shown in the table "Wages in Melbourne" on page 821 the reason being that the rates there mentioned relate to adult workers only, whereas the average payment of £101 15s. relates to all employees, male and female, adult and juvenile, apprentices and improvers. Further, all hands are not continuously employed, nor are all factories working throughout the whole year.

Cost and value of production in factories.

The cost of production and the value of the output in each class of manufacturing industry during the year 1915 are given in the subjoined statement :—

FACTORY COSTS AND OUTPUT, 1915.

Class of Industry.	Cost of—			Value of Output.
	Raw Materials Used.	Fuel, Light, and Power Used.	Salaries and Wages Paid.	
	£	£	£	£
Treating raw material, product of pastoral pursuits, &c. ..	3,606,032	36,104	854,008	4,503,751
Treating oils and fats, animal, vegetable, &c. ..	559,419	14,945	82,628	858,554
Processes in stone, clay, glass, &c.	200,961	125,886	464,874	1,060,652
Working in wood	1,105,174	17,161	710,957	2,204,757
Metal works, machinery, &c. ..	3,135,179	173,972	2,399,009	6,705,272
Connected with food and drink, &c.	11,657,985	186,341	1,454,381	15,514,965
Clothing and textile fabrics, &c.	5,710,117	76,820	2,449,548	9,906,499
Books, paper, printing, &c. ..	1,026,496	42,441	994,229	2,829,505
Musical instruments, &c. ..	10,343	233	15,692	27,310
Arms and explosives.. ..	338,875	6,188	136,660	537,170
Vehicles, saddlery, harness, &c.	519,207	14,414	443,661	1,188,035
Ship and boat building and repairing	98,730	3,289	143,261	296,995
Furniture, upholstery, and bedding	419,782	7,589	254,626	825,541
Drugs, chemicals, and by-products	789,583	16,619	190,617	1,333,729
Surgical and other scientific instruments	9,796	426	10,394	29,498
Jewellery, time-pieces, and plated-ware	156,433	2,751	83,194	313,990
Heat, light, and power ..	474,147	87,958	553,368	1,922,353
Leatherware, n.e.i.	179,785	1,509	46,091	286,920
Minor wares, n.e.i.	730,699	20,320	249,147	1,120,597
Total	30,728,743	834,966	11,036,345	51,466,093

The difference between the sum of the first three columns and the last column represents the amount available for miscellaneous expenses, interest, and profit. The proportions which this margin and the chief items of the cost of production bear to the total value of production in each class of industry are shown in the following table :—

PROPORTIONATE VALUE OF COSTS, ETC., TO PRODUCTION IN FACTORIES, 1915.

Class of Industry.	Percentage of Costs, &c., on Total Value of Production.			
	Materials.	Fuel, Light, &c.	Wages.	All other Expenditure, Interest, and Profit.
Treating raw material, product of pastoral pursuits, &c.	80·07	·80	7·86	11·27
Treating oils and fats, animal, vegetable, &c.	65·16	1·74	9·62	23·48
Processes in stone, clay, glass, &c. ..	18·95	11·87	43·83	25·35
Working in wood	50·12	·78	32·25	16·85
Metal works, machinery, &c. ..	46·76	2·59	35·78	14·87
Connected with food and drink, &c. ..	75·14	1·20	9·37	14·29
Clothing and textile fabrics, &c. ..	57·64	·77	24·73	16·86
Books, paper, printing, &c. ..	36·28	1·50	35·14	27·08
Musical instruments, &c.	37·87	·85	57·46	3·82
Arms and explosives	63·09	1·15	25·44	10·32
Vehicles, saddlery, harness, &c. ..	43·70	1·21	37·35	17·74
Ship and boat building and repairing ..	33·24	1·11	48·23	17·42
Furniture, upholstery, and bedding ..	50·85	·92	30·84	17·39
Drugs, chemicals, and by-products ..	59·20	1·25	14·29	25·26
Surgical and other scientific instruments	33·21	1·44	35·24	30·11
Jewellery, time-pieces, and plated-ware	49·82	·88	26·49	22·81
Heat, light, and power	24·67	4·58	28·78	41·97
Leatherware, n.e.i.	62·66	·53	16·06	20·75
Minor wares, n.e.i.	65·21	1·81	22·23	10·75
Total	59·70	1·62	21·44	17·23

There are considerable variations in the proportions which the cost of materials and the expenditure on wages bear to the total output in the different classes of industries. These are, of course, due to the difference in the treatment required to present the raw material in its manufactured form. Thus in brickworks, &c., the cost of wages represents 44 per cent. and that of raw materials 19 per cent. of the value of the finished article, whilst in the industries connected with food and drink the expenditure on wages amounts to only 9 per cent. and that on raw materials to over 75 per cent. of the value of the output.

Cost of Production, 1906-15.

In the next table the cost of production, the value of the output of factories, and the balance available for profit and miscellaneous expenses are compared for the years 1906 to 1915 :—

COST OF PRODUCTION AND VALUE OF OUTPUT OF FACTORIES, 1906–15.

Year.	Cost of Production.				Total Value of Output.
	Materials.	Fuel, Light, and Power.	Salaries and Wages.	All other Expenditure, Interest, and Profit.	
	£	£	£	£	£
1906	17,288,170	409,967	5,468,470	4,935,873	28,102,480
1907	18,632,439	498,454	5,982,677	5,286,375	30,399,945
1908	18,662,070	538,571	6,380,296	5,206,823	30,787,760
1909	19,706,530	566,768	6,807,851	5,817,086	32,898,235
1910	21,941,255	639,135	7,600,932	6,479,532	36,660,854
1911	25,029,525	637,497	8,911,019	7,169,822	41,747,863
1912	27,002,302	683,376	10,102,244	7,622,851	45,410,773
1913	28,465,699	739,835	10,714,336	8,016,777	47,936,647
1914	28,986,694	804,325	11,099,940	8,549,026	49,439,985
1915	30,728,743	834,966	11,036,345	8,866,039	51,466,093

These figures are reduced in the appended statement to their proportionate value of the total output.

PROPORTIONATE COST OF OUTLAY TO OUTPUT OF FACTORIES, 1906–15.

Year.	Proportion of Outlay to Output.				Total.
	Materials.	Fuel, Light, and Power.	Salaries and Wages.	Other Expenses, Interest, and Profit.	
	%	%	%	%	%
1906	61·5	1·4	19·5	17·6	100·0
1907	61·3	1·6	19·7	17·4	100·0
1908	60·6	1·8	20·7	16·9	100·0
1909	59·9	1·7	20·7	17·7	100·0
1910	59·9	1·7	20·7	17·7	100·0
1911	60·0	1·5	21·3	17·2	100·0
1912	59·5	1·5	22·2	16·8	100·0
1913	59·4	1·5	22·4	16·7	100·0
1914	58·6	1·6	22·5	17·3	100·0
1915	59·7	1·6	21·5	17·2	100·0

The ratio of salaries and wages to the value of the output of factories was 22 per cent. on the average of the past five years as against 20·3 per cent. for the period 1906–10. The cost of materials was 59·4

per cent. of the value of output in 1911–15 as compared with 60·6 per cent. in 1906–10. The proportionate outlay on fuel, light, and power has remained fairly uniform during the past ten years. The balance available for miscellaneous expenses, rent, interest, and manufacturers' profit was £17 0s. 10d. in every £100 of the total output value in 1911–15 as against £17 9s. 1d. in the preceding five-year period.

Capital invested in manufacturing plant and premises.

In the following statement the amount of capital invested in machinery, plant, land, and buildings used in connexion with the various classes of manufacturing industries is shown for the year 1915 :—

VALUE OF MACHINERY AND PLANT AND LAND AND BUILDINGS CONNECTED WITH FACTORIES, 1915.

Class of Industry.	Value of Machinery and Plant.	Value of Land and Buildings.
	£	£
Treating raw material, product of pastoral pursuits, &c.	318,759	400,018
Treating oils and fats, animal, vegetable, &c.	138,662	112,714
Processes in stone, clay, glass, &c.	439,356	459,673
Working in wood	510,831	394,487
Metal works, machinery, &c.	1,560,541	1,536,579
Connected with food and drink, &c.	2,263,565	2,720,587
Clothing and textile fabrics, &c.	890,009	2,012,234
Books, paper, printing, &c.	1,010,984	975,545
Musical instruments, &c.	6,725	24,395
Arms and explosives	127,259	119,723
Vehicles, saddlery, harness, &c.	140,286	559,343
Ship and boat building and repairing	84,765	220,383
Furniture, upholstery, and bedding	77,545	327,387
Drugs, chemicals, and by-products	272,545	342,723
Surgical and other scientific instruments	4,731	20,151
Jewellery, time-pieces, and plated-ware	31,461	130,935
Heat, light, and power	3,041,942	902,572
Leatherware, n.e.i.	14,672	58,115
Minor wares, n.e.i.	134,311	142,559
Total	11,068,949	11,460,123

The capital invested in plant, buildings, &c., used in connexion with three classes of industries—heat, light and power; food and drink; and metal works and machinery—amounted to £12,025,786, or slightly more than one-half of the total for all manufacturing industries.

