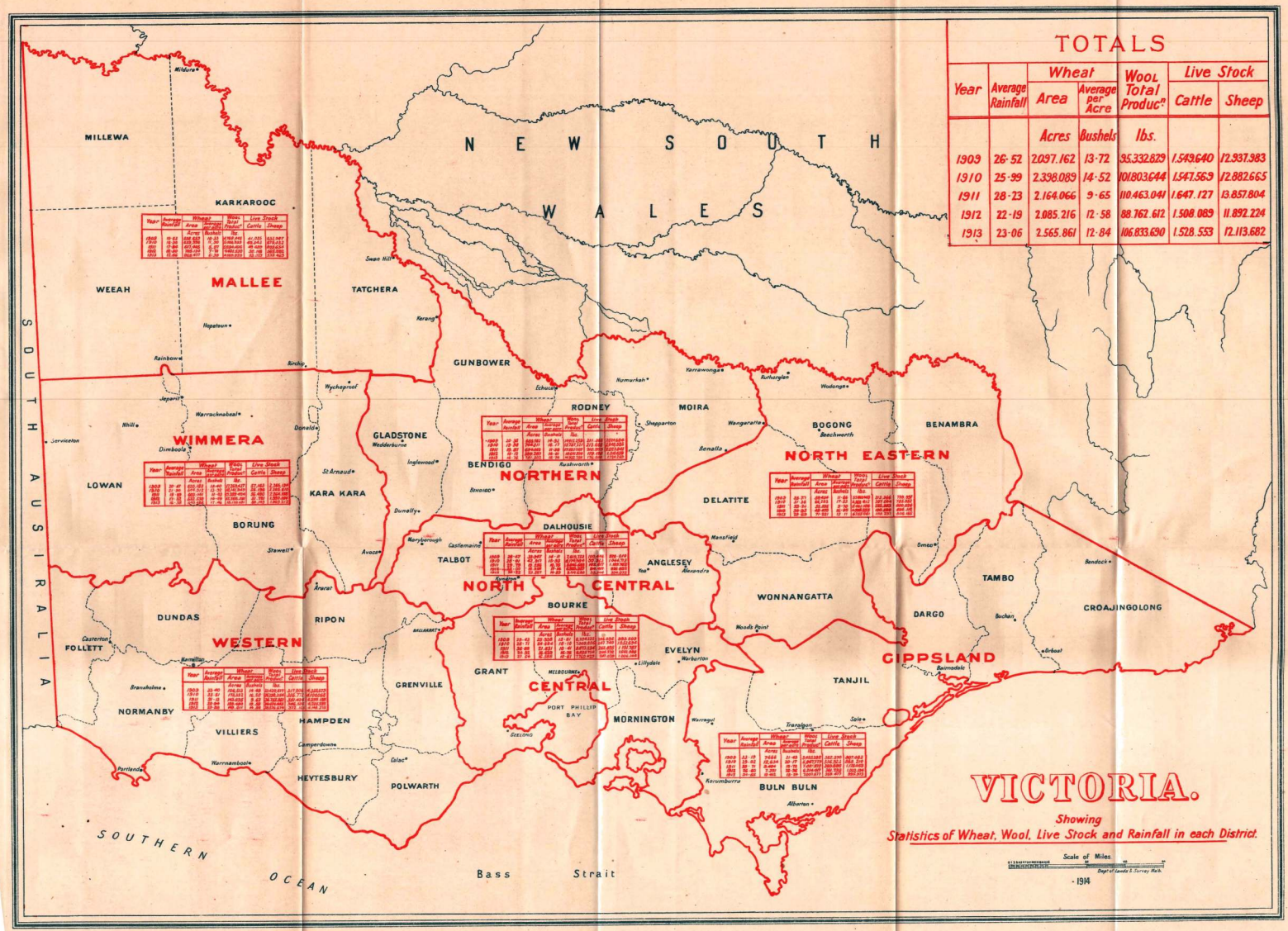
TOTALS
Year | Average Rainfall | Wheat: Area | Wheat: Average per Acre | Wool Total Produc.n | Live Stock: Cattle | Live Stock: Sheep
Acres | Bushels | lbs.
1909 | 26·52 | 2.097.162 | 13·72 | 95.332.829 | 1.549.640 | 12.937.983
1910 | 25·99 | 2.398.089 | 14·52 | 101.803.644 | 1.547.569 | 12.882.665
1911 | 28·23 | 2.164.066 | 9·65 | 110.463.041 | 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 | 106.833.690 | 1.528.553 | 12.113.682
NEW SOUTH WALES
SOUTH AUSTRALIA
MILLEWA
KARKAROOC
MALLEE
WEEAH
TATCHERA
GUNBOWER
WIMMERA
LOWAN
KARA KARA
GLADSTONE
BORUNG
RODNEY
MOIRA
BENDIGO
NORTHERN
DELATITE
BOGONG
BENAMBRA
NORTH EASTERN
DALHOUSIE
TALBOT
ANGLESEY
NORTH CENTRAL
BOURKE
WONNANGATTA
TAMBO
DARGO
CROAJINGOLONG
GIPPSLAND
DUNDAS
RIPON
WESTERN
FOLLETT
NORMANBY
GRENVILLE
GRANT
CENTRAL
EVELYN
TANJIL
VILLIERS
HAMPDEN
MORNINGTON
PORT PHILLIP BAY
HEYTESBURY
POLWARTH
BULN BULN
SOUTHERN OCEAN
Bass Strait
VICTORIA.
Showing
Statistics of Wheat, Wool, Live Stock and Rainfall in each District.
Scale of Miles
1914

PRODUCTION.

LAND SETTLEMENT, ETC.

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

	Acres.
Lands alienated in fee simple	24,009,440
Lands in process of alienation	7,137,413
Crown lands	25,098,907
	56,245,760

The Crown lands comprise—

Permanent forests	3,064,916
Timber Reserves	752,145
Water Reserves	314,917
Reserves for Agricultural Colleges, &c. ..	85,107
Reserves in the Mallee	397,881
Other Reserves	303,860
Roads	1,717,607
Water frontages, beds of rivers, lakes, &c. Unsold land in cities, towns, and boroughs	2,793,777
Land in occupation under—	
Grazing Area Leases	2,747,571
Perpetual Leases	406,681
Other Leases	145,356
Temporary Grazing Licences	9,985,392
Unoccupied	2,383,697
Total	25,098,907

Alienation of land, 1900 to 1913.

In the subsequent 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 1900. A proportion of the area conditionally sold to selectors each year reverts to the Crown in consequence of the non-fulfilment of conditions by the selectors. The lands alienated each year include lands selected in previous years.

ALIENATION OF CROWN LANDS, 1900 TO 1913.

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	334,590	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

Amount realized by sale of Crown lands.

From the period of the first settlement of the State to the end of 1913 the amount realized by the sale of Crown lands was £33,147,806, which represents an average of £1 1s. 3d. 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 following table shows the whole of the unalienated lands of the Crown remaining for disposal :—

CROWN LANDS REMAINING FOR DISPOSAL ON 31ST DECEMBER, 1913.

Location.	Classification.						Total.
	Agricultural and Grazing.				Auriferous.	Pastoral.	
	First.	Second.	Third.	Unclassed.			
County.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Buln Buln	3,507	44,274	45,658	..	4,580	..	98,019
Croajingolong ..	2,380	4,136	529,800	302,900	14,150	549,000	1,402,366
Dargo	..	..	89,280	190,800	77,800	245,600	603,480
Tambo	..	..	218,680	34,400	3,800	372,450	629,330
Tanjil	..	..	88,840	2,650	67,000	356,000	514,490
Wonnangatta ..	..	39	128,543	..	..	946,800	1,075,382
Bogong	2,630	12,570	178,980	5,000	118,521	203,692	521,393
Benambra	..	292	200,892	..	106,204	294,994	602,382
Delatite	665	22,285	209,732	..	65,638	180,300	478,620
Moira	25	..	8,947	..	..	..	8,972
Anglesey	26	3,754	70,704	..	7,633	..	82,117
Bourke	..	370	100	..	..	..	470
Dalhousie	..	992	5,814	..	7,632	..	14,438
Evelyn	..	26,678	..	..	4,953	..	31,631
Mornington	..	4,913	48,359	..	..	..	53,272
Bendigo	..	710	9,212	..	11,667	..	21,589
Rodney	..	480	2,600	..	2,660	..	5,740
Borung	247	536	38,053	..	11,067	..	49,903
Gladstone	100	1,307	2,657	..	28,686	..	32,750
Lowan	71	177	38,765	..	..	..	39,013
Kara Kara	..	371	4,086	..	9,702	..	14,159
Talbot	40	485	536	..	60,708	..	61,769
Tatchera	..	70	..	..	..	..	70
Heytesbury	..	860	159,326	..	..	..	160,186
Polwarth	472	6,804	26,715	..	..	..	33,991
Grant	..	75	26,086	..	16,880	..	43,041
Grenville	..	40	..	..	18,405	..	18,445
Ripon	..	..	15,192	..	8,280	..	23,472
Normanby	..	569	60,969	..	..	..	61,538
Dundas	425	40	30,796	..	..	..	31,261
Villiers	..	..	238	..	..	..	238
Follett	..	..	8,505	..	..	..	8,505
Totals ..	10,588	132,827	2,248,065	535,750	645,966	3,148,836	6,722,032
Throughout the State..	Swamp or reclaimed lands						1,225
,, ,, ..	Lands which may be sold by auction						11,591
The north-western portion of the State	Mallee lands (such as are suitable to be eventually classed 1st, 2nd, or 3rd class for selection)						5,634,241
Total area remaining for disposal							12,369,089

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, 1913, are as follows :—

Number of Licences and Leases ..	15,597
Area (acres)	13,230,211
Annual Rental	£43,921

These licences and leases are not all on the same footing as regards the term 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 all consolidated into the *Land Act* 1901, which has been amended by the Land Acts of 1903, 1904, 1905, 1909, and 1911. 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 641.

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 10,588 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 132,827 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 2,248,065 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 47, 50, or 54 of the *Land Act* 1901, and sections 8 to 13 of the *Land Act* 1911. 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 following table, 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 table (p. 636), 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 11 of *Land Act* 1911).				Non-Residence Lease (Section 13 of *Land Act* 1911).					
	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 Act 1831 the value may be fixed higher if the value of the land is greater than the minimum stated, in which case the half-yearly payments are increased *pro ratâ*.

(*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 5,634,241 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 $1\frac{1}{4}$ 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 645,966 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 Acts 1890 and 1897, 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 1,225 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, 1913, comprised 11,591 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.

Pastoral lands. The "pastoral lands" unalienated comprise 3,148,836 acres, and are situated in the counties of Wonnangatta, Croajingolong, Tambo, Tanjil, Benambra, Dargo, Bogong, and Delatite. 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 9, *Land Act* 1905. 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 areas, even though held under grazing leases or licences.

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* 1904 to

such an area as would not exceed £200 in value. The total area now occupied is 24,690 acres, on which there are 1,001 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* 1901.

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, 1913, £40,760 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 was originated previously in South Australia by the late Sir R. R. Torrens, and 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 cheapens 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 1913 there were submitted 603 applications to have brought under the Act land amounting to 22,249 acres in extent, and to £719,688 in value; whilst the land actually brought under the Act during the year by application was 21,965 acres valued at £716,778. Up to the end of 1913 there had been brought under the Act 2,844,727 acres valued at £56,861,314. The number of certificates of title issued in 1913 was 16,541.

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, 1912, was £192,371. Receipts during 1912–13 comprised contributions £2,625, 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

comprised claims paid £459, and a sum of £32,000 which was transferred to the Teachers' Residences Fund as required by Act No. 2297. The balance at the credit of the fund on 30th June, 1913 was £168,384. The amount paid up to 30th June, 1913, as compensation and for judgments recovered, including costs, was £7,404, representing 38 claims.

CLOSER SETTLEMENT.

Closer Settlement.

Under the provisions of the Closer Settlement Acts, 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 Acts provide that any one or more persons, who are eligible to acquire a farm allotment under the Closer Settlement Acts, 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 Acts 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 Acts, 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. 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 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 erected thereon within one year from the date of the lease, 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 Acts provide for advances by the Lands Purchase and Management Board to settlers who are—

(*a*) Lessees under the *Closer Settlement Act* 1904, &c.
(*b*) Licensees of an agricultural or grazing allotment under the *Land Act* 1901.
(*c*) Licensees under section 103 of the *Land Act* 1901 or corresponding sections of any repealed Act.
(*d*) Conditional purchase lessees under the *Land Act* 1901; or

(*e*) Conditional purchase lessees under the *Murray Settlements Act* 1907.
(*f*) Selection purchase lessees under the *Land Act* 1911.
(*g*) Perpetual lessees under the *Land Act* 1901.

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 Acts 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 Acts 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. No advance is to exceed 60 per cent. of the total value of the improvements on the land, and the maximum amount (inclusive of all other loans and advances, if any) must not exceed £500.

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, 1914, 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, 1914.

Estates.	Area.*	Purchase Money including Discount.	Price Paid Per Acre.	No. of Lessees.			Area Vacant and Available.
				Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	
Dry Areas—	acres.	£	£ s. d.				acres.
Wando Vale ..	10,446	63,985	6 2 6	66	..	1	..
Walmer ..	13,769	44,751	3 5 0	42	..	2	..
Whitfield ..	4,247	36,096	8 10 0	35	..	2	228
Brunswick ..	91	2,793	29 0 0	..	55	..	1
Eurack	5,109	53,640	10 10 0	46	..	..	..
Footscray ..	31	2,486	80 0 0	..	86	..	..
Dal Campbell ..	45	2,358	47 8 0	..	63	..	..
Springvale ..	3,396	25,895	7 12 6	21	..	..	..
Memsie	10,028	57,159	5 14 0	43	..	..	..
Richmond Vale ..	1,851	11,000	8 11 6	11	..	1	255
Overnewton ..	11,336	71,492	6 4 6	63	..	5	..
Wyuna	23,016	120,876	5 5 0	116	..	13	406
Restdown ..	17,894	60,391	3 7 6	53	..	..	..
Strathkellar ..	10,227	74,150	7 5 0	55	..	6	200
Bona Vista ..	2,060	28,832	14 0 0	19	..	9	663
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	18	..	..	..
Exford	8,054	64,039	8 0 0	47	..	6	206
Colbinabbin ..	19,164	110,198	5 17 6	85	..	..	..
Pirron Yaloak ..	1,058	23,796	22 7 6	12	..	..	241
Numurkah ..	2,360	18,901	8 0 0	11	..	3	..
Allambee ..	5,023	31,779	6 6 4	14	..	..	2,816
Pender's Grove ..	233	23,327	100 0 0	..	242	..	5
Phœnix ..	23	968	40 0 0	..	47	..	..
Keayang ..	1,494	14,966	10 0 0	7	..	..	685
Werneth ..	6,588	31,043	4 15 0	21	..	..	..
Staughton Vale ..	9,857	66,466	6 15 0	46	..	..	..
Glenhuntly ..	74	7,040	94 0 0	..	158	..	..
The Heart ..	3,793	56,322	14 12 2	43	..	1	..
Mooralla ..	17,199	60,197	3 10 0	24	..	..	2,303
Maribyrnong ..	1,112	10,842	9 15 0	11	..	..	..
Kenilworth ..	18,440	55,321	3 0 0	23	..	14	2,699
Doogalook ..	4,640	29,002	6 5 0	17	..	..	..
Werribee ..	14,972	154,165	13 0 0	21	..	..	4,842
Konongwootong ..	10,181	104,363	10 3 0	61	..	20	13
Cornelia Creek ..	29,567	121,034	4 15 0	66	..	1	2,166
Koyuga.. ..	789	3,914	..	2	..	..	..
Meadowbank ..	313	9,085	29 0 0	5	..	..	..
Oaklands ..	8,069	26,309	3 5 0	6	..	..	4,129
Hurstwood ..	6,493	31,311	4 15 0	14	..	..	..
Eumeralla ..	10,034	57,570	5 13 7	22	..	6	4,121
Morven	8,029	39,533	4 17 6	19	..	..	1,210
Mt. Widderin ..	8,300	48,634	5 15 6	19	..	..	1,411
Tooronga ..	101	17,675	178 4 4	..	211	..	..
Nerrin Nerrin ..	6,806	58,475	8 10 0	11	..	4	3,177
Bellarine ..	204	5,457	26 15 0	4	..	..	88
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 purchases.

CLOSER SETTLEMENT ESTATES AT 30TH JUNE, 1914—*continued.*

Estates.	Area.*	Purchase Money including Discount.	Price Paid Per Acre.	No. of Lessees.			
				Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Area Vacant and Available.
	acres.	£	£ s. d.				acres.
Dry Areas—*continued.*							
Mordialloc ..	460	7,850	17 1 6	..	..	36	34
Thomastown ..	581	11,230	19 5 6	29	..	1	16
Wangaratta ..	796	9,660	12 3 4	18	..	4	321
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	..	..	220
Deepdene ..	2,985	35,742	12 0 0	17	..	..	..
Glenaladale ..	2,109	28,787	13 10 0	17	..	..	..
Cremona ..	1,292	20,140	Various	7	..	1	513
Boisdale ..	2,521	72,174	Various	33	..	..	819
Pannoo	15,102	98,455	Various	41	..	1	1,577
Marathon and Willow Grove ..	14,783	58,752	Various	25	..	..	2,355
Dunrobin ..	18,814	119,779	6 6 0	48	..	28	36
Kilmany ..	8,746	106,080	12 0 0	57	..	..	1,809
Westmere ..	934	9,418	10 0 0	..	..	..	..
Waubra.. ..	47	1,042	22 10 0	..	14	..	..
Nathalia ..	30	362	12 0 0	..	..	5	..
Moyhu	2,422	19,581	8 0 0	12	..	..	525
†Condah ..	157	1,725	10 19 8	..	..	..	..
‡Mackey ..	1,078	20,626	19 2 10	..	..	..	..
Ascot Park ..	488	3,671	Various	..	..	..	..
Nannella ..	738	7,767	Various	3	..	16	..
Cohuna.. ..	223	2,215	Various	1	..	..	106
Bamawm ..	162	1,391	8 12 0	..	..	..	162
Crown Lands ..	2,902	20,013	Various	11	80	29	..
Sec. 6-11—Purchases ..	49,389	321,325	Various	224	..	49	2,228
Acquired, but not available ..	1,422	18,901	..	..	..	..	..
Irrigable Areas—							
Nannella ..	8,565	78,654	Various	68	..	20	1,651
Bamawm ..	13,365	122,944	Various	143	..	18	1,589
Shepparton ..	9,086	133,670	Various	157	..	77	500
Swan Hill ..	5,409	63,187	Various	58	..	1	1,283
Cohuna	11,531	114,856	Various	90	..	10	2,873
Tongala.. ..	15,228	172,395	Various	145	..	45	3,436
Kyabram ..	993	13,437	13 10 0	12	..	9	406
Koondrook ..	769	5,055	6 0 0	2	..	..	475
Werribee ..	6,977	132,775	..	53	..	22	3,345
Koyuga ..	4,173	36,228	..	34	..	12	617
Echuca	2,753	24,845	Various	13	..	..	894
Dingee	472	4,160	Various	4	..	10	125
Cornelia Creek ..	2,507	16,501	..	13	..	..	240
Landerdale ..	242	3,086	12 15 0	..	..	..	..
Stanhope ..	716	7,160	10 0 0	..	..	..	..
Bonshaw ..	482	4,820	10 0 0	..	..	..	..
Acquired, but not available ..	26,111	267,191	..	..	..	..	..
Total ..	567,687	4,222,248	..	2,579	998	535	60,028

* 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, 1914, the Board had 104 properties, with a total area of 567,687, acres of which 60,028 acres were available for allotment, and 27,533 acres had not at that date been made available for occupation. Portions of four estates amounting in the aggregate to 1,928 acres were sold by public competition 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 1910 to 1914, is summarized in the next statement.

CLOSER SETTLEMENT HOLDINGS 1910–1914.

		At 30th June.				
		1910.	1911.	1912.	1913.	1914.
In occupation—						
Number of Holdings ...	...	1,880	2,708	3,354	3,906	4,112
Area	acres	235,938	312,794	407,206	438,321	449,791
Resident Population ...	...	6,360	10,000	13,400	16,000	16,800
Area unallotted ...	acres	9,302	54,214	71,367	64,550	60,028

The sum of £1,213,593 had been repaid to the Closer Settlement Fund up to 30th June, 1914. Of this amount £669,833 has been transferred to revenue to meet interest due to stockholders, and £454,543 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, 1914, being £89,217. The balance of unredeemed stock is now £4,597,195, on which the interest payable amounts to £162,095 per annum. Up to the 30th June, 1914, 4,924 applications for advances aggregating £557,363 had been approved, and that amount was advanced to effect improvements, or upon improvements actually effected by the 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 645, relating to closer settlement estates at 30th June, 1914.

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, 1913.

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	1,205,855
Broken River Works ...	Stock and Domestic	...	14,853
		Acre feet.	
Goulburn-Waranga ...	Irrigation, &c. ...	218,090	1,328,986
North-west (Kerang) Lakes	Stock and Domestic	91,830	9,587
Kow Swamp Works ...	Irrigation, &c. ...	40,860	185,927
Loddon River Works ...	" " ...	14,000	167,315
		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
Pyke's Creek and Werribee Scheme		Acre feet.	
	Irrigation, &c. ...	14,850	93,407
Irrigation and Water Supply Districts (18) ...	" " ...	...	1,405,243
Waterworks Districts (9) ...	Stock and Domestic	...	877,925
First Mildura Irrigation and Water Supply Trust ...	Irrigation	...	82,511
		Gallons.	
Waterworks Trusts (89) ...	Stock and Domestic	1,099,387,500	1,120,806
Municipal Corporations (28)...	" " ...	1,718,189,000	695,139
Abolished Irrigation and Water Supply Trusts (8) ...	Irrigation	...	31,953
Miscellaneous Expenditure ...	... ...	...	141,527
Melbourne and Metropolitan Board of Works	Domestic	6,601,300,000	4,463,657
Geelong Waterworks and Sewerage Trust	"	1,468,157,000	547,185
Total	... ...	...	12,456,834

Of the expenditure given in the case of the Melbourne waterworks, £3,189,934 represents money borrowed by the State, £1,501,271 of which has been redeemed—£800,000 out of consolidated revenue, and £701,271 by payments from the Melbourne and Metropolitan Board of Works, to which body the waterworks were transferred in 1891. Of the balance, £1,559,786 represents the loan liability to the State of the Melbourne and Metropolitan Board of Works on 30th June, 1913, £128,877 having been paid into the Treasury in connexion with the redemption of a loan due in October, 1913. Further particulars relating to this Board will be found on page 294, Part V., of this work.

The Geelong Waterworks were sold by the Government to the Geelong Municipal Waterworks Trust on 25th January, 1908, for £265,000, in addition to which amount the expenditure shown in the

above table includes the outstanding State loan liability on account of the works, viz., £190,082, and the capital expenditure by the Trust since acquiring the works, viz., £92,103.

Advances and expenditure for waterworks.

The succeeding 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 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, 1913.
	£	£	£	£	£	£
State Works	3,090,888	..	2,798*	..	..	3,090,888
Irrigation and Water Supply Districts (18)	1,389,838	..	15,406	575,152	11,896	802,790
First Mildura Irrigation and Water Supply Trust ..	82,511	..	..	..	521	81,990
Waterworks Districts (9) ..	831,486	..	46,439	169,927	27,879	633,680
Waterworks Trusts (89) ..	1,076,520	6,871	37,414	130,989	85,807	866,595
Geelong Water Supply Works	455,082	..	..	..	265,000	190,082
Municipal Corporations (19) ..	641,617	43,633	..	165,870	103,701	415,679
,, (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	30	..
Miscellaneous	141,527	..	..	..	..	141,527
Total	10,940,656	50,850	102,300	1,073,618	2,134,871	7,783,017

* 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 also 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, 1913, amounted to £33,999, viz., £13,304 against the First Mildura Trust, £12,461 against Waterworks Trusts, and £8,234 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 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, together with 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, showing 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.	Area Irrigated.		Increase.
	1909-10.	1912-13.	
	acres.	acres.	acres.
Shepparton	..	4,346	4,346
Rodney	32,356	38,611	6,255
Tongala	2,270	4,955	2,685
Rochester	500	7,769	7,269
Dingee	..	92	92
Bacchus Marsh	31	1,858	1,827
Cohuna	19,825	26,884	7,059
Tragowel Plains	20,000	38,103	18,103
Koondrook	5,029	14,405	9,376
Merbein	202	4,993	4,791
Nyah	569	1,569	1,000
Swan Hill	5,410	7,647	2,237
Total	86,192	151,232	65,040

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

CLOSER SETTLEMENT IN IRRIGATED AREAS.

Settlement.	Lands purchased and subdivided by the State.		Subdivided into—		No. of families thereon when purchased.	No. of Closer Settlement Blocks occupied.
	Total Area.	No. of Properties.	No. of Closer Settlement Blocks.	Average Area.		
	acres.			acres.		
Shepparton No. 1	3,200	7	104	29	6	102
Shepparton No. 2	6,000	14	144	38	13	111
Kyabram	1,000	1	35	27	3	16
Tongala	15,200	31	240	61	30	182
Bamawm	13,400	28	178	71	21	146
Nanneella	8,600	16	106	78	6	81
Cornelia Creek (including Koyuga)	6,700	1	75	86	..	64

CLOSER SETTLEMENT IN IRRIGATED AREAS—*continued.*

Settlement.	Lands purchased and subdivided by the State.		Subdivided into—		No. of families thereon when purchased.	No. of Closer Settlement Blocks occupied.
	Total Area.	No. of Properties.	No. of Closer Settlement Blocks.	Average Area.		
	Acres.			Acres.		
Cohuna	11,500	27	131	84	8	101
Swan Hill	5,400	18	84	63	10	60
Werribee	6,200	1	152	40	6	40
Nyah	..	1	100	29	..	71
Merbein	Crown Lands		186	32	..	182
Total	..	145	1,535	..	103	1,156

This statement shows that the settlements therein specified were supporting eleven times as many families in 1913 as there were on the same areas four years previously. In addition to this, the improvements in cultivation rendered possible by irrigation must be taken into consideration. As examples of such improvements, it may be stated that over 1,000 acres have been planted with orchards, and over 2,000 acres seeded to lucerne in the Shepparton District during a period of three years, while at Bamawm there are now 700 acres of orchard and 6,000 acres of lucerne, where in 1910 there was not an acre of either.

Extension of the irrigable area.

The construction work undertaken by the State Rivers and Water Supply Commission during 1912–13 was mainly directed towards bringing the surplus water of existing works into use. In the Shepparton District channels to supply 6,000 acres have been completed, and works to supply 9,000 acres are nearing completion. As a result, the area in this district to which water has been allotted has been more than quadrupled, and it will be further increased without the construction of additional works. By the building of a 20-mile canal, starting from the Waranga Main Channel, and reaching to within 2 miles of Echuca, 3,000 acres of State land, and a larger area of privately-owned land, exceptionally suited to intense culture, will be watered. The construction of this canal will make the irrigated area continuous from Echuca to the Main Western Channel, and will bring into cultivation a large extent of virgin fertile soil hitherto used almost entirely for grazing. In the Dingee District channels have been built to supply about 5,000 acres. In the Koondrook District about 3,000 acres have been purchased, and subdivided into small holdings, and in the Rodney District 6,000 acres have been privately subdivided into small allotments. In order to supply these new allotments with water, it has been necessary to build a considerable mileage of distributary channels, and construct a large number of outlets for measuring water. In the Werribee District 5,000 acres have been subdivided, and the channels to irrigate the land built; also water has been supplied to the occupied allotments.

The attached statement contains a list of closer settlement areas which have been transferred to or purchased by the Commission for subdivision and settlement.

IRRIGABLE ESTATES UNDER THE CONTROL OF THE COMMISSION.

	Acres.
Bamawm	16,600
Nanneella	8,600
Cornelia Creek	2,500
Koyuga	4,200
Tongala	15,200
Kyabram	3,100
Cohuna	11,500
Swan Hill	6,900
Shepparton No. 1	3,200
Shepparton No. 2	6,000
Werribee	8,200
Koondrook	3,400
Dingee	500
Stanhope	20,900
Total ...	110,800

Of the areas shown, about 60,000 acres are already settled, a further 17,000 acres of the subdivided area are available for settlement, and about 30,000 acres are being surveyed, channelled, and made ready. The lands now available for settlement include 100 allotments, with an area of less than 20 acres each, and 240 allotments, each of which has an area of 20 acres or over. The terms upon which these allotments may be acquired are explained under the heading of Closer Settlement on page 641.

In the succeeding table the total extent of irrigation in the State is summarized for each of the last five years, the area of the principal crops watered being shown in the tabulation :—

IRRIGATION.—AREAS OF CROPS WATERED.

Crops.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
	acres.	acres.	acres.	acres.	acres.
Cereals	23,715	37,905	52,002	64,110	74,927
Lucerne	24,124	25,432	37,475	44,470	55,535
Sorghum and other annual fodder crops	8,094	9,527	12,952	16,898	21,374
Pastures	50,541	49,693	84,858	76,704	110,193
Vineyards, orchards, and gardens ..	17,524	17,606	21,069	22,267	26,489
Fallows	4,988	1,854	6,319	4,600	8,536
Miscellaneous ..	785	840	658	1,934	2,233
	129,771	142,857	215,333	230,983	299,287
Details not available (private diversions)..	8,000	11,000	14,500	19,000	18,000
Total ..	137,771	153,857	229,833	249,983	317,287

The extent of irrigated culture in 1913–14 represents an increase of 67,304 acres on the area irrigated in 1912–13. The proportions of the different crops in 1913–14 to the total area of the detailed crops (299,287 acres) were as follows, viz. :—Cereals, 25 per cent.; lucerne, 18 per cent.; vineyards, orchards, and gardens, 9 per cent.; sorghum and other animal fodder crops, 7 per cent; pastures, 37 per cent.; fallows, 3 per cent.; and miscellaneous, 1 per cent.

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 1913.

1891	April (Census)	... 2,321	1911	April (Census)	...	6,119
1896	September ...	... 2,000	1913	December ...	...	6,300
1901	March (Census)	... 3,325				

The receipts and payments of the Mildura Irrigation Trust during the year ended 30th June, 1913, were as follows :—

RECEIPTS AND PAYMENTS OF FIRST MILDURA IRRIGATION TRUST, 1912–13.

Receipts.	£	*Payments.*	£
Horticultural Rates	.. 18,918	Wages, Salaries, &c.	.. 5,073
Town Rates (arrears)	.. 322	Firewood	.. 10,694
Special Waterings, &c.	.. 3,411	Interest and Sinking Fund	.. 3,764
Miscellaneous ..	.. 8,044	Repairs, Renewals, and Depreciation	.. 5,370
		Miscellaneous .. .	.. 7,972
Total ..	.. 30,695	Total ..	.. 32,873

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; and 12,307 acres in September, 1913. 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, and 36,553 acres in 1912–13.

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

ACREAGE UNDER CULTIVATION AT MILDURA, SEPTEMBER, 1913.