The total value of machinery and plant and that of land and buildings used in connexion with factories are shown in the next table for a series of years :—

VALUE OF MACHINERY AND PLANT AND LAND AND BUILDINGS CONNECTED WITH FACTORIES, 1903–1915.

Year.	Value of Machinery and Plant.	Value of Premises.
	£	£
1903	5,010,896	7,967,945
1905	6,187,919	7,771,238
1907	6,771,458	8,376,642
1909	7,140,304	8,642,344
1910	7,601,085	9,012,263
1911	8,336,373	9,921,516
1912	9,095,134	10,362,661
1913	10,022,429	10,753,309
1914	10,727,526	11,248,120
1915	11,068,949	11,460,123

It will be seen from these figures that the value of machinery and plant more than doubled between 1903 and 1915, whilst that of the land and buildings showed an increase of £3,492,178, or 44 per cent., in the same interval.

Accidents in factories.

In the appended table the number of accidents in factories is given for the past thirteen years. These particulars relate to establishments which came within the scope of the Factories Acts in force in the years specified, and not to those classified for statistical purposes in the preceding tables.

ACCIDENTS IN FACTORIES.

Year.	Number of Employees.	Number of Accidents.	Percentage of Accidents to Number of Employees.
1903	57,767	175	·303
1904	60,977	189	·310
1905	63,270	170	·269
1906	67,545	205	·303
1907	71,968	275	·382
1908	76,210	294	·385
1909	79,348	287	·361
1910	83,053	331	·398
1911	88,694	337	·379
1912	104,746	389	·371
1913	110,487	407	·368
1914	110,660	391	·353
1915	91,888	464	·505

Factories, &c., in Australia. The number of factories and of the persons employed therein in the Australian States are shown in the following table. The figures for Western Australia relate to the year 1914, those for New South Wales to the year ended 30th June, 1915, and those for the other States to the year 1915 :—

FACTORIES AND FACTORY EMPLOYEES IN AUSTRALIAN STATES.

State.	Number of Factories.	Average Number of Persons Employed.			Number of Working Proprietors.	Number of Employees—	
		Males.	Females.	Total.		Under 16 Years of Age.	Over 16 Years of Age.
Victoria ..	5,413	75,971	37,863	113,834	5,366	5,552	102,916
New South Wales	5,268	90,301	26,161	116,462	4,452	4,760	107,250
Queensland ..	1,775	34,387	7,692	42,079	1,522	2,082	38,475
South Australia	1,266	20,772	4,724	25,496	1,243	1,659	22,594
Western Australia	787	14,996	2,644	17,640	579	742	16,319
Tasmania ..	589	7,161	1,259	8,420	410	359	7,651

Factory costs and output in Australian States. The next table shows the expenditure on materials, wages, fuel, &c., and the value of the output in factories in Western Australia in 1914, in New South Wales in the year ended 30th June, 1915, and in the other States in 1915 :—

FACTORY COSTS AND VALUE OF PRODUCTION IN AUSTRALIAN STATES.

State.	Amount of Wages Paid to—			Value of Materials Used.	Value of Fuel, Light, and Power Used.	Value of Output.
	Males.	Females.	Total.			
	£	£	£	£	£	£
Victoria ..	9,161,852	1,874,493	11,036,345	30,728,743	834,966	51,466,093
New South Wales	11,285,518	1,368,928	12,654,446	42,549,190	1,360,847	68,208,747
Queensland ..	3,886,165	340,470	4,226,635	15,939,583	300,716	25,444,812
South Australia	2,506,579	198,551	2,705,130	8,720,436	399,731	13,994,223
Western Australia	2,199,961	142,467	2,342,428	2,608,312	210,192	6,381,512
Tasmania ..	723,010	60,537	783,547	2,193,250	110,803	4,215,447

The following is a statement of the rates of wages ruling in the various industries in Melbourne during 1915, the information having been compiled from determinations of Wages Boards or collected direct from the employers :—

WAGES IN MELBOURNE, 1915.

A.—Wages for Adult Workers in Classified Manufacturing Industries.

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class I.—Treating Raw Material the product of pastoral pursuits or vegetable products not otherwise classed.			
Order 1.—Animal products.			
Boiling down ..	Men employed in boiling down and bone mills	..	48s. per week
Bone milling ..			
Sausage casing	Sausage skin cleaners	51s. to 63s. per week	54s. ,,
Tanning	Curriers and band-splitting machinists	..	68s. ,,
	Fleshers	..	63s. ,,
	Jiggers, grainers, and machine shavers	..	61s. ,,
	Rollers and strikers ..	..	60s. ,,
	Scudders, unhairers, stoners, punchers, table hands, and japanners	..	58s. ,,
	Fancy leather machinists	56s. to 58s. per week	..
	Lime jobbers ..	..	55s. per week
	Labourers in sheds, vats, &c.	..	54s. ,,
Fellmongering	Wool sorters ..	..	55s. ,,
	Man in charge of sweat house and scourers	..	51s. ,,
	Man in charge of pickling, scudding, batting, or sheepskin tanners, pelt sorters, dag treaters	..	50s. ,,
	Man in charge of limes, of "green" or "flat" fleshing or burring machinists, setters-out, pressers, painters	..	48s. ,,
	Men not otherwise provided for	..	45s. ,,
Order 2.—Vegetable products.			
Chaff-cutting	Labourers and carters	48s. to 52s. per week	..
Class II.—Oils and Fats, Animal and Vegetable.			
Oil, grease, and glue ..	Labourers	..	8s. per day
Soap and soda	Soapmakers ..	..	65s. per week
	Assistant soapmakers	..	57s. 6d. ,,
	Foremen	..	57s. 6d. ,,
	Men in charge of milling-room	..	55s. ,,
	Soap-cutters ..	54s. to 57s. 6d. per week	..
	Crutchers and stampers	49s. to 51s. per week	..
	General hands ..	..	48s. per week
	Stampers	..	49s. ,,
	Wrappers and packers—female	..	27s. 6d. ,,

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class II.—continued.			
Candle	Stillmen, acidifiers, glycerine distillers	..	53s. per week
	Candle room gangers	..	52s. 6d. ,,
	Refrigerator gangers and moulders	..	51s. ,,
	Refrigerator hands and pressroom gangers	..	50s. ,,
	Other adult males ..	..	48s. ,,
	,, ,, females ..	..	27s. 6d. ,,
Class III.—Processes relating to Stone, Clay, Glass, &c.			
Brick	Bricklayers ..	..	71s. 6d. per wk.
	Burners on kilns ..	..	75s. ,,
	Facemen	57s. to 61s. per week	..
	Drawers	..	65s. per week
	Machine drivers, riggers	..	59s. 6d. ,,
	Setters	..	61s. ,,
	Pan and crusher attendants	57s. 4½d. to 63s. 9d. per week	..
	Wet pan attendants ..	..	51s. per week
	Clayholemen, silomen, hand moulders, lime grinders, crushers, and mixers	..	54s. ,,
	Wheelers and truckers	..	50s. ,,
	Yardmen and elevator feeders, pitmen, and liftmen	..	48s. ,,
Glazed pipes	Burners, head ..	..	67s 6d ,,
	,, assistant ..	..	62s. 6d. ,,
	,, other ..	..	47s. ,,
	Flangers	..	60s. ,,
	Setters	..	52s. 6d. ,,
	Pressers	..	54s. ,,
	Junction stickers, men in charge of plunges, head drawers	..	48s. ,,
	Labourers	48s. to 50s. per week	..
General pottery	Burners, head ..	..	67s.6d.per wk.
	,, assistant ..	..	62s. 6d. ,,
	,, other ..	..	46s. ,,
	Pressers	45s. to 50s. per week	..
	Stoneware throwers ..	..	54s. per week
	Handlers and jiggerers	45s. to 46s. per week	..
	Turners	..	50s. per week
	Placers, dippers ..	44s. to 51s. per week	..
	Sagger makers ..	..	45s. per week
	Mould makers ..	..	60s. ,,
	,, ,, assistants	..	48s. ,,
	Packers and labourers	44s. to 48s. per week	..
	Terra-cotta pressers and plungers	48s. to 50s. ,,	..
	,, clayhole facemen	..	52s. per week
	,, breakers and fillers	..	48s. ,,
	,, flower pot throwers	48s. to 50s. per week	..
	Females employed in making general pottery	..	23s. per week
Tiles	Tile placers.. ..	48s. to 51s. per week	..
	Moulders, pressers, and others—male ..	..	42s. per week
	,, female ..	..	23s. ,,
Lime, cement, cement pipes ..	Labourers	8s. 6d. to 10s. per day	..
Asbestos	Machinists	40s. to 45s. per week	..
Glass bottle works	Furnacemen (two or more producers)	..	52s. 6d. per week

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class III.—continued.			
Glass bottle works—*continued.*	Furnacemen (one producer)	..	88s. 6d. per wk.
	Foremen, sorters, lathe workers	..	42s. ,,
	Pipe menders, wind pipe repairers	39s. to 40s. per week	..
	Sorters, lehrmen, labourers	..	36s. per week
	Teasers, firemen's assistants, light labourers	30s. to 33s. 9d. per wk.	..
Flint glass works	Castor place makers	..	70s. per week
	,, blowers	..	57s. 6d. ,,
	Chimney and general work makers (1st class)	..	60s. ,,
	Chimney and general work blowers (1st class)	..	48s. ,,
	Chimney and general work makers (2nd class)	..	51s. ,,
	Chimney and general work blowers (2nd class)	..	42s. ,,
	Mould blowers (1st class)	..	57s. 6d. ,,
	Mould blowers (2nd class)	..	50s. ,,
	Mould blowers (3rd class)	..	42s. ,,
	Pot makers.. ..	..	52s. ,,
	Firemen	..	42s. ,,
	Sand blasters and packers	..	40s. ,,
Glass bevelling, &c. ..	Embossers	48s. to 52s. 6d. per week	..
	Stained glass cutters	..	57s. per week
	Lead light glaziers and fixers of lead lights	50s. to 52s. 6d. per week	..
	Cementers	..	42s. per week
	Plate glass cutters ..	52s. 6d. to 57s. per week	..
	,, glaziers ..	..	55s. per week
	,, ,, assistants and packers	..	48s. ,,
	Bevellers and silverers	..	55s. ,,
	Sheet glass and brilliant cutters	50s. to 54s. per week	..
Marble, stone-dressing ..	Carvers in marble and stone	..	82s. 6d. per wk.
	Carvers' assistants ..	..	73s. 4d. ,,
	Letter cutters ..	69s. 8d. to 71s. 6d. per week	..
	Monumental carvers..	..	77s. per week
	Monumental stone, slate, and other cutters	64s. 2d. to 69s. 8d. per week	..
	Kerbstone cutters ..	..	60s. 6d. per wk.
	Machinists, planing and turning	..	72s. ,,
	Machinists, polishing and sanding	56s. 10d. to 62s. per week	..
	Labourers	..	58s. per week
Stone filter	Filtermakers ..	..	60s. ,,
Modelling	Modellers, shop hands	..	60s. ,,
	All others ..	42s. to 54s. per week	..
Asphalt	Asphalters and tarpavers	57s. to 63s. ,,	..
	Men on mastic machine boilers	..	76s. 3d. per wk.

WAGES IN MELBOURNE, 1915—*continued*.

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class IV.—Working in Wood.			
Cooperage	Coopers	..	72s. per week
Corkcutting	Corkcutters	48s. to 65s. per week	..
Bellows	Bellows makers	40s. to 45s. "	42s. 6d. per wk.
Saw-milling, moulding, joinery, sash, door, box, &c.	Box makers and box nailing machine workers	..	56s. "
	Box printing machine workers	..	52s. "
	Carpenters and joiners	60s. to 70s. per week	..
	Mantelpiece makers	..	60s. per week
	Crane workers	..	58s. "
	Labourers, stackers, log-pond men and log-turners, joinery packers	49s. to 57s. per week	..
	Buzzers	..	60s. per week
	Other machine workers	53s. to 66s. per week	..
	Polishers, coaters	..	60s. per week
	Painters and glaziers	..	57s. "
	Pullers out	46s. to 51s. per week	..
	Sawyers	57s. to 64s. "	..
	Saw doctors	..	72s. per week
	Saw sharpeners	..	60s. "
	Blacksmiths	..	60s. "
	Blacksmiths' strikers	..	48s. "
	Salesmen, tally and order men	..	57s. "
	Timber benders, tenoners turners, planers, and throaters of spokes	..	60s. "
Wood-carving, turning	Carvers and turners	..	60s. "
Class V.—Metal Works, Machinery, &c.			
Agricultural implement	Pattern makers	..	70s. per week
	Blacksmiths, turners, wheelwrights, carpenters and timber markers	..	64s. "
	Machinists, fitters	55s. to 64s. per week	..
	Sheet iron workers	..	58s. per week
	Painters	55s. to 64s. per week	..
	Belt cutters, strikers, cranemen, drillers, annealers, paint mixers, storemen	..	55s. per week
	Labourers, yardmen	52s. to 55s. per week	..
Engineering, boilermaking	Blacksmiths, hammer and coppersmiths	..	70s. per week
	Fitters, turners, and spring makers	..	70s. "
	Borers, slotters, planers, machine shapers (over 14 inch), universal millers	..	70s. "

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class V.—continued.			
Engineering, &c.—*continued.*	Rail and plate edge planers, shapers (under 14 inch), plain millers, gear cutters, bolt and nut hands, lappers, and grinders	..	58s. per week
	Shearing, slotting, and nibbling machinists, heaters and cutters of bolts and nuts, stud lathe, centering, screwing, and drilling machinists	..	54s. ,,
	Coppersmiths' assistants and blacksmiths' strikers	..	54s. ,,
	Labourers	..	52s. ,,
	Boilermakers ..	..	66s. ,,
	,, assistants	50s. to 54s. per week	..
	Machine-made iron or steel pipe makers	..	60s. per week
Iron and steel moulding ..	Bank pipe moulders ..	60s. to 72s. per week	..
	Vertical moulders ..	..	57s. per week
	Pipe dressers ..	..	55s. ,,
	Furnacemen ..	..	58s. ,,
	Furnacemen's assistants	..	55s. ,,
	Labourers	..	52s. ,,
	Machine pipemakers ..	60s. to 72s. per week	..
	Iron moulders and core-makers	60s. to 72s. ,,	..
	Iron dressers ..	..	55s. per week
	Steel crucible furnacemen	..	70s. ,,
	Crucible furnacemen's assistants	..	58s. ,,
	Steel converters ..	..	64s. ,,
	Steel converters' assistants	..	58s. ,,
	Steel dressers ..	..	56s. 6d. ,,
	Steel annealers and labourers	..	53s. 6d. ,,
Cutlery	Cutlers and sawmakers	60s. to 75s. per week	..
	Knifemakers ..	..	63s. per week
	Saw and tool grinders and sharpeners	54s. to 66s. per week	..
Nail, barbed wire	Galvanizers ..	..	60s. per week
	Nail tool sharpeners	..	57s. ,,
	Picklers	..	55s. ,,
	Nail setters-up ..	..	54s. ,,
	Barbed wire tool sharpeners	..	51s. ,,
	Assistant picklers and storemen	..	50s. ,,
	Polishers, swingers ..	..	48s. ,,
	All others	..	45s. ,,
Iron safe, door	Fireproof safe, &c., makers	55s. to 85s. per week	66s. ,,
Tinsmithing, galvanized iron, sheet iron, japanning	Tinsmiths, sheet metal workers, japanners, gold and pencil workers	..	60s. ,,
	Canister makers and repairers, cap solderers, and vent closers	51s. to 57s. per week	..
	Machinists and solderers of down pipes	..	56s. per week
	Filleters, grainers, writers	..	55s. ,,
	Machine attendants ..	..	54s. ,,
	All others	..	51s. ,,