Vines.				Citrus.		Other Fruit Trees.				Miscellaneous.				Total.
Gordos.	Sultanas.	Currants.	Wine.	Oranges.	Lemons.	Apricots.	Peaches.	Figs.	Unenumerated.	Lucerne.	Crop.	House-garden.	Vacant.	
1,899	4,330	1,882	55	617	200	350	195	48	407	481	615	270	958	12,307

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, 1914, are set forth in the following statement :—

WATERWORKS UNDER CONTROL OF STATE RIVERS AND WATER SUPPLY COMMISSION.

	Capital Debit at 30th June, 1914.
(a) Free Head-works.	
	£
Broken River Works	14,853
Goulburn River Works	734,258
Kerang North-west Lakes Works	9,587
Kow Swamp Works	187,081
Lake Lonsdale Reservoir	49,054
Loddon River Works	167,360
Long Lake Pumping Works	27,346
Lower Wimmera Compensation Works	8,558
Total—Free Head-works	1,198,097

(b) Waterworks Districts.	Total Capital Expenditure.	Capital Written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debit at 30th June, 1914.	
	£	£	£	£	
Birchip					
Sea Lake	186,601	700	1,885	184,016	
Tyrrell					
Wycheproof					
Coliban	1,212,774	..	..	1,212,774	
Karkarooc	75,453	..	1,943	73,510	
Kerang North-west Lakes (free head-works excluded)	1,667	..	..	1,667	
Long Lake (free head-works excluded)	40,814	..	421	40,393	
Tyntynder	28,442	..	..	28,442	
Walpeup East	2,988	..	..	2,988	
Walpeup West	1,511	..	..	1,511	
Western Wimmera ..	245,003	132,835	13,316	98,852	
Wimmera United ..	179,519	36,392	11,064	132,063	
Wonthaggi	62,279	..	1,000	61,279	
Wimmera Main Channels ..	69,596	..	..	69,596	
Total ..	2,106,647	169,927	29,629	1,907,091	1,907,091

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

	Total Capital Expenditure.	Capital Written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debit at 30th June, 1914.	Capital Debit at 30th June, 1914.
(*c*) *Irrigation and Water Supply Districts.*	£	£	£	£	£
Bacchus Marsh	49,207	8,906	493	39,808	
Boort	54,546	35,259	394	18,893	
Campaspe	62,113	52,685	305	9,123	
Cohuna	116,018	49,197	371	66,450	
Deakin	93,639	34,748	2,144	56,747	
Dingee	10,242	..	..	10,242	
Dry Lake	1,704	686	299	719	
Gannawarra	41,834	13,733	75	28,026	
Gannawarra West ..	34,997	19,446	105	15,446	
Kerang	75,111	35,338	710	39,063	
Koondrook	106,570	30,872	1,475	74,223	
Merbein..	51,445	..	..	51,445	
Nyah	21,804	..	..	21,804	
Rochester	96,572	..	..	96,572	
Rodney	348,049	149,949	5,706	192,394	
Shepparton	41,309	..	..	41,309	
Swan Hill	51,389	19,799	306	31,284	
Tongala	57,165	..	..	57,165	
Tragowel Plains	178,914	124,534	444	53,936	
Total ..	1,492,628	575,152	12,827	904,649	904,649
(*d*) *Main Supply Works* (to be apportioned to Irrigation and Water Supply Districts benefited).					
1. Goulburn Main Channels—					
East Goulburn ..	..	..	..	129,389	
Waranga Reservoir to Campaspe ..	..	..	..	241,029	
Campaspe to Serpentine	..	..	..	192,381	
Main Distributary Channels	..	..	..	13,591	576,390
2. Pyke's Creek and Werribee Scheme ..	..	..	..	113,247	113,247
(*e*) *Waterworks Trusts Districts.**					
Avoca Waterworks Trust ..	15,028	2,494	750	11,784	
Carrum Waterworks Trust	25,732	7,732	1,481	16,519	
Loddon United Waterworks Trust	21,234	1,717	1,715	17,802	
Grand Total ..	..	..	..	..	4,699,474

*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.

The receipts and disbursements of the State Rivers and Water Supply Commission during the year ended 30th June, 1914, were as follows :—

STATEMENT OF RECEIPTS AND EXPENDITURE, 1913–14.

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	39,066	12,497	907	11,590	27,476	..
Goulburn	239	3,782	..	3,782	..	3,543
Loddon River ..	7	282	..	282	..	275
Kow Swamp ..	415	1,763	..	1,763	..	1,348
Broken River ..	7	266	..	266	..	259
North-West Lakes ..	360	378	..	378	..	18
Lake Lonsdale ..	7	515	..	515	..	508
Lower Wimmera ..	..	75	..	75	..	75
Irrigation Districts ..	88,351	44,244	1,267	42,977	45,374	..
Waterworks Districts ..	59,710	29,602	408	29,194	30,516	..
Licences, Diversions, Pumping, &c. ..	6,695	2,508	..	2,508	4,187	..
	194,857	95,912	2,582	93,330	101,527	..
Not Earning Revenue.						
River Gaugings, Surveys and Reports, New Projects	...	4,861	...	4,861	...	4,861
Conference Murray Waters, Scholarships	...	1,213	...	1,213	...	1,213
Waterworks Trusts—Administration ...	...	1,752	...	1,752	...	1,752
Boring for water and Road Clearing, Mallee, and Land Settlement ...	...	3,824	...	3,824	...	3,824
Loan Works	...	2,531	...	2,531	...	2,531
Total ...	194,857	110,093	2,582	107,511	87,346	...

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

Waterworks Trusts.

The extent of Government assistance to the Waterworks 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, 1913.

Waterworks Trusts.	Cost of Works at 30th June, 1913. defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1913.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1913.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Alexandra	..	3,800	..	..	239	3,561	..
Avenel	..	2,383	..	..	228	2,155	..
Avoca*	2,662	11,455	..	2,494	719	8,242	..
Avoca Township ..	..	9,500	..	..	..	9,500	420
Bairnsdale	..	43,508	..	23,439	932	19,137	380
Ballan	..	1,100	..	..	258	842	17
Benalla	..	15,579	..	..	3,187	12,392	..
Bet Bet Shire ..	1,384	5,694	..	..	1,371	4,323	..
Boort	28	1,150	..	150	73	927	..
Bright	..	2,990	..	..	365	2,625	52
Broadford	..	11,000	..	..	..	11,000	410
Carisbrook	..	8,400	..	2,400	318	5,682	142
Carrum*	..	25,733	..	7,732	1,338	16,663	..
Charlton	4,040	10,461	..	887	192	9,382	280
Cobram	..	4,500	..	..	311	4,189	84
Colac	..	43,595	..	..	383	43,212	856
Dandenong	..	24,772	..	5,128	747	18,897	293
Daylesford Borough ..	..	24,206	2,794	3,139	2,071	21,790	433
Donald	3,058	6,944	..	1,166	380	5,398	107
Donald Shire ..	1,691	4,353	..	..	1,232	3,121	..
Echuca Borough ..	..	13,150	..	..	1,353	11,797	347
Elmore	..	4,130	..	..	447	3,683	72
Euroa	..	21,557	..	..	1,765	19,792	347
Geelong†	..	..	..	..	..	..	..
Gisborne	..	4,668	..	..	972	3,696	74
Glenrowan	..	1,838	..	..	3	1,835	36
Hamilton	..	45,300	..	..	2,476	42,824	851
Healesville	..	4,661	..	..	614	4,047	..
Heathcote	..	8,480	..	..	619	7,861	156
Horsham Borough ..	..	30,713	..	7,712	957	22,044	..
Kara Kara Shire ..	1,522	9,447	..	..	576	8,871	177
Kerang	88	8,380	..	..	278	8,102	161
Kerang Shire ..	213	1,200	..	..	82	1,118	..
Kilmore	..	14,223	..	..	2,239	11,984	..
Koroit	..	5,502	..	2,047	676	2,779	..
Korumburra ..	..	11,492	..	..	1,371	10,121	202
Kowree	292	2,707	..	..	404	2,303	..
Kyabram	..	2,811	..	..	171	2,640	53
Kyneton Shire ..	..	31,345	..	..	16,119	15,226	..
Lancefield	..	7,082	..	..	606	6,476	129
Lawloit	1,302	12,095	..	..	896	11,199	..
Leongatha	..	8,459	..	..	316	8,143	..
Lilydale	..	6,688	..	..	258	6,430	123
Loddon United* ..	4,122	21,334	..	1,717	1,553	18,064	..
Longwood	..	3,042	..	550	131	2,361	45

(For footnotes, see end of table.)

WATERWORKS TRUSTS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1913—*continued.*

Waterworks Trusts.	Cost of Works at 30th June, 1913, defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1913.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1913.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Lowan Shire ..	1,258	11,680	..	..	863	10,817	..
Macedon	..	2,824	..	..	248	2,576	51
Mansfield	..	7,931	..	..	987	6,944	..
Maryborough ..	..	76,257	..	9,200	4,868	62,189	..
Mooroopna ..	..	3,781	..	1,400	138	2,243	..
Morwell	..	2,994	..	..	..	2,994	20
Murchison	..	2,800	..	..	235	2,565	..
Murtoa	..	3,235	..	..	52	3,183	..
Nagambie	..	3,275	..	..	426	2,849	57
Nhill	799	10,318	..	2,482	562	7,274	..
Numurkah Shire ..	1,278	23,694	..	1,376	3,591	18,727	372
Omeo	..	3,982	..	..	458	3,524	70
Pyramid Hill ..	..	2,137	..	..	57	2,080	41
Riddell's Creek ..	..	4,050	..	497	220	3,333	66
Rochester	..	3,075	..	..	181	2,894	56
Romsey	..	4,700	..	..	990	3,710	..
Rushworth	..	4,500	..	..	242	4,258	..
Rutherglen	..	21,735	..	..	1,141	20,594	408
Seymour	..	27,959	..	..	2,367	25,592	508
Shepparton Urban ..	24	19,530	..	2,416	1,996	15,118	302
Shepparton Shire ..	110	16,603	..	1,376	1,600	13,627	..
St. Arnaud Borough	57	45,076	4,077	15,077	1,813	32,263	1,170
Stawell Shire ..	545	1,370	..	250	1,120	..	..
Sunbury	..	16,497	..	..	203	16,294	436
Swan Hill	231	5,608	..	..	260	5,348	..
Swan Hill Shire‡ ..	6,421	36,043	..	36,043	..	..	..
Tallangatta ..	..	4,328	..	..	118	4,210	84
Tatura	..	5,531	..	650	344	4,537	87
Traralgon	..	14,746	..	..	330	14,416	288
Trentham	..	4,998	..	..	2	4,996	180
Tungamah Shire ..	4,130	17,247	..	..	964	16,283	321
Upper Macedon ..	..	2,290	..	..	361	1,929	..
Violet Town	..	5,750	..	..	314	5,436	108
Wangaratta	..	9,889	..	..	481	9,408	..
Warracknabeal ..	262	6,335	..	..	566	5,769	110
Warragul	..	15,776	..	..	254	15,522	308
Warrnambool ..	..	38,500	..	..	2,778	35,722	710
West Charlton ..	..	2,822	..	..	85	2,737	..
Winchelsea Shire ..	..	5,689	..	..	323	5,366	106
Wodonga	..	7,722	..	..	571	7,151	..
Woodend	..	10,563	..	..	2,345	8,218	..
Yarram	..	2,306	..	..	82	2,224	..
Yarrawonga Urban ..	1,897	8,800	..	..	1,553	7,247	144
Yatchaw	..	6,262	..	1,661	325	4,276	85
Yea	..	3,885	..	..	167	3,718	126
Total ..	37,414	1,076,520	6,871	130,989	85,807	866,595	12,461

* The property of this Trust has been taken possession of by the State Rivers and Water Supply Commission, as provided by sections 277 and 278 of the *Water Act* 1905, section 10 of Act No. 1994, and section 36 of Act No. 2226.

† 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.

The following return contains full particulars of the receipts and expenditure of the Waterworks Trusts during the year ended 31st December, 1913:—

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1913.

Waterworks Trusts.	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.. ..	506	10	14	530	16	240	164	26	446
Avenel	228	4	..	232	58	43	100	7	208
Avoca*	..	..	..	..	..	..	..	..	..
Avoca Township ..	598	21	8	627	31	93	607	30	761
Bairnsdale ..	1,387	225	125	1,737	567	431	891	132	2,021
Ballan	282	7	14	303	153	37	40	14	244
Benalla	1,099	673	14	1,786	437	392	583	171	1,583
Bet Bet Shire ..	416	..	1	417	5	33	308	91	437
Boort	326	11	24	361	173	43	44	36	296
Bright	273	100	7	380	60	47	123	35	265
Broadford ..	812	..	3	815	25	135	637	26	823
Carisbrook ..	345	4	15	364	14	47	261	21	343
Carrum*	..	..	..	..	..	..	..	..	..
Charlton	866	..	1	867	380	63	519	10	972
Cobram	452	2	4	458	145	45	203	8	401
Colac	2,272	413	23	2,708	748	364	1,943	21	3,076
Dandenong ..	1,319	343	4	1,666	627	82	838	13	1,560
Daylesford Borough	1,477	1,053	144	2,674	879	214	1,021	39	2,153
Donald	690	230	30	950	356	296	247	36	935
Donald Shire ..	316	..	3	319	49	38	148	24	259
Echuca Borough ..	2,290	5	127	2,422	803	723	761	64	2,351
Elmore	312	243	57	612	452	167	84	41	744
Euroa	1,024	269	10	1,303	464	142	870	26	1,502
Geelong†	14,298	6,118	471	20,887	3,139	1,549	13,788	350	18,826
Gisborne	342	..	3	345	24	149	173	6	352
Glenrowan ..	87	..	..	87	26	42	67	10	145
Hamilton	3,241	1,166	267	4,674	1,312	435	1,994	86	3,827
Healesville ..	387	102	24	513	222	71	190	262	745
Heathcote.. ..	473	104	5	582	70	87	367	7	531
Horsham Borough ..	1,970	632	88	2,690	1,457	257	1,017	38	2,769
Kara Kara Shire ..	807	..	35	842	194	42	414	2	652
Kerang	1,505	8	7	1,520	546	387	372	33	1,338
Kerang Shire‡ ..	..	..	..	..	..	..	..	..	..
Kilmore	530	512	5	1,047	67	230	843	13	1,153
Koroit	390	363	..	753	353	108	131	3	595
Korumburra ..	546	339	88	973	98	204	496	31	829
Kowree	299	2	6	307	48	48	167	5	268
Kyabram	360	95	2	457	176	183	126	..	485
Kyneton Shire ..	1,265	901	26	2,192	98	285	1,996	17	2,396
Lancefield ..	312	104	3	419	41	45	303	..	389
Lawloit	2,404	..	21	2,425	391	369	527	24	1,311
Leongatha ..	576	67	10	653	79	92	391	9	571
Lilydale	398	136	1	535	17	130	287	8	442
Loddon United* ..	..	..	..	..	..	..	..	..	..
Longwood ..	169	..	..	169	20	33	93	3	149
Lowan Shire ..	1,442	..	28	1,470	366	369	508	15	1,258

(For footnotes see end of table.)

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1913—*continued*.

Waterworks Trusts.	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	169	..	1	170	7	37	120	5	169
Mansfield	478	163	7	648	160	54	327	..	541
Maryborough ..	2,851	1,033	20	3,904	960	362	2,915	..	4,237
Mooroopna ..	401	90	8	499	225	183	160	3	571
Murchison	280	214	16	510	125	161	125	7	418
Murtoa	608	272	1	881	220	218	146	14	598
Nagambie ..	360	48	1	409	232	36	133	8	409
Nhill	1,020	130	46	1,196	654	69	342	20	1,085
Numurkah Shire ..	115	32	..	147	37	31	44	3	115
Omeo	312	26	4	342	105	38	165	6	314
Pyramid Hill ..	190	17	2	209	135	25	113	29	302
Riddell's Creek ..	211	..	2	213	11	41	156	6	214
Rochester ..	724	43	10	777	338	112	123	29	602
Romsey	280	..	1	281	74	43	174	..	291
Rushworth ..	597	4	5	606	203	161	100	34	498
Rutherglen ..	1,527	16	58	1,601	664	127	993	7	1,791
Seymour	788	861	38	1,687	423	254	1,049	23	1,749
Shepparton Urban ..	1,689	192	17	1,898	1,059	132	728	57	1,976
Shepparton Shire ..	1,183	8	1	1,192	523	252	642	45	1,462
St. Arnaud Borough	2,043	260	105	2,408	337	205	1,432	29	2,003
Stawell Shire‡ ..	..	..	..	..	..	..	..	..	..
Sunbury	305	598	1	904	13	91	842	17	963
Swan Hill	933	..	40	973	384	331	372	2	1,089
Swan Hill Shire§ ..	..	..	..	..	..	..	..	..	..
Tallangatta ..	414	85	6	505	136	142	195	12	485
Tatura	404	161	6	571	102	194	195	14	505
Traralgon ..	783	84	12	879	68	95	664	10	837
Trentham ..	260	10	1	271	88	69	202	8	367
Tungamah Shire ..	1,673	54	16	1,743	243	676	752	7	1,678
Upper Macedon ..	225	42	5	272	35	46	91	7	179
Violet Town ..	396	..	8	404	70	52	380	4	506
Wangaratta ..	1,440	274	10	1,724	613	516	442	8	1,579
Warracknabeal ..	1,113	523	104	1,740	954	181	253	2	1,390
Warragul	1,034	455	25	1,514	223	221	1,062	8	1,514
Warrnambool ..	3,047	537	135	3,719	777	1,645	1,678	..	4,100
West Charlton ..	257	..	6	263	50	23	127	1	201
Winchelsea Shire ..	378	..	6	384	52	54	250	..	356
Wodonga	444	38	42	524	67	136	336	2	541
Woodend	257	300	4	561	74	110	383	9	576
Yarram	321	55	1	377	198	20	104	5	327
Yarrawonga Urban ..	776	30	4	810	78	127	340	..	545
Yatchaw	384	..	1	385	9	213	200	2	424
Yea	407	249	13	669	158	234	259	3	654
Total ..	80,168	21,166	2,507	103,841	26,070	16,507	53,756	2,239	98,572

* The property of this trust has been taken possession of by the State Rivers and Water Supply Commission.
† Year ended 30th June, 1913.
‡ 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 851 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 return 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, 1913.

Local Bodies.	Cost of Works to 30th June, 1913, defrayed from Loan Advances made by State.	Capital Indebtedness.				Interest outstanding at 30th June 1913.
		Increased by Interest capitalized	Reduced by—		At 30th June, 1913.	
			Amounts written off.	Payments towards Redemption.		
	£	£	£	£	£	£
Arapiles Shire ..	3,600	..	..	1,282	2,318	..
Ararat Borough ..	49,935	..	18,266	2,399	29,270	..
Ballarat Water Commission	309,300	41,869	2,111	55,030	294,028	7,227
Beechworth Shire ..	30,426	1,256	5,958	4,614	21,110	..
Bet Bet Shire ..	1,000	..	985	15	..	..
Castle Donnington (Swan Hill) Shire ..	177	..	..	36	141	2
Chiltern Shire ..	4,500	508	508	832	3,668	..
Clunes Borough Water Commission ..	70,195	..	62,395	578	7,222	..
Creswick Borough ..	3,500	..	..	3,500	..	..
Dimboola Shire ..	358	..	..	66	292	5
Dunolly Borough ..	2,190	..	..	851	1,339	..
Inglewood Borough ..	6,131	..	..	1,702	4,429	..
Kerang Shire ..	2,544	..	..	339	2,205	33
Korong Shire ..	1,565	..	..	438	1,127	..
Ripon Shire ..	3,000	..	..	1,354	1,646	..
Stawell Borough ..	108,506	..	61,661	4,114	42,731	967
Talbot Borough ..	15,000	..	13,986	87	927	..
Tarnagulla Borough ..	800	..	..	165	635	..
Wimmera Shire ..	28,890	..	..	26,299	2,591	..
Total ..	641,617	43,633	165,870	103,701	415,679	8,234

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 £4,062 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.
81	72	Feet. 32,665	Feet. 162,000

Sixty-eight of the Government bores were successful in striking fresh water at depths varying from 150 to 1,400 feet, the water rising to within 200 feet of 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 1911, 1912, and 1913, and the average yearly amount of rainfall deduced from all available records to December, 1913, in each of the 26 river basins or districts constituting the State of Victoria :—

RAINFALL—YEARLY RECORDS AND AVERAGES.

Basin or District.	Rainfall.			
	During 1911.	During 1912.	During 1913.	Yearly Average to December, 1913.
	Inches.	Inches.	Inches.	Inches.
Glenelg and Wannon Rivers ..	27.51	24.73	24.20	27.65
Fitzroy, Eumeralla, and Merrie Rivers	32.09	27.15	26.52	30.52
Hopkins River and Mt. Emu Creek..	30.65	22.13	23.46	25.72
Mt. Elephant and Lake Corangamite	29.58	21.38	23.66	25.05
Cape Otway Forest	43.51	34.91	37.66	38.22
Moorabool and Barwon Rivers ..	28.39	22.35	26.05	25.28
Werribee and Saltwater Rivers ..	33.23	19.92	21.88	24.20
Yarra River and Dandenong Creek	44.65	31.47	32.33	35.54
Koo-wee-rup Swamp	39.88	29.55	32.38	34.97
South Gippsland	41.19	30.68	36.06	39.19
Latrobe and Thomson Rivers ..	43.77	32.18	38.15	36.25
Macallister and Avon Rivers ..	31.92	19.33	26.10	23.66
Mitchell River	36.53	22.55	26.56	28.16
Tambo and Nicholson Rivers ..	41.45	23.00	28.47	26.69
Snowy River	47.65	28.16	38.75	34.01
Murray River	21.97	20.40	18.45	20.24
Mitta Mitta and Kiewa Rivers ..	34.20	34.93	32.19	35.42
Ovens River	36.70	35.86	30.10	36.10
Goulburn River	27.67	24.60	23.57	26.00
Campaspe River	29.03	20.96	21.94	24.33
Loddon River	22.60	17.35	18.14	19.03
Avon and Richardson Rivers ..	21.42	16.24	15.95	17.32
Avoca River	20.45	16.42	14.53	16.45
Eastern Wimmera	25.61	20.26	16.45	21.70
Western Wimmera	18.04	18.90	16.63	19.56
Mallee	17.36	13.05	12.08	13.89
Weighted Averages.. ..	28.54	21.82	22.96	24.74

The wettest districts of the State are South Gippsland and the Cape Otway Forest. The basins of the Latrobe and Thomson Rivers in Gippsland and of the Ovens in the north-east, have an average fall of over 36 inches. Those of the Yarra in the Central District and the Mitta Mitta in the north-east, have an average of over 35.

inches; and the Koo-wee-rup Swamp in Gippsland and the basin of the Snowy in East Gippsland, have an average of over 34 inches. The driest districts in the State are the Mallee and the Wimmera, in the north-west.

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 1913, and the quarterly averages up to 1913 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	580	395	394	815	914	936	532	619
Fitzroy, Eumerella, and Merri Rivers	530	497	509	912	1,030	1,006	583	637
Hopkins River and Mt. Emu Creek	575	454	465	742	815	782	491	594
Mt. Elephant and Lake Corangamite	714	472	413	695	739	750	500	588
Cape Otway Forest	840	652	771	1,154	1,378	1,212	777	804
Moorabool and Barwon Rivers	829	482	545	698	727	727	504	621
Werribee and Saltwater Rivers	736	502	610	642	449	644	393	632
Yarra River and Dandenong Creek	834	707	833	985	698	938	868	924
Koo-wee-rup Swamp	815	680	723	977	791	970	909	870
South Gippsland	863	721	981	1,106	880	1,144	882	948
Latrobe and Thomson Rivers	903	701	932	951	815	1,024	1,165	949
Macallister and Avon Rivers	855	552	874	580	256	560	625	674
Mitchell River	844	703	1,012	733	301	670	499	710
Tambo and Nicholson Rivers	938	696	1,085	635	317	602	507	736
Snowy River	1,116	816	1,432	927	668	841	659	817
Murray River	585	400	481	578	423	582	356	464
Mitta Mitta and Kiewa Rivers	1,075	652	616	984	857	1,078	671	828
Ovens River	887	626	621	1,056	857	1,129	645	799
Goulburn River	661	445	689	773	541	788	466	594
Campaspe River	578	414	655	718	555	769	406	532
Loddon River	500	338	510	573	463	569	341	423
Avon and Richardson Rivers	315	275	360	509	450	511	328	350
Avoca River	393	283	429	525	442	541	331	383
Eastern Wimmera	372	337	333	645	577	724	363	464
Western Wimmera	317	252	224	604	731	685	391	415
Mallee	360	241	247	432	248	419	353	297
The whole State	624	451	569	715	599	738	504	570

N.B.—100 points=1 inch.

The averages of the climatic elements for the seasons in Melbourne deduced from all records of past years are as follows :—

AVERAGES OF CLIMATIC ELEMENTS IN MELBOURNE.

Meteorological Elements.	Spring.	Summer.	Autumn.	Winter.
Mean pressure of air in inches	29·971	29·924	30·081	30·081
Monthly range of pressure of air—Inches	0·895	0·784	0·806	0·983
Mean temperature of air in shade—°Fahr.	57·6	66·4	59·4	49·9
Mean daily range of temperature of air in shade—°Fahr.	18·8	21·3	17·5	14·1
Mean percentage of humidity. Saturation = 100	69	64	73	78
Mean rainfall in inches	7·15	5·84	6·70	5·75
Mean number of days of rain	37	23	32	41
Mean amount of spontaneous evaporation in inches	10·03	17·12	7·67	3·62
Mean daily amount of cloudiness—Scale 0 to 10	6·0	5·2	6 0	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 1913 and for the past 57 years as well as the extremes between which the yearly average values of such elements have oscillated in the latter period.

METEOROLOGY, 1857 TO 1913.

Meteorological Elements.	Yearly Averages and Extremes.			
	Year 1913.	Average for 57 Years.	Extremes between which the Yearly Average Values have oscillated in 57 years.	
			Highest.	Lowest.
Mean atmospheric pressure (inches) ...	30·029	30·015	...	...
Highest ,, ,, ,, ...	30·602	30·609	30·762	30·081
Lowest ,, ,, ,, ...	29·373	29·252	29·983	28·942
Range (inches)	1·229	1·355	1·719	1·169
Mean temperature of air in shade (°Fahr.)	58·5	58·3	59·7	57·3
Mean daily maximum ... ,,	66·8	67·3	69·0	66·0
Mean daily minimum ... ,,	50·2	49·4	51·2	47·2
Absolute maximum ... ,,	105·3	105·3	111·2	96·6
Absolute minimum ... ,,	30·7	30·6	33·9	27·0
Mean daily range ... ... ,,	16·6	17·9	20·4	15·0
Absolute annual range ... ,,	74·6	74·7	82·6	66·0
Solar Radiation (maximum)... ,,	164·8	161·1	178·5	150·9
Terrestrial Radiation (minimum) ,,	25·1	24·8	28·4	20·4
Rainfall (in inches)...	21·17	25·44	36·61	15·61
Number of wet days	157	133	171	102
Year's amount of free evaporation (in inches)	40·60	38·44	45·66	31·59
Percentage of humidity (saturation = 100)	64	71	76	64
Cloudiness (scale 10 = overcast, 0 = clear)	5·9	5·9	6·4	5·4
Number of days of fog	16	17	39	5
Horizontal motion (miles)	...	81·118	...	...
Mean hourly velocity of wind (miles) ...	...	9·2	...	...

AGRICULTURAL RESEARCH.

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 will be used as district experimental stations for the north-east, the Wimmera, and the Goulburn Valley respectively.

Central Research Farm.

It is 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, 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 stoney 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 bulk of the land has been cultivated for many years past for growing oaten hay, and is in a worn-out condition. Certain of the best land is known to have grown crops without a rest for 26 years. That the soil is deficient in humus is indicated by the floury character of the soil after dry cultivation and the hard setting on drying after rain.

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. With the increase in land values in all parts of the State during the past decade and the steadily increasing cost of labour, implements, and machinery, it is imperative that our wheat lands should be made more productive if profits are to be maintained. It is also vitally necessary that this increased production should not be accompanied by depletion of the soil fertility. The experiments at Werribee 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 700 acres of land, of which 550 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 Werribee, and comprise the following :—

(1) Testing the values of various top-dressings as a means of improving the stock-carrying capacity of the natural pastures.
(2) The improvement of wheat, oats, and barley by systematic selection, crossbreeding, and hybridization.
(3) Testing the comparative values of twelve different systems of crop rotation, of which only two are at present in vogue in the north-east.
(4) Permanent fertilizer tests designed for the purpose of determining the immediate and cumulative effect of different kinds of phosphatic, nitrogenous, potassic and green manures, singly and in various combinations.
(5) Cultural and tillage tests, with the object of determining the value of deep and shallow working, subsoiling, early and late fallowing, &c.
(6) The raising of selected seed wheat, barley, and oats for distribution among farmers.
(7) Variety wheat, barley, and oat tests.

(8) Green manurial and feeding off trials to determine the most profitable, economical, and effective method of soil renovation.

(9) Pure research work—comprising the movement of soil moisture and nitrates under different cultural treatment, the determination of the water requirements of crops, and the assimilation of the elements of nutrition at different stages of growth.

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 of those European vines of wine, table, and drying varieties, that are in greatest demand, on suitable resistant stocks 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.

In the cellar, 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.

As a college for the sons of vine-growers the Viticultural Station did not become popular, but the buildings are now occupied by boys from the Neglected Children's Department, who are being trained in scientific and practical agriculture and viticulture, and are supplying vignerons and farmers with skilled labour of a class difficult to obtain. This work has been sufficiently long in operation to enable some idea to be formed of its value and possibilities, and the results obtained justify the brightest optimism.

AGRICULTURAL EDUCATION.

Agricultural Colleges.

An Act for the establishment of Agricultural Colleges was passed towards the close of 1884, and five areas were reserved as sites for colleges and experimental farms, viz.—Dookie, Longerenong, Gunyah Gunyah, Olangolah, and Bullarto. The total area of these reserves is 14,460 acres. Particulars are as follows :—

AREAS OF AGRICULTURAL COLLEGE AND EXPERIMENTAL FARM LANDS, 1913.

Name.	Area.	How Used.
	Acres.	
Dookie and Currawa	5,957	College and Experimental Farm
Longerenong (Jung Jung) ...	2,386	,, ,, ,,
Gunyah Gunyah and Jumbuk ...	2,500	Let for grazing and cultivation
Olangolah	2,800	Not in use
Bullarto	817	Let for grazing, &c.
Total	14,460	

The Gunyah Gunyah, Olangolah, and Bullarto reserves have not yet been used for the purposes for which they were reserved, and in the meantime Gunyah Gunyah is let for grazing and agriculture, and Bullarto for grazing and forestry. Olangolah has been applied for as a catchment area for the water supply of Colac.

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 73,694 acres, which are let for grazing and agricultural purposes.

The fees for students in residence at the agricultural colleges are :—Maintenance—first year, £30, second year, £25, third year, £20 ; medical attendance and medicines, £1 5s. ; books and other school materials, £4. Conduct, deposit, and sports fees are also payable. No charge is made for instruction.

Considerable attention is devoted to experimental work in connexion with the raising of new varieties of wheat and other cereals, fodder, and other plants of economic importance.

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

GOVERNMENT EXPERIMENTAL FARMS AND AGRICULTURAL COLLEGES, 1913.