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages. Range.	Wages. General Rate.
Class V.—continued.			
Stove, range, oven	Stove and oven fitters	54s. to 57s. per week	..
	Electroplaters ..	56s. to 66s. „	..
Pattern making	Pattern makers ..	..	76s. per week
Meter	Fitters	..	64s. „
	Diaphragm tyers, testers	60s. to 72s. per week	..
	Meter makers ..	..	72s. per week
	„ repairers ..	..	66s. „
	Rim makers ..	..	62s. „
	All others	..	54s. „
Spring	Spring fitters and spiral spring makers	..	60s. „
	Elliptic head and spring eye machinists	54s. to 56s. per week	..
	Other machinists ..	..	45s. per week
	Strikers, emery grinders, and others	..	45s. „
Brass, copper smithing ..	Brass moulders, finishers	..	64s. „
	Brass polishers ..	..	57s. „
	Dressers	..	52s. „
	Furnacemen ..	..	54s. 6d. „
	Core makers, male ..	..	58s. „
	„ female ..	..	30s. „
Lead, shot, pewter	Labourers in lead and shot factories	48s. to 50s. per week	..
Wire working	Wire workers ..	..	54s. per week
	Weavers	..	55s. „
	Weavers' strikers ..	..	42s. „
Wire mattrass	Machine operators ..	58s. to 66s. per week	..
	All others	..	55s. per week
	Females	..	34s. „
Smelting, chlorination, cyanide, pyrites	Metallurgists and assayers	65s. to 100s. per week	..
	Chlorinators ..	..	50s. per week
	Smelters, roasters, and furnacemen	50s. to 70s. per week	..
	Labourers	48s. to 56s. „	..
Bedstead, fender	Blacksmiths ..	..	58s. per week
	Fitters-up	..	58s. „
	Chill fitters ..	61s. to 73s. per week	..
	Frame setters ..	..	59s. per week
	Chippers and casters..	..	55s. „
	Mounters of bedstead pillars	58s. to 61s. per week	..
	Grinders and polishers	56s. to 60s. „	..
	Japanners	..	58s. per week
	Fitters (fender) ..	58s. to 61s. per week	..
	Electroplaters ..	..	69s. per week
	„ assistants	..	59s. „
	Brass lacquer and plate work polishers	..	56s. „
	All other males ..	..	52s. „
	Japanners and polishers—female	..	42s. „
	Wrappers—female ..	..	27s. 6d. „
Class VI.—Connected with Food and Drink, or the preparation thereof.			
Order 1.—Animal Food.			
Bacon-curing	Foremen curers ..	..	67s. 6d. per wk.
	Assistant „ ..	54s. to 58s. per week	..
	Foremen, cutting ..	..	67s. 6d. per wk.
	Assistants „ ..	..	60s. „
	Foremen, slaughtering	..	67s. 6d. „
	Assistants „	..	60s. „
	Foremen, small goods	..	67s. 6d. „
	Assistants „	..	55s. „

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages. Range.	Wages. General Rate.
Class VI.—Order 1—continued.			
Bacon-curing—*continued* ..	Foremen, smoking, rolling, &c.	..	62s. 6d. per wk.
	Assistants, smoking, rolling, &c.	51s. to 60s. per week	..
	Foreman, lard and tallow	..	62s. 6d. per wk.
	Assistants, lard and tallow	..	51s. ,,
Butter, cheese, concentrated milk	General workers ..	48s. to 60s. per week	..
	General foremen ..	..	62s. per week
	Department ,, ..	..	54s. ,,
	Creamery managers ..	..	56s. ,,
	Cheese makers ..	..	54s. ,,
	Cream graders ..	..	57s. 6d. ,,
	Milk or cream testers	..	55s. ,,
	Machine operators ..	48s. to 50s. per week	..
	Storemen, packers ..	..	48s. per week
	Other adult males ..	..	45s. ,,
	,, ,, females ..	..	30s. ,,
Butterine, margarine ..	Margarine makers ..	..	66s. ,,
	Labourers	40s. to 42s. per week	..
Meat preserving, freezing ..	Slaughtermen ..	..	27s. 6d. per 100 sheep
	Digestor hands, tallow-men, and boners	54s. to 60s. per week	..
	Foremen packers, table hands, preservers' assistants	..	60s. per week
	Tinsmiths (canister makers)	..	54s. ,,
	Chambermen ..	..	66s. ,,
	All other adults ..	..	52s. ,,
Order 2.—*Vegetable Food, including products not foods but usually associated with the manufacture of foods.*			
Biscuit	Bakers	..	58s. per week
	Mixers	..	54s. ,,
	Brakesmen, oven firemen, storemen	..	51s. ,,
	Other males ..	..	48s. ,,
	Females	..	25s. ,,
Confectionery	Confectioners ..	..	57s. 6d. ,,
	Head storemen ..	..	50s. ,,
	Storemen and labourers	..	45s. ,,
	Chocolate dippers—female	..	22s. 6d. ,,
	General workers—male	..	45s. ,,
	,, female	..	22s. 6d. ,,
Flour mill	Shift millers ..	60s. to 70s. per week	..
	Millwrights ..	..	66s. per week
	Purifiermen, silkmen, or topmen	48s. to 52s. 6d. per week	..
	Head storemen ..	51s. to 56s. ,,	..
	Smuttermen ..	..	51s. per week
	Store hands, &c. ..	..	48s. ,,
	Wheat carriers ..	..	72s. ,,
	Engine-drivers ..	57s. to 60s. per week	..
Jam, fruit-preserving, pickle, sauce, vinegar	Foremen	60s. to 90s. ,,	..
	Adult males ..	..	48s. per week
	Females over 18 years	23s. to 30s. per week	..
Starch	Foremen	..	60s. per week
	Millers, stonedressers	52s. 6d. to 55s. per wk.	..
	Leading hands ..	..	50s. per week
	Adult hands—males	..	47s. 6d. ,,
	,, ,, females	..	26s. ,,

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
***Class VI.—Order 2*—continued.**			
Grocers' sundries, including oatmeal, cornflour, macaroni	Millers	..	52s. 6d. per wk.
	Mixers, blenders, stone dressers, and storemen	..	50s. „
	Packers and others ..	..	45s. „
	Adult females ..	..	22s. 6d. „
Sugar, treacle refining ..	Vacuum hands and others	51s. to 105s. per week	..
Order 3.—Drinks and Stimulants.			
Aerated waters, cordials ..	Cordial makers ..	54s. to 70s. per week	..
	Bottlers by hand or rack other than automatic	..	50s. per week
	Bottlers by automatic rack	..	47s. 6d. „
	All others	..	43s. 6d. „
Malt	Persons engaged in turning floors, screening malt and barley, &c.	..	54s. „
Brewing	Top and cellarmen, cask washers, storemen, &c.	..	51s. „
	Rackers, corkers ..	..	51s. „
	Packers, loaders ..	..	45s. „
	Other adult males ..	..	51s. „
Distilling	Stillmen	..	77s. 6d. „
	Brewhouse, millhouse hands (skilled)	57s. 6d. to 73s. per week	..
	Coopers	78s. to 86s. per week	..
	General labourers and bottling hands	..	55s. per week
Condiments, coffee, chicory, chocolate, spice, &c.	Roasters	..	52s. 6d. „
	Mixers, blenders, and storemen	..	50s. „
	Packers and others ..	..	45s. „
	Female adults ..	..	22s. 6d. „
Ice, refrigerating	Foremen	..	84s. „
	Chambermen ..	..	66s. „
	Rabbit graders ..	..	72s. „
	Ice pullers, skinners, and stackers	..	60s. „
	Nailers, graders, packers, and putters-up	..	56s. „
	All others	..	54s. „
Order 4.—Narcotics.			
Tobacco, cigars, cigarettes ..	Flake coverers ..	70s. to 80s. per week	77s. per week
	„ „ female	35s. to 47s. „	42s. 6d. „
	Gangers in press room	..	65s. „
	General hands in press-rooms, &c. (unskilled)	50s. to 63s. per week	..
	Cigar makers (piece-work), males	60s. to 90s. „	..
	Cigar makers (piece-work), females	25s. to 50s. „	..
	Cigarette makers (hand), female	25s. to 40s. „	..
	Persons re-tying box or sorting cigars	..	54s. per week
	Persons stripping and booking cigar leaf	..	50s. „
	Persons stripping bunch wrapper leaf	..	45s. „
	Persons stripping bunch wrapper leaf by machine	..	25s. „
	Persons ringing cigars in reverse order	..	24s. „

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class VII.—Clothing and Textile Fabrics and Fibrous Materials.			
Order 1.—Textile.			
Woollen cloth, blanket, rug ..	Foremen	55s. to 60s. per week	..
	Man in charge, milling and scouring	..	50s. per week
	Pattern weavers ..	48s. to 54s. per week	..
	Tuners	48s. to 52s. „	..
	Power-loom weavers..	13s. 9d. to 30s. „	..
	Assistant foremen spinners	..	50s. per week
	Other adult males ..	..	48s. „
	Warpers—female ..	..	30s. „
	Darners, knotters, &c.	..	22s. 6d. „
	Other adult females ..	..	21s. „
Order 2.—Dress.			
Clothing, tailoring	Order—		
	Cutters and tailors	..	60s. „
	Pressers—male and female	..	55s. „
	Trimmers ..	..	52s. 6d. „
	Females	22s. 6d. to 36s. per wk.	..
	Ready made—		
	Cutters (stock) and tailors	..	60s. per week
	Pressers, machinists, examiners—male	..	55s. „
	Folders	..	45s. „
	Seam pressers—male and female	..	36s. „
	Brushers ..	..	36s. „
	Tailoresses, machinists, buttonhole makers and others	21s. to 26s. per week	..
Tiemakers..	Males—		
	Silk cutters ..	..	47s. 6d. per wk
	Lining cutters ..	..	40s. „
	Females—		
	Needleworkers ..	22s. 6d. to 25s. per week	..
	Treadle and power machinists, boxers, and pressers	20s. to 22s. 6d. „	..
	All others ..	15s. to 20s. „	..
Corset	Corset makers—female	25s. to 37s. 6d. „	35s. per week
Dressmaking, millinery ..	Male cutters ..	..	52s. 6d. „
	Female „ ..	..	30s. „
	Male and female pressers	..	50s. „
	Female pressers—under 12lb. irons	..	25s. „
	Dressmakers in charge	60s. to 150s. per week	..
	Dressmakers' assistants —female	..	21s. 6d. per wk.
	Mantlemakers (in charge)—female	50s to 80s. per week	..
	Mantlemakers' assistants—female	..	21s. 6d. per wk.
	Milliners in charge ..	50s. to 80s. per week	..
	Milliners' assistants—female	..	25s. per week
Shirtmaking, underclothing ..	Shirt, collar, pyjama makers—male cutters	60s. to 65s. per week	..
	Female cutters ..	35s. to 50s. „	..
	Male workers ..	42s. to 55s. „	..
	Female „ ..	..	..
	Underclothing makers —female	..	22s. 6d. per wk.
		..	20s. „

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class VII.—Order 2—continued.			
Felt hats	Bodymakers ..	70s. to 90s. per week	77s. 6d. per wk.
	Blockers	80s. to 100s. ,,	..
	Finishers	70s. to 100s. ,,	75s. per week
	Shapers	..	65s. ,,
	Binders and trimmers—female	22s. to 27s. 6d. per week	..
Straw hats	Foremen	..	63s. per week
	Blockers, hand or machine	..	56s. ,,
	Dyers and bleachers	..	50s. ,,
	Packers	..	47s. 6d. ,,
	Machinists—female ..	22s. 6d. to 35s. per week	25s. ,,
	Trimmers ,, ..	20s. to 25s. per week	22s. 6d. ,,
Caps	Machinists—female ..	20s. to 25s. ,,	..
Hosiery (piecework) ..	Machinists, knitting—female	25s. to 40s. ,,	..
	Machinists, sewing—female	25s. to 35s. ,,	..
	Linkers—female ..	25s. to 35s. ,,	..
	Pressers—male ..	50s. to 72s. 6d. ,,	..
	,, female ..	30s. to 57s. 6d. ,,	..
	Winders—female ..	25s. to 32s. 6d. ,,	..
	Menders, &c.—female	25s. to 45s. ,,	..
Oilskin, waterproof clothing ..	Cutters of material containing rubber	..	60s. per week
	Other cutters ..	..	50s. ,,
	Male garment makers	..	45s. ,,
	Female garment makers and machinists	..	27s. 6d. ,,
	Needle hands, female	..	22s. 6d. ,,
Boot, shoe	Makers, finishers, clickers, stuff-cutters—male and female	..	60s. ,,
	Other females with four years' experience	28s. to 35s. per week	..
Furrier	Cutters	60s. to 120s. per week	..
	Machinists—female ..	22s. 6d. to 35s. per week	27s. 6d. per wk.
	Sewers—female ..	20s. to 30s. per week	25s. ,,
Umbrella, parasol	Frame makers ..	40s. to 60s. ,,	..
	Cutters	40s. to 60s. ,,	..
	Finishers—male ..	30s. to 57s. 6d. ,,	..
	Machinists—female ..	25s. to 30s. ,,	..
	Tippers ,, ..	20s. to 25s. ,,	..
Dye works	Dyers and cleaners ..	50s. to 55s. ,,	45s. per week
	Pressers—male ..	..	55s. ,,
	,, female ..	..	25s. ,,
	Labourers	..	45s. ,,
Ostrich feather	Feather dyers ..	..	60s. ,,
	,, ,, assistants	35s. to 40s. per week	37s. 6d. ,,
	Feather curlers, dressers, finishers—female	20s. to 40s. ,,	25s. ,,

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class VII.—continued.			
Order 3.—Fibrous Materials and Textiles not elsewhere included.			
Bag, sack (including calico bag)	Bag-menders ..	45s. to 48s. per week	..
	Calico bag-makers—female	18s. to 22s. 6d. „	21s. per week
Rope, twine, &c.	Males—		
	Foremen ..	60s. to 63s. „	..
	Rope makers ..	58s. to 63s. „	..
	Rope spicers ..	..	60s. per week
	Other adults ..	48s. to 54s. per week	..
	Females	25s. to 30s. „	..
Tarpaulin, tent, sail ..	Foremen	..	69s. per week
	Hand sewers ..	..	55s. „
	All other males ..	..	48s. „
	Females	24s. to 27s. 6d. per week	..
Class VIII.—Books, Paper, Printing, Engraving, &c.			
Printing (including lithographic printing, electrotyping, stereotyping)	Printers—Compositors and machinists	..	66s. per week
	Proof readers ..	..	70s. „
	Printers—Linotype and monoline and monotype operators	75s. 3d. to 94s. 6d. per week	..
	Persons employed on linotype or monoline machines	42s. to 54s. per week	..
	Persons employed on monotype casting machines	45s. 6d. to 56s. 10d. per week	..
	Feeders and others—		
	Males	..	48s. per week
	Females	..	22s. „
	Lithographers ..	60s. to 67s. 6d. per week	..
	Stone polishers and others	..	45s. per week
	Stereotypers ..	..	66s. „
Bookbinding, account-book making, stationery, &c.	Bookbinders, paper rulers, guillotine machine cutters	..	64s. „
	Feeders and others—male	..	36s. „
	Forewomen ..	..	..
	Pagers, folders, staplers, &c.—female	25s. to 35s. per week	..
	Sewers, &c.—female ..	..	21s. per week
		..	23s. „
Ink, printing ink	Printing ink makers ..	55s. to 80s. per week	60s. „
	Writing ink „ ..	25s. to 30s. „	..
Paper	Machinemen (paper) ..	..	63s. per week
	Beatermen	51s. to 63s. per week	..
	Boilermen, finishers, ragcutters	..	51s. per week
	Guillotinemen, roller-gangers, strawcutters, ripping and rewinding machinists	..	48s. „
	All other males ..	..	45s. „
	Females	21s. to 27s. per week	..

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
***Class VIII.*—continued.**			
Paper bag, box, &c. ..	Machine box cutters—male and female	..	60s. per week
	Other workers—male	..	48s. „
	Box-makers—female..	23s. to 27s. 6d. per wk.	..
	Cardboard carton setters	..	58s. per week.
	Cardboard carton cutters	..	52s. 6d. „
	All other males ..	..	48s. „
	Carton workers—adult female	23s. to 27s. 6d. per wk.	..
	Paper bag machinists	50s. to 61s. „	..
	„ „ guillotine cutters	..	50s. per week
	Female machinists ..	..	23s. 6d. „
	Other females ..	..	20s. „
Die sinking, engraving, &c. ..	Copper plate engravers	..	80s. „
	Die sinkers ..	..	70s. „
	Engravers, general ..	60s. to 70s. per week	..
	Process engravers ..	65s. to 90s. „	..
	Photo lithographers, etchers	..	70s. per week
	Line etchers and artists	..	65s. „
	Routers and printers	..	55s. „
	Mounters	..	45s. „
Class IX.—Musical Instruments.			
Organ	Organ builders ..	..	58s. per week
Pianoforte	Tuners	..	70s. „
	Action fitters ..	..	70s. „
	Wood machinists ..	..	66s. „
	Cabinet makers, polishers, turners, veneerers and others	..	60s. „
	Stringers	..	52s. „
Class X.—Arms and Explosives.			
Ammunition	Cartridge operators—female	28s. to 50s. per week	35s. per week
	Mechanics (fitters, &c.)	81s. to 105s. „	..
	Labourers	60s. to 72s. „	..
Explosive	Nitro-glycerine workers	48s. to 55s. „	..
	Acid workers ..	48s. to 51s. „	..
	Labourers	..	48s. per week
Fireworks, fuse	Fireworks makers—male	40s. to 45s. per week	..
	„ „ female	17s. 6d. to 20s. „	..
Class XI.—Vehicles, Fittings, Saddlery, Harness, &c.			
Coach, waggon, spoke, and felloe wheelwright	Bodymakers, painters, panel beaters, smiths, trimmers, wheelmakers, wheelwrights	..	63s. per week
	Machinists	45s. to 63s. per week	..
	Springmakers ..	54s. to 60s. „	..
	Turners	45s. to 54s. „	..
	Labourers and strikers	42s. to 45s. „	..
Tramcar building	Pattern makers ..	..	72s. per week
	Smiths, bodymakers, fitters, turners, sign-writers, grainers	..	66s. „
	Painters and pitmen	..	63s. „
	Borers, grinders, planers, and slotters	..	60s. „
	Machinists	54s. to 60s. per week	..
	Gearcutters ..	..	54s. per week
	Gear painters ..	..	51s. „
	All others	..	48s. „