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	1	13	6	2
Hands employed ..	„	31	7	33	34	14	3
Students	„	..	..	16	92	37	35
Value of plant and machinery	£	1,619	2,000	1,200	5,000	1,496	150
Value of produce for year	„	..	1,400	2,885	6,968	3,940	150
Capacity of tanks or dams	gals.	10,000,000	..	2,500,000	2,000,000	1,750,000	..
Receipts—							
Fees	£	..	..	} 2,357	3,268	{ 730	85
Sale of produce, &c.	„	1,506	798			{ 2,379	67
Other.. ..	„	32	90	21	..	..	19
Total receipts	„	1,538	888	2,378	3,268	3,109	171
Expenditure—							
Salaries—							
Professional Staff		300	208	318	3,260	1,271	352
General staff	„	1,764	547	300	2,700	1,024	1,105
Buildings and maintenance..	„	4,142	196	} 5,624	{ 600	200	150
Other.. ..	„	2,668	845		{ 5,640	2,451	372
Total expenditure	„	8,874	1,796	6,242	12,200	4,946	1,979
Area under—							
Cereals for Grain	acres	136	100	297	647	300	..
Hay	„	297	52	45	235	70	..
Fruit trees, &c.	„	..	} 1	{ 3	38	17	14
Vines ..	„	..		{ 35	34	10	½
Green fodder ..	„	166	150	67	10	44	..
Root Crops ..	„	..	..	..	60	..	} ½
Other crops ..	„	141	..	..	65	..	
Total area under crop	„	740	303	447	1,089	441	15
Area of land in fallow	„	50	96	180	460	419	..
Area under artificially sown grasses ..	„	30	15	..	..	..	9
New ground broken up during season..	„	..	..	100	45	..	..
Area resting ..	„	280	..	..	325	528	..
Total area of arable land ..	„	1,100	414	727	1,919	1,388	24
Balance of area	„	50	126	346	3,987	998	9
Total area of farm	„	1,150	540	1,073	5,906	2,386	33
Live stock—							
Horses ..	No.	40	14	22	109	37	1
Dairy cows ..	„	40	31	12	45	33	4
All other cattle	„	50	33	15	46	67	..
Sheep ..	„	250	28	260	1,200	1,004	..
Pigs	„	..	33	32	100	31	..

School of Horticulture. This school is situated in Richmond Park, Burnley, about 3 miles from Melbourne. The site covers 33 acres of ground, and was originally part of the old police paddock. In 1890 the Government decided to establish on this site an institution for the training of orchardists and small settlers.

Model orchard blocks, gardens, and a students' training ground have been prepared, an entirely new and complete orchard equipment provided, and a large variety of instructive implementa got together 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. This 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.

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 principal and his assistant carry out this programme by giving lessons daily in class-room and field.

The egg-laying competitions are now 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.

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. The botanic gardens surrounding the principal's residence are noted for their beauty, and the instructional character of the work in progress makes the place well worth a visit at any season.

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 work 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 1912–13 the expenditure on these schools, including buildings, amounted to £25 462. They have been 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 be at least fourteen years of age, and must have obtained the certificate of merit at the local school, or have passed the primary or some higher examination at the Melbourne University, or they must have satisfied an Inspector of Schools that they are qualified to profit by the course of study.

A local council appointed for each school exercises a general oversight of the work, particularly in regard to the farm operations, and expends the maintenance allowance allotted to the school. 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.

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, but, 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 Warrnambool and 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 eleven plantation trial stations having a total area of 19,070 acres.

The persons employed in connexion with the State forests and nurseries comprise administrative and professional staff, 21; protective and general staff, 76; and nursery staff, 40. The revenue from licences and royalties in 1913 amounted to £57,746. The expenditure was £58,007, of which sum about 50 per cent. was devoted to the improvement of the natural forests and the extension of plantations.

A Forests Act, conferring reasonable powers of management and control on the conservancy staff, came into operation on 1st January, 1908, and an amending Act, which remedies certain defects in the principal Act, and gives the conservancy staff greater control over fire-raising and other forest offences, received the approval of Parliament in November, 1910. Under this law working plans regulating

the general fellings and output of timber from the reserves have been put in force, and thus the forests will be maintained in a productive condition.

It is estimated that the quantity of timber produced in the rough in 1913 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., 1908–9 TO 1912–13.

——	1908-9.	1909-10.	1910-11.	1911-12.	1912-13.
Expenditure.	£	£	£	£	£
Department of Agriculture	13,965	12,710	12,790	18,454	21,182
Grants to Agricultural and Horticultural Societies, &c.	3,382	3,491	3,535	3,846	4,523
To promote the Agricultural, Dairying, Fruit, and Wine Industries	288	365	87	625	16
Development of Export Trade	24,798	37,400	38,699	37,185	32,819
Viticultural Education and Inspection of Vineyards ...	4,666	4,691	4,509	5,000	5,499
Vegetation Diseases ...	8,880	9,043	9,049	...	...
Maffra Beet Sugar Factory ...	347	642	13,019	37,975	28,341
Cool Fruit Stores	799	6,806	7,368	2,244	3,188
Technical Agricultural Education, &c.	25,148	22,066	22,648	30,588	27,985
Traction Engine, Boring Plant, &c.	...	...	10,854	...	...
Veterinary Institute—Works and Buildings	1,100	8,785	1,498	...	...
Settlers Stock Fund ...	...	...	1,000	...	...
Publishing Agricultural Reports	2,182	3,645	2,841	2,833	2,513
Advances to Settlers on account of Losses by Bush Fires, &c.	359	1,217	...	1,839	347
Rabbit and Vermin Extermination	22,756	23,005	23,123	29,524	27,309
Stock and Dairy Supervision Scab Prevention and Stock Diseases	16,596	18,939	19,693	22,471	21,957
Village Settlements ...	98	98	...	...	...
Labour Colonies	550	550	545	2,992	395
State Forests and Nurseries	21,003	35,759	40,399	54,061	52,808
Total	146,917	189,212	211,657	249,637	228,882
Revenue.					
Department of Agriculture ...	29,594	43,131	50,319	49,932	47,713
State Forests	38,802	40,572	41,550	48,585	54,754

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, and for relief to farmers on account of bush fires, flood losses, and purchase of seed wheat and fodder, which advances are gradually being repaid.

The loan expenditure in 1912–13 was £569,473 on account of closer settlement, and £54,061 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. One hundred and five agricultural societies furnished returns for the year 1913, in regard to which condensed particulars are set out below :—

AGRICULTURAL SOCIETIES, 1909 TO 1913.

Societies.	Area of Grounds.	Number of Members.	Government Grant.	Total Receipts (including Government Grant).	Total Expenditure.	Bank Overdraft and Loan Liability.
	Acres.		£	£	£	£
Royal (Melbourne) ...	45	2,478	675	19,495	19,482	11,526
Ballarat	11	426	88	1,397	1,565	448
Benalla	12	372	44	1,008	1,266	49
Bendigo	10	307	126	2,079	2,200	122
Colac	13	328	59	1,216	1,326	276
Geelong	165	319	56	1,412	1,313	...
Hamilton	21	345	77	1,212	1,171	100
Horsham and Wimmera	29	520	55	1,015	1,356	1,265
Korumburra	16	229	42	804	663	...
Ovens and Murray ...	39	381	63	1,559	1,409	144
Shepparton	23	526	80	4,013	3,205	1,955
Others	1,253	13,685	2,131	41,560	43,752	14,473
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
Total, 1910 ...	1,722	19,517	2,816	63,914	63,933	24,095
Total, 1909 ...	1,649	17,583	2,598	58,246	55,212	24,609

The Horticultural Societies furnishing returns for 1913 numbered 43, their membership being 3,847, the receipts for the year £4,511 (including Government grant £434), the expenditure £4,089, and the liability on account of loans and bank overdraft £1,433.

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 however 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. This result is due to the fact that good and payable wheat returns are obtainable in that area 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. The growing importance of this area is indicated by figures for recent periods which show that of the wheat produced in the State the proportion obtained from the Mallee was nearly 19 per cent. on the average of the past two seasons as against slightly less than 5 per cent. in 1891-2. The area under cultivation in the Mallee last season was 1,356,128 acres, or 22 per cent. 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 1913-14 was 6,129,893 acres as against an annual average of 2,648,213 acres for the seasons 1890-95—an increase of 131 per cent. in the intervening years. Notwithstanding this great increase in the area cultivated the dairying and pastoral industries show considerable expansion. 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 for the past 59 years :—

ACREAGE CULTIVATED ANNUALLY 1855 TO 1914.

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

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 four seasons are given in the next table :—

ANNUAL ACREAGE OF FIVE PRINCIPAL CROPS 1855 TO 1914.

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 ..	2,085,246	439,242	71,631	47,575	1,203,728
1913–14 ..	2,565,861	442,060	83,351	74,574	977,684

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 four seasons was as follows :—

ANNUAL PRODUCTION OF PRINCIPAL CROPS 1855 TO 1914.

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

The figures on the whole show a great increase in the production of each of the principal crops except potatoes. Taking the average of the past four seasons 28,716,061 bushels of wheat, 7,874,603 bushels of oats, 1,480,597 bushels of barley, 162,529 tons of potatoes and 1,312,001 tons of hay were produced. The average annual production of wheat, hay and barley for the four seasons mentioned was 147,133, and 52 per cent. respectively greater than the corresponding averages for the five seasons ended March 1900. These and other crops are fully dealt with in subsequent pages.

Principal crops in Districts.

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

PERCENTAGE OF AREA IN EACH DISTRICT TO TOTAL AREA UNDER EACH OF THE PRINCIPAL CROPS, 1913-14.

District.	Percentage in each District of Area under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central ..	·65	9·84	42·65	41·80	22·16	30·79	3·76
North-Central	·92	7·12	7·07	18·46	7·42	3·25	1·19
Western ..	5·79	15·56	18·81	21·17	13·52	8·93	5·81
Wimmera ..	25·08	21·39	1·90	2·09	17·04	2·31	35·54
Mallee ..	33·85	11·73	4·27	·02	8·77	8·71	18·69
Northern ..	30·46	24·69	11·00	·47	20·36	22·79	33·24
North-Eastern	2·77	7·43	1·26	3·75	5·11	6·60	1·51
Gippsland ..	·48	2·24	13·04	12·24	5·62	16·62	·26

NOTE.—For counties contained in each District, see table on page 682.

This statement shows that during last season 89 per cent. of the area under wheat was in the Wimmera, Mallee, and Northern districts; over 46 per cent. of that under oats was in the Wimmera and Northern districts; 42 per cent. of that under barley was in the Central district; and 81 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, Mallee, North-Eastern, and Gippsland districts. The Central district accounted for nearly 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 fallow land is confined 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, 1913–14.

District.	Percentage of Total Cultivation under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central	3·42	8·96	7·33	6·42	44·65	15·73	13·49
North-Central ..	13·39	17·88	3·35	7·83	41·24	4·57	11·74
Western	29·47	13·64	3·11	3·13	26·22	4·38	20·05
Wimmera	42·02	6·18	·10	·10	10·88	·37	40·35
Mallee	64·04	3·82	·27	·00	6·32	1·59	23·96
Northern	45·08	6·30	·53	·02	11·48	3·26	33·33
North-Eastern ..	35·53	16·38	·52	1·40	24·92	8·16	13·09
Gippsland ..	8·69	6·92	7·60	6·39	38·44	28·82	3·14
Total of Victoria	41·86	7·21	1·36	1·22	15·95	4·04	28·36

NOTE.—For counties contained in each District, see table on page 682.

It is apparent that the area cultivated 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 fourteen years.

AREA AND PRODUCTION PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1900–01 TO 1913–14.

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Area per Head of Population.				
	Acres.	Acres.	Acres.	Acres.	Acres.
1901	1·69	·30	·05	·03	·42
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

AREA AND PRODUCTION PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1900-01 TO 1913-14—*continued.*

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Production per Head of Population.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1901	14·91	8·00	1·02	·10	·57
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	1·03	·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

The figures in the table show that the production of wheat exceeded fifteen bushels per head of population for ten of the past eleven seasons. Except in 1896 and 1903 the wheat produced during each of the last 36 years was more than sufficient to supply home consumption.

Values of five principal crops.

The next table gives the annual values of the five principal crops, based upon prices realized on farms, for each of the past nine years; also the value of each crop per acre for the average of the past five seasons:—

VALUES OF FIVE PRINCIPAL CROPS.

Year.	Annual Value of—				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	£	£	£	£	£
1905	3,366,290	678,040	182,828	597,426	1,641,936
1906	3,109,980	810,851	205,832	333,678	1,681,768
1907	2,443,906	791,162	241,507	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
Average annual value per acre 1909–13.	£ s. d. 2 2 11	£ s. d. 2 1 8	£ s. d. 3 16 6	£ s. d. 9 17 9	£ s. d. 3 1 11

On the average of the past five years the value of all cultivated products was £11,387,000 of which £9,429,132 or nearly 83 per cent. was obtained for the five crops mentioned in the above table. According to the experience of the period 1909–13 the annual value of production per acre of wheat was £2 2s. 11d., of oats £2 1s. 8d., of barley £3 16s 6d., of potatoes £9 17s. 9d., and of hay £3 1s. 11d.

Wheat production.

According to the experience of the past five seasons the area under wheat for grain represented slightly more than 57 per cent. of the total under crop, and the average annual value of the wheat produced was £4,851,255, or nearly 43 per cent. of the total value of all kinds of crop production. The area harvested for wheat last season was the largest and the production was the second largest recorded and exceeded the area and production for the average of the five years 1895–1900 by 771,730 acres and 21,304,311 bushels. 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 nine seasons :—

WHEAT PRODUCTION, 1860–1914.

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

Although a large area in districts of limited rainfall has been brought under cultivation for wheat growing during the past decade the average yield per acre for the State for the past ten seasons compares very favorably with the corresponding averages for periods back to 1875. 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.

Wheat growing in counties.

The principal wheat growing areas are the Wimmera, Mallee, and Northern districts. Last season these districts furnished 89 per cent. of the wheat area harvested and 88 per cent. of the total wheat production of the whole State. Although other districts provided only small proportions of the area and produce, they are not to be regarded as unsuitable for wheat growing, as their average yield per acre was 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.		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushls	Busls	Busls
Central—									
Bourke ..	4,022	3,826	5,182	41,555	65,339	54,958	10·33	17·08	10·61
Grant ..	17,565	12,418	10,613	183,982	207,918	110,200	10·47	16·74	10·38
Mornington	167	219	727	1,368	3,132	9,669	8·19	14·30	13·30
Evelyn ..	77	166	63	318	2,362	1,085	4·13	14·23	17·22
North-Central—									
Anglesey ..	2,204	1,763	2,960	22,323	31,970	34,709	10·13	18·13	11·73
Dalhousie ..	2,301	2,620	4,337	22,557	51,580	67,314	9·80	19·69	15·52
Talbot ..	14,751	11,973	16,270	162,168	196,709	248,872	10·99	16·43	15·30
Western—									
Grenville ..	43,657	40,443	35,058	516,402	789,824	441,964	11·83	19·53	12·61
Polwarth ..	240	256	267	2,250	4,166	2,700	9·38	16·27	10·11
Heytesbury ..	38	42	38	535	823	800	14·08	19·67	21·05
Hampden ..	20,333	24,045	22,688	195,258	463,289	362,185	9·60	19·02	15·96
Ripon ..	68,162	83,636	78,959	554,715	1,669,259	1,223,912	8·14	19·69	15·50
Villiers ..	1,840	2,113	1,770	16,917	43,027	24,203	9·19	20·36	13·67
Normanby ..	1,915	1,342	970	18,114	24,352	13,590	9·46	18·15	14·01
Dundas ..	6,660	7,509	8,530	70,379	127,283	131,616	10·57	16·95	15·43
Follett ..	190	94	331	1,587	1,662	6,823	8·35	17·68	20·61
Wimmera—									
Lowan ..	160,384	143,314	167,817	1,592,602	1,962,154	2,725,563	9·93	13·69	16·24
Borung ..	315,468	274,956	340,497	3,760,294	4,072,629	6,183,257	11·92	14·81	18·16
Kara Kara	127,289	114,260	135,172	1,541,418	1,679,804	2,328,769	12·11	14·70	17·23
Mallee—									
Millewa ..	526	885	1,053	2,574	5,193	3,937	4·89	5·87	3·74
Weeah ..	66,332	91,188	145,333	328,113	914,922	710,359	4·95	10·03	4·89
Karkarooc ..	332,984	376,389	445,108	1,943,436	2,851,867	2,423,352	5·84	7·58	5·44
Tatchera ..	217,603	236,672	276,983	1,410,192	1,664,955	2,398,988	6·48	7·03	8·66
Northern—									
Gunbower ..	38,351	35,888	46,736	380,245	378,181	573,205	9·91	10·54	12·26
Gladstone ..	122,830	100,424	128,797	1,428,613	1,305,528	2,238,428	11·63	13·00	17·38
Bendigo ..	128,601	117,363	154,551	1,571,500	1,686,702	2,410,296	12·22	14·37	15·60
Rodney ..	124,905	115,776	145,756	1,436,022	1,690,814	2,150,101	11·50	14·60	14·75
Moira ..	279,761	229,836	305,662	3,028,612	3,337,746	4,932,209	10·83	14·52	16·14
North-Eastern—									
Delatite ..	12,316	11,986	16,438	123,713	234,018	203,386	10·04	19·52	12·37
Bogong ..	41,714	35,595	54,021	400,242	571,526	719,445	9·59	16·06	13·32
Benambra ..	1,341	808	624	13,451	14,501	9,742	10·03	17·95	15·61
Wonnangatta	135	90	138	840	1,743	1,398	6·22	19·37	10·13
Gippsland—									
Crosajingolong	44	30	12	573	608	171	13·02	20·27	14·25
Tambo ..	307	301	624	5,232	4,957	11,876	17·04	16·47	19·03
Dargo ..	160	187	334	1,584	4,182	8,215	9·90	22·38	15·38
Tanjil ..	7,907	6,426	10,379	103,152	151,532	154,407	13·05	23·56	14·88
Buln Buln ..	986	377	863	9,041	6,847	14,541	9·17	18·19	16·85
Total ..	2,164,066	2,085,216	2,565,861	20,891,877	26,223,104	32,936,245	9·65	12·58	12·84

The area harvested for wheat last season was the greatest recorded whilst the production was only about 5 per cent. below the record return—that for the season 1910–11. In all divisions of the State, excepting the Western district, larger areas were devoted to wheat in 1913–14 than in the preceding season. Of the total yield of 32,936,245 bushels 6,183,257 bushels or nearly one-fifth were obtained from the county of Borung and 4,932,209 bushels or slightly more than one-seventh from the county of Moira.

The next table 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, 1904–5 TO 1913–14.

District and County.	Average Yield of Wheat per Acre (in Bushels) during Year ended March.									
	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
Western District—										
Ripon	16·57	16·59	14·96	15·05	22·09	14·77	15·97	8·14	19·96	15·50
Wimmera District—										
Lowan	11·32	12·43	10·72	9·99	12·46	12·77	9·80	9·93	13·69	16·24
Borung	11·03	13·61	14·02	9·84	17·62	17·06	15·79	11·92	14·81	18·16
Kara Kara ..	12·50	14·59	14·64	10·04	17·20	14·60	14·80	12·11	14·76	17·23
Mallee District—										
Weeah	7·24	7·54	9·21	6·23	12·01	11·66	12·52	4·95	10·03	4·89
Karkarooc ..	3·80	5·77	8·15	2·51	9·11	10·17	11·41	5·84	7·58	5·44
Tatchera ..	3·35	5·33	9·00	1·02	6·57	10·34	12·44	6·48	7·03	8·66
Northern District—										
Gunbower ..	8·77	10·70	10·58	3·67	10·51	12·90	16·12	9·91	10·54	12·26
Gladstone ..	12·36	13·45	14·43	7·64	15·19	14·28	14·15	11·63	13·00	17·38
Bendigo	13·44	15·13	14·54	6·29	15·84	16·71	18·92	12·22	14·37	15·60
Rodney	12·40	15·37	10·38	7·32	15·88	15·21	15·23	11·50	14·60	14·75
Moira	10·87	12·71	8·99	5·61	10·77	14·49	16·25	10·83	14·52	16·14

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 1898–9 :—

F.A.Q. WHEAT STANDARD, 1900 to 1914.

Season ended March.	Weight of Bushel (f.a.q.)	Season ended March.	Weight of bushel (f.a.q.)
	lbs.		lbs.
1900..	62½	1908..	62½
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..	62¾		

Stocks of wheat and flour.

No information is obtainable as to the wheat imported from or exported to other States, and this makes it difficult to account for the disposal of that harvested in 1913–14. It is estimated, however, that about 9,500,000 bushels are required locally for food and seed, which leaves nearly 23,500,000 bushels of Victorian wheat for export during the year. Information as to the stocks of wheat and flour on hand on 30th June, 1914, has been received from holders, and is as follows :—

WHEAT AND FLOUR ON HAND, 30TH JUNE, 1914.

Where Located.	Quantity in Bushels.		
	Wheat.	Flour (equivalent in Wheat).	Total.
Railway Stations and in transit ...	212,338	61,888	274,226
Sites leased from Railways	4,032,000	34,662	4,066,662
Mills and Stores (other than on Railways)	2,863,195	843,588	3,706,783
Farms	894,778	...	894,778
Total	8,002,311	940,138	8,942,449

Wheat production of the world.

The wheat production of the world has increased very considerably in recent periods, and reached the record quantity of 4,132,730,000 bushels in 1913, as against 3,759,533,000 bushels in the previous year, 3,540,717,000 bushels in 1911, and 3,182,105,000 bushels in 1908. On the average of the last five years the production was 3,718 million bushels as compared with a yearly average yield of 3,250 million bushels in 1903-7, and 2,884 million bushels in the period 1898-1902. The production for all countries of commercial importance is given in the subjoined table for the year 1913. The information (excepting that for Australasia) is based upon figures appearing in the United States Year Book of Agriculture. The counties are arranged according to their aggregate production :—

WHEAT PRODUCTION OF THE WORLD, 1913.

Country.	Production (Bushels).	Country.	Production (Bushels).
Russia	962,587,000	Belgium	15,042,000
United States ...	763,380,000	Western Australia ...	13,331,000
British India ...	358,388,000	Mexico	10,000,000
France	321,571,000	Servia	8,524,000
Austria-Hungary ...	232,207,000	Sweden	7,800,000
Canada	231,717,000	Greece	7,000,000
Italy	214,405,000	South African Union	6,034,000
Argentina	198,414,000	Tunis	5,589,000
Germany	171,075,000	Portugal	5,500,000
Spain	112,401,000	Uruguay	5,461,000
Roumania	83,236,000	New Zealand ...	5,232,000
England and Wales ...	54,806,000	Netherlands ...	4,773,000
Bulgaria	45,000,000	Denmark	4,463,000
New South Wales ...	38,029,000	Switzerland ...	3,500,000
Algeria	36,848,000	Scotland	2,335,000
Turkey (Asia Minor only)	35,000,000	Queensland ...	1,769,000
Victoria	32,936,000	Ireland	1,295,000
Egypt	30,900,000	Tasmania	350,000
Japan	27,140,000	Norway	325,000
Chili	21,000,000	Other Countries ...	2,430,000
Turkey in Europe ...	18,000,000		
South Australia ...	16,937,000	Grand Total ...	4,132,730,000
Persia	16,000,000		

On the average of the past six years the quantity of wheat produced in Australia represented about 2 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 1913-14 the area harvested for oats in Victoria was 442,060 acres, from which a yield of 8,890,321 bushels was obtained, giving an average of 20·11 bushels to the acre. The following return shows the harvest results for this crop for each of the past nine seasons and for five-year periods prior thereto back to 1865 :—

OATS GROWN, 1865 TO 1914.

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

In addition to the area shown for last season, there were 729,678 acres of oats cut for hay, so that the total area sown with oats in 1913-14 was 1,171,738 acres. In August, 1914, it was estimated that the area under this grain for 1914-15 was 1,198,100 acres, or an increase of 26,362 acres as compared with the previous season. Imports into Victoria from oversea countries during 1913 included 8,925 bushels of oats, as well as 9,956 lbs. of oatmeal, whilst in the same year there were exported from Victoria to these countries 94,848 bushels of oats and 427,534 lbs. of oatmeal.

Barley. The area under barley in 1913-14 was 83,351 acres, of which 44,584 were under malting, and 38,767 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 fifteen years :—

CULTIVATION OF BARLEY, 1899–1900 TO 1913–14.

Year ended March.	Area under Crop.		Produce.		Average per Acre.		
	Malting	Other.	Malting.	Other.	Malting.	Other.	Total.
	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1900 ..	65,970	13,603	1,197,948	268,140	18·16	19·71	18·42
1901 ..	49,723	9,130	1,003,477	212,001	20·18	23·22	20·65
1902 ..	25,480	6,943	527,564	166,287	20·71	23·95	21·40
1903 ..	26,436	11,280	394,877	166,267	14·94	14·74	14·88
1904 ..	33,586	14,174	878,721	384,202	26·17	27·11	26·44
1905 ..	30,799	15,290	575,505	298,594	18·69	19·53	18·97
1906 ..	26,279	14,659	645,456	416,683	24·56	28·43	25·95
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 ..	42,882	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

During 1913, 1,370,735 bushels of barley were used locally in the production of 1,376,618 bushels of malt.

Potatoes. The area planted with potatoes in 1913-14 was a record one, and the production was exceeded only once during the past nineteen years. The greatest yield was 204,155 tons in 1890-1. The return for last season was 176,602 tons, which represented a yield of 2·37 tons per acre as compared with 4·02 tons in the previous season and 2·50 in 1911-12. The following table shows the

potato returns for the past nine years and for earlier years in five-year periods back to 1860 :—

POTATO PRODUCTION, 1860–1914.

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	133,122	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	176,602	2·37

Hay. In 1913 the production of hay amounted to 1,350,374 tons. This was the third highest return recorded, having been exceeded only in 1912 and 1908, when 1,572,933 and 1,415,746 tons respectively were harvested. The quantity of straw returned for the season 1913-14 was 96,775 tons as against 87,839 tons for the previous year. The hay returns for five-year periods from 1860 to 1905 and for each of the past nine seasons are shown in the following table:—

HAY PRODUCTION, 1860 TO 1913.

Period.	Area cut for Hay (Annual Average).	Produce (Annual Average).	Average per Acre.
	Acres.	Tons.	Tons.
1860–65	89,746	113,392	1·26
1865–70	110,293	149,110	1·35
1870–75	124,493	158,594	1·27
1875–80	170,777	219,352	1·28
1880–85	282,774	334,190	1·18
1885–90	434,175	504,758	1·16
1890–95	440,000	589,427	1·34
1895–1900	495,337	563,809	1·14
1900–05	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	864,359	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

The hay produced for the period 1909-13 was equal to 1·36 tons per acre, which exceeded the corresponding yield for all quinquennial periods back to 1860. On the average of the past three seasons 70 per cent. of the hay was oaten. Of the total hay produced in 1913, 1,037,174 tons were oaten, 274,981 tons were wheaten, and 38,219 tons were made from lucerne and other crops, and the yields per acre were 1·42, 1·25 and 1·39 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, 1914:—

YIELD OF PRINCIPAL CROPS IN AUSTRALASIA, 1904–5 TO 1913–14.

Year ended March.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
WHEAT.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1905 ...	21,092,139	16,464,415	2,149,663	12,023,172	2,013,237	792,956	9,123,673
1906 ...	23,417,670	20,737,200	1,137,321	20,143,798	2,308,305	776,478	6,798,934
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
OATS.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1905 ...	6,203,429	652,646	15,137	555,696	226,318	1,178,819	14,553,611
1906 ...	7,232,425	883,081	5,858	869,146	283,987	1,200,024	12,707,982
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
BARLEY.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1905 ...	874,099	266,781	331,772	346,718	37,332	163,194	1,128,164
1906 ...	1,062,139	111,266	61,816	505,916	49,497	93,664	1,024,045
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	166,538	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
POTATOES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1905 ...	92,872	48,754	19,231	19,521	5,614	110,547	134,608
1906 ...	115,352	49,889	11,308	20,328	6,297	64,606	123,402
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

YIELD OF PRINCIPAL CROPS IN AUSTRALASIA, 1904–5 TO 1913–14 —*continued*.

Year ended March.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
HAY.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1905 ...	514,316	366,293	80,662	294,252	113,794	73,457	157,632*
1906 ...	864,177	459,182	56,829	435,546	139,380	90,077	161,498*
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	1,089,602	119,867	714,766	255,751	183,079	†
1914 ...	1,350,374	954,592	103,935	571,616	278,565	112,958	†

* 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, 1900 TO 1914.

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.
1900.. ..	2 5	2 1	3 2½	2 3½	40 9	41 11	26 11
1901.. ..	2 5¾	1 6½	2 10¾	1 11¼	39 4	73 11	55 10
1902.. ..	2 10¼	2 4	3 9¼	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 8½	2 4¾	41 0	78 0	57 0
1911.. ..	3 2	1 10⅝	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

In Melbourne the price of wheat throughout last year was fairly good, ranging from 3s. 5d. to 3s. 10d. per bushel. The latter rate was quoted in the month of May, and the former in November. The

highest and lowest prices in Melbourne during each month in the last three years were as follows :—

PRICES OF WHEAT IN MELBOURNE, 1911, 1912 AND 1913.

Month.	Price per Bushel.					
	1911.		1912.		1913.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
January ..	3 8	3 6½	3 8¼	3 7½	3 7	3 6
February ..	3 6	3 4½	3 10½	3 8¾	3 7	3 6
March	3 3	3 2	3 11	3 8	3 8½	3 7
April	3 6	3 3½	4 3	3 11½	3 9½	3 8
May	3 7	3 3	4 4½	4 3	3 10	3 9
June	3 5	3 4	4 3	4 2	3 9	3 8
July	3 5	3 3½	4 2	4 1	3 8½	3 8
August ..	3 8	3 5½	4 4	4 1½	3 9	3 8½
September ..	3 8¼	3 6	4 4	4 3½	3 9	3 8
October ..	3 8½	3 6	4 6½	4 3½	3 7½	3 5½
November ..	3 8½	3 6	4 7¼	4 2	3 6¾	3 5
December ..	3 8	3 7	4 3	3 6½	3 6	3 5½

Other Crops. The area under other than principal crops and the production since March, 1908, are shown in the subjoined table :—

OTHER THAN PRINCIPAL CROPS, 1908–9 TO 1913–14.

Crop.	1908–9.		1909–10.		1910–11.	
	Area.	Production.	Area.	Production.	Area.	Production.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Maize	14,004	650,462	19,112	1,158,031	20,151	982,103
Rye	2,024	32,504	2,399	26,070	2,640	32,647
Peas	11,153	197,807	9,824	145,742	11,068	223,284
		Tons.		Tons.		Tons.
Mangel-wurzel	1,370	15,048	1,119	14,116	1,254	17,654
Beet, Carrots, Parsnips, and Turnips ..	702	4,541	573	4,215	872	7,481
Onions ..	5,340	24,384	6,434	31,715	6,161	37,484
Green Forage ..	63,066	..	56,586	..	71,826	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds ..	1,741	18,161	1,595	13,160	1,295	16,262
		Cwt.		Cwt.		Cwt.
Hops ..	189	1,094	140	882	121	937
Tobacco ..	413	2,647	321	2,704	329	1,090
Vines—Grapes ..	24,430	561,679	22,768	548,828	23,412	592,438
Flax	190	6 fibre 153 seed	1,213	676 fibre 1,515 seed	600	748 fibre 2,457 seed
Gardens and Orchards ..	64,225	..	66,322	..	65,153	..
Minor Crops ..	4,218	..	3,389	..	5,158	..
Land in Fallow	1,034,422	..	1,175,750	..	1,434,177	..
Artificial Grasses	1,029,711	..	838,671	..	991,195	..