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class XI.—continued.			
Cycle	Foremen	62s. 6d. and 65s. per wk.	
	Assemblers	47s. 6d. to 55s. „	
	Filers		47s. 6d. per wk.
	Frame builders	52s. 6d. to 55s. per wk.	
	General repairers	50s. 6d. to 55s. 6d. „	
	Lathe men		60s. per week
	Wheel builders		47s. 6d. „
	Foremen rim makers		57s. 6d. „
	Braziers		52s. 6d. „
	Other workers		47s. 6d. „
Perambulator	Wickerworkers		57s. 6d. „
	Upholsterers		50s. „
Saddlery, harness	Saddle, collar, and harness makers		54s. „
	Machinists—female		24s. „
Saddle-tree, saddlers' ironmongery, &c.	Saddle-tree makers	55s. to 65s. per week	55s. „
Whip (piece work)	Thong makers	44s. to 54s. „	
Class XII.—Ship Building, Fitting &c.			
Dock, slip	Shipwrights		13s. 4d. per dy.
	Labourers		10s. „
	Stevedores' men and lumpers		1s. 9d. per hr.
	Wharf labourers		1s. 9d. „
Boat building	Boat builders (skilled)	48s. to 70s. per week	
Class XIII.—Furniture, Bedding &c.			
Bedding, flock, upholstery	Bedding and mattrass makers		57s. per week
	All females over four years' experience		27s. 6d. „
	Upholsterers		60s. „
Carpet	Carpet planners		65s. „
	Carpet and linoleum layers		60s. „
	Makers and repairers—female		27s. 6d. „
Curled hair	Curled hair, horsehair workers	45s. to 60s. per week	
Furniture, cabinet making, chair, billiard table	Cabinet, chair, and couch makers		60s. per week
	Carvers, turners, polishers		60s. „
	Billiard table and cushion makers		60s. „
	Machinists	62s. to 66s. per week	
	Females (four years' experience)		27s. 6d. per wk.
Picture frame	Joiners, gilders		50s. „
	Machinists	48s. to 66s. per week	
	Mount cutters		50s. per week
	Compo workers and stainers		45s. „
	Mounters		48s. „
	Packers and others		42s. „
	Adult females		22s. 6d. „
Venetian blind, window blind	Venetian blind makers	45s. to 50s. per week	

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class XIV.—Drugs, Chemicals, and By-products.			
Blacking, black lead, blue, polishes, &c.	Grinders and mixers	..	50s. per week
	Others	42s. to 50s. per week	..
	Adult females ..	..	25s. per week
Chemical, drug, horse and cattle medicine	Makers of pharmaceutical preparations	60s. to 80s. per week	..
	Others (unskilled) working in drugs, &c.; disinfectant makers	35s. to 50s. „	..
Fertilizer	Acid tank cleaners, and pit emptiers in superphosphate works	1s. 4d. to 1s. 6d. per hour	..
	Men attending washers and emptying dens, pits, &c.	51s. to 57s. per week	..
	Men feeding elevators	..	51s. per week
	Weighing and bagging machine attendants	..	48s. „
	Labourers	..	48s. „
Paint, varnish, white-lead ..	Paint and varnish makers	60s. to 105s. per week	..
	Paint and varnish makers' assistants	..	60s. per week
Class XV.—Surgical and Scientific Appliances.			
Optical, philosophical instrument, &c.	Opticians, &c. ..	62s. to 70s. per week	..
Surgical appliance, instrument	Surgical instrument makers	60s. to 80s. „	..
	Female makers of belts and bandages	30s. to 40s. „	..
Class XVI.—Timepiece, Jewellery, Plated-ware.			
Electroplating	Persons mixing and working solutions and electric current	..	70s. per week
	Grinders, polishers, liners or hand decorators	..	60s. „
	Coaters ..	..	58s. „
	Other adult workers ..	..	52s. „
Goldsmithing, jewellery, gold-beating	Engravers and chasers	..	60s. „
	Chainmakers, mounters, ringmakers, silversmiths	..	57s. 6d. „
	Setters	..	65s. „
	Pressworkers ..	..	55s. „
	Other adult workers ..	..	50s. „
	Female chain makers	..	35s. „
	Female scratch brushers polishers, and gilders	35s. to 45s. per week	..
Watchmaking, &c.	Clock and watchmakers (repairers)	..	70s. per week
Class XVII.—Heat, Light, and Energy.			
Electric apparatus	Electrical fitters ..	..	66s. per week
	Winders, switchboard fitters	..	63s. „

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Class XVII.—continued.			
Electric light	Cable jointers ..	..	69s. per week
	Fitters	..	66s. ,,
	Wiremen, linesmen, patrolling repairers	..	63s. ,,
	Installation and circuit repairers and others	..	54s. ,,
	Night patrolmen ..	..	66s. ,,
	Assemblers, testers, and winders	54s. to 63s. per week	..
	Sub-station attendants	..	60s. per week
	Meter fixers ..	..	55s. 6d. ,,
	All others ..	..	51s. ,,
Gas and coke	Stokers—Machine men	..	11s. 7d. per shift
	,, Other, and firemen	..	11s. 4d. per shift
	Service and main layers	66s. to 71s. 6d. per wk.	..
	Skilled labourers ..	..	9s.10d.per day
	Purifier men, fitters' labourers, main and service layers' labourers	..	9s. 7d. ,,
	Yardmen, and all other unskilled labourers	..	9s. 4d. ,,
	Stove repairers and fitters	54s. to 57s. per week	..
	Gas inspectors ..	66s. to 71s.[6d. ,,	..
Match	Match and vesta makers —female (piece-work)	23s. 6d. to 38s. 6d. per week	..
	Box makers—female (piece-work)	21s. to 38s. 6d. per week	..
	Storemen, packers ..	46s. to 55s. per week	..
Ironfounders' dust, charcoal dust	Foremen	..	55s. per week
Hydraulic power	Mill hands and others	48s. to 50s. per week	..
	Firemen	..	54s. per week
	Fitters	..	70s. ,,
	Main layers ..	..	10s. per day
	Labourers	..	8s. 4d. ,,
Class XVIII.—Leatherware (excluding Saddlery and Harness).			
Leather belting	Foremen	70s. to 80s. per week	..
	Belt makers ..	55s. to 60s. ,,	..
	Machinists	45s. to 55s. ,,	..
Portmanteau, gladstone bag ..	Foremen	..	60s. per week
	Male workers ..	..	55s. ,,
	Female workers ..	20s. to 25s. per week	..
Class XIX.—Wares not elsewhere included.			
Basket, wickerware	Bamboo or wicker workers	..	57s. 6d. per week
	Basket workers ..	..	56s. per week
	Upholsterers ..	..	50s. ,,
Broom, brushware	Millet broom sorters ..	..	62s. 6d. ,,
	Storemen and labourers	..	52s. 6d. ,,
	Paint brush makers ..	..	67s. 6d. ,,
	Brush machinists ..	60s. to 64s. per week	..
	Brush finishers ..	..	60s. per week
	Hairwork, basspan, and material dressing	..	55s. ,,
	Bottle, flue, wire, and bass brush makers	..	52s. 6d. ,,
	Draw-bench and treadle knot machine workers	..	21s. ,,

WAGES IN MELBOURNE, 1915—*continued.*

Industry.	Occupations.	Wages.	
		Range.	General Rate.
Rubber goods (including cycle tyres)	Calendar hands ..	..	65s. per week
	Mill hands	..	58s. ,,
	Compound scale hands and dough mixers	..	55s. ,,
	Spreaders, hose, belting &c., hands	..	55s. ,,
	Tyre makers, repairers, wrappers	50s. to 55s. per week	..
	Tube makers, repairers	50s. to 55s. ,,	..
	Makers of surgical goods, packing, belting, &c.	..	55s. per week
	Press hands, heaters	..	54s. ,,
	Textile cutters, lathe, and forcing machine hands	..	52s. ,,
	All others	..	48s. ,,
	Female workers ..	..	27s. ,,

B.—WAGES FOR SERVANTS AND ADULT WORKERS IN UNCLASSIFIED CALLINGS, TRADES AND INDUSTRIES.

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
Educational*	Governesses ..	£40 to £60 per annum	..
	,, advanced	£60 to £120 ,,	..
	Teachers in private schools—		
	Males (elementary)	£120 to £200 ,,	..
	,, (advanced) ..	£200 to £400 ,,	..
	Females (elementary)	£50 to £65 ,,	..
	,, (advanced)	£80 to £180 ,,	..
Clerical	All males	..	56s. per week
	Female cashiers in butchers' shops	..	32s. ,,
	All other females ..	..	36s. ,,
Domestic servants*—males ..	Coachmen, footmen, grooms, gardeners	20s. to 30s. per week	..
females	Butlers	25s. to 40s. ,,	..
	Cooks	20s. to 30s. ,,	..
	Laundresses ..	17s. 6d. to 30s. ,,	..
	Housemaids ..	15s. to 17s. 6d. ,,	..
	Nursemaids ..	10s. to 17s. 6d. ,,	..
	General servants ..	17s. 6d. to 25s. ,,	..
	Girls	8s to 12s. ,,	..
Hotel servants—males ..	Barmen	..	50s. per week
	Billiard markers ..	..	42s. 6d. ,,
	Porters	..	40s. ,,
	Waiters (Head) ..	..	50s. ,,
	,, other ..	..	45s. ,,
	General handymen ..	..	35s. ,,
	Cooks	47s. 6d. to 70s. per wk.	..
females ..	Housekeepers ..	..	47s. 6d. per wk.
	Barmaids	..	37s. 6d. ,,
	Laundresses ..	..	35s. ,,
	Housemaids ..	..	30s. ,,
	Waitresses	27s. to 30s. per week	..
	Cooks	28s. 6d. to 42s. ,,	..

* With board and lodging.

WAGES IN MELBOURNE, 1915—*continued.*

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
Night watchmen	Wharf	..	63s. per week
	Working, and outside patrol (other than foot)	..	57s. ,,
	Outside patrol (foot)..	..	66s. ,,
	Others	..	54s. ,,
Lift attendants	.. .. ..	45s. to 48s. per week	..
Building	Bricklayers (foremen)	..	77s. per week
	,, (other) ..	..	71s. 6d. ,,
	Builders' labourers ..	..	58s. 8d. ,,
	Tuckpointers ..	..	64s. 2d. ,,
	Carpenters (foremen)	..	77s. ,,
	,, other ..	..	69s. 8d. ,,
	,, labourers..	..	52s. 3d. ,,
	Painters, paperhangers, signwriters, grainers	..	60s. 6d. ,,
	Plasterers	69s. 8d. to 73s. 4d. per week	..
	Plumbers (foremen) ..	..	77s. per week
	,, and gasfitters	..	66s. ,,
	Slaters and tilers ..	..	71s. 6d. ,,
Baking	Makers of rye-bread and rolls	..	1s. 7½d. per hour
	Makers of dough by machine	..	1s. 7d. per hour
	Jobbers	..	2s. per hour
	Carters	..	51s. per week
	Pastrycooks ..	50s. to 62s. 6d. per wk.	..
	General workers—male	..	34s.8d.per wk.
	,, ,, female	..	20s. ,,
Butchering	Slaughtermen ..	..	80s. ,,
	Slaughter house labourers	..	48s. ,,
	Shopmen and small-goodsmen	..	65s. ,,
	Assistant small goods-men, salters, scalders, and general butchers	..	57s. ,,
	Delivery cart drivers	..	50s. ,,
Carters	Drivers of one-horse vehicles	49s. to 55s. per week	..
	Drivers of two-horse vehicles	54s. to 60s. ,,	..
	Drivers of three-horse vehicles	59s. to 62s. 6d. ,,	..
	Drivers of motor vehicles	55s. to 60s. ,,	..
Coal and wood yards ..	Yardmen in charge ..	..	47s. 6d. per wk.
	Other yardmen ..	..	45s. ,,
	Carters	50s. to 55s. per week	..
Coal and coke yards ..	Yardmen	52s. to 64s. ,,	..
	Carters	50s. to 55s. ,,	..
Factory engine-drivers ..	Building cranes ..	..	69s. per week
	Steam, traction, winch, and hoist	..	63s. ,,
	Steam, 1st class engines	..	60s. ,,
	,, 2nd ,,	..	51s. ,,
	,, 3rd ,,	..	48s. ,,
	Firemen (2 boilers) ..	..	54s. ,,
	,, single ,,	..	48s. ,,
	Trimmers and greasers	..	48s. ,,
Marine stores	Foremen	..	50s. ,,
	Bottle washers and general hands	45s. to 48s. per week	..
	Casuals	..	1s. 3d. per hr.

WAGES IN MELBOURNE, 1915—*continued.*

Industry or Service.	Occupations.	Wages. Range.	Wages. General Rate.
Drapery	Pattern men, salesmen, &c.	42s. 6d. to 60s. per wk.	..
	Packers, porters, &c.	..	50s. per week
	Assistants—females ..	25s. to 32s. per week	..
Men's clothing (retail shops) ..	Managers	60s. to 70s. „	..
	Assistants	42s. 6d. to 60s. „	..
	Other adult employees	..	45s. per week
Boot dealers	Head sales—male or female	..	67s. 6d. „
	Salesmen, packers, porters, and others	40s. to 52s. 6d. per week	..
	Saleswomen ..	26s. to 32s. „	..
Farriers	Firemen	..	60s. per week
	Floormen	..	55s. „
Furniture dealers	Assistants, collectors, doormen	42s. 6d. to 60s. per wk.	..
	Storemen	..	54s. per week
	Packers and porters ..	..	45s. „
Gardeners	Nursery hands ..	..	48s. „
	Labourers	42s. to 45s. per week	..
Grocery	Managers	..	70s. per week
	Assistants	..	55s. „
	Storemen, packers ..	..	55s. „
	Carters	50s. to 55s. per week	..
Tea packing	Foremen in charge ..	..	55s. per week
	Head packers—males	..	47s. 6d. „
	Adult workers „	38s. to 42s. 6d. per wk.	..
	Head packers—females	..	28s. 6d. per wk.
	Adult workers „	17s. 6d. to 22s. 6d. per week	..
Hardware	Department managers	80s. to 90s. per week	..
	Branch „ ..	..	80s. per week
	Outside salesmen ..	..	70s. „
	Senior assistants ..	45s. to 60s. per week	..
	Junior „ ..	40s. to 55s. „	..
	Packers, storemen, &c.	32s. 6d. to 47s. 6d. „	..
Hairdressing	Employees—male, full hands	..	65s. per week
	Employees—male, other	55s. to 62s. per week	..
	„ female ..	35s. to 46s. „	..
Livery stables	Adults	..	46s. 6d. per wk.
	Casual hands ..	..	1s. per hour
Laundry	Laundresses ..	17s. 6d. to 30s. per week	22s. 6d. per week
Undertakers	Persons conducting funerals and coffin-making	60s. to 64s. „	..
	Drivers, grooms, and general workers	..	55s. per week
Photography	Males—		
	Operators ..	48s. to 80s. per week	..
	Printers, spotters, and enlargers	..	52s. 6d. per wk.
	Artists and retouchers	..	60s. „
	Developers ..	..	48s. „
	All others ..	..	52s. 6d. „
	Females—		
	Operators ..	28s. to 40s. per week	..
	Printers and enlargers	..	26s. per week
	Artists	..	35s. „
	Retouchers and developers	..	30s. „
	Spotters	..	23s. „
	All others ..	..	23s. „
	Makers of photographic materials	40s. to 75s. per week	..
	Finishers, packers—female	26s. to 35s. „	..