OTHER THAN PRINCIPAL CROPS, 1908–9 TO 1913–14—*continued*.

Crop.	1911–12.		1912–13.		1913–14.	
	Area.	Production.	Area.	Production.	Area.	Production.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Maize	18,223	792,660	19,986	715,299	17,962	800,529
Rye	1,098	9,981	1,428	17,141	1,779	19,029
Peas	11,535	181,113	11,875	232,856	11,774	206,846
		Tons.		Tons.		Tons.
Mangel-wurzel	797	9,568	1,121	14,615	952	15,642
Beet, Carrots, Parsnips, and Turnips ..	658	4,953	627	5,628	470	3,166
Onions ..	3,652	20,911	4,977	28,641	6,121	24,755
Green Forage ..	75,177	..	84,460	..	98,963	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds ..	1,188	9,503	2,429	23,206	1,452	16,349
		Cwt.		Cwt.		Cwt.
Hops	122	777	131	1,387	117	961
Tobacco ..	356	3,636	138	661	284	†
Vines—Grapes ..	24,193	682,250	24,579	733,579	22,435	836,493
Flax ..	443	1,327 fibre 1,958 seed	648	1,189 fibre 4,536 seed	1,046	1,096 fibre 3,768 seed
Gardens and Orchards ..	70,316	..	73,623	..	77,960	..
Minor Crops ..	4,741	..	5,942	..	6,476*	..
Land in Fallow	1,469,608	..	1,627,223	..	1,738,572	..
Artificial Grasses	1,041,772	..	1,085,346	..	1,094,566	..

* For details see page 701. † Not available.

Maize. The area under maize for grain in 1913-14 was the smallest since 1908-9, but the production was greater than in the preceding two seasons. The industry is largely confined to the Gippsland and North-Eastern districts. Of the 800,529 bushels harvested last season 209,461 were in Tanjil, 195,840 in Tambo, 177,102 in Dargo, 114,789 in Croajingolong, 28,076 in Delatite, and 21,525 in Bogong. The area, total production and produce per acre are given in the next table for each of the past nine seasons and for five-year periods prior thereto back to 1890 :—

MAIZE PRODUCTION, 1890 TO 1914.

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

On the average of the past five seasons the yield per acre was 46·61 bushels as against 65·36 in 1900–5, 53·46 in 1895-1900, and 50·36 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 1913-14 was 1,779 acres, from which 19,029 bushels of grain were obtained. Acreage and production were greater than in the two preceding years. Last season rye was grown throughout the State, except in the counties of Heytesbury, Millewa, Weeah, and Karkarooc. In Bogong the quantity yielded was 3,266 bushels, in Delatite 3,030 bushels, in Talbot 1,821 bushels, in Benambra 1,488 bushels, in Normanby, 1,168 bushels, and in Grant, 1,000 bushels. In six other counties—Bourke, Anglesey, Polwarth, Lowan, Tanjil, and Buln Buln—the return was between 500 and 900 bushels.

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 1910-11 to 11,068 acres. In 1913-14 the area was 11,774 acres, and the return was 206,846 bushels, the former being 101 acres and the latter 26,010 bushels less than in the previous year. Peas are generally grown in all the counties except Millewa, Weeah and Tatchera. Those from which the largest returns were obtained last season were Buln Buln with 36,717 bushels, Bourke 33,906 bushels, Grant 26,588 bushels, Tanjil 24,791 bushels, and Mornington with 17,096 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 1913-14 there were 952 acres under mangel-wurzel as against 1,121 in the previous season, 797 in 1911-12, 1,254 in 1910-11, 1,119 in 1909-10, 1,370 in 1908-9, 1,184 in 1907-8, and 1,360 in 1906-7. The production last year was 15,642 tons as compared with an average of 14,200 tons for the preceding five-year period. Mangolds are grown principally in the counties of Villiers, Heytesbury, Grant, Grenville, Mornington, Buln Buln, and Tanjil. The production for last season in the counties mentioned represented 80 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 a decrease in area and production, as compared with the previous season. In 1913-14 the land sown was 470 acres as against 627 in the preceding year, 658 in 1911-12, 872 in 1910-11, 573 in 1909-10, 702 in 1908-9, 496 in 1907-8, and 713 in 1906-7. The produce for last year was 3,166 tons, which was 2,198 tons below the average for the previous five-year period.

Onions. Onions are grown in nearly every county south of the Dividing Range. In Grenville the yield was 5,636 tons from 1,570 acres; in Bourke 4,014 tons from 1,118 acres; in Villiers 3,483 tons from 609 acres; in Polwarth 3,065 tons from 594 acres; in Mornington 2,407 tons from 547 acres; in Grant 2,405 tons from 740 acres; and in Buln Buln 2,168 tons from 566 acres. The following is a return for the last eighteen years:—

ONION CULTIVATION, 1896–7 TO 1913–14.

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

The area under onions last season was the third largest recorded, but the yield per acre was 1·4 tons below the average for the preceding five years.

Green forage. The area devoted to green forage has shown a considerable expansion in recent periods, especially during the past seven years, when the yearly average—72,854 acres—was 121 per cent. higher than that for the five years ended 1906-7. In 1913-14, 98,963 acres were utilized for green forage as compared with 84,460 acres in the previous season, 75,177 acres in 1911-12, 71,826 acres in 1910-11, and 56,586 acres in 1909-10.

Ensilage. The preserving of forage in a green state has been practised in Victoria for many years, but up to the present only a small number of farmers have adopted it. It is surprising that this should be so, as ensilage-fed animals at all times present an appearance of health and vigour. In Victoria, where almost every season the rapid drying up of the grass under the excessive heat of the summer sun causes large areas of pasture land to be parched and grassless, and where green food usually disappears from December till Autumn, an artificial method of preserving fodder should be of the utmost possible benefit, as the advantage of the luxuriance of trefoil, grasses, and self-sown crops in the spring would not then be lost. The juicy state in which the silo preserves ensilage fulfils an important requirement of ruminant animals, viz.:—that their food should be presented in a succulent condition. Even in districts where fresh green fodder is available throughout the greater part of the year, the advantage of

being able to secure the crop when it is in its best condition seems so evident, that the silo should soon become an indispensable adjunct to every farm.

The returns for Victoria relating to the years 1905 to 1914 show that in the year 1909-10 there was a substantial increase in the number of farmers who made ensilage, and in the material used, as compared with previous years, but that in the succeeding years there was a considerable decline, the number of farmers who made ensilage in 1913-14 being 248 less, the number of silos 294 less, and the materials used 7,775 tons less than in the year 1909-10.

ENSILAGE RETURNS, 1904–5 TO 1913–14.

Year ended March.	Number of Farms on which made.	Number of Silos (Pits and Stacks).	Weight of Materials used.
			Tons.
1905	300	..	12,779
1906	160	218	7,240
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

Grass and clover seed. The area under grass and clover for seed last season was 40 per cent. lower than in 1912-13. The product returned in 1913-14 was 16,349 bushels from 1,452 acres. In the previous season it was 23,206 bushels from 2,429 acres, and in 1911-12 it was 9,503 bushels from 1,188 acres. It is remarkable that such favorable results have not led to the reservation of a greater area for seed purposes.

Hops. The hop-growing industry attained its maximum development in 1883-4, when 1,758 acres yielded 15,717 cwt. In 1913-14 there were only 20 growers whose return from 117 acres was 961 cwt. The area cultivated last year was the smallest since 1872-3, and the production was less in only three seasons during the past thirty-nine years. Delatite, Bogong, Dargo, Tanjil, and Villiers were the only counties in which hops were grown last season.

Flax. The growth of flax (Linum Usitatissimum) received considerably more attention during the past two seasons than in the two previous years, there being a very large increase in the number of growers and the area sown. The 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. Practically the whole of last season's produce

came from the counties of Buln Buln and Grant. Particulars of the crop for the last five years are given in the following statement :—

FLAX : 1909–10 TO 1913–14.

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

In 1913, imports into Victoria from countries outside Australia included linseed to the value of £1,829, linseed oil worth £54,599, and fibre worth £135,483.

Tobacco. There are tobacco plantations in the counties of Delatite along the banks of the King River, and in Bogong; last season there were also small areas cultivated in Benambra, Buln Buln, Croajingolong, and Tambo. Particulars relating to the cultivation of tobacco for the last eighteen years are as follows :—

CULTIVATION OF TOBACCO, 1896–7 TO 1913–14.

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	..

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 slightly more than double that for the preceding season, but it was below the area for each of the five years 1907 to 1911.

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 22,435 acres in 1913–14. 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 591,384 cwt. of grapes; Rutherglen, 67,481 cwt.; and Yackandandah, 9,098 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 12,725 cwt. of grapes was produced in 1913–14. At Mildura the crop was principally dried for raisins and currants. The results of fifteen years' operations are as follows :—

VINE PRODUCTION, 1900 TO 1914.

Year ended June.	Number of Growers.	Area.	Produce.			
			Grapes gathered.	Wine Made.	Raisins Made.	Currants Made.
		Acres.	Cwt.	Gallons.	Cwt.	Cwt.
1900 ..	2,382	27,550	298,920	933,282	17,847	3,315
1901 ..	2,486	30,634	631,912	2,578,187	29,370	3,715
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

Of the total quantity of grapes gathered in 1914, 161,105 cwt. was used for making wine, 618,412 cwt. for raisins and currants, and 56,976 cwt. for table consumption and export. Of the 120,303 cwt. of raisins made, 79,157 cwt. were sultanas almost entirely from Mildura.

Raisins and currants are produced in Victoria upon a scale far in excess of local requirements. It is estimated that a year's consumption of raisins is about 20,000 cwt.; consequently, about 100,000 cwt. of the production in 1914 is available for export. A year's consumption of currants is about 30,000 cwt., which would enable approximately 32,000 cwt. of last year's production to be exported.

Orchards.

The total number of persons in the State growing fruit for sale was 6,498 in 1913–14, as against 6,285 in the previous season, 5,955 in 1911–12, 5,780 in 1910–11, and 5,647 in 1909–10. The area under orchards in each of these years was 63,058, 59,119, 55,769, 53,325, and 51,578 acres respectively. The orchards are

fairly spread over the whole State. The counties having the largest areas last season were as follows:—Evelyn, 13,036 acres; Bourke, 12,508 acres; Mornington, 10,020 acres; Rodney, 4,606 acres; Talbot, 2,974 acres; Karkarooc (including Mildura), 2,869 acres; Bendigo, 2,315 acres; Moira, 2,049 acres; Borung, 1,822 acres; Grant, 1,655 acres; Bogong, 1,189 acres; and Buln Buln, 1,056 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 steadily from 5,800 acres in 1872–3 to 10,048 in 1882–3, 31,370 in 1892–3, 44,502 in 1902–3, 55,769 in 1911–12, 59,119 in 1912–13, and 63,058 acres in 1913–14, which is the largest area recorded. 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, 1904–5 TO 1913–14.

Year ended March.	Number of Fruit-growers.	Area under Gardens and Orchards.	Large Fruits Gathered.			
			Apples.	Pears.	Quinces.	Plums.
		Acres.	Bushels.	Bushels,	Bushels.	Bushels.
1905	5,341	47,205	1,019,816	188,849	90,735	121,725
1906	5,163	47,312	578,700	219,864	56,898	130,917
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

Year ended March.	Large Fruits Gathered—*continued.*						
	Cherries.	Peaches.	Apricots.	Oranges.	Lemons.	Figs.	Others.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels	Bushels
1905	82,504	230,130	186,360	34,088	81,716	23,500	7,335
1906	116,845	132,870	154,791	21,364	63,904	32,467	12,339
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

	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.
1905	12,480	5,456	13,558	1,805	1,320	80,758	28,306	1,756	4,396
1906	6,821	2,643	9,814	2,113	1,320	81,077	23,131	6,144	4,696
1907	13,816	5,427	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	21,849	2,143	11,361

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. 699), large quantities of melons, rhubarb, and tomatoes were produced in the orchards, the following being the quantities returned for 1913–14—Melons, 10,836 cwt.; rhubarb, 30,596 dozen bundles; and tomatoes, 24,113 cwt. There were also 4,125 acres laid down in private fruit gardens, the value of the produce from which was estimated at about £8,250.

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, and £742,900 in 1913–14. 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 each season increasing, the quality is good, and the demand improving. Victorian cider can be obtained at most of he leading hotels and cafés.

Market gardens. The area under market gardens for the year 1913–14 wa 10,777 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 £269,425. 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 1913–14 the production was 717,524 lbs., which was the third highest return obtained. The details for the last ten seasons are as follows :—

DRIED FRUIT, 1904–5 TO 1913–14.

Year ended June.	Apples.	Prunes.	Peaches.	Apricots.	Figs.	Pears.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1905 ..	28,021	33,080	134,019	179,520	41,137	..	415,777
1906 ..	19,290	9,207	27,703	252,746	29,227	..	338,173
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

The bulk of the above-mentioned dried fruit comes from Mildura, where in 1913–14 there were made also 13,076,896 lbs. of raisins, which quantity represented an increase of 1,203,664 lbs. on the produce of 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 only 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, 1912–13 AND 1913–14.

Crop.	1912–13.		1913–14.	
	Area.	Produce.	Area.	Produce.
	Acres.		Acres.	
Beans	...	...	856	19,718 bushels
Chicory	506	500 tons (dry)	531	360 tons (dry)
Flowers	181	...	182	...
Gherkins	28	121 tons	..	...
Herbs	22	...	18	...
Millet—Broom ...	474	2,334 cwt. fibre 1,681 cwt. seed	491	2,495 cwt. fibre 2,085 cwt. seed
,, Japanese ...	...	...	24	290 cwt. seed
Nursery	1,041	...	989	...
Opium poppies ...	2	17 lbs.	2	18 lbs.
Pumpkins	2,632	24,392 tons	2,233	21,271 tons
Rice	...	...	5	46 cwt.
Seeds—Agricultural and Garden ...	67	...	9	...
,, Bird	...	...	5	6 cwt.
Sugar Beet	934	6,207 tons	1,093	7,431 tons
Sunflowers	55	828 bushels	38	1,190 bushels
Total	5,942	...	6,476	...

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 two seasons has been the greatly increased area devoted to hay, green forage, market gardens, and orchards, and the large increase in dairy cows, which numbered 24,325 in 1913 and 22,238 in 1912, as compared with 5,005 in 1906. The area under crop on these estates in 1913 was 161,425 acres, or 30 per cent. 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—							
	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat for grain..	10,451	16,163	20,398	36,600	44,124	35,806	41,161	67,366
Oats for grain ..	2,948	5,115	7,566	8,987	10,838	8,420	17,510	22,334
Barley for grain..	561	1,534	1,732	2,528	2,032	2,548	4,246	6,929
Maize for grain ..	40	48	73	38	76	72	480	633
Rye for grain ..	59	18	69	28	49	47	38	36
Peas for grain ..	46	86	52	59	80	120	234	238
Potatoes ..	279	315	304	373	461	498	644	1,569
Onions.. ..	91	90	115	90	70	56	96	163
Mangel-Wurzel and Beet ..	53	30	54	47	64	407	718	877

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

Crop.	Area of Crop in—							
	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Hay, Wheaten ..	1,081	2,642	4,293	2,973	4,701	7,596	10,063	6,943
„ Oaten ..	2,429	7,100	12,547	14,338	13,684	18,940	31,206	31,562
„ Other ..	180	114	552	423	703	2,960	6,410	7,813
Green Forage ..	608	628	1,070	918	2,417	4,093	8,957	12,424
Market Gardens..	32	14	18	10	44	54	97	167
Orchards and Gardens ..	15	56	48	68	191	428	769	1,847
Vines ..	2	2	5	1	14	88	81	108

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—							
	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Wheat bushels	120,939	139,665	355,722	603,278	764,037	391,671	607,262	982,164
Oats „	88,789	111,105	270,658	228,959	311,941	186,058	476,307	536,764
Barley „	13,872	16,476	37,812	40,316	58,046	38,913	101,334	137,749
Maize „	1,368	1,464	2,007	1,027	3,152	2,180	14,999	21,278
Rye „	786	344	970	405	573	658	740	345
Potatoes, tons	918	905	1,003	1,189	1,493	1,132	2,612	3,233
Onions „	484	399	339	294	319	247	385	590
Mangel-Wurzel and Beet „	1,016	365	563	539	841	2,304	4,498	4,050
Hay, Wheaten „	1,426	2,007	5,852	4,815	6,635	8,950	11,312	7,810
„ Oaten „	3,848	6,916	19,605	25,003	22,232	27,021	39,947	43,626
„ Other „	237	149	673	519	920	2,691	6,316	8,753

On Closer Settlement Estates the wheat yield was 14·65 bushels, and the oat yield 25·43 bushels per acre, on the average of the last two seasons, the former being 15 per cent. and the latter 30 per cent. above the average for the State.

Land in fallow. While the fallowing of land in Victoria commenced in 1858, and increased in popularity in later years, it was only within the past ten years that this method of cultivation became fairly general throughout the State. The area fallowed in 1913–14 was 1,738,572 acres, as compared with 853,829 acres in 1904–5, and 399,535 acres in 1897–8. The acreage so treated in each of the last seventeen years was as follows:—

LAND IN FALLOW.

Year ended March.	Acres.	Year ended March.	Acres.
1898	399,535	1907	990,967
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		

Nearly all of the fallowed area is devoted to wheat production. Of the 1,738,572 acres in fallow last season 617,847 acres were in the Wimmera, 577,870 in the Northern District, and 324,926 in the Mallee. The area for these three districts represented 87 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 30,610 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 past thirteen years :—

MANURE USED FOR FERTILIZATION, 1901 TO 1913.

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	23,733	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	30,610	3,401,013	219,423	105,612

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 1904, 46 per cent.; in 1905, 56 per cent.; in 1909, 66 per cent.; in 1911 and 1912, 74 per cent.; and in 1913, 77 per cent. During 1913 the quantity of manure imported into Victoria from oversea countries was 87,536 tons, and its value £231,757. Seventy-seven per cent. of the quantity, representing 74 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.

During the past eighteen years 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 for 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 at all events 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.

Occupations of persons on pastoral and dairying holdings (Census).

The occupations of persons settled on the land are collected in full detail in the census years only. In 1901 the number of persons engaged in pastoral and dairying pursuits was 30,920, and in 1911 it was 29,260. The full particulars for the 1911 census are as follows :—

RETURN OF PERSONS ENGAGED IN PASTORAL AND DAIRYING PURSUITS, 1911.

Persons following Pastoral and Dairying Pursuits.	Employers of Labour.		In Business on their own account, but not employing labour.		Receiving Salary or Wages.		Relatives Assisting.		Indefinite.		Not at work for more than a week prior to Census.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Grazier, pastoralist, stock breeder, and relative assisting	3,663	254	1,256	77	..	..	336	19	504	25	..	..
Station manager, overseer, clerk	..	..	..	..	639	8	..	..	21	..	35	..
Stock rider, drover, shearer, shepherd, pastoral labourer	42	..	69	..	5,622	6	6	1	87	..	196	..
Dairy farmer, and relative assisting	3,848	564	3,203	343	..	..	1,387	671	657	70	..	..
Dairy assistant, milker, labourer	..	..	..	..	4,576	163	..	..	14	..	45	1
Poultry farmer	45	15	231	73	52	3	6	8	52	18	..	..
Pig farmer	7	2	14	1	16	..	2	..	2	..	..	..
Wool classer, sorter	1	..	4	..	130	..	2	..	23	..	59	..
Stock and brands department officer	..	..	..	..	17	..	..	..	..	..	..	..
Others	8	..	15	..	27	..	..	..	11	..	8	..
Total	7,614	835	4,792	494	11,079	180	1,739	699	1,371	113	343	1

Total Males	26,938
Total Females	2,322
Grand Total	29,260

Occupations of persons on Agricultural holdings (Census).

In 1901 the number of persons engaged in agricultural pursuits was 95,920, and in 1911 it had fallen to 86,134. The following return gives particulars of persons mainly engaged in agricultural pursuits when the census of 1911 was taken.

RETURN OF PERSONS ENGAGED IN AGRICULTURAL PURSUITS, 1911.

Persons following Agricultural Pursuits.	Employers of Labour.		In Business on their own account, but not employing labour.		Receiving Salary or Wages.		Relatives Assisting.		Indefinite.		Not at work for more than a week prior to Census.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Farmer and relative assisting	18,670	1,269	8,849	414	..	..	9,751	595	5,842	240	..	..
Farm manager, overseer ..	..	..	..	..	384	2	..	..	..	..	6	..
Farm servant, agricultural labourer	..	..	..	..	25,975	27	..	..	295	..	836	2
Market gardener	878	13	949	4	1,586	..	177	3	360	3	32	..
Fruit grower, orchardist ..	1,274	73	799	43	2,129	26	313	26	213	2	49	..
Hop, cotton, tea, coffee grower	2	..	2	2	6	..	1	..	3	1	..	..
Tobacco grower	11	..	41	..	29	1	..	..	5	..	..	..
Vine grower, vigneron ..	121	10	13	3	644	1	16	2	33	1	2	..
Sugar planter	1	..	..	..	1	..	..	..	1	..	2	..
Horticulturist, nurseryman, gardener	211	14	298	3	1,246	14	40	5	382	..	121	..
Agricultural department officer	..	..	..	..	170	1	..	..	..	..	..	..
Others	72	..	31	..	70	..	..	..	375	13	4	..
Total	21,240	1,379	10,982	469	32,240	72	10,298	631	7,509	260	1,052	2

Total Males	83,321
Total Females	2,813
Grand Total	86,134

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, 1904 TO 1913.

Year.	Males.	Females.	Total.
1904	90,396	51,933	142,329
1905	91,336	50,982	142,318
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

The number of persons ordinarily employed on any holding includes the occupier or manager, and those members of his family who actually worked on it; but 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, neither are domestic servants nor cooks. It is difficult to arrive at an estimate of the extent of the temporary labour employed upon farms and pastoral holdings. In 1905 the collectors were asked to supply some information on the subject, and from the knowledge gained in this way and particulars available from other sources it is believed that such labour may be set down as approximately equal to about 24,000 men employed continuously throughout the year.

Wages—agricultural and pastoral.

In the following return will be found particulars of the rates of wages paid (with rations) upon farms and pastoral holdings during 1913–14. The information has been furnished by the occupiers of holdings:—

WAGES, AGRICULTURAL AND PASTORAL, 1913–14.

Occupations.	Range.	Prevailing Rate.
Ploughmen	20s. to 30s. per week ..	25s. per week
Farm labourers	20s. to 30s. ,, ..	22s. 6d. ,,
Threshing machine hands ..	8d. to 1s. per hour ..	10d. per hour
Harvest hands	6s. to 8s. per day ..	7s. per day
Milkers	15s. to 25s. per week ..	20s. per week
Maize pickers (without rations) ..	4½d. to 7d. per bag ..	6d. per bag
Hop pickers ,, ,, ..	3d. to 4d. per bushel ..	3½d. per bushel
Married couples	30s. to 50s. per week ..	35s. per week
Female servants	10s. to 20s. ,, ..	15s. ,,
Men cooks	20s. to 40s. ,, ..	27s. 6d. ,,
Stockmen	£52 to £78 per annum ..	£65 per annum
Shepherds	£39 to £65 ,, ..	£45 ,,
Hut keepers	£30 to £65 ,, ..	£40 ,,
Generally useful men	20s. to 30s. per week ..	20s. per week
Sheep washers	20s. to 35s. ,, ..	30s. ,,
Shearers, hand*	20s. to 25s. per 100 sheep	24s. per 100 sheep
,, machine*	20s. to 25s. ,, ..	24s. ,,
Bush carpenters	30s. to 60s. per week ..	40s. per week
Gardeners, market	20s. to 40s. ,, ..	27s. 6d. ,,
,, orchard	20s. to 40s. ,, ..	27s. 6d. ,,
Vineyard hands	20s. to 30s. ,, ..	22s. 6d. ,,

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

Farm Implements.

The numbers of engines, horse-works, machines, and other implements on agricultural, dairying, and pastoral holdings in March, 1914, were as follows :—

MACHINERY AND IMPLEMENTS ON FARMS AND PASTORAL HOLDINGS IN EACH DISTRICT, 1914.

District.	Number of —													
	Engines.		Horse-works.	Harvesters.	Threshing Machines.	Winnowing Machines.	Reapers and Binders.	Strippers.	Ploughs.	Harrows.	Cultivators.	Grain Drills.	Chaff-cutters.	Cream Separators.
	Steam.	Oil.												
1914.														
Central ..	461	1,176	1,749	388	78	267	4,218	2	18,903	12,747	6,854	3,031	5,967	6,284
North-Central	284	327	909	269	42	277	2,070	60	5,728	3,976	1,519	1,356	2,030	3,340
Western ..	249	1,587	1,618	1,304	97	216	3,579	106	11,346	7,760	2,558	2,713	3,655	5,777
Wimmera ..	123	1,410	2,284	3,555	90	1,681	3,595	2,576	9,051	6,192	4,482	4,209	4,000	3,440
Mallee ..	127	486	1,021	1,588	32	1,490	1,693	3,435	5,575	2,874	3,173	2,939	1,595	1,630
Northern ..	650	722	1,611	5,671	109	2,162	5,481	1,706	14,696	9,215	7,672	5,653	2,926	6,509
North-Eastern	370	209	781	496	47	327	1,777	342	5,721	3,703	1,357	1,105	1,515	2,619
Gippsland ..	445	669	625	156	79	133	1,288	20	9,177	6,409	2,832	1,122	2,362	5,134
Total, 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	34,783
,, 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
,, 1910	2,637	2,057	11,722	8,701	478	7,467	20,498	9,057	69,384	47,094	22,885	17,111	21,671	24,358

NOTE.—The returns collected in March, 1914, showed that there were also in use 1,643 milking machine plants, 4,268 shearing machines, 3,930 wool presses, and 1,784 grain graders.

Compared with 1913, there are noticeable decreases in 1914 in the numbers of horse-works, winnowing machines, and strippers, and substantial increases in the numbers of engines, harvesters, reapers and binders, ploughs, grain drills, and cream separators.

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.

—	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 showed 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 on 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	20,996	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	4,382	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, however, 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	886,826	442,413	1,279,239	228,227	1,051,012
	1913	26,113	915,493	374,511	1,290,004	245,493	1,044,506
101 ,, 320 .	1910	17,583	3,686,498	1,209,660	4,89 ,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	9,076	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	2,808,419	1,086,769	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 recent 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 have been 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, after supplying 64 per cent. of the cultivation and nearly 49 per cent. of the total area under pasture, contained 54 per cent. of the grazing stock. As many of the large areas are situated in the rich Western District, which is favoured with a good annual rainfall, it requires only the introduction of labour to utilize the capacity of these lands to carry at least as many sheep per acre as are now carried on holdings of 320 acres or under. The figures show that there is sufficient land in use in Victoria to support at least double the number of sheep that there were in 1913. Dairying is principally carried on in the small holdings, nearly 56 per cent. of the number of dairy cows being on holdings of a less area than 320 acres. Naturally, pigs are most numerous where dairying prevails, the proportion found on holdings of the acreage mentioned being about 61 per cent. of the total in the State. Compared with 1910, the sheep-

carrying capacity per acre of the total grazing area in 1913 shows a slight increase. The proportionate decrease of pastoral areas in estates of from 5,001 to 10,000 acres is very prominent, especially as it is 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, 1914, in districts, and the uses to which the land was applied :—

LAND IN OCCUPATION IN EACH DISTRICT OF VICTORIA, MARCH, 1914.

(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 ...	16,352	485,153	175,171	2,087,469	56,405	2,804,198
North-Central	5,920	175,975	23,733	1,783,932	86,263	2,069,903
Western ...	11,631	504,349	187,087	5,770,029	212,302	6,673,767
Wimmera ...	6,093	1,531,378	18,123	4,338,413	176,343	6,064,257
Mallee ...	5,125	1,356,128	5,028	3,524,707	879,030	5,764,893
Northern ...	11,581	1,733,563	12,087	3,465,052	33,894	5,244,596
North-Eastern	5,171	200,458	10,489	3,658,641	578,718	4,448,306
Gippsland ...	8,662	142,889	662,848	3,263,045	688,954	4,757,736
Total ...	70,535	6,129,893	1,094,566	27,891,288	2,711,909	37,827,656
		Percentage of Total Occupied in each District.				
Central ...	...	17·30	6·25	74·44	2·01	100·00
North-Central	...	8·50	1·15	86·18	4·17	100·00
Western ...	...	7·56	2·80	86·46	3·18	100·00
Wimmera ...	...	25·25	·30	71·54	2·91	100·00
Mallee ...	...	23·52	·09	61·14	15·25	100·00
Northern ...	...	33·05	·23	66·07	·65	100·00
North-Eastern	...	4·51	·23	82·25	13·01	100·00
Gippsland ...	...	3·00	13·93	68·59	14·48	100·00
Total ...	...	16·21	2·89	73·73	7·17	100·00
		Percentage in each District of Total in State.				
Central ...	23·18	7·92	16·00	7·48	2·08	7·41
North-Central	8·39	2·87	2·17	6·40	3·18	5·47
Western ...	16·49	8·23	17·09	20·69	7·83	17·64
Wimmera ...	8·64	24·98	1·66	15·55	6·50	16·03
Mallee ...	7·27	22·12	·46	12·64	32·41	15·24
Northern ...	16·42	28·28	1·10	12·42	1·25	13·87
North-Eastern	7·33	3·27	·96	13·12	21·34	11·76
Gippsland ...	12·28	2·33	60·56	11·70	25·41	12·58
Total ...	100·00	100·00	100·00	100·00	100·00	100·00

It will be seen from these tables that in the Northern, Wimmera, and Mallee districts, the greatest area under cultivation and the greatest proportion of cultivation to land occupied are found. About 33 per

cent. of the land occupied in the Northern, and about 25 per cent. of that occupied in the Wimmera district are devoted to agriculture, and these divisions supplied 53 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, 60 per cent. of all the sown grasses in the State being found in that division.

Areas occupied and stock thereon, in districts.

In the next table the distribution of horses, cattle, and sheep on agricultural and pastoral lands in March, 1914, is given.

AREA OCCUPIED AND STOCK THEREON, 1914.

District.	Acres Occupied for—		Number of—		
	Agriculture.	Pasture.	Horses.	Cattle.	Sheep.
Central	485,153	2,262,640	112,423	247,028	1,006,144
North-Central ...	175,975	1,807,665	32,968	95,544	994,075
Western	504,349	5,967,116	83,775	372,103	4,148,376
Wimmera ...	1,531,378	4,356,536	76,023	50,143	1,903,212
Mallee	1,356,128	3,529,735	47,383	33,903	535,469
Northern ...	1,733,563	3,477,139	111,546	176,058	1,724,269
North-Eastern ...	200,458	3,669,130	43,412	195,297	806,165
Gippsland ...	142,889	3,925,893	54,831	358,477	995,973
Total ...	6,129,893	28,985,854	562,331	1,528,553	12,113,682

The area occupied does not include 2,711,909 acres which are mostly in an unproductive state. Compared with 1913, horses increased by 31,837, or 6 per cent., cattle by 20,464, or 1·4 per cent., and sheep by 221,458, or 1.9 per cent.

Live stock in Victoria 1910 to 1914.

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 712 and 725 :—

LIVE STOCK IN VICTORIA, 1910 TO 1914.

Live Stock.	1910.	1911.	1912.	1913.	1914.
Horses (including foals) ...	442,829	472,080	507,813	530,494	562,331
Cattle—					
Dairy Cows ...	625,063	668,777	699,555	655,939	656,080
Other (including calves) ...	924,577	878,792	947,572	852,150	872,473
Sheep	12,937,983	12,882,665	13,857,804	11,892,224	12,113,682
Pigs	217,921	333,281	348,069	240,072	221,277

All classes of live stock, except pigs, were more numerous in March, 1914, than in the preceding year.

Prices of Live stock.

In the following table will be found a statement of the average and the range of prices ruling in Melbourne during the years 1912 and 1913 for live stock. The information has been extracted from the Melbourne *Stock and Station Journal* :—

PRICES IN MELBOURNE OF LIVE STOCK, 1912 AND 1913.

Stock.	Prices in 1912.				Prices in 1913.			
	Average.	Range.			Average.	Range.		
	£ s. d.	£ s. d.	to	£ s. d.	£ s. d.	£ s. d.	to	£ s. d.
Horses.								
Extra heavy draught ..	50 17 6	49 0 0	to	52 0 0	49 0 0	47 0 0	to	51 0 0
Medium draught ..	41 17 6	39 0 0	to	43 0 0	35 17 6	33 10 0	to	40 0 0
Delivery Cart	30 12 6	25 0 0	to	33 0 0	26 0 0	24 0 0	to	27 10 0
Indian Remounts ..	22 17 6	21 10 0	to	26 0 0	23 0 0	22 0 0	to	23 10 0
Saddle and Harness ..	12 15 0	9 10 0	to	14 5 0	12 15 0	12 0 0	to	13 10 0
Ponies	22 5 0	20 10 0	to	24 0 0	21 15 0	19 0 0	to	23 0 0
Fat Cattle.								
Bullocks—								
Extra Prime.. ..	14 13 0	10 11 0	to	23 0 0	13 9 0	12 0 0	to	15 2 0
Prime	12 10 0	8 17 0	to	18 10 0	11 12 0	10 5 0	to	13 6 0
Good	10 12 0	7 15 0	to	15 5 0	9 17 0	8 10 0	to	11 2 0
Good Light and Handy Weights	9 2 0	6 10 0	to	13 5 0	8 8 0	6 10 0	to	9 7 0
Second	7 6 0	4 16 0	to	10 0 0	7 2 0	6 0 0	to	8 7 0
Cows—								
Best	8 14 0	6 5 0	to	12 10 0	8 2 0	7 0 0	to	9 0 0
Others	6 7 0	4 10 0	to	8 10 0	6 11 0	5 5 0	to	7 12 0
Young Cattle.								
Prime Steers and Heifers	5 8 0	4 5 0	to	7 5 0	5 8 0	4 17 0	to	6 10 0
Calves, prime	3 0 0	2 7 0	to	4 2 0	3 0 0	2 5 0	to	3 15 0
„ good	2 3 0	1 10 0	to	3 0 0	2 3 0	1 10 0	to	2 12 0
Dairy Cattle.								
Best Milkers	9 13 0	8 11 0	to	10 13 0	9 18 0	8 18 0	to	11 6 0
Good	8 2 0	6 0 0	to	9 5 0	7 9 0	6 14 0	to	8 5 0
Inferior	5 8 0	4 0 0	to	7 0 0	..	..		..
Springers, best ..	7 6 0	5 10 0	to	9 0 0	7 4 0	5 7 0	to	8 1 0
Heifers, best Springers ..	6 4 0	5 0 0	to	7 10 0	6 2 0	4 11 0	to	6 17 0
Dry Cows	4 6 0	3 10 0	to	5 15 0	..	..		..
Stores	2 19 0	2 0 0	to	4 0 0	..	..		..
Fat Sheep.								
Wethers (cross)—								
Extra Prime.. ..	1 3 6	0 15 8	to	1 15 0	1 2 4	0 17 7	to	1 7 6
Prime	1 0 4	0 14 0	to	1 8 6	0 19 9	0 16 3	to	1 3 9
Good	0 17 4	0 12 6	to	1 4 0	0 17 7	0 14 9	to	1 1 6
Ewes (cross)—								
Extra Prime ..	0 19 11	0 12 10	to	1 11 3	0 19 10	0 15 6	to	1 5 3
Prime	0 16 10	0 11 0	to	1 5 0	0 17 3	0 14 0	to	1 1 0
Good	0 13 9	0 9 3	to	0 19 6	0 14 11	0 12 0	to	0 18 9
Wethers (merino)—								
Prime	0 18 3	0 13 0	to	1 6 7	0 18 9	0 14 6	to	1 2 3
Good	0 15 1	0 11 4	to	1 1 0	0 16 1	0 13 0	to	0 19 6
Ewes (merino) best ..	0 12 6	0 7 2	to	1 0 0	0 13 0	0 9 6	to	0 17 6
Fat Lambs.								
Extra Prime	0 16 6	0 11 7	to	1 2 1	0 17 3	0 13 6	to	0 19 7
Prime	0 13 10	0 10 4	to	0 17 6	0 15 1	0 12 0	to	0 17 0
Good	0 11 10	0 8 6	to	0 15 3	0 13 2	0 10 4	to	0 15 1
Second	0 9 1	0 6 4	to	0 12 0	0 11 4	0 8 9	to	0 13 1
Pigs.								
Back Fatters—								
Extra Heavy Prime ..	4 14 0	2 14 0	to	7 11 0	5 15 0	4 3 0	to	7 10 0
Extra Prime and Weighty	3 4 0	2 0 0	to	7 0 0	3 15 0	2 12 0	to	5 0 0
Baconers—								
Extra Prime.. ..	3 8 0	2 2 0	to	5 0 0	3 7 0	2 14 0	to	4 0 0
Prime	3 0 0	1 16 0	to	4 5 0	2 19 0	2 5 0	to	3 11 0
Porkers	1 12 0	0 17 0	to	2 7 0	2 1 0	1 8 0	to	2 11 0
Stores	1 0 0	0 10 0	to	1 18 0	1 10 0	0 15 0	to	2 1 0
Slips and Suckers ..	0 9 0	0 4 0	to	0 19 0	0 16 0	0 9 0	to	1 5 0

The average prices of fat lambs and back fatters were higher and those of horses and fat cattle were lower in 1913 than in the previous year. The range of prices indicates fluctuations in value during each year as well as 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: 1904 TO 1913.

Year.	Number Slaughtered.		
	Sheep and Lambs.	Cattle.	Pigs.
1904	2,305,729	243,937	191,311
1905	2,576,316	249,454	248,568
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

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

PURPOSES FOR WHICH STOCK WERE SLAUGHTERED: 1904 TO 1913.

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.
1904	1,843,896	242,276	67,302	459,963	720	3,200	1,095	699	120,758	775	242	51
1905	1,922,402	231,519	92,347	649,107	16,663	1,959	3,229	981	154,190	1,578	291	72
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

The striking increase in the number of sheep—a large proportion of which were lambs—slaughtered for freezing in recent periods shows the growing importance of the frozen meat trade of the State. Of the 4,742,231 sheep and lambs slaughtered in Victoria last year 2,107,180, or 44 per cent., were frozen, as compared with 459,963, or 20 per cent.,

in 1904. In 1913 the oversea exports included 34,751,112 lbs. of lamb and 48,019,621 lbs. of mutton, valued at £639,310 and £657,431 respectively, all of which, excepting about $1\frac{2}{3}$ per cent., was sent to the United Kingdom.

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, 1904 TO 1913.

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.	
1904	42,931	632,493	61,002,841	4,747,851	13,408
1905	46,757	649,100	57,606,821	4,297,359	15,710
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

Butter and cheese made on farms.

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

BUTTER AND CHEESE MADE ON FARMS.

Year.	Butter.	Cheese.
	lbs.	lbs.
1904	5,944,450	2,148,408
1905	5,332,182	1,849,412
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

Butter and cheese made in factories.

Of the total butter and cheese produced in 1913, 92 per cent. of the former and nearly 59 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.

Year.	Butter Made.	Cream Sold.	Cheese Made.	Concentrated, Condensed, &c., Milk Made.
	lbs.	gallons.	lbs.	lbs.
1904 ...	55,058,391	7,242	2,599,443	2,721,720
1905 ...	52,274,639	16,513	2,447,938	2,787,720
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

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, and 166,339,178 gallons in 1913.

Exports of butter and cheese.

In 1913 there were exported to countries outside Australia 31,462,989 lbs. of butter, valued at £1,681,987, all of which was Australian produce. Of this export, a quantity representing 90 per cent. of the value was sent to the United Kingdom. The quantity of cheese exported to oversea countries was 230,040 lbs., and the value thereof £6,260.

Wool production.

In the last nine years the information relating to the wool clip has been obtained direct from the growers, and an allowance has been made for the wool on Victorian skins, both stripped and exported. Previously, the wool production of the State was estimated from the Customs returns for the calendar year, but it is considered that under the present method the production of each particular season can be better distinguished.

VICTORIAN WOOL CLIP AND ESTIMATED TOTAL PRODUCTION FOR THE SEASON, 1913–14.

Districts.		Wool Clip, 1913-14.		
		Sheep	Lambs.	Total.
		lbs.	lbs.	lbs.
Central		5,381,379	432,851	5,814,230
North-Central		6,220,532	607,515	6,828,047
Western		26,925,601	1,971,040	28,896,641
Wimmera		12,734,462	843,069	13,577,531
Mallee		3,186,627	235,850	3,422,477
Northern		10,383,026	794,781	11,177,807
North-Eastern		4,566,757	494,097	5,060,854
Gippsland		4,759,548	489,485	5,249,033
Total Clip	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
	1905–6	58,919,314	5,258,557	64,177,871

—	1910-11.	1911-12.	1912-13.	1913-14.
	lbs.	lbs.	lbs.	lbs.
Wool clip	80,074,270	88,407,219	69,836,970	80,026,620
Wool stripped from Victorian skins (estimated)	7,450,158	7,520,490	18,925,642	26,807,070
Wool on Victorian skins exported (estimated) ...	14,279,216	14,535,332		
Total production ...	101,803,644	110,463,041	88,762,612	106,833,690
Total value ...	£4,318,100	£4,142,747	£3,751,083	£4,032,954

The wool produced last season was 20 per cent. more than in the previous season. This result was almost wholly due to a higher average clip.

Weight of a fleece. The next table shows the production of wool per sheep and per lamb shorn for each of the last six years :—

WEIGHT OF A FLEECE.

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

The average wool clips for sheep and lambs in 1913 were very satisfactory, and exceeded by 1·19 lbs. and ·15 lb. respectively 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 seven years were as follows :—

WOOL PRODUCTION: HOME CONSUMPTION AND EXPORTABLE BALANCE.

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

Wool production—Australian States. The value of wool produced in the various Australian States in 1911 and 1912 was as follows :—

	Value, 1911.		Value, 1912.
	£		£
Victoria	4,142,747	...	3,751,083
New South Wales	13,264,000	..	12,823,000
Queensland	5,580,000	..	5,589,200
South Australia	2,119,000	..	2,047,600
Western Australia	1,117,000	..	1,018,100
Tasmania	469,100	..	574,200

Prices of wool.

The following information as to the average prices of wool per lb. prevailing during the past three seasons has been extracted from Messrs. Goldsbrough, Mort, and Co.'s annual review :—

PRICES OF WOOL, 1911–12 TO 1913–14.

Class of Wool.	Average Value per lb. in—		
	1911–12.	1912–13.	1913–14.
GREASY MERINO.			
Extra Super (Western District)	15d. to 18½d.	15d. to 19¼d.	15d. to 20¼d.
Super	13½d. to 14½d.	14d. to 14¼d.	14d. to 14½d.
Good	11½d. to 12½d.	12½d to 13½d.	12½d. to 13½d.
Average	11d. to 12d.	12d. to 13d.	12d. to 13d.
Wasty and Inferior	6½d. to 7½d.	8d. to 9d.	8d. to 9d.
Extra Super Lambs	17½d. to 20½d.	20d. to 23d.	24d. to 29½d.
Super Lambs	14d. to 16d.	16d. to 18½d.	20d. to 24d.
Good Lambs	11d. to 13d.	12d. to 15d.	15d. to 18d.
Average Lambs	8d. to 9d.	9d. to 11d.	10d. to 12d.
Inferior Lambs	3d. to 4d.	4d. to 6d.	5d. to 7d.
GREASY CROSSBRED.			
Extra Super Comebacks	13½d. to 14½d	14½d. to 16d.	14d. to 15½d.
Super Comebacks	12d. to 13d.	13½d. to 14½d	13d. to 14½d.
Fine Crossbred	10½d. to 11½d	12d. to 13d.	12d. to 13d.
Medium Crossbred	8d. to 9d.	0d. to 11½d.	9½d. to 10½d.
Coarse Crossbred and Lincoln	6½d. to 7½d	8½d. to 9½d.	8d. to 9d.
Super Fine Crossbred Lambs	11½d. to 13d	13d. to 15d.	13d. to 15d.
Good Crossbred Lambs	10d. to 11½d	11½d. to 13d.	11d. to 13d.
Coarse and Lincoln Lambs	7½d. to 8½d.	9½d. to 10½d.	10d. to 11d.
SCOURED.			
Extra Super Fleece	22d. to 24¾d.	24d. to 26½d.	23d. to 25d.
Super Fleece	20d. to 21d.	22d. to 23½d.	21d. to 22½d.
Good Fleece	18d. to 19d.	20d. to 21½d.	19d. to 20½d.
Average Fleece	16d. to 17½d.	18d. to 19d.	18d. to 19d.
RECORD PRICES FOR THE SEASON.			
Greasy Merino Fleece	18½d.	19¼d.	20¼d.
" Comeback Fleece	14½d.	16d.	15½d.
" Merino Lambs	20½d.	23d.	29½d.
" Comeback Lambs	13d.	15d.	15d.
Scoured Fleece	24¾d.	26½d.	25d.

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 is 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 size 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 comparatively recent years shows that the number of large sheep-owners has substantially declined, while the number of those owning the smallest-sized flocks has 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 10·8 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, 1914, have been estimated as follows:—

SHEEP ACCORDING TO BREED, MARCH, 1914.

Breed of Sheep.	Number.
Merino	4,361,000
Comeback	2,786,000
Crossbred, coarse	1,575,000
,, Shropshire and Southdown	1,454,000
Lincoln	848,000
Shropshire	485,000
Other	604,682
Total	12,113,682

Lamb raising.

The export trade in frozen lamb is now recognised as one of the principal industries of the State. In 1892, 11,794 centals of beef and mutton, and in 1894, 111,715 centals of mutton, or some 250,000 carcasses, were exported, and thus in two years the trade had increased tenfold. For three or four years after the inception of the trade mutton was the chief export, but in 1896 the export of lambs commenced to be seriously viewed by graziers, and the trade in lambs has since grown to such an extent that even the most sanguine prophecies concerning it seem likely to be more than realized. In 1909, 941,309 carcasses—760,308 of lamb and 181,001 of mutton; in 1910, 1,573,516 carcasses—1,087,179 of lamb and 486,337 of mutton; in 1911, 1,578,132 carcasses—953,192 of lamb and 624,940 of mutton; in 1912, 1,409,243 carcasses—842,702 of lamb and 566,541 of mutton; and in 1913, 2,107,180 carcasses—1,159,018 of lamb and 948,162 of mutton—were frozen for export.

The soil and climate of Victoria are well suited to the economical production of both lamb and mutton, 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.

The demand in Europe and America for mutton and wool is constantly increasing, while the supplies of these commodities are relatively decreasing in consequence of the continuous growth and spread of population. Old lands whose territories are limited, and whose populations are vast and increasing, cannot find room to depasture the great flocks and herds necessary to meet their requirements, and so must look for supplies of meat and wool to newer lands where extensive grazing areas are available and where sheep will flourish. The possibilities for settlers in Victoria who may embark in the industry of raising lambs for export are unbounded. The industry is now well established, and it may be profitably combined with wheat-growing, as sheep keep fields free from weeds in addition to causing an enrichment of the soil.

The carrying capacity of a farm is increased by growing special fodder crops, but at the present time such crops are very limited, and stock are reared almost entirely on the natural pastures. If systematic efforts were made to grow fodder crops more extensively, stock-owners would not only materially augment their own incomes, but would also increase the resources and prosperity of the State. When the irrigation schemes of the Northern areas are completed, lucerne, rape, kale and turnips, which are the best fattening fodders for sheep, will, no doubt, be extensively grown in these areas, and a great impetus will thereby be given to the lamb raising industry.

There is no limit to the demand for meat in Europe, and the only real rival we have in oversea markets is the Argentine Republic, for there the seasons correspond with our own. Victoria is a State

peculiarly free from diseases that decimate flocks, and in this respect is in a much more fortunate position than the Argentine, where State assistance towards promoting prosperity and checking ravages of disease is not rendered to the same extent as in Victoria.

The possibilities, then, for farmers engaging in the trade of raising lambs in this State for export are very great, as the number of sheep all the world over is not keeping pace with the increase in population. Europe is now finding that it must largely depend on oversea countries for its meat supplies.

Raising lambs is a calling in which some knowledge of farm practice and the management of flocks is necessary to secure the best result, but settlers who take up this work will experience little difficulty, as the State officers are always prepared to give advice on any difficulties that may arise.

Pork. The breeding of pigs for export, either in the form of pork or bacon, if conducted on systematic lines, should prove a remunerative business. As an adjunct to dairying and general farm operations pig-breeding should be considered an inseparable factor. Pigs are the best agents to profitably use up the waste products of a farm, and separated milk and damaged grain can profitably be converted into pork. Too much stress cannot be put on the necessity of skim-milk being sterilized before being fed to pigs. Experiments, which have been confirmed by bacteriological examination, have clearly demonstrated the probability of the prevalence of tuberculosis in pigs in dairying districts being due to the feeding of pigs on slimes and unsterilized separated milk. Notwithstanding the incessant demand for pig products, farmers regard with some indifference this important branch of agriculture. There are only 221,277 pigs in the State at the present time, and this number could be enormously and advantageously increased, for there is a continuous demand in the old world for products of swine origin. It is estimated that in the principal countries of the world there are 157,000,000 pigs. During 1912 only 3,120 carcasses of pork were exported from Victoria, and in 1913 none were exported.

Beef and Veal. The rearing of milk herds is an important business in Victoria, for the production of milk is one of the staple industries, but the raising of beeves for export is not as yet a great undertaking in the State, although this industry is capable of being established in districts where water is plentiful and where special fodder crops can be advantageously grown. It is estimated that there are about 454,429,000 cattle in the civilized countries of the world, but the number being raised is not keeping pace with the increase of population, and therefore short supplies of beef in thickly-populated countries must inevitably occur. During 1913, there were exported from Victoria 7,287 carcasses of beef, and 5,050 carcasses of veal.

Live stock in Australia and New Zealand.

In the following statement are given the total number and the number per square mile of horses, cattle, sheep, and pigs in the various Australian States and New Zealand, according to returns dated March, 1914, in the cases of Victoria and Tasmania, and December, 1913, in the cases of New South Wales, Queensland, South Australia, and Western Australia. The returns for the Northern Territory are for December, 1912, and those for New Zealand sheep relate to April, 1914, but other stock were not enumerated so recently, and the figures given relate to April, 1911.

LIVE STOCK IN AUSTRALASIA, 1913.

State, etc.	Horses.	Cattle.		Sheep.	Pigs.
		Milch Cows.	Other.		
	Total Number.				
Victoria	562,331	656,080	872,473	12,113,682	221,277
New South Wales	746,377	833,393	2,003,408	39,842,518	288,162
Queensland ..	707,265	391,439	4,930,594	21,786,600	140,045
South Australia ..	283,641	107,879	245,026	5,073,057	64,119
The Northern Territory	18,382	..	405,552*	75,808	1,500
Western Australia..	156,636	30,680	803,585	4,421,375	47,966
Tasmania ..	43,941	59,380	146,363	1,745,356	37,990
New Zealand ..	404,284	633,733	1,386,438	24,798,763	348,754
	Number per Square Mile.				
Victoria	6·40	7·47	9·93	137·84	2·52
New South Wales	2·41	2·69	6·47	128·75	·93
Queensland ..	1·05	·58	7·35	32·49	·21
South Australia ..	·75	·28	·64	13·35	·17
The Northern Territory	·04	..	·77*	·15	·003
Western Australia..	·16	·03	·82	4·53	·05
Tasmania ..	1·68	2·27	5·58	66·58	1·45
New Zealand ..	3·87	6·07	13·29	239·41	3·34

* Including milch cows.

In 1913, as compared with the preceding year, the number of horses had increased in each State, except Tasmania; cattle had increased in Victoria, Queensland, Western Australia, and Tasmania; sheep had increased in Victoria, New South Wales, and Queensland; and pigs had decreased in each of the 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 394 sheep to the square mile; Victoria comes next with 306; then follow New South Wales with 208; Tasmania with 130; Queensland with 91; South Australia with 26; and Western Australia with 11; after which comes the Northern Territory with stock equivalent to 5 sheep to the square mile.

World's supply of sheep.

The following is a statement of the number of sheep in the world at the latest dates for which information is available. The figures, except those for Australia and New Zealand, are taken from the *Year-Book*, United States Department of Agriculture :—

NUMBER OF SHEEP IN THE WORLD, 1913.

	No. of Sheep.
United Kingdom	27,824,000
Other European countries	162,908,000
Total Europe	**190,732,000**
Australia and New Zealand	**109,857,000**
Asia	**109,477,000**
Africa	**53,054,000**
North America...	**56,008,000**
South America	**114,171,000**
Total	**633,299,000**

BEE FARMING.

The returns for 1913–14 show that there were in that year 5,643 bee-keepers, who owned 40,698 frame and 14,867 box hives, producing 1,706,022 lbs. and 255,724 lbs. of honey respectively, and 37,323 lbs. of beeswax. In 1912–13, there were 4,796 bee-keepers who owned 39,626 frame and 13,097 box hives, producing 3,087,506 lbs. and 190,084 lbs. of honey respectively, and 45,354 lbs. of beeswax. The more important particulars of the industry for the past ten years are as follows :—

BEE-FARMING, 1904–5 TO 1913–14.

Season ended May.	Number of Bee-farmers.	Number of Hives.	Honey produced.	Beeswax produced.
			lbs.	lbs.
1905	6,494	49,120	1,906,188	28,653
1906	5,300	41,780	1,209,144	21,844
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

A curious feature of this industry is the regularity with which the good and "off" seasons alternate, the cause being that the particular variety of eucalyptus from which the supplies of honey are chiefly drawn flowers only every other year. In the Wimmera, which is the

chief honey-producing district, the production of honey fell from 1,704,646 lbs. in 1912–13 to 691,263 lbs. in 1913–14, although the number of hives had increased from 17,073 to 17,789 in the same interval.

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 1913 was £1,706,700.

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

It appears from the above that there was an increase in the number of poultry-owners between 1901 and 1911, and, although geese and turkeys showed a slight decrease, there was an increase in fowls and ducks. The United Kingdom in the five years ended December, 1913, imported annually £8,096,552 worth of eggs, of which 46 per cent. was received from Russia, 24 per cent. from Denmark, $5\frac{3}{4}$ per cent. from Austria-Hungary, nearly 5 per cent. from Italy, $4\frac{1}{2}$ per cent. from France, $2\frac{3}{4}$ per cent. from Germany, $11\frac{3}{4}$ per cent. from other foreign countries, and only about $\frac{1}{20}$ per cent. from British countries. It also imported in those years an annual average of £899,643 worth of poultry, 99 per cent. of which was from foreign countries.

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, 1913, sums amounting to £624,612 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	1905–6	16,477
1889–90 to 1898–9 ...	208,638	1906–7	16,513
1899–1900	14,801	1907–8	17,585
1900–1... ...	15,817	1908–9	22,756
1901–2... ...	17,250	1909–10 ...	23,005
1902–3... ...	16,489	1910–11 ...	23,123
1903–4... ...	15,759	1911–12 ...	29,524
1904–5... ...	16,603	1912–13 ...	27,309

In addition to the expenditure of £624,612 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, and £54,061 in 1912–13 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, 1904 TO 1913.

Year.	Rabbits.	Hares.	Wild-fowl.
	pairs.	brace.	brace.
1904 ...	402,944	1,466	49,556
1905 ...	364,066	903	47,348
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

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 the last 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.	£
1904	4,045,036	125,038	2,402,575	74,063
1905	5,093,952	219,665	2,756,185	98,521
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	3,395,383	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

The value of the skins exported in 1913 represents an increase of 266 per cent. on the value of the exports in 1904.

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, 1913.

Fishing Stations.	Number of Men.	Boats.		Value of Nets and other Plant.
		Number.	Value.	
			£	£
Anderson's Inlet	6	5	74	95
Barwon Heads and Ocean Grove ..	8	5	615	74
Brighton	7	6	113	78
Corner Inlet, Welshpool, and Toora ..	45	43	1,942	538
Dromana	22	17	489	143
Echuca	4	4	11	36
Frankston	13	16	494	123
Geelong	60	34	1,454	654
Gippsland Lakes	208	192	10,580	5,615
Kerang	7	7	38	39
Lorne	4	2	34	22
Mentone	12	10	94	98

VICTORIAN FISHERIES—MEN AND BOATS EMPLOYED, 1913—*continued.*

Fishing Stations.	Number of Men.	Boats.		Value of Nets and other Plant.
		Number.	Value.	
			£	£
Mordialloc	19	16	359	211
Mornington	25	23	937	446
Nathalia	1	1	3	..
Portarlington and St. Leonards ..	46	29	806	416
Portland	45	27	2,343	455
Port Albert	43	28	1,895	600
Port Fairy	38	24	2,518	453
Port Melbourne	38	23	997	574
Queenscliff	130	65	6,475	87
Sandringham	15	13	625	153
Sorrento, Portsea, and Rye ..	14	9	770	501
St. Kilda	10	5	60	117
Swan Hill	1	4	20	36
Warrnambool	4	3	130	70
Western Port (Cowes, Hastings, Grantville, Flinders, San Remo, and Tooradin)	115	89	4,553	1,146
Williamstown	28	17	634	139
Total	968	717	39,063	12,919

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

FISH SOLD IN THE MELBOURNE FISH MARKET, 1912 AND 1913.

	1912.		1913.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Fresh Fish (Victorian) lbs.	9,289,826	73,544	10,115,912	84,299
Crayfish (Victorian) doz.	35,714	10,714	33,995	10,623
Imported Fish (fresh or frozen) .. .. lbs.	2,359,270	43,253	2,040,720	36,053
Oysters .. .. bags	16,934	26,489	16,261	25,408
Total	..	154,000	..	156,383

In addition to the above, 4,866 cwt. of smoked fish, and 281 baskets of prawns were sold in this market in 1913.

Victorian Fish sold. The quantity and value of fish caught in Victorian waters and sold in the Melbourne and Ballarat markets and elsewhere in 1913 were as follows :—

VICTORIAN FISH SOLD IN 1913.

Markets.	Quantity.		Value.	
	Fish.	Crayfish.	Fish.	Crayfish.
	lbs.	doz.	£	£
Melbourne	10,115,912	33,995	84,299	10,623
Ballarat	490,784	2,196	3,127	584
Other	178,954	1,164	1,492	364
Total	10,785,650	37,355	88,918	11,571

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 1913 are appended :—

FISH IMPORTED, 1909 AND 1913.

—	1909.—Interstate.		1909.—Oversea.		1913.—Oversea.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fish—		£		£		£
Fresh or Frozen lbs.	1,772,999	22,720	758,545	11,076	1,243,056	21,979
Smoked .. „	127,016	662	99,793	3,322	71,817	2,359
Fresh Oysters cwt.	16,941	8,529	7,935	4,145	7,759	4,803
Potted, &c. ..	...	41	...	4,559	...	7,176
Preserved in tins, &c. .. lbs.	117,177	3,266	4,823,366	116,931	5,555,436	159,509
N.E.I. .. cwt.	214	356	5,815	9,434	4,737	8,585
Total ..	..	35,574	...	149,467	...	204,411

The most important item in this table is fish preserved in tins and other air-tight vessels, of which 4,599,872 lbs., or 83 per cent. of the imports from oversea countries, came from the United Kingdom, the United States, and Canada in 1913.

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 the consumption of many articles which could be supplied from this State and would give very profitable employment. The magnitude of the importations by the United Kingdom of certain

articles that can be profitably produced here is revealed by the particulars given in the table which follows. The figures, which are taken from the United Kingdom Board of Trade returns, represent the trade in 1912 and 1913 and the average annual imports for each of the five-year periods 1902 to 1906 and 1907 to 1911.

AVERAGE ANNUAL IMPORTS INTO THE UNITED KINGDOM, 1902-6, 1907-11, 1912, AND 1913.

Articles.	Period.	Annual Value of Imports into United Kingdom from—			
		Australia.	Other British Possessions.	Foreign Countries.	All Countries.
		£	£	£	£
Butter.. ..	1902–6	1,712,956	2,472,530	17,312,389	21,497,875
	1907–11	3,097,212	1,765,365	18,740,997	23,603,574
	1912	3,225,886	2,153,504	18,974,803	24,354,193
	1913	3,210,733	1,360,122	19,512,803	24,083,658
Cheese.. ..	1902–6	..	4,978,094	1,673,493	6,651,587
	1907–11	12,448	5,595,337	1,266,113	6,873,898
	1912	4,903	6,230,681	1,178,507	7,414,091
	1913	24,568	5,724,099	1,286,372	7,035,039
Eggs	1902–6	..	157,774	6,555,769	6,713,543
	1907–11	..	20,600	7,342,655	7,363,255
	1912	..	2,724	8,391,800	8,394,524
	1913	..	1,949	9,588,653	9,590,602
Meats	1902–6	1,429,209	6,863,373	30,711,627	39,004,209
	1907–11	3,471,839	6,607,903	32,736,164	42,815,906
	1912	4,317,329	6,689,969	36,130,514	47,137,812
	1913	7,086,337	6,832,634	41,390,387	55,309,358
Poultry and Game	1902–6	3,166	29,041	1,060,502	1,092,709
	1907–11	9,553	11,660	994,356	1,015,569
	1912	..	16,669	918,327	934,969
	1913	..	7,422	1,104,568	1,111,099
Fruit — Fresh, Dried, and Preserved	1902–6	266,617	1,252,458	11,902,119	13,421,194
	1907–11	384,980	1,434,343	12,611,445	14,430,768
	1912	500,341	1,339,238	13,604,752	15,444,331
	1913	340,525	1,355,129	13,870,325	15,565,979
Sugar	1902–6	..	965,979	16,076,546	17,042,525
	1907–11	2,608	1,604,791	20,786,705	22,394,104
	1912	13,167	1,595,519	23,540,975	25,149,661
	1913	..	930,933	22,135,688	23,066,621
Flax and Hemp..	1902–6	..	1,002,294	6,434,494	7,436,788
	1907–11	..	805,505	6,402,596	7,208,101
	1912	..	802,982	8,202,693	9,005,675
	1913	..	1,235,737	8,251,204	9,486,941
Maize	1902–6	..	702,006	10,784,652	11,486,658
	1907–11	..	676,792	10,947,788	11,624,580
	1912	..	774,181	12,819,035	13,593,216
	1913	..	175,455	13,594,338	13,769,793
Wheat ..	1902–6	2,373,506	9,055,721	20,419,283	31,848,510
	1907–11	4,343,622	12,772,819	23,680,500	40,796,941
	1912	5,334,878	19,913,847	21,196,507	46,445,232
	1913	4,426,629	16,825,711	22,596,833	43,849,173

AVERAGE ANNUAL IMPORTS INTO THE UNITED KINGDOM, 1902-6, 1907-11, 1912, AND 1913—*continued.*

Articles.	Period.	Annual Value of Imports into United Kingdom from—			
		Australia.	Other British Possessions.	Foreign Countries.	All Countries.
		£	£	£	£
Wheatmeal and Flour ..	1902–6	230,520	945,335	6,578,130	7,753,985
	1907–11	191,694	1,220,634	4,773,220	6,185,548
	1912	368,648	2,223,124	2,926,732	5,518,504
	1913	188,218	2,262,408	3,897,145	6,347,771
Wine	1902–6	117,010	19,185	4,213,525	4,349,720
	1907–11	134,364	24,883	3,774,371	3,933,618
	1912	113,282	38,525	4,135,619	4,287,426
	1913	106,617	40,588	3,930,938	4,078,143
Leather ..	1902–6	401,190	2,515,675	5,473,448	8,390,313
	1907–11	402,231	2,904,885	6,152,809	9,459,925
	1912	435,741	3,336,277	7,953,668	11,725,686
	1913	417,000	3,381,045	6,774,055	10,572,100
Skins, Furs, and Hides ..	1902–6	935,296	2,877,271	4,998,422	8,810,991
	1907–11	1,766,625	3,685,330	7,746,724	13,198,679
	1912	2,161,812	4,789,606	8,230,703	15,182,121
	1913	2,505,443	5,522,271	8,601,019	16,628,733
Tallow and Stearine ..	1902–6	667,477	550,351	1,204,424	2,422,252
	1907–11	1,306,817	717,578	1,544,062	3,568,457
	1912	1,374,541	744,118	1,461,445	3,580,104
	1913	1,557,338	746,713	1,071,021	3,375,072
Wool (Sheep and Lambs) ..	1902–6	10,061,820	8,603,913	3,710,411	22,376,153
	1907–11	14,091,340	12,482,592	5,299,274	31,873,206
	1912	12,589,003	14,019,416	6,626,596	33,235,015
	1913	12,301,380	15,163,831	6,760,892	34,226,103

The requirements of the United Kingdom as regards the sixteen articles specified were met by foreign countries to the extent of 71 per cent. during 1902-6, of 67 per cent. during 1907-11, of 65 per cent. in 1912, and of 66 per cent. in 1913. Only 9 per cent. of such requirements during the period 1902-6, 12 per cent. during the period 1907-11, and about 11 per cent. in 1912 and in 1913 were provided by Australia, where bountiful soils and a salubrious climate, especially in Victoria, give an opportunity of doing much more in the supply of butter, meats, fruits, breadstuffs, &c. That it requires only increased population to enormously swell the output of primary products is apparent if a comparison be made with Great Britain, which is of equal size and less favoured generally by climate.

Agriculture in Victoria and Great Britain.

The figures for 1913 relating to agriculture and live stock in Victoria and Great Britain are for comparative purposes placed side by side in the table which follows :—

AGRICULTURE AND LIVE STOCK IN VICTORIA AND GREAT BRITAIN, 1913.

—		Victoria.	Great Britain.
Area	acres	56,245,760	56,208,959
Wheat produced	bushels	32,936,245	55,401,144
Oats produced	"	8,890,321	111,043,648
Barley produced	"	1,812,890	57,948,520
Peas produced	"	206,846	3,379,024
Potatoes produced	tons	176,602	3,865,458
Turnips and swedes produced	"	3,166*	20,130,225
Mangolds produced	"	15,642	7,647,615
Hay produced	"	1,350,374	9,999,379
Horses	No.	562,331	1,606,587
Cattle	"	1,528,553	6,963,854
Sheep	"	12,113,682	23,931,412
Pigs	"	221,277	2,233,855

* Includes beet, carrots, and parsnips.

It should be possible in Victoria to have as great a production from agriculture and to maintain as many live stock as in Great Britain.

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 5s. 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 1913-14 from miners' rights was £2,979.

Mining Leases.

Leases for the purposes of mining for gold or other metals or minerals on Crown lands are also granted for a term not exceeding fifteen years at a yearly rental of 5s. per acre. The revenue from this source in 1913-14 was £10,080.

Area occupied for mining. The area of Crown and private lands under occupation for mining purposes at 31st December, 1913, was 123,320 acres. The succeeding table shows the area being worked for different minerals :—

AREA UNDER OCCUPATION FOR MINING PURPOSES, 31ST DECEMBER, 1913 (CROWN LANDS AND PRIVATE LAND).

Nature of Mineral, &c.	Area.
	Acres.
Gold	103,978
Coal (ordinary)	5,483
Coal (brown)	2,685
Antimony	170
Clay Slum	181
Copper	215
Gypsum	588
Infusorial Earth	50
Iron	1,255
Kaolin	65
Lime	40
Magnesite	114
Manganese	2,152
Marble	127
Oil	22
Pigments and Clay	33
Pigments and Limestone	89
Pigments and Oil	133
Porphyry	12
Quicksilver	55
Silicate of Alumina	50
Silver, Bismuth, Wolfram, and Phosphates	79
Slate	14
Tin	4,156
Water-right Licences	1,574
Total	123,320

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 £421,021 (including £149,999 expended on the State Coal Mine), and the surplus revenues of past years amounting to £82,340, have been expended or advanced for developmental purposes since 1st July, 1904.

STATE EXPENDITURE ON MINING: 1908-9 TO 1912-13.

—	1908-9.	1909-10.	1910-11.	1911-12.	1912-13.
	Expenditure from Consolidated Revenue.				
	£	£	£	£	£
Mining Department	24,910	25,795	25,738	25,980	25,272
State Coal Mine	...	46,695	152,573	189,049	170,884
Coal Mines Regulation—Sinking Fund and Depreciation Fund ...	...	...	15,575	6,046	40,918
Victorian coal—Allowance to Railway Department on carriage of	7,419	11,093	7,098	10,018	11,503
Diamond drills for prospecting ...	11,805	15,978	17,124	16,938	15,756
Testing plants	2,203	3,846	3,793	3,374	3,368
Geological and underground surveys of mines	5,628	6,014	5,941	6,354	6,357
Mining Development—					
Advances to companies, &c., boring for gold, coal, &c. ...	19,465	24,641	15,421	6,850	12,608
Miscellaneous	8,094	10,013	4,619	4,170	3,576
	79,524	144,075	247,882	268,779	290,242
	Expenditure from Surplus Revenue.				
Mining Development—					
Advances to companies, &c., boring for gold, coal, &c. ...	19,357	5,001	2,095	737	830
	Expenditure from Loan Moneys.				
State Coal Mine	...	35,906	65,278	48,369	446
Total	98,881	184,982	315,255	317,885	291,518

Yearly grants are also made to Schools of Mines, particulars of which will be found on page 488 of this work. Since 1st July, 1896, £421,021 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

LOAN MONEY EXPENDED ON MINING DEVELOPMENT—*continued.*

	£
Advances to miners for prospecting	27,839
Purchase of cyanide process patent rights	20,000
Equipping Schools of Mines with mining appliances ..	9,975
State Coal Mine	149,999
Miscellaneous	9,740
Total	421,021

The advances from loan moneys and revenue to mining companies to 30th June, 1913, for the development of mining totalled £155,414, of which sum £21,837 had up to that date been repaid, £26,519 realized, and £67,755 written off, leaving £39,303 outstanding. Interest received during 1912-13 amounted to £415 and interest outstanding on 30th June, 1913, to £1,447. Advances to miners for prospecting amounted to £58,764 at 30th June, 1913, of which sum only £2,455 had been repaid at that date.

Total mineral production. The mineral production of the State is summarized in the succeeding statement, which contains particulars of the recorded production of all metals and minerals up to the end of the year 1913.

TOTAL MINERAL PRODUCTION TO 31ST DECEMBER, 1913.

Metals and Minerals.	Recorded prior to 1913.		Recorded during 1913.		Total Recorded to end of 1913.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Fine.		Fine.		Fine.	
	ozs.	£	ozs.	£	ozs.	£
Gold	68,672,868	291,703,453	434,932	1,847,475	69,107,800	293,550,928
Silver ..	1,360,252	206,359	16,152*	2,010	1,376,404*	208,369
Platinum ..	30,058	7,816	519	64	30,577	7,880
	184	989	127	682	311	1,671
	tons		tons		tons	
Coal, black ..	4,667,052	2,436,017	593,912	274,371	5,260,964	2,710,388
,, brown ..	73,185	26,374	2,984	569	76,169	26,943
Ore—copper ..	18,694	215,761	36	2,829	18,730	218,590
,, tin ..	15,715	782,680	57	6,959	15,772	789,639
,, antimony ..	37,896	240,874	6,151	31,424	44,047	272,298
,, silver-lead ..	793	5,760	..	..	793	5,760
,, iron ..	5,434	12,540	..	..	5,434	12,540
,, manganese ..	45	212	..	..	45	212
Wolfram ..	65	5,659	½	60	65½	5,719
Diamonds ..	..	128	..	..	..	128
Sapphires, &c. ..	..	630	..	..	..	630
Gypsum ..	21,198	14,473	1,676	2,363	22,874	16,836
Magnesite ..	383	1,143	104	366	487	1,509
Kaolin	5,535	11,366	1,518	1,730	7,053	13,096
Diatomaceous earth	4,743	19,352	150	575	4,893	19,927
Pigment clays ..	81	106	..	..	81	106
Bluestone, Freestone, Granite, &c.† .. Limestone, &c.‡ ..	..	4,167,057	..	173,267	..	4,340,324
Total ..	..	299,858,749	..	2,344,744	..	302,203,493

* 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 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 1913 is, as shown in the preceding statement, £293,550,928. This sum is based on the average value of Victorian gold received at the Melbourne Mint, which in 1913 averaged £3 19s. 3d. 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 1913.

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	10,156,297	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	73,549	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	477,812
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 ..	570,382	188,357	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	427,885
1912 ..	480,131	165,295	347,946	6,592	1,232,658	37,973	7,811	310,963
1913 ..	434,932	149,657	265,735	6,545	1,314,043	33,400	3,119	343,595

* Included with South Australia.

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 thirteen years 1901-1913, the Australasian production amounted to over 46⅓ million ounces (fine) to which Western Australia contributed 21¾ million ounces. The Victorian yield in the same period amounted to 8½ million ounces and it has been on the down grade since 1907, the yield for 1913 being the lowest for the State since 1851.

World's production of gold, 1912.

The production of gold in the principal countries of the world in 1912 is estimated to have been as follows :—

PRINCIPAL GOLD-PRODUCING COUNTRIES: 1912.

Country.	Gold.	
	Ounces—Fine.	Value.
		£
Africa	10,248,300	43,532,400
Australasia	2,639,400	11,200,900
Austria-Hungary	98,800	419,800
British India	534,800	2,271,800
Canada	611,900	2,599,200
Germany	3,800	16,000
Japan	216,100	917,900
Mexico	1,185,200	5,034,400
Peru	23,800	101,100
Russia	1,073,900	4,561,600
United States	4,520,700	19,203,000
Other Countries	1,395,100	5,926,600
Total	22,551,800	95,784,700

World's production of gold and silver since 1860.

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.

Year.	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	52,764,400	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

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 figures are gross ounces and for the year 1912 fall short of the total production of the State by 10,936 ounces; for 1913 they exceed the total output by 4,232 ounces.

DISTRICT YIELDS OF GOLD, ALLUVIAL AND QUARTZ, 1912 AND 1913.

Mining District.	1912.			1913.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
Ararat and Stawell ...	11,438	8,104	19,542	28,574	6,999	35,573
Ballarat	11,034	53,315	64,349	10,293	46,307	56,600
Beechworth	70,493	15,252	85,745	58,439	15,279	73,718
Bendigo	2,812	169,204	172,016	3,310	161,963	165,273
Castlemaine	11,268	61,278	72,546	12,666	60,581	73,247
Gippsland	6,497	16,418	22,915	6,312	13,977	20,289
Maryborough ...	42,486	25,720	68,206	30,305	16,279	46,584
Total	156,028	349,291	505,319	149,899	321,385	471,284

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, 1909 TO 1913.

Mining District.	Amount Distributed.				
	1909.	1910.	1911.	1912.	1913.
	£	£	£	£	£
Ararat and Stawell	5,275	22,519	19,781	2,637	40,550
Ballarat	47,863	32,217	22,896	6,850	19,767
Beechworth	54,114	46,551	43,187	38,627	27,324
Bendigo	159,273	99,421	123,158	113,189	133,744
Castlemaine	48,225	55,619	53,462	41,937	46,414
Gippsland	6,960	6,600	2,250	675	650
Maryborough	17,500	15,000	20,950	12,867	5,750
Total	339,210	277,927	285,684	216,782	274,199

By comparison with 1912 the amount declared in 1913 shows an increase of 26 per cent.

Depth of gold mines.

On 31st December, 1913, there were 15 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; Victoria Consols, 3,114 feet; New Chum Consolidated, 3,099 feet; Eureka Extended, 3,060 feet; Princess Dagmar, 3,020 feet; and Johnson's Reef No. 2, 3,020 feet. The total number of shafts over 2,000 feet in depth at Bendigo is 53.

The following are 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 ten years ended with 1913 are appended:—

NUMBER OF MEN EMPLOYED IN GOLD MINING, 1904 TO 1913.

Year.	Alluvial Miners.	Quartz Miners.	Total.
1904	10,405	13,926	24,331
1905	11,403	13,966	25,369
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

The number of men employed in each mining district in 1913 was as follows:—Ararat and Stawell, 812; Ballarat, 1,697; Bendigo, 3,342; Beechworth, 2,210; Castlemaine, 1,756; Gippsland, 648; and Maryborough, 1,466.

Value of machinery on gold-fields.

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

VALUE OF MACHINERY ON GOLD-FIELDS, 1909 TO 1913.

Year.	Approximate Value of Machinery Employed in—		
	Alluvial Mining.	Quartz Mining.	Total.
	£	£	£
1909	850,311	1,643,072	2,493,383
1910	803,636	1,621,972	2,425,608
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

Of the machinery used in connexion with alluvial mining in 1913, dredging plants were valued at £365,240, and hydraulic sluicing plants at £20,925.

Dredge mining.

A feature of alluvial mining in Victoria for the last fourteen years has been the treatment in bulk of low-grade auriferous alluvial deposits, and their overburden by bucket dredges and by pump hydraulic sluicing plants on barges. The following table shows the total area of agricultural and of pastoral lands, of river and creek beds, and of old mining ground treated by dredge mining and sluicing operations since the commencement of the year 1900 :—

LANDS WORKED BY GOLD-DREDGING PLANTS.

Year.	Class and Area of Land Worked.			
	Agricultural Land.	Pastoral Land.	River and Creek Beds and Old Worked Ground.	Total.
	Acres.	Acres.	Acres.	Acres.
1900–1902	*	*	*	455
1903–1908	59	536	2,680	3,275
1909	12	175	566	753
1910	31	136	537	704
1911	48	181	477	706
1912	20	159	497	676
1913	29	140·6	395	564·6
Total	199	1,327·6	5,152	7,133·6

* No record.

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. The number of bucket dredges at work in 1913 was 51, and the number of pump hydraulic sluices 26, in addition to which fifteen jet elevators and five 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.
1909	123	745	20,173,018	88,969	70
1910	113	704	20,004,967	88,319	20
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

These plants employed 1,130 men in 1913, and paid £124,927 in wages. The yield of gold per cubic yard of material was 1·9 grains in 1913 as against 1·8 grains in the previous year.

Gold nuggets. The alluvial gold-fields of Victoria have been prolific in nuggets. The five largest nuggets found are—

Name.	Locality.	Gross Weight.	Depth at which found.
		ozs.	
The Welcome Stranger ..	Moliagul	2,520	1 inch
The Welcome	Ballarat	2,217	180 feet
The Blanche Barkly ..	Kingower	1,743	13 „
The Precious	Rheola	1,717	12 „
The Canadian	Ballarat	1,619	60 „

Of the nuggets recorded, twelve exceeded 1,000 ounces each, 53 exceeded 500 ounces each, and 412 were over 100 ounces each. Many have been found close to the surface, and others were mined at depths down to 400 feet in the deep leads. Some have been solid lumps of gold, while others were associated with ferruginous material and quartz.

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 succeeding table :—

CYANIDATION.

Year.	Number of Plants.	Quantity of Tailings Treated.	Yield of Gold.	Value of Yield.
		tons.	ozs.	£
1909	311	1,257,338	75,429	267,431
1910	305	1,177,232	68,583	250,398
1911	248	1,102,956	59,986	215,411
1912	209	881,306	55,470	200,277
1913	207	692,256	45,397	163,371

Records show that the total amount of tailings which have been treated by the cyanide and other processes is 14,500,000 tons, and that the gold that has been won thereby amounts to 1,166,000 ounces, which is equal to an average yield of 1 dwt. 15 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.	£
1909	23	3,068	1,566	1,706
1910	23	2,827	2,349	2,141
1911	24	2,723	2,013	3,036
1912	25	2,887	2,491	2,418
1913	26	2,742	2,127	2,503

Since 1897, the year in which the first battery was erected, 44,426 tons of ore have been crushed for 28,943 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 1913 was only 3,000 tons, and the total output for all years has been only 76,000 tons.

The State coal-field. The State coal mine is 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, and boring has proved that about 28,000,000 tons of coal exist in the central area of 5 square miles. The output of coal for the year 1913 was 462,558 tons, valued at £208,186. The average number of men employed at the mine throughout the year ended 30th June, 1913, was 939, and comprised 468 coal miners, 90 wheelers, 160 others below ground, and 221 surface men. The mine worked 260 days during the year, and the earnings of the miners averaged 13s. 5½d. per day after deducting the cost of explosives and lights. The net profit from the working of the mine to the date 30th June, 1913, after making provision for working expenses, interest charges, and the full estimated amount of depreciation, was £11,006. This profit has been arrived at after repaying to the Consolidated Revenue the amount of £21,834—the extra cost of the emergency work at the commencement of the mine.

Coal production. The quantity of coal raised in Victoria in each year or group of years since its first production is set forth in the following statement :—

COAL RAISED IN VICTORIA TO 31ST DECEMBER, 1913.

Year.	Tons.
Prior to 1876	9,640
From 1876 to 31st December, 1890 ...	64,625
From 1891 to 31st December, 1900 ...	1,719,778
1901	209,479
1902	225,164
1903	69,861
1904	121,742
1905	155,186
1906	160,631
1907	138,634
1908	113,962
1909	128,673
1910	369,709
1911	659,998
1912	593,155
1913	596,896
Total	5,337,133

These particulars include brown coal and lignite, amounting in the aggregate to 76,169 tons.

Coal produced in Australasia.

The quantity of coal raised in the various States and in New Zealand from the date of the earliest records is given below. There is no record of any coal mining having been done in South Australia.

COAL PRODUCED IN AUSTRALASIA.

Year.	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

Coal production of the world.

The total known coal production of the world (exclusive of brown coal and lignite) in 1912 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 5⅝	−5,001,000	145,412
Russian Empire	25,998,000†	10 4‡	+5,721,000†	169,079‖
United Kingdom	260,416,000	9 0⅝	−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 1907. ‖ Figures for 1909.

Wages of miners. The following is a list of the wages paid to gold and coal miners in Victoria :—

WAGES OF MINERS.

Occupations.	Range of Weekly Wages.															
	Gold Mining.							Coal Mining.								
		£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
Mine Managers ..	From	3	0	0	to	10	0	0	From	3	15	0	to	9	0	0
Miners	„	2	5	0	„	3	15	0	„	3	0	0	„	3	15	0
Surface men ..	„	2	2	0	„	2	14	0	„	2	5	0	„	2	10	0
Foremen of shifts ..	„	2	10	0	„	3	10	0	„	3	0	0		4	10	0
Pitmen	„	2	10	0	„	3	0	0		..				..		
Blacksmiths ..	„	2	10	0	„	3	10	0	From	3	0	0	„	3	6	0
Carpenters	„	2	10	0	„	4	0	0	„	2	11	0	„	3	9	0
Engine-drivers ..	„	2	14	0	„	3	15	0	„	3	0	0	„	3	6	0
Engineers	„	3	0	0	„	6	0	0	„	4	0	0	„	7	0	0
Machine men ..			--				--		„	3	6	0	„	3	15	0
Wheelers			--				--		„	2	10	0	„	2	13	0
Timbermen			..				--			3	0	0			--	
Labourers (under-ground)			..				..			2	9	0			..	
Boys	From	1	0	0	to	2	0	0	From	0	18	0	to	1	10	0

The wages of miners in coal mines are contract rates. As stated on page 748, the earnings of the miners in the State coal mine averaged 13s. 5½d. per day after deducting the cost of explosives and lights.

Mining accidents. The number of fatal and non-fatal accidents that have happened in gold and coal mines during the last ten years is as shown below. Since 1905 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.
1904	24,331	17	93	589	2	12
1905	25,369	20	81	640	2	16
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

In the last twenty years the average annual number of men employed in gold mining was 24,400, and the average yearly number of accidents 105, 27 persons per annum being killed, and 85 injured, or 1·12 and 3·54 respectively per thousand employed. In coal mining during the twenty-five years, 1889–1913, accidents were responsible for 38 persons being killed and 204 being injured.

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.	Oil.	Gold.	Coal.	Copper.	Total.	
							feet.
1909	6	7	64	51	10	125	28,048
1910	6	7	25	113	..	138	44,417
1911	6	7	31	97	..	128	45,834
1912	6	7	8	94	..	102	37,738
1913	6	7	58	55	..	113	39,185

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

QUARRIES : 1909 TO 1913.

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.	£
1909 ...	86	525,555	370	838	55,134	88,610
1910 ...	81	636,029	5,469	345	58,274	114,955
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

In 1913 the number of persons employed in the quarries at work was 1,204, and the wages paid amounted to £132,900. These figures include the employés 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. Since Federation the development has been very marked and particulars thereof are set forth in the tables which appear in the following pages. The succeeding table summarizes the position of the industry at various stages during the past sixty years, but 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.
			£	£	£
1851	83	*	*	*	*
1861	531	4,395	*	*	*
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

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

Factories Acts.

The first Factories Act in Victoria was passed in 1873, but this was superseded by a more thorough statute passed in 1885, and an amending Act passed in 1887. These Acts were consolidated in 1890 and the consolidated Act was repealed by Act No. 1333 in 1893. This Act was in turn repealed by Act No. 1445 in 1896, and amending Acts were passed in 1896, 1897, 1898, 1899–1900, 1903, and 1904. In 1905 the Factories and Shops Acts were again consolidated in Acts No. 1975 and 2008. Subsequently Acts were passed in 1907, 1909 (1st and 2nd Sessions), and 1910, and in 1912 a third consolidation took place. The consolidated Act provides for the registration and inspection of all factories and their cleanliness, ventilation, and safety. Stipulations are made in regard to the working hours of employés and their wages. The employment of

children in factories is forbidden, and where persons under 16 years of age are employed, certain conditions are imposed and the fitness for employment of such persons must be duly certified to. This Act confirms the appointment of existing wages boards and provides for the appointment of similar boards "to determine the lowest prices or rates which may be paid to any person . . . . employed anywhere in Victoria (whether in a factory or not) in any process, trade, business, or occupation" and states their powers and functions, &c.

Wages Boards.

The wages board system of fixing wages had its origin in Victoria, having been introduced by the Factories Act of 1896 (No. 1445). These boards are composed of equal numbers of employers and employés, who are selected by their compeers in the particular trade for which the Board is constituted. An application for a Wages Board in any trade which is not under the system can be made by a trades' union or by a meeting of employés, and if the Minister of Labour is satisfied that good reasons exist for the constitution of such a board, he submits the question to Parliament, and invariably the Board is appointed. At their first meeting the members of these Boards appoint a neutral chairman, whose duty it is to conduct the proceedings of the Board, and to vote only when the parties are equally divided on any question. When a Board arrives at a determination it forwards the same to the Minister of Labour, by whom it is gazetted and it thereupon becomes law. If either employers or employés are dissatisfied with the provisions of a determination they can appeal to the Court of Industrial Appeals, which then has power to alter any part thereof. It is claimed for the Wages Boards system that it brings employer and employé together on equal terms; that it provides every facility to workers of gaining for themselves a fair living wage; and that it further admits of the adjustment of conditions to circumstances as occasion demands without expense to the worker. In the latter connexion it may be stated that the Boards meet whenever required and alter their determinations as necessity requires.

In cases of old, infirm, and slow workers, who are unable to come up to the standard created by the fixing of a minimum wage, the Act provides for the issue of licences permitting such persons to work for a lower rate than that fixed by a Wages Board.

The subject of Wages Boards is more fully dealt with in Part "Social Condition" of this work.

Classification of factories.

In the year 1902 the classification of factories for statistical purposes was determined in accordance with the nature of the industries by the Statisticians of Australia in conference. 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 following statement shows the classification adopted :—

CLASSIFICATION OF MANUFACTURING INDUSTRIES.

Class I.—Treating Raw Materials, Product of Pastoral Pursuits, &c.
Boiling-down.
Bone-milling.
Tanning.
Fellmongering.
Bark milling.
Chaff cutting, &c.

Class II.—Treating Oils and Fats, Animal and Vegetable.
Oil, grease, and glue.
Soap and candle.

Class III.—Processes in Stone, Clay, Glass, &c.
Brick, pottery, earthenware.
Cement and cement pipes.
Lime.
Glass bottle, &c.
Glass bevelling.
Marble and stone dressing.
Modelling, &c.

Class IV.—Working in Wood.
Cooperage.
Cork cutting.
Forest saw mills.
Joinery and moulding mills.
Wood-turning, &c.

Class V.—Metal Works, Machinery, &c.
Agricultural implements.
Engineering, iron foundries.
Cutlery.
Nail.
Sheet-iron working.
Oven.
Pattern making.
Brass, copper smithing.
Wire working.
Cyanide works.

Class VI.—Connected with Food and Drink, &c.
Bacon curing.
Butter and cheese factories.
Meat preserving.
Biscuit.
Flour.
Jam, pickle, sauce.
Oatmeal, maizena, starch, &c.
Confectionery.
Aerated waters, cordials, &c.
Malting.
Breweries.

Class VI.—continued.
Distilleries.
Condiments, coffee, spices, &c.
Ice.
Tobacco, cigars, &c.

Class VII.—Clothing and Textile Fabrics.
Woollen mills.
Clothing, tailoring.
Dressmaking, millinery.
Underclothing.
Hats and caps.
Hosiery.
Waterproof clothing.
Boots and shoes.
Furriers.
Umbrellas.
Dye works.
Rope and twines.
Tent and tarpaulins.
Bags and sacks.

Class VIII.—Books, Paper, Printing, &c.
Printing and binding.
Stationery.
Rubber stamp, &c.
Ink.
Paper.
Fancy box.
Die sinking, engraving, &c.

Class IX.—Musical Instruments.
Organ and pianoforte.

Class X.—Arms and Explosives.
Ammunition.

Class XI.—Vehicles, Saddlery, Harness, &c.
Coach and waggon building.
Cycle.
Saddlery, harness, &c.

Class XII.—Ship and Boat Building, &c.
Ship and boat building.
Docks and slips.

Class XIII.—Furniture, Bedding, &c.
Upholstery.
Bedding and Flock.
Bedstead.
Furniture and cabinet making.
Picture frame.
Venetian blind.

CLASSIFICATION OF MANUFACTURING INDUSTRIES—*continued.*

Class XIV.—Drugs, Chemicals, and By-products.
Chemicals, drugs, &c.
Essential oil.
Blacking, blue.
Paint and varnish.

Class XV.—Surgical and Scientific Appliances.
Surgical, optical, and other scientific instruments.

Class XVI.—Jewellery, Time-pieces, &c.
Jewellery, &c.
Electro-plating.

Class XVII.—Heat, Light, and Power.
Electric apparatus.
Electric light and power.
Gas and coke.
Match.
Hydraulic power.

Class XVIII.—Leatherware, N.E.I.
Fancy leather, leather belting, leather bag, &c.

Class XIX.—Minor Wares, N.E.I.
Wickerware and basketware.
Brush and broom.
Rubber goods.

The total number of factories at 31st December in 1903 and in each year from 1910 to 1913 inclusive, classified in the manner above indicated, are shown in the succeeding statement:—

NUMBER OF FACTORIES.

Class of Industry.	1903.	1910.	1911.	1912.	1913.
Treating raw material, product of pastoral pursuits, &c.	324	324	337	335	361
Treating oils and fats, animal, vegetable, &c.	24	21	23	24	26
Processes in stone, clay, glass, &c. ..	191	212	215	222	209
Working in wood	268	350	375	413	451
Metal works, machinery, &c. ..	545	650	674	714	721
Connected with food and drink, &c...	621	633	651	652	656
Clothing and textile fabrics, &c. ..	1,108	1,349	1,416	1,407	1,511
Books, paper, printing, &c.	297	369	420	427	447
Musical instruments, &c.	2	5	5	5	5
Arms and explosives	5	8	9	9	11
Vehicles, saddlery, harness, &c. ..	334	410	410	434	524
Ship and boat-building and repairing	8	10	12	13	13
Furniture, upholstery, and bedding ..	187	228	242	255	270
Drugs, chemicals, and by-products ..	62	74	81	88	91
Surgical and other scientific instruments	9	14	17	18	21
Jewellery, time-pieces, and platedware	52	69	80	85	92
Heat, light, and power	68	77	83	90	126
Leatherware, n.e.i.	21	30	32	32	35
Minor wares, n.e.i.	25	40	44	40	43
Total	4,151	4,873	5,126	5,263	5,613

Since 1903, the number of factories has increased by 1,462, the greatest individual increase in the classes being that of the clothing and textile factories which were 403 more in 1913 than in 1903.

Location of Factories.

The facilities afforded in the metropolitan area have had the effect of concentrating the more important of the manufactories within that area. The distribution of factories by classes as between the metropolis and the remainder of the State at the close of 1903 and 1913 is exhibited in the following statement :—

LOCATION OF FACTORIES.

Class of Industry.	Number of Factories.				Proportion per cent. in each Class.			
	1903.		1913.		Metropolis.		Remainder of State.	
	Metropolis.	Remainder of State.	Metropolis.	Remainder of State.	1903.	1913.	1903.	1913
Treating raw material, product of pastoral pursuits, &c.	97	227	86	275	29·94	23·82	70·06	76·18
Treating oils and fats, animal, vegetable, &c.	12	12	14	12	50·00	53·85	50·00	46·15
Processes in stone, clay, glass, &c.	79	112	98	111	41·36	46·89	58·64	53·11
Working in wood ..	107	161	201	250	39·93	44·57	60·07	55·43
Metal works, machinery, &c.	304	241	484	237	55·78	67·13	44·22	32·87
Connected with food and drink, &c.	160	461	197	459	25·76	30·03	74·24	69·97
Clothing and textile fabrics &c.	827	281	1,137	374	74·64	75·25	25·36	24·75
Books, paper, printing, &c.	193	104	274	173	64·98	61·30	35·02	38·70
Musical instruments, &c.	2	..	5	..	100·00	100·00	..	..
Arms and explosives ..	2	3	8	3	40·00	72·73	60·00	27·27
Vehicles, saddlery, harness, &c.	164	170	249	275	49·10	47·52	50·90	52.48
Ship and boat building and repairing	6	2	12	1	75·00	92·31	25·00	7·69
Furniture, upholstery and bedding	169	18	247	23	90·37	91·48	9·63	8·52
Drugs, chemicals, and by-products	45	17	52	39	72·58	57·14	27·42	42·86
Surgical and other scientific appliances ..	9	..	20	1	100·00	95·24	..	4·76
Jewellery, time-pieces and platedware	47	5	87	5	90·38	94·57	9·62	5·43
Heat, light and power..	25	43	41	85	36·76	32·54	63·24	67·46
Leatherware, n.e.i. ..	20	1	35	..	95·24	100·00	4·76	..
Minor wares, n.e.i. ..	25	..	42	1	100·00	97·67	..	2·33
Total ..	2,293	1,858	3,289	2,324	55·24	58·60	44·76	41·40

These particulars indicate the extent to which each class of industry is influenced by the tendency to concentrate in the metropolitan area. The factories in that area formed 58·6 per cent. of the total in 1913, whereas they represented only 55·24 per cent. of the total 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.	1908.	1910.	1911.	1912.	1913.
Treating raw materials, product of pastoral pursuits, &c. ..	2,976	3,298	3,543	3,379	3,246
Treating oils and fats, animal, vegetable, &c.	528	596	601	663	656
Processes in stone, clay, glass, &c.	3,076	3,472	3,753	4,207	4,137
Working in wood	3,713	5,928	6,654	7,191	7,653
Metal works, machinery, &c. ..	10,350	15,721	18,069	20,126	20,138
Connected with food and drink, &c.	10,602	13,363	14,432	14,335	15,153
Clothing and textile fabrics, &c...	26,301	37,419	39,958	39,984	40,140
Books, paper, printing, &c. ..	6,525	8,280	8,706	8,901	9,118
Musical instruments, &c. ..	25	150	197	189	181
Arms and explosives	342	386	475	707	856
Vehicles, saddlery, harness, &c. ..	2,973	4,244	4,630	4,748	5,230
Ship and boat building and repairing	98	122	133	240	433
Furniture, bedding, and upholstery	1,978	2,700	3,122	3,263	3,240
Drugs, chemicals, and by-products	987	1,501	1,672	1,804	1,931
Surgical and other scientific appliances	35	57	84	90	102
Jewellery, time-pieces, and plated ware	594	838	975	1,037	951
Heat, light, and power	988	2,426	2,808	3,052	3,419
Leatherware, n.e.i.	283	586	634	605	568
Minor wares, n.e.i.	855	1,089	1,502	1,587	1,592
Total	73,229	102,176	111,948	116,108	118,744

The total increase in the number of hands employed during the period covered by the above table is 45,515, and represents an advance of 62 per cent. The greatest development has taken place in clothing factories, metal works, and industries connected with food, drink, &c., which show increases of 13,839, 9,788, and 4,551 respectively in the number of persons employed in 1913 as compared with the number employed in 1903.

Size of Factories.

In the succeeding table the factories are classified according to the number of persons employed, and the total number employed in each group of factories is shown :—

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF HANDS EMPLOYED.

Number of Persons employed in each Factory.	Number of Factories.		Average Number of Hands employed.	
	1903.	1913.	1903.	1913.
Under 4	587	944	1,714	2,168
4	487	636	1,948	2,544
5 to 10	1,631	1,981	11,293	13,761
11 to 20	722	940	10,509	13,770
21 to 50	471	691	14,520	21,760
51 to 100	135	216	9,109	14,875
Over 100	118	205	24,136	49,866
Total	4,151	5,613	73,229	118,744

In the next table the tendency of the number of hands employed in the larger factories to increase proportionately and that of the number employed in the smaller factories to diminish proportionately is shown by a comparison of 1913 with 1903 :—

Number of hands employed in each factory.	Percentage to Total.			
	Factories.		Hands.	
	1903.	1913.	1903.	1913.
Under 4	14·14	16·82	2·34	1·82
4	11·73	11·33	2·66	2·14
5 to 10	39·29	35·29	15·42	11·59
11 to 20	17·40	16·75	14·35	11·60
21 to 50	11·35	12·31	19·83	18·33
51 to 100	3·25	3·85	12·44	12·53
Over 100	2·84	3·65	32·96	41·99
Total	100·00	100·00	100·00	100·00

The ratio of hands in factories employing under 51 hands was lower in 1913 than in 1903, but in factories employing more than 50 hands the position was reversed.

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.	1910.	1911.	1912.	1913.
Working proprietors ..	4,190	4,953	5,201	5,325	5,649
Managers, overseers ..	2,520	2,877	3,058	3,091	3,314
Clerks, accountants ..	2,213	3,245	3,524	3,676	3,927
Engine-drivers, firemen ..	1,441	1,587	1,794	1,712	1,821
Workers in factory or works	57,721	84,096	92,387	96,324	98,112
Outworkers	955	1,584	1,906	1,959	1,910
Carters, messengers ..	2,778	2,880	3,021	2,999	2,925
Others	1,411	954	1,057	1,022	1,086
Total	73,229	102,176	111,948	116,108	118,744

Outworkers.

The term " outworker " used in the above table, relates to factory workers working at their own homes, but does not include individuals working for themselves. Special provision regulating the employment of outworkers is contained in the Factories Act. Outworkers are required to register their names and addresses with the Chief Inspector of Factories, and factory proprietors are forbidden to give work to unregistered outworkers.

Sex Distribution in Factories.

The average number of males and females employed in factories, and the average number of each sex employed per 10,000 of the mean male and female population for the years 1903-1913 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

Males formed 67·5 per cent. in 1903 and 67·4 per cent. in 1913 of the total persons employed, the corresponding proportions for females being 32·5 in 1903 and 32·6 in 1913. The increase during the period 1903–1913, in the number of males employed was 30,620 or 61·9 per cent., and in the number of females employed 14,895 or 62·6 per cent.

Employment of Females.

The employment of females in factories is largely confined to certain industries, the more important of which are shown in the succeeding tables :—

FEMALES EMPLOYED IN FACTORIES.

Class of Industry.	Average Number of Females Employed.	Percentage of Total Average Female Employés.
Connected with food, drink, &c.	3,717	9·61
Connected with clothing and textile fabrics ..	29,968	77·46
Connected with books, paper, printing, &c. ..	2,327	6·01
All other classes	2,678	6·92
Total	38,690	100·00

The great preponderance of female employment is shown by the above table to be in clothing and textile factories. Further details are given in the next table which shows the extent of female employment in district industries.

FEMALES EMPLOYED IN PARTICULAR INDUSTRIES.

Industry.	Numbers employed.		Females per 100 Males.
	Males.	Females.	
Biscuit	838	553	65·99
Jam, pickle, and sauce	1,016	931	91·63
Confectionery	1,213	896	73·87
Tobacco, &c.	1,030	798	77·48
Others in Class VI.	7,339	539	7·34
Woollen mills	817	973	119·09
Clothing, tailoring, &c.	2,585	7,999	309·44
Dressmaking, millinery	289	9,382	3,246·37
Underclothing	292	5,826	1,995·21
Hats, caps, &c.	726	1,011	139·26
Hosiery	115	1,106	961·74
Waterproof clothing	60	207	345·00
Boots and shoes	4,435	2,516	56·73
Others in Class VII.	853	948	111·14
Printing, &c.	5,451	1,173	21·52
Bookbinding, stationery, &c. ..	632	621	98·26
Fancy-box, &c.	169	507	300·00
Others in Class VIII.	539	26	4·82
All other classes	51,655	2,678	5·18
Total	80,054	38,690	48·32

Child labour in Factories.

The numbers of children employed in factories in the years 1903 to 1913 are given in the subjoined table, which also shows their proportion to every hundred persons employed :—

CHILDREN EMPLOYED IN FACTORIES.

Year.	Boys under 16.	Girls under 16.	Total Children.	Proportion per cent. of—		
				Boys to Male Employés.	Girls to Female Employés.	Children to Total Employés.
1903	2,696	2,332	5,028	5·45	9·80	6·87
1904	3,058	2,952	6,010	6·05	11·47	7·88
1905	3,261	3,034	6,295	6·16	11·11	7·85
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

The proportion of child labour in factories shows a considerable reduction in the period under review, as at 31st December, 1913, it was only half of what it was nine years previously.

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 eleven years, 1903-1913 :—

MACHINERY IN FACTORIES.

Year.	Number of Factories equipped with Machinery.	Value of Machinery and Plant.	Horse-power of Engines.
		£	
1903	2,477	5,010,896	42,750
1904	2,547	6,027,134	40,859
1905	2,606	6,187,919	43,492
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

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 Horse-power.	Manual Labour.
1903	1,316	724	195	123	119	1,674
1905	1,276	715	349	143	123	1,658
1907	1,270	727	558	162	118	1,695
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

Year.	Actual Horse-power of Engines.				
	Steam.	Gas.	Electricity.	Oil.	Total.
1903	36,727	3,600	1,659	764	42,750
1905	37,053	3,440	2,174	825	43,492
1907	42,945	4,516	4,182	1,060	52,703
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

Although steam is the principal motive power, and was used to supply 64 per cent. of the total mechanical power consumed in factories in 1913, a remarkable development is shown in the use of electricity, which in 1903 was used by 195, and in 1913, by 1,579 factories, the actual horse-power consumed rising from 1,659 to 18,732 in the same interval.

Wages in factories.

The total amount and the average amount of salaries and wages paid to male and female employés 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	1,627,838	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

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 1913, £10,714,336, represents an average payment for all employés of £94 14s. 9d., which is an increase of £3 10s. 9d. on the average wage for 1912, of £11 4s. 9d. on that for 1911, of £16 10s. 9d. on that for 1910, of £21 3s. 9d. on that for 1909, of £23 2s. 9d. on that for 1908, of £25 8s. 9d. on that for 1907, and of £27 0s. 9d. on that for 1906. Concurrently with this increase there was a slight change in the relative proportions of male and female workers during the eight years, the proportions being :—66 per cent. males and 34 per cent. females in 1913, 1912 and 1911; 64 per cent. males and 36 per cent. females in 1910; 63 per cent. males and 37 per cent. females in 1909; 64 per cent. males and 36 per cent. females in 1908; and 65 per cent. males and 35 per cent. females in 1907 and 1906. The above average wage for 1913 is very much below the general rates of wages as shown in the table " Wages in Melbourne" on page 783, the reason being that the rates there mentioned relate to adult workers only, whereas the average payment of £94 14s. 9d. relates to all employés, adult and juvenile, male and female, apprentices and improvers, employed in each industry. 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 1913 are set forth in the attached statement :—

FACTORY COSTS AND OUTPUT, 1913.

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. ..	2,337,545	29,872	289,765	2,927,609
Treating oils and fats, animal, vegetable, &c. ..	480,016	13,005	68,949	716,703
Processes in stone, clay, glass, &c.	224,298	114,771	460,293	1,063,423
Working in wood	1,170,881	16,944	802,930	2,381,037
Metal works, machinery, &c. ..	3,123,196	153,817	2,377,229	6,638,526
Connected with food and drink, &c.	12,278,374	186,873	1,489,936	16,079,600
Clothing and textile fabrics, &c.	4,741,183	61,639	2,380,131	8,621,136
Books, paper, printing, &c. ..	990,311	39,376	958,637	2,781,535
Musical instruments, &c. ..	17,544	183	22,535	50,942
Arms and explosives.. ..	153,010	4,652	82,201	277,921
Vehicles, saddlery, harness, &c.	477,951	14,248	464,602	1,180,203
Ship and boat building and repairing	31,538	2,330	47,739	106,759
Furniture, upholstery, and bedding	489,841	7,047	317,349	967,739
Drugs, chemicals, and by-products	664,904	13,842	183,338	1,175,459
Surgical and other scientific instruments	7,272	329	8,695	22,098
Jewellery, time-pieces, and plated-ware	188,059	2,868	94,329	369,532
Heat, light, and power ..	362,440	64,966	462,795	1,493,549
Leatherware, n.e.i.	189,678	1,229	43,957	282,566
Minor wares, n.e.i.	537,658	11,844	158,926	800,310
Total	28,465,699	739,835	10,714,336	47,936,647

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 factories are shown in the following table :—

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

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.	79·84	1·02	9·90	9·24
Treating oils and fats, animal, vegetable, &c.	66·98	1·81	9·62	21·59
Processes in stone, clay, glass, &c. ..	21·09	10·79	43·28	24·84
Working in wood	49·18	·71	33·72	16·39
Metal works, machinery, &c. ..	47·05	2·32	35·81	14·82
Connected with food and drink, &c. ..	76·36	1·16	9·27	13·21
Clothing and textile fabrics, &c. ..	54·99	·71	27·61	16·69
Books, paper, printing, &c. ..	35·60	1·42	34·46	28·52
Musical instruments, &c.	34·44	·36	44·24	20·96
Arms and explosives	55·06	1·67	29·58	13·69
Vehicles, saddlery, harness, &c. ..	40·50	1·21	39·37	18·92
Ship and boat building and repairing ..	29·54	2·18	44·72	23·56
Furniture, upholstery, and bedding ..	50·61	·73	32·79	15·87
Drugs, chemicals, and by-products ..	56·57	1·18	15·60	26·65
Surgical and other scientific instruments	32·91	1·49	39·35	26·25
Jewellery, time-pieces, and plated-ware	50·89	·78	25·52	22·81
Heat, light, and power	24·27	4·35	30·99	40·39
Leatherware, n.e.i.	67·13	·43	15·56	16·88
Minor wares, n.e.i.	67·18	1·48	19·86	11·48
Total	59·38	1·54	22·35	16·73

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, and these, of course, are 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 over 43 per cent. and that of raw materials 21 per cent. of the value of the finished article, whilst in the industries connected with food and drink the expenditure on wages amounted to only 9 per cent. and that on raw materials to over 76 per cent. of the value of the output.

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 1904–1913 :—

COST OF PRODUCTION AND VALUE OF OUTPUT OF FACTORIES, 1904–1913.

Year.	Cost of Production.				Total Value of Output.
	Materials.	Fuel, Light, and Power.	Salaries and Wages.	All other Expenditure, Interest, and Profits.	
	£	£	£	£	£
1904	13,356,103	375,214	4,794,365	4,600,498	23,126,180
1905	15,058,471	371,996	5,039,115	4,731,066	25,200,648
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

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

PROPORTIONATE COST OF OUTLAY TO OUTPUT OF FACTORIES, 1904–1913.

Year.	Proportion of Outlay to Output.				Total.
	Materials.	Fuel, Light, and Power.	Salaries and Wages.	Other Expenses, Interest, and Profits.	
	%	%	%	%	%
1904	57·8	1·6	20·7	19·9	100·0
1905	59·8	1·5	19·9	18·8	100·0
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

This table reveals that whilst the cost of raw materials has steadily declined from a proportion of 61·5 per cent. in 1906 to 59·4 per cent. in 1913, the expenditure on wages has steadily risen from 19·5 to 22·4

per cent. during the same period. The cost of fuel, light, and power shows a proportionate increase between 1906 and 1908, but it has since declined to about its original proportion; and the balance available for miscellaneous expenses, rent, interest, and manufacturers' profit, which in 1906 represented £17·6 in every £100 of the total output, has been reduced year by year, save for a temporary rise in 1909 and 1910, and in 1913 represented £16·7 in every £100 of such output.

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 1913:—

VALUE OF MACHINERY AND PLANT AND LAND AND BUILDINGS CONNECTED WITH FACTORIES, 1913.

Class of Industry.	Value of Machinery and Plant.	Value of Land, Buildings, and Improvements.
	£	£
Treating raw material, product of pastoral pursuits, &c.	324,246	404,064
Treating oils and fats, animal, vegetable, &c.	131,556	103,692
Processes in stone, clay, glass, &c.	372,864	413,118
Working in wood	567,578	421,247
Metal works, machinery, &c.	1,400,623	1,343,288
Connected with food and drink, &c.	2,130,758	2,544,483
Clothing and textile fabrics, &c.	835,755	1,928,739
Books, paper, printing, &c.	936,214	927,013
Musical instruments, &c.	6,530	25,320
Arms and explosives	93,950	102,750
Vehicles, saddlery, harness, &c.	127,488	532,014
Ship and boat building and repairing	78,281	212,090
Furniture, upholstery, and bedding	69,515	350,253
Drugs, chemicals, and by-products	224,479	323,133
Surgical and other scientific instruments	4,222	18,290
Jewellery, time-pieces, and plated-ware	27,197	125,421
Heat, light, and power	2,591,218	841,924
Leatherware, n.e.i.	14,624	56,531
Minor wares, n.e.i.	85,331	79,939
Total	10,022,429	10,753,309

It thus appears that the largest amount of capital is invested in plant, buildings, &c., which are used by industries connected with food and drink.

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

VALUE OF MACHINERY AND PLANT AND LAND AND BUILDINGS CONNECTED WITH FACTORIES, 1903–1913.

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

It will be seen from these figures that the value of machinery and plant has more than doubled in the period of ten years intervening between 1903 and 1913, whilst that of the buildings, land, and improvements shows an increase of £2,785,364 in the same interval.

Factories, &c., in Australia.

The number of factories and of the persons employed therein in the Australian States in the year 1913 were as shown in the following table :—

FACTORIES AND FACTORY EMPLOYÉS IN AUSTRALIAN STATES, 1913.

State.	Number of Factories.	Average Number of Persons Employed.			Number of Working Proprietors.	Number of Employés—	
		Males.	Females.	Total.		Under 16 Years of Age.	Over 16 Years of Age.
Victoria ..	5,613	80,054	38,690	118,744	5,649	4,583	108,512
New South Wales	5,346	93,036	27,364	120,400	4,736	4,471	111,193
Queensland ..	1,838	34,715	7,648	42,363	1,632	1,823	38,908
South Australia	1,353	23,323	5,188	28,511	1,337	1,733	25,441
Western Australia	762	14,476	2,674	17,150	556	706	15,888
Tasmania ..	623	8,354	1,430	9,784	502	424	8,858
Commonwealth	15,535	253,958	82,994	336,952	14,412	13,740	308,800

Factory costs and output in Australian States.

In the subjoined table the expenditure on materials, wages, and fuel, &c., and the value of the output in Australian factories are given for the same year.

FACTORY COSTS AND VALUE OF PRODUCTION IN AUSTRALIAN STATES, 1913.

State.	Amount of Wages Paid to—			Value of Materials Used.	Value of Fuel, Light, and Power Used.	Value of Output.
	Males.	Females.	Total.			
	£	£	£	£	£	£
Victoria ..	8,925,814	1,788,522	10,714,336	28,465,699	739,835	47,936,647
New South Wales	11,323,791	1,359,593	12,683,384	40,537,476	1,371,425	65,672,495
Queensland ..	3,744,050	331,141	4,075,191	14,183,539	328,519	23,688,789
South Australia	2,809,066	225,471	3,034,537	8,354,258	417,280	13,998,670
Western Australia	2,047,475	146,975	2,194,450	2,758,910	197,831	6,428,071
Tasmania ..	826,358	57,094	883,452	2,083,666	185,681	3,782,831
Commonwealth..	29,676,554	3,908,796	33,585,350	96,383,548	3,240,571	161,507,503

Accidents in factories.

In the succeeding table the number of accidents in factories are tabulated for a series of years ending with 1913. 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 Employés.	Number of Accidents.	Percentage of Accidents to Number of Employés.
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

The higher ratio of accidents to employés after 1906, as compared with the ratios in the years 1903–1906, is probably due to the increase in the use of machinery.

INDIVIDUAL INDUSTRIES.

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

Tanneries, &c.

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

TANNERIES, ETC. : 1904 TO 1913.

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.
			£			£
1904	86	963	109,095	1,439	88	113,869
1905	88	1,022	114,863	1,614	96	114,339
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

The quantity of bark used in connexion with tanning operations in 1913 was 11,279 tons. The output of tanneries for each of the last ten years was as follows :—

OUTPUT OF TANNERIES, ETC. : 1904 TO 1913.

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.	£
1904	381,473	134,003	674,105	651,672	5,285,409	1,093,189
1905	393,695	139,506	544,145	562,705	4,543,927	1,124,272
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

The figures for 1909, 1910, 1911, 1912, and 1913 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 1913 was £250,360.

Soap and candle works.

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

SOAP AND CANDLE WORKS—1904 TO 1913.

Year.	Number of Establishments.	Value of Machinery and Plant in Use.	Number of Employés.	Amount of Wages Paid.	Products.		Value of Output.
					Soap.*	Candles.	
		£		£	cwt.	cwt.	£
1904 ..	19	101,486	475	39,366	162,126	41,521	350,762
1905 ..	20	105,529	500	43,527	150,261	42,049	348,489
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

*Not including soap made in small soap works not classified as factories, viz., 7,902 cwt. in 1904, 7,185 cwt. in 1905, 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, and 3,564 cwt. in 1913.

The quantity of tallow used in 1913 in the manufacture of soap and candles was 144,217 cwt. in factories, and 1,254 cwt. in minor works.

The imports from oversea countries in 1913 included 1,253,819 lbs. of soap valued at £45,728, and 89,477 lbs. of candles valued at £2,477.

Brickyards, potteries, &c.

Particulars relating to brickyards and potteries for the ten years 1904–1913 are shown in the following statement. The value of the land, plant, buildings, &c., used in connexion with such works in 1913 was £458,435.

BRICKS, POTTERY, PIPES, AND TILES: 1904 TO 1913.

Year.	Number of Establishments.	Number* of Employés.	Amount of Wages Paid.	Number of Bricks Made.*	Value of—	
					Pipes and Tiles.	Pottery.
			£		£	£
1904 ..	111	1,309	102,980	80,026,500	53,454	31,438
1905 ..	121	1,382	110,383	90,990,300	56,086	27,205
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

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

The estimated value of bricks made in 1913 was £313,548.

Forest saw-mills.

Particulars in regard to the forest saw-mills in the State for the ten years 1904-1913 are shown in the table which follows :—

FOREST SAW-MILLS: 1904 TO 1913.

Year.	Number of Mills.	Value of Machinery and Plant in Use.	Number of Employés.	Amount of Wages Paid.	Timber Sawn.	
					Quantity.	Value.
		£		£	Super. ft.	£
1904 ..	128	89,760	1,537	103,071	49,250,000	147,750
1905 ..	124	87,757	1,495	102,176	47,635,400	142,905
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	177,469
1909 ..	133	115,121	1,635	131,108	56,039,200	189,130
1910 ..	139	125,528	1,767	158,783	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

The other factories in which operations on wood were carried on numbered 284, and comprised cooperage works (12), which gave employment to 98 persons, including 11 working proprietors, and paid the sum of £12,069 in wages; cork-cutting works (4), in which were engaged 8 working proprietors, and 48 employés who were paid £4,212 in wages; dairy and domestic implements and bellows works (4), employing 67 persons, inclusive of 6 working proprietors, and paying £6,383 in wages; saw-milling, moulding, and joinery works (216), employing 4,593 persons, inclusive of 233 working proprietors, and paying £518,831 in wages; mantelpiece works (11), employing 221 persons, inclusive of 15 working proprietors, and paying £23,548 in wages; and wood carving and turnery works (37), employing 293 persons, inclusive of 418 working proprietors, and paying £26,433 in wages.

Firewood, &c.

It is estimated that the approximate value of the production of firewood for consumption in the year is £494,580. 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.

Agricultural implement works.

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

AGRICULTURAL IMPLEMENT WORKS, 1904 TO 1913.

Year.	No. of Factories.	No. of Employés.	Wages Paid.	Approximate Value of—		
				Fuel, &c., Used.	Materials Used.	Output.
			£	£	£	£
1904	50	1,440	129,559	6,965	171,691	431,476
1905	53	1,535	145,651	7,964	171,850	448,114
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	611,206
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	339,397	799,217
1913	66	2,166	268,880	16,915	324,063	710,832

The number of employés in these works in 1913 shows a falling off to the extent of 424 persons when compared with 1912, the reduction in the output being £88,385 in the same period.

The wages averaged for each employé £89 19s. 5d. in 1904 and £124 2s. 9d. in 1913. The stripper-harvester, which is a Victorian invention, is one of the principal implements manufactured. This strips the grain and bags it ready for market in one operation. It is the leading item in machinery exported from Victoria, being in good demand, not only in other Australian States, but also in the Argentine and South Africa.

Bacon curing.

In the following table particulars of bacon and ham curing establishments are given for the ten years 1904-1913. The value of the machinery, plant, land and buildings in connexion with these establishments was £59,193 in 1904 and £145,637 in 1913.

BACON CURING: 1904 TO 1913.

Year.	Number of Establishments.	Number of Employés.	Amount of Wages Paid.	Pigs Slaughtered for Curing.	Weight of Bacon and Hams Cured.	Value of Output.
			£	No.	lbs.	£
1904 ..	25	261	24,071	104,604	11,229,768	331,067
1905 ..	26	289	24,525	117,582	11,360,698	330,091
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

This table does not include pigs slaughtered for curing, nor bacon and hams cured in small curing works; the pigs so slaughtered numbered 2,124 in 1904, 2,801 in 1905, 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, and 666 in 1913; the quantity (in pounds) of bacon and hams cured was 194,102 in 1904, 246,374 in 1905, 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, and 51,620 in 1913.

In addition, the following quantities of bacon and hams were returned as having been cured on farms:—3,428,074 lbs. in 1904, 4,826,593 lbs. in 1905, 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, and 2,943,303 lbs. in 1913. The total quantity of bacon and hams cured in 1913 was thus 19,340,878 lbs.—a decrease of 753,328 lbs. as compared with 1912.

Butter and cheese factories.

The number of butter and cheese factories, was 197 in 1913. Of these factories, 151 made butter, 7 made butter and cheese, 1 made butter and concentrated milk, 1 made butter and condensed, concentrated and powdered milk, 2 made butter and condensed and concentrated milk, 1 made powdered milk, 2 made casein, and 32 made cheese only. There were 58 creameries attached to the factories. The number of factories, the value of machinery, plant, land and buildings, the number of employés and the amount of their wages, and the total value of the output for the ten years 1904–13 were as follows:—

BUTTER AND CHEESE FACTORIES: 1904 TO 1913.

Year.	Number of Factories.	Value of Machinery, Plant, Land, and Buildings.	Number of Employés.	Amount of Wages Paid.	Value of Output.
		£		£	£
1904	213	521,411	1,323	112,146	2,234,935
1905	214	538,926	1,312	106,427	2,368,943
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

Although the value of the output of these factories in 1913 was lower than in 1911 and 1912, yet it is considerably higher than in any other year, and when compared with that for 1904 it represents an increase of 59 per cent. Further particulars relating to butter and cheese factories will be found under the heading of Dairying on page 720.

Meat freezing and preserving works.

Meat freezing and preserving works numbered fourteen in 1913 and gave employment to 1,450 hands and seven working proprietors, the wages of the hands amounting to £150,242. The approximate value of machinery, plant, land, buildings, and improvements in the same year was £453,538. The output in each of the last ten years was as follows:—

MEAT FREEZING AND PRESERVING, 1904 TO 1913.

Year.	Frozen.			
	Cattle.	Sheep.	Rabbits.	Poultry.
	Qrs.	No.	No.	No.
1904	3,394	459,963	8,086,776	46,820
1905	5,656	649,107	10,259,904	51,705
1906	4,248	651,914	9,538,535	72,410
1907	10,760	866,408	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	31,642	2,107,180	4,674,588	25,284

Year.	Preserved.			
	Beef.	Mutton.	Rabbits.	Other Meats, &c.
	Cwt.	Cwt.	Cwt.	Cwt.
1904	4,248	491	14,977	1,301
1905	4,866	1,435	6,665	776
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

NOTE.—In addition to the above, 15,249 calves, 1,959 pigs, and 25,952 hares were treated at freezing works in 1905; 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; 3,355 calves, 3,120 pigs, and 43,224 hares in 1912; and 5,050 calves, and 39,420 hares in 1913.

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 1913 :—

MEATS IMPORTED AND EXPORTED OVERSEA, 1913.

	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Meats, Frozen—				
Mutton	...	...	48,019,621 lbs.	657,431
Lamb	...	...	34,751,112 "	639,310
Beef	...	...	10,022,248 "	146,106
Pork	...	...	...	...
Rabbits and Hares	...	...	2,044,501 pairs.	107,818
Poultry	...	...	16,798 "	6,616
Game	7,692 lbs.	401	...	...
Other	...	...	453,474 lbs.	7,780
Meats—Fresh and smoked ...	101 lbs.	5	...	...
" Potted and concentrated	...	9,155	...	12,746
" Preserved in tins ..	67,518 lbs.	3,399	2,105,609 lbs.	51,712
" Not elsewhere included	98 cwt.	304	1,368 cwt.	2,249
Total value ...	...	13,264	...	1,631,768

Flour mills.

The value of the machinery, plant, land and buildings used in connexion with flour mills was estimated at £435,287 in 1904, and at £486,151 in 1913. Particulars of the industry for the ten years 1904–1913 are as follows :—

FLOUR MILLS : 1904 TO 1913.

Year.	Number of Mills.	Number of Employés.	Amount of Wages Paid.	Wheat Ground into Flour.	Flour Made.	Value of Total Output.
			£	bushels.	tons.	£
1904 ..	67	692	74,771	10,012,476	202,314	1,750,523
1905 ..	64	707	79,179	10,282,491	209,058	1,960,068
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

In addition to the flour made, the wheat ground in 1913 produced 7,068,119 bushels of bran and 4,991,298 bushels of pollard. Other grain operated on amounted to 157,403 bushels in 1904, 75,595 bushels in 1905, 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, and 39,826 bushels in 1913.

Exports of bread-stuffs.

During the year 1913, 2,948,289 lbs. of biscuits valued at £42,150, and 84,688 tons of flour valued at £710,416 were exported from Victoria to countries beyond Australia.

Jam, pickle, and sauce works.

In 1913 there were 31 establishments in which the manufacture of jams, pickles, and sauces was carried on, and the number of persons employed therein was 1,947, of whom 24 were working proprietors. The wages paid to the employés amounted to £131,273, and the value of machinery, plant, land, and buildings was £175,236. The fruit and sugar used and the output for each of the last ten years were as follows :—

JAM, PICKLE, AND SAUCE WORKS, 1904 TO 1913.

Year.	Fruit Used.	Sugar Used.	Jams and Jellies Made.	Fruit Preserved.	Fruit Pulped.	Sauce Made.	Pickles Made.
	cwt.	cwt.	cwt.	cwt.	cwt.	pints.	pints.
1904 ...	199,306	97,057	190,151	22,408	115,295	2,143,555	920,163
1905 ...	175,119	107,382	192,579	35,395	44,450	2,029,644	859,160
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

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, and 5,519 cwt. in 1913.

Sugar works.

There are two sugar works in the State, one of which treats cane sugar imported in a raw state chiefly from Queensland. The other is the Government Beet Sugar Factory. The quantity of raw material treated in those two factories in 1913 and the production therefrom were as follows :—

Raw cane sugar treated	1,496,080 cwt.
Sugar beet treated	148,620 "
Refined sugar produced	1,441,800 "
Refined treacle produced	39,280 "

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, and a system of field labour was organized.

With the view of putting the industry on a sound footing, the Government has purchased large areas at Boisdale and Kilmany Park. These estates are in railway communication with Maffra, and have been cut up into small holdings under the Closer Settlement Board, which are allotted to settlers subject to the proviso that each must grow a certain area of beet.

In 1914 the growing season was poor owing to the absence of normal rains during the summer months. At Boisdale, through the efforts of the Government, a partial system of irrigation was undertaken and the results obtained were very satisfactory, the crops being approximately doubled in most instances. The area irrigated was about 250 acres. It had been decided to close down the factory until such time as an adequate system of irrigation could be installed in the district; but, at the request of a number of growers, who had made a success of their beet crops by proper cultivation methods supplemented by irrigation, the Government consented to continue operations at the factory, provided the farmers of the district pledged themselves to plant 1,000 acres of beet for the season 1914-15, of which 750 were to be irrigated. These conditions have been complied with.

The following particulars summarize the results of the last four seasons, of which all but the first were exceptionally dry :—

Season.	Area.	Sugar Beet Harvested.	Sugar Manufactured.
	acres.	tons.	tons.
1910–11	458	5,969	482
1911–12	752	4,000	519
1912–13	900	6,207	659
1913–14	1,000	7,431	920

Breweries. Particulars regarding breweries for the ten years 1904-1913 are set forth in the next table. Machinery and plant was valued at £231,687 in 1904 and at £351,349 in 1913, whilst land and buildings were valued at £521,145 in 1904 and at £383,267 in 1913. The wages paid in 1913 amounted to £155,024.

BREWERIES: 1904 TO 1913.

Year.	Number of Breweries.	Number of Employés.	Materials Used—			Beer Made.	Value of Output.
			Sugar.	Malt.	Hops.		
			cwt.	bushels.	lbs.	gallons.	£
1904 ...	45	961	100,430	530,771	544,524	14,927,873	840,891
1905 ...	44	995	99,230	529,067	582,012	15,176,439	869,559
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

Distilleries. The number of distilleries working in 1913 was 9 and the persons employed numbered 83, of whom 5 were working proprietors. The estimated value of the machinery, plant, land, buildings, and improvements was £160,803. The materials used in manufacture, and the quantity of spirits distilled in each of the last ten years, were as follows:—

DISTILLERIES: 1904 TO 1913.

Year.	Materials Used.				Spirits Distilled.
	Wine.	Malt.	Other Grain.	Sugar and Molasses.	
	Gal.	Bush.	Bush.	lbs.	Proof gal.
1904	293,836	...	...	...	58,745
1905	348,791	...	...	199,360	85,690
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

Spirits made by vine-growers for fortifying wine are not included in this table. The following quantites were distilled for that purpose during the last ten years in vineyards :—73,210 gallons in 1904, 78,163 gallons in 1905, 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, and 13,357 gallons in 1913.

Tobacco factories.

The number of tobacco, cigar and cigarette factories licensed in 1913 was thirty-five, of which nineteen were too small to be classified as ordinary factories and were consequently not included in the statistical tabulation. In the year mentioned the remaining sixteen employed 1,816 hands, who were paid £202,073 in wages, also twelve working proprietors, and the machinery, plant, land and buildings used were valued at £286,581.

In the succeeding table are shown, for the last ten years, the quantity of tobacco leaf used by, and the output of the full number of licensed establishments :—

TOBACCO FACTORIES : 1904 TO 1913.

Year.	Unmanufactured Leaf Operated on.		Quantity Manufactured of—			
	Australian	Imported.	Tobacco.	Snuff.	Cigars.	Cigarettes.
	lbs.	lbs.	lbs.	lbs.	No.	No.
1904... ...	266,053	2,768,873	3,166,767	1,122	12,419,426	73,304,100
1905... ...	265,219	3,597,887	3,981,357	1,051	14,324,536	103,673,300
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

Woollen mills.

There were ten woollen mills working in 1913, and the number of persons employed therein was 1,790, of whom five were working proprietors. The wages paid to employés amounted to £125,691, and the approximate value of the machinery, plant, land, buildings, and improvements to £404,670. The value of the raw materials used in mills during the year was £264,229, and

that of the goods manufactured in the same period, £513,252. The quantities of wool and cotton used and of goods manufactured in each of the last ten years were as follows :—

WOOLLEN MILLS : 1914 TO 1913.

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.	£
1904	2,368,871	211,256	697,726	3,301,004	86,253	8,431	228,785
1905	2,663,587	499,630	738,924	3,355,013	145,106	8,516	266,260
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

Boot factories.

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

BOOT FACTORIES : 1904 TO 1913.

Year.	Number of Factories.	Persons Employed.	Value of Land, Buildings, and Machinery.	Wages Paid.
			£	£
1904 ...	131	5,655	241,342	332,749
1905 ...	136	5,810	243,549	330,023
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

OUTPUT OF BOOT FACTORIES : 1904 TO 1913.

Year.	Goods Manufactured—		Value of Materials Used.	Value of Output
	Boots and Shoes.	Slippers.*		
	No. of pairs.	No. of pairs.	£	£
1904	4,065,881	189,108	632,736	1,076,798
1905	3,951,033	165,892	650,691	1,124,225
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

* Includes canvas shoes and house-boots.

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: 1904 TO 1913.

Year.	Number of Stations.	Horse-power of Machinery.	Value of Machinery and Plant.	Persons Employed.	Wages Paid.	Electricity Supplied.
			£		£	British Units.
1904 ..	7	5,226	374,850	222	22,422	6,644,343
1905 ..	7	6,753	416,847	251	23,356	7,698,394
1906 ..	9	9,130	491,171	363	38,398	9,760,046
1907 ..	11	9,948	496,314	398	44,489	12,542,614
1908 ..	12	11,702	541,489	441	50,442	14,310,482
1909 ..	13	13,293	577,403	442	54,621	16,471,368
1910 ..	16	13,962	645,333	523	62,266	18,832,467
1911 ..	20	15,819	733,769	590	75,722	23,011,340
1912 ..	24	20,005	912,712	666	89,435	27,579,734
1913 ..	51	26,213	1,165,020	860	114,874	35,637,971

The electricity supplied in 1913 represents an increase of 436 per cent. on that supplied in 1904.

Gasworks. The approximate value of the machinery and plant, land, buildings, and improvements connected with gas-works in Victoria was £1,731,031 in 1904, and £1,784,490 in 1913. The gas made in the latter year was 111 per cent. in excess of that made in 1904.

GASWORKS: 1904 TO 1913.

Year.	Number of Works.*	Persons Employed.	Wages Paid.	Coal Used.	Gas Made.	Coke Produced.	Value of Output.
			£	Tons.	Cubic Feet.	Tons.	£
1904 ..	48	872	104,383	166,307	1,649 396,000	97,357	481,645
1905 ..	48	989	128,372	168,007	1,707,184,000	98,559	492,851
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	2,476,528,100	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

* 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 117,114 in 1904, 137,247 in 1905, 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, and 348,385 in 1913.

The following is a statement of the rates of wages ruling in the various industries in Melbourne during 1913, the information having been compiled from determinations of Wages Boards or collected direct from the employers :—

WAGES IN MELBOURNE, 1913.

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

Industries.	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 ..	Carters	45s. to 63s. per week	..
Sausage casing	Sausage skin cleaners	45s. to 50s. ,,	51s. per week
Tanning	Slicker whiteners ..	..	57s. ,,
	Fleshers	..	54s. ,,
	Jiggers and grainers ..	..	52s. ,,
	Rollers and strikers ..	..	50s. ,,
	Machine shavers ..	..	50s. ,,
	Scudders, unhairers, stoners, and Japanners	..	49s. ,,
	Fancy leather machinists	..	47s. ,,
	Labourers in sheds, vats, &c.	..	45s. ,,
Fellmongering	Wool sorters ..	..	55s. ,,
	Man in charge of sweat house	..	50s. ,,
	Pressers, scourers, tanners, painters, picklers, burring and fleshing machine hands, &c.	..	48s. ,,
	Men not otherwise provided for	..	42s. ,,
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	..	7s. 6d. per day
Soap and soda	Soapmakers ..	..	62s 6d per wk.
	Assistant soapmakers	..	55s. ,,
	Foreman	..	55s. ,,
	Men in charge of milling-room	..	52s. ,,
	Mixers	..	48s. ,,
	General hands ..	..	45s. ,,
	Wrappers, packers, and stampers—male	..	45s. ,,
	Stampers—female ..	..	25s. ,,
	Wrappers and packers —female	..	53s. ,,
Candle	Stillmen	..	53s. ,,
	Acidifiers, glycerine distillers and press-room gangers	..	50s. ,,
	Candle room gangers and moulders	..	48s. 6d. ,,
	Refrigerator gangers..	..	..
	Other adult workers	46s. 6d. to 47s. per wk.	..

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class III.—Processes relating to Stone, Clay, Glass, &c.			
Brick	Pattern makers		1s. 4½d. per hr.
	Bricklayers		1s. 3d. ,,
	Turners and fitters		1s. 3d. ,,
	Engine-drivers	11¼d. to 1s. 0½d. per hr.	
	Burners on kilns		1s. 1½d. per hr.
	Blacksmiths		1s. 0½d. ,,
	Carpenters		1s. 3d. ,,
	Facemen	1s. 1½d. to 1s. 1¾d. pr hr.	
	Drawers		1s. 3d. per hr.
	Machine drivers, riggers		1s. 1d. ,,
	Setters		1s. 2d. ,,
	Fireman		11½d. ,,
	Pan and crusher attendants		1s. 0½d. ,,
	Wet pan attendants		10½d. ,,
	Clayholemen		1s. 0¾d. ,,
	Hand moulders		1s. ,,
	Wheelers		11d. ,,
	Truckers		11d. ,,
	Blacksmiths' strikers		10½d. ,,
	Loftmen, yardmen		10¾d. ,,
	Lime grinders, crushers and mixers		1s. 1½d. ,,
	Sand elevator feeders and pitmen		1s. ,,
Glazed pipes	Burners, head		67s 6d per wk.
	,, 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. to 9s. per day	
Asbestos	Machinists	40s. to 42s. per week	40s. per week
Glass bottle works	Furnacemen (two or more producers)		52s. 6d. ,,

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class III.—continued.			
Glass bottle works—*continued.*	Furnacemen (one producer)	..	38s. 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 50s. per week	..
	Stained glass cutters	..	57s. per week
	Lead light glaziers and fixers of lead lights	48s. to 50s. per week	..
	Cementers	..	40s. per week
	Plate glass cutters ..	48s. to 50s. per week	..
	„ glaziers ..	48s. to 50s. „	..
	„ „ assistants and packers	..	45s. per week
	Bevellers and silverers	..	48s. „
Marble, stone-dressing ..	Carvers in marble and stone	..	82s. 6d. „
	Carvers' assistants ..	..	69s. 8d. „
	Letter cutters ..	64s. 2d. to 66s. per week	..
	Monumental carvers..	..	69s. 8d. per wk.
	Monumental stone, slate, and other cutters	58s. 8d. to 64s. 2d. per week	..
	Kerbstone cutters ..	..	55s. per week
	Machinists, planing and turning	..	66s. „
	Machinists, polishing and sanding	48s. 9d. to 56s. per week	..
	Labourers	..	50s. per week
	Filtermakers ..	..	48s. „
Stone filter	Modellers	12s. to 14s. per day	..
Modelling	Shop hands ..	10s. to 11s. „	..
	Pressers and casters ..	48s. to 54s. per week	..
Ashphalt	Asphalters and tarpavers	7s. 6d. to 9s. per day	8s. per day

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class IV.—Working in Wood.			
Cooperage	Coopers	..	66s. per week
Corkcutting	Corkcutters	40s. to 60s. per week	40s. ,,
Bellows	Bellows makers	40s. to 45s. ,,	42s. 6d. ,,
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, timber log-pond men and log-turners, joinery packers	48s. to 54s. per week	51s. ,,
	Stackers and sorters on wharf and public yards	..	60s. per week
	Stackers (foremen)	..	72s. ,,
	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. ,,
Wood-carving, turning	Carvers and turners	..	60s. ,,
Class V.—Metal Works, Machinery, &c.			
Agricultural implement	Pattern makers	..	66s. per week
	Blacksmiths, fitters, turners, wheelwrights and carpenters	..	60s. ,,
	Blacksmiths' strikers	..	48s. ,,
	Iron annealers	..	48s. ,,
	Drillers	..	48s. ,,
	Belt cutters	..	48s. ,,
	Machinists, iron	..	54s. ,,
	,, wood	48s. to 60s. per week	..
	Sheet iron workers	..	54s. per week
	Assemblers	..	48s. ,,
	Painters	51s. to 60s. per week	..
	Engine-drivers	48s. to 60s. ,,	..
	Labourers, yardmen	45s. to 48s. ,,	..
Engineering, boilermaking	Blacksmiths, hammer and coppersmiths	..	66s. per week
	Fitters, turners, and spring makers	..	66s. ,,
	Borers, slotters, planers, machine shapers (over 14 inch), universal millers	..	60s. ,,

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	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	..	54s. per week
	Shearing, slotting, and nibbling machinists, heaters and cutters of bolts and nuts, stud, lathe, centering, screwing, and drilling machinists	..	50s. ,,
	Coppersmiths' assistants and blacksmiths' strikers	..	50s. ,,
	Labourers	..	48s. ,,
	Boilermakers	..	66s. ,,
	,, assistants	50s. to 54s. per week	..
	Machine-made iron or steel pipe makers	..	60s. per week
	Labourers	..	48s. ,,
Iron and steel moulding ..	Bank pipe moulders ..	56s. to 68s. per week	..
	Vertical moulders ..	..	53s. per week
	Pipe dressers ..	..	51s. ,,
	Furnacemen and assistants	54s. and 51s. per week	..
	Labourers	..	48s. per week
	Core makers, finishers, and casters	56s. to 68s. per week	..
	Iron moulders and core-makers	56s. to 68s. ,,	..
	Iron dressers ..	..	51s. per week
	Steel crucible furnacemen and assistants	66s. and 54s. per week	..
	Steel converters and assistants	60s. and 54s. ,,	..
	Steel dressers ..	..	52s. 6d. ,,
	Steel annealers and labourers	..	49s. 6d. ,,
Cutlery	Cutlers and sawmakers	60s. to 80s. per week	..
	Knifesmiths ..	50s. to 60s. ,,	..
	Saw and tool grinders and sharpeners	48s. to 60s. ,,	..
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 80s. per week	60s. ,,
Tinsmithing, galvanized iron, sheet iron, japanning	Tinsmiths, sheet metal workers, japanners, gold and pencil workers	..	57s. ,,
	Canister makers and repairers, cap solderers, and vent closers	..	54s. ,,
	Machinists and solderers of down pipes	..	53s. ,,
	Filleters, grainers, writers	..	52s. ,,
	Machine attendants ..	..	51s. ,,
	All others	..	48s. ,,

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class V.—continued.			
Stove, range, oven	Stove and oven fitters	54s. to 57s. per week	
	Electroplaters	50s. to 66s. „	
Pattern making	Pattern makers		72s. per week
Meter	Fitters		54s. „
Spring	Spring fitters and spiral spring makers		60s. „
	Smiths		60s. „
	Elliptic heading and spring eye machinists	54s. to 56s. per week	
	Other machinists		45s. per week
	Strikers, emery wheel finishers, and others		45s. „
Brass, copper smithing	Brass moulders, finishers		57s. „
	Brass polishers		50s. „
	Dressers		45s. „
	Furnacemen		47s. 6d. „
	Core makers, male		51s. „
	„ 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	£3 5s. to £5 per week	
	Chlorinators		50s. per week
	Smelters, roasters, and furnacemen	50s. to 70s. per week	
	Labourers	50s. to 55s. per week	
Bedstead, fender	Blacksmiths		48s. per week
	Fitters-up		51s. „
	Chill fitters	58s. to 70s. per week	
	Frame setters		56s. per week
	Chippers and casters		49s. „
	Mounters of bedstead pillars	48s. to 60s. per week	
	Grinders and polishers		57s. per week
	Japanners	48s. to 54s. per week	
	Fitters (fender)		54s. per week
	Electroplaters		68s. „
	„ assistants		56s. „
	Brass lacquer and plate work polishers		51s. „
	Packers and storemen		48s. „
	Japanners and polishers—female		40s. „
	Wrappers—female		25s. „
Class VI.—Connected with Food and Drink, or the preparation thereof.			
Order 1.—Animal Food.			
Bacon-curing	Foremen curers		65s. per week
	Assistant „	51s. to 55s. per week	
	Foremen, cutting		65s. per week
	Assistants „		57s. 6d. „
	Foremen, slaughtering		65s. „
	Assistants „		57s. 6d. „
	Foremen, small goods		65s. „
	Assistants „		52s. „

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages. Range.	Wages. General Rate.
Class VI.—Order 1—continued.			
Bacon-curing—*continued* ..	Foremen, smoking, rolling, &c.	..	60s. per week
	Assistants, smoking, rolling, &c.	48s. to 57s. 6d. per week	..
	Foreman, lard and tallow	..	60s. per week
	Assistants, lard and tallow	..	48s. „
	General workers ..	45s. to 52s. 6d. per week	..
Butter, cheese, concentrated milk	General foremen ..	..	63s. 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 ..	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	..
	Preservers' assistants	..	52s. per week
	Tinsmiths (canister makers)	..	54s. „
	Labourers, packers ..	..	48s. „
	Chambermen ..	..	66s. „
Order 2.—*Vegetable Food, including products not foods but usually associated with the manufacture of foods.*			
Biscuit	Bakers	..	55s. per week
	Brakesmen ..	..	48s. „
	Mixers	..	51s. „
	Oven firemen, storemen	..	48s. „
	Other males ..	..	45s. „
	„ females ..	..	22s. 6d. „
Confectionery	Confectioners ..	..	54s. „
	Head storemen ..	..	50s. „
	Storemen and labourers	..	42s. „
	Chocolate dippers—female	..	22s. „
	General workers—male	..	36s. „
	„ female	..	20s. „
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. per week	..
	Smuttermen ..	..	51s. per week
	Store hands, &c. ..	..	48s. „
	Wheat carriers ..	..	72s. „
Jam, fruit-preserving, pickle, sauce, vinegar	Foremen	50s. to 80s. per week	..
	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. 6d. „

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	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. ,,
	Female adults ..	..	22s. 6d. ,,
Sugar, treacle refining ..	Vacuum hands and others	47s. to 95s. per week	..
Order 3.—*Drinks and Stimulants.*			
Aerated waters, cordials ..	Cordial makers ..	55s. to 80s. per week	60s. per week
	Bottlers by hand or rack other than automatic	..	50s. ,,
	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	..	65s. ,,
	Brewhouse, millhouse hands (skilled)	..	54s. ,,
	Coopers	..	66s. ,,
	General labourers and bottling hands	45s. to 50s. per week	..
Condiments, coffee, chicory, chocolate, spice, &c.	Roasters	..	52s. 6d. per wk
	Mixers, blenders, and storemen	..	50s. ,,
	Packers and others ..	..	45s. ,,
	Female adults ..	..	22s. 6d. ,,
Ice, refrigerating	Foremen	..	84s. ,,
	Chambermen ..	..	66s. ,,
	Rabbit graders ..	..	72s. ,,
	Ice pullers and stackers	..	56s. ,,
	All others	..	54s. ,,
Order 4.—*Narcotics.*			
Tobacco, cigars, cigarettes ..	Flake coverers ..	70s. to 80s. per week	77s. per week
	,, ,, female	40s. to 47s. ,,	44s. ,,
	Gangers in press room	..	65s. ,,
	General hands in press-rooms, &c. (unskilled)	50s. to 60s. per week	..
	Cigar makers (piece-work), males	55s. to 85s. per week	..
	Cigar makers (piece-work), females	20s. to 45s. ,,	..
	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, 1913—*continued.*

Industries.	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 ..	36s. to 54s. per week	..
	Tuners	38s. 6d. to 52s. ,,	..
	Power-loom weavers..	13s. 9d. to 30s. ,,	..
	Spinners	36s. to 42s. ,,	..
	Labourers	33s. 6d. to 42s. ,,	..
	Wool scourers ..	..	42s. per week
	Fettlers	..	42s. ,,
	Dye house labourers	..	42s. ,,
	Wool dryers, warpers	..	42s. ,,
	Willey house labourers	..	42s. ,,
	Warpers—female ..	18s. 6d. to 28s. per wk.	..
Order 2.—*Dress.*			
Clothing, tailoring	Order—		
	Cutters and tailors	..	60s. per week
	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	..
Corset	Corset makers—female	20s. to 35s. per week	32s. 6d. per wk.
Dressmaking, millinery ..	Male cutters ..	..	52s. 6d. ,,
	Female ,, ..	..	30s. ,,
	Male and female pressers	..	50s. ,,
	Female pressers—under 12lb. irons	..	25s. ,,
	Dressmakers in charge	50s. to 120s. 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 ,, ..	..	22s. 6d. per wk.
	Underclothing makers —female	..	20s. ,,

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages. Range.	Wages. General Rate.
Class VII.—Order 2—continued.			
Hat, cap	Body makers, and finishers—silk hats	50s. to 60s. per week	55s. per week
	Shapers, silk hats ..	60s. to 70s. ,,	65s. ,,
	Crown sewers, silk hats —female	20s. to 30s. ,,	25s. ,,
	Trimmers, silk hats—female	22s. 6d. to 30s. ,,	25s. ,,
	Bodymakers, felt hats	70s. to 90s. ,,	77s. 6d. ,,
	Blockers ,,	65s. to 70s. ,,	..
	Finishers ,,	70s. to 100s. ,,	75s. per week
	Shapers ,,	..	65s. ,,
	Binders and trimmers, felt hats—female	20s. to 25s. per week	..
	Machinists, straw hats female	22s. 6d. to 30s. ,,	25s. per week
	Trimmers, straw hats—female	20s. to 25s. ,,	22s. 6d. ,,
	Blockers, pressers—women's hats	50s. to 55s. ,,	..
	Machinists, caps—female	20s. to 25s. ,,	..
Hosiery (piecework) ..	Machinists, knitting—female	22s. 6d. to 35s. ,,	..
	Machinists, sewing—female	20s. to 35s. ,,	..
	Linkers—female ..	25s. to 35s. ,,	..
	Pressers—male ..	..	50s. per week
	,, female ..	25s. to 30s. per week	..
	Winders—female ..	20s. to 30s. ,,	..
	Menders, &c.—female	20s. to 30s. ,,	..
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	..	54s. ,,
	Other females with four years' experience	25s. 6d. to 32s. 6d. per week	..
Furrier	Cutters	60s. to 90s. per week	..
	Machinists—female ..	22s. 6d. to 30s. ,,	..
	Sewers—female ..	20s. to 22s. 6d. ,,	..
Umbrella, parasol	Frame makers ..	42s. 6d. to 55s. ,,	..
	Cutters	40s. to 60s. ,,	
	Finishers—male ..	30s. to 50s. ,,	..
	Machinists—female ..	22s. 6d. to 30s. ,,	..
	Tippers ,, ..	20s. to 25s. ,,	..
			..
Dye works	Dyers and cleaners ..	50s. to 55s. ,,	45s. per week
	Pressers—male ..	..	55s. ,,
	female ..	..	25s. ,,
Ostrich feather	Feather dyers ..	50s. to 60s. per week	..
	,, ,, assistants	35s. to 40s. ,,	37s. 6d. per wk
	Feather curlers, dressers, finishers — female	15s. to 30s. ,,	20s. ,,

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	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 55s. per week	..
	Calico bag-makers—female	15s. to 21s. „	17s. 6d. per wk
Rope, twine, &c.	Males—		
	Foremen ..	55s. to 60s. „	..
	Rope makers ..	50s. to 60s. „	..
	Rope splicers ..	..	60s. per week
	Other adults ..	42s. to 48s. per week	..
	Females—		
	Doffing leaders ..	..	25s. per week
	Head piecers ..	..	23s. 6d. „
	Other adults ..	..	22s. 6d. „
Tarpaulin, tent, sail ..	Tarpaulin and tent makers	48s. to 55s. per week	50s. „
	Sailmakers	..	60s. „
	Tarpaulin, tent, sail-makers—female	24s. 6d. to 27s. per wk.	..
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. „	..
	Feeders and others—male	..	42s. per week
	Feeders and others—female	..	22s. „
	Lithographers ..	60s. to 67s. 6d. per week	..
	Stone polishers and others	42s. to 45s. „	..
	Stereotypers ..	..	66s. per week
Bookbinding, account-book making, stationery, &c.	Bookbinders, paper rulers, guillotine machine cutters	..	64s. „
	Feeders and others—male	..	36s. „
	Forewomen ..	25s. to 35s. per week	..
	Pagers, folders, staplers, &c.—female	..	21s. per week
	Sewers, &c.—female..	..	23s. „
Ink, printing ink	Printing ink makers ..	..	55s. „
	Writing ink „ ..	25s. to 30s. per week	..
Paper	Paper, &c., makers ..	..	63s. per week
	Beatermen	..	63s. „
	Breakermen ..	..	51s. „
	General hands ..	45s. to 50s. per week	..

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class VIII.—continued.			
Paper bag, box, &c.	Machine box cutters—male and female		56s. per week
	Other workers—male		45s. „
	Box-makers—female	22s. to 25s. per week	
	Cardboard carton cutters		52s. per week
	All other carton workers—male		45s. „
	Carton workers—adult female		18s. „
	Paper bag machinists	55s. to 56s. per week	
	„ „ guillotine cutters		50s. per week
	„ „ makers—female		20s. „
Die sinking, engraving, &c.	Copper plate engravers		80s. „
	Die sinkers		65s. „
	Engravers, general	55s. to 70s. per week	
	Process engravers	65s. to 90s. „	
	Photo lithographers		70s. per week
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	23s. to 50s. per week	29s. per week
	Mechanics (fitters, &c.)	72s. to 93s. 6d. „	
	Labourers	51s. to 63s. „	
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	
	Fireworks makers—female	17s. 6d. to 20s. „	
Class XI.—Vehicles, Fittings, Saddlery, Harness, &c.			
Coach, waggon, tramcar, spoke and felloe	Bodymakers, smiths, painters, trimmers		60s. per week
	Vycemen, strikers, labourers	42s. to 45s. per week	
	Wheelwrights, wheelers' machinists, axle makers, blacksmiths		60s. per week
	Face plate workers and screw-cutting turners		54s. „
	Centre turners, strikers, steam hammer drivers and labourers		45s. „
	Trimmers and machinists—female		25s. „
Carriage lamp	Lamp makers		57s. „

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	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. „
	Foreman 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	50s. to 60s. per week	55s. „
Whip (piece work)	Thong makers	44s. to 54s. „	
Class XII.—Ship Building, Fitting &c.			
Dock, slip	Shipwrights		12s. 8d. per dy
	Labourers		10s. „
	Stevedores' men and lumpers		1s. 6d. per hr.
	Wharf labourers		1s. 5d. „
Boat building	Boat builders (skilled)	48s. to 60s. 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	40s. to 42s. 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, 1913—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class XIV.—Drugs, Chemicals, and By-products.			
Blacking, black lead, blue, polishes, &c.	Grinders and mixers	..	48s. per week
	Others	40s. to 42s. 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. „	..
	Packers—female ..	20s. to 27s. 6d. „	..
Fertilizer	Acid tank cleaners, and pit emptiers in superphosphate works	1s. 4d. to 1s. 6d. per hour	..
	Men attending roasters and emptying dens, pits, &c.	51s. to 57s. per week	..
	Men feeding elevators, weighing and bagging machine attendants	..	48s. per week
	Labourers	..	48s. „
Paint, varnish, white-lead ..	Paint and varnish makers	55s. to 60s. per week	55s. „
	Paint and varnish makers' assistants	..	45s. „
Class XV.—Surgical and Scientific Appliances.			
Optical, philosophical instrument, &c.	Opticians, &c. ..	45s. to 65s. per week	..
Surgical appliance, instrument	Surgical instrument makers	50s. to 70s. „	..
	Female makers of belts and bandages	30s. to 40s. „	..
Class XVI.—Timepiece, Jewellery, Plateware.			
Electroplating	Persons mixing and working solutions and electric current	..	68s. per week
	Whetstone grinders ..	..	57s. „
	Liners and hand decorators	..	56s. „
	Grinders, polishers, and coaters	..	54s. „
	Lacquerers and burnishers	..	46s. „
	Persons not otherwise provided for	48s. to 51s. per week	..
Goldsmithing, jewellery, gold-beating	Engravers and chasers	..	60s. per week
	Chainmakers, mounters, ringmakers, silversmiths	..	55s. „
	Setters	..	60s. „
	Other adult workers ..	..	50s. „
	Female chain makers	..	35s. „
	Female scratch brushers, polishers, and gilders	..	45s. „
Watchmaking, &c.	Clock and watchmakers (repairers)	..	70s. „
Class XVII.—Heat, Light, and Energy.			
Electric apparatus	Engine fitters and turners	..	66s. per week
	Winders, switchboard fitters	..	63s. „

WAGES IN MELBOURNE, 1913—*continued.*

Industries.	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. „
Gas and coke	Stokers	..	10s.6d.per day
	Purifiers	..	8s. 6d. „
	Sulphate workers ..	..	9s. 6d. „
	Stove repairers and fitters	54s. to 57s. per week	..
	Service and main layers	66s. to 71s. 6d. „	..
	Gas inspectors ..	66s. to 71s. 6d. „	..
	Labourers	8s. to 8s. 9d. per day	..
Match	Match and vesta makers —female (piecework)	22s. to 38s. 6d. per wk.	..
	Box makers—female (piecework)	13s. 6d. to 38s. 6d. per week	..
	Storemen, packers ..	46s. to 55s. per week	..
Ironfounders' dust, charcoal dust	Foremen	..	52s. 6d. per week
	Mill hands and others	42s. to 48s. per week	..
Hydraulic power	Firemen	..	9s. per day
	Fitters	..	11s. „
	Main layers ..	..	10s „
	Special labourers ..	..	8s. 4d. „
	Ordinary labourers ..	..	8s. „
Class XVIII.—Leatherware (excluding Saddlery and Harness).			
Leather belting	Foremen	..	65s. per week
	Belt makers ..	50s. to 55s. per week	..
	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. „
	Upholsterers ..	..	50s. „
Broom, brushware	Millet broom sorters ..	42s. 6d. to 52s. 6d. per week	..
	Storemen and labourers	..	45s. per week
	Paint brush makers ..	..	67s. 6d. „
	Brush machinists ..	60s. to 64s. per week	..
	Brush finishers ..	..	60s. per week
	Bottle, flue, wire, and bass brush makers	..	52s. 6d. „
	Draw-bench and treadle knot machine workers	..	21s. „
Rubber goods (including cycle tyres)	Calendar hands ..	..	65s. „
	Mill hands	..	58s. „
	Compound scale hands and dough mixers	..	55s. „
	Spreaders, hose, belting &c., hands	..	50s. „
	Tyre makers, repairers, wrappers	51s. to 55s. per week	..
	Tube makers