WAGES IN MELBOURNE, 1915—*continued.*

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
Quarry	Hammermen ..	51s. to 69s. per week	..
	Pitcher and cube dressers	..	66s. per week
	Facemen	..	60s. „
	Spallers	51s. to 60s. per week	..
	Machine borers ..	..	60s. per week
	Pluggers and machine feeders	..	54s. „
	Loaders, truckers, strippers and labourers	..	51s. „

Average wages under Wages Boards, &c.

The average weekly wages paid to males and females employed in all industries working under Wages Boards' determinations, and in those for which Wages Boards have not been appointed, have been compiled from particulars contained in the report of the Chief Inspector of Factories and are given in the following statement. The information relates to the year 1915 :—

EMPLOYEES UNDER WAGES BOARDS AND AVERAGE WAGES.

—	Males.		Females.	
	No.	Average Weekly Wage.	No.	Average Weekly Wage.
		£ s. d.		£ s. d.
Apprentices and improvers ...	14,564	1 1 8	11,303	0 13 3
General workers (mostly young persons)	3,429	0 18 7	2,050	0 14 7
Persons employed at minimum wage or over	63,542	2 19 6	21,212	1 8 10
Piece workers	1,856	3 2 7	4,783	1 5 3
Total	83,391	2 11 4	39,348	1 3 2

EMPLOYEES OUTSIDE OF WAGES BOARDS, AND AVERAGE WAGES.

—	No.	Average Weekly Wage.
		£ s. d.
Males	7,626	2 6 9
Females	7,326	1 2 4
Total	14,952	1 14 9

The foregoing tables do not include particulars relating to work of various kinds done by the Penal Department at Pentridge. At

this establishment the manufacture of clothing, brushware, boots, mats, blankets, flannel, underclothing, bread, &c., and printing are carried on. The estimated value of the output for 1915 was £18,881, and that of the materials used £10,203. The articles produced are used principally in Government Departments.

Value of Victorian production.

The value of all articles produced or manufactured in Victoria has been compiled from actual returns or estimates in the office of the Government Statist, and the results are set forth in the following table :—

VALUE OF VICTORIAN PRODUCTION: 1911 TO 1915.

Produce.	Value in—				
	1911.	1912.	1913.	1914.	1915.
Cultivation.	£	£	£	£	£
Wheat	3,547,266	4,343,202	5,352,141	1,391,647	10,972,820
Oats	663,916	953,750	777,903	397,078	942,607
Barley, malting ...	202,620	259,217	151,771	105,602	171,966
,, other ...	58,823	73,213	85,033	56,297	122,631
Maize	147,357	119,305	121,234	234,597	191,645
Other Cereals ...	37,026	48,458	46,059	46,676	52,900
Grass and Clover Seed	2,376	5,802	5,177	495	6,022
Potatoes	614,540	678,448	573,227	800,269	1,017,563
Onions	177,744	176,142	138,257	167,098	105,244
Other Root Crops ...	20,398	26,691	25,469	17,379	16,505
Hay	3,200,109	4,010,979	2,565,740	4,181,827	4,098,664
Straw	116,911	105,407	101,614	152,640	104,495
Green Forage* ...	187,943	211,150	247,408	418,962	181,278
Tobacco	4,094	1,587	3,266	2,254	1,840
Grapes, not made into wine, raisins, &c.	45,500	31,486	25,639	30,826	31,715
Raisins, ordinary ...	52,628	41,934	49,375	28,544	66,410
,, sultanas ...	142,932	171,884	126,651	152,633	295,469
Currants	88,899	60,421	71,413	37,085	123,473
Wine	81,952	120,611	116,822	63,087	138,036
Hops	4,714	9,062	6,279	5,900	3,990
Other Crops ...	44,064	56,015	63,937	64,388	58,293
Fruit grown for Sale in Orchards and Gardens	585,172	656,363	769,647	498,151	769,611
Fruit in Private Orchards and Gardens	8,432	8,180	8,250	7,820	7,476
Market Gardens ...	258,275	260,350	269,425	323,375	284,475
Total ...	10,293,691	12,429,657	11,701,737	9,184,630	19,765,128

* Exclusive of area under sown grasses.

VALUE OF VICTORIAN PRODUCTION, 1911 TO 1915—*continued.*

Produce.	Value in—				
	1911.	1912.	1913.	1914.	1915.
	£	£	£	£	£
Dairying and Pastoral.					
Milk consumed in natural state	1,036,000	1,419,900	1,274,590	1,413,980	1,895,160
Butter made ..	3,860,100	3,478,640	3,341,920	2,998,820	2,528,360
Cheese made ...	106,160	125,480	126,670	117,210	129,110
Cream made (not for butter)	21,160	22,940	23,800	25,960	13,760
Condensed, Concentrated, and Powdered Milk	260,324	362,480	396,436	381,640	386,456
Horses	520,580	328,020	454,820	...	...
Cattle	2,344,680	1,165,430	2,277,170	1,766,473	226,480
Pigs	454,815	389,350	678,355	735,065	472,050
Sheep (without wool)	1,558,170	709,660	1,572,420	1,134,678	784,575
Wool	4,142,747	3,751,083	4,032,954	3,410,913	4,066,003
Total ...	14,304,736	11,752,983	14,179,135	11,984,739	10,501,954
Mining.					
Gold	2,140,855	2,039,464	1,847,475	1,755,236	1,397,793
Coal	301,142	259,321	274,940	289,099	275,343
Stone from Quarries (including limestone)	151,426	161,843	167,567	183,376	209,539
Other Metals and Minerals	24,368	39,067	54,762	51,298	64,022
Total ...	2,617,791	2,499,695	2,344,744	2,279,009	1,946,697
Forest Produce.					
Timber (Forest Sawmills only)	265,990	265,980	290,280	316,400	234,700
Firewood (estimated)	446,700	457,890	494,580	505,350	506,260
Bark for Tanning ..	77,350	82,380	78,950	91,200	140,400
Total ...	790,040	806,250	863,810	912,950	881,360
Miscellaneous.					
Honey and Beeswax	21,861	39,425	26,077	9,704	18,774
Poultry production (estimated)	1,618,500	1,659,100	1,706,700	1,743,860	1,747,000
Rabbits and Hares	195,987	261,534	349,671	176,104	114,800
Fish	69,675	89,648	100,489	104,007	109,429
Total ...	1,906,023	2,049,707	2,182,937	2,033,675	1,990,003
Total Value of Primary Products	29,912,281	29,538,292	31,272,363	26,395,003	35,085,142
Manufacturing — Added Value*	15,958,576	17,752,167	18,714,999	19,633,098	20,053,552
Grand Total ...	45,870,857	47,290,459	49,987,362	46,028,101	55,138,694

* Exclusive of value of output of butter and cheese factories, and forest saw-mills (as regards Victorian timber) included above.

In comparison with previous years increases were shown in 1915 under cultivation and manufactures. In the former case this was due to a considerably augmented production, while in the case of manufactures the annual normal increase occurred. There was a decrease in the value of dairying and pastoral production. This was due to a great reduction in the output of butter and heavy losses of horses, cattle and sheep, which occurred as a result of a drought in 1914.

The total value of primary production in 1915 was £35,085,142, or £9,110,593 more, and that of manufacturers was £20,053,552, or £420,454 more than in the preceding year.

The values of different kinds of production per head of the total population in each of the last five years were as follows:—

VALUE OF PRODUCTION PER HEAD OF POPULATION: 1911 TO 1915.

Produce.	Value of Produce per head in—									
	1911.			1912.			1913.			1914.			1915.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Cultivation	7	15	10	9	3	7	8	8	0	6	9	1	13	17	2
Dairying and Pastoral	10	16	6	8	13	7	10	3	7	8	8	5	7	7	3
Mining	1	19	8	1	16	11	1	13	8	1	12	0	1	7	5
Forest	0	12	0	0	11	11	0	12	5	0	12	10	0	12	5
Miscellaneous ...	1	8	10	1	10	3	1	11	4	1	8	7	1	7	10
Total Primary Produce	22	12	10	21	16	3	22	9	0	18	10	11	24	12	1
Manufactures ...	12	1	7	13	2	1	13	8	8	13	15	9	14	1	3
Grand Total ...	34	14	5	34	18	4	35	17	8	32	6	8	38	13	4

The figures show the steadily increasing importance of the manufacturing industries. Relatively to population, the amount added in the process of manufacture to the value of the raw materials used was, in 1915, 16 per cent. higher than in 1911, and 76 per cent. higher than in 1905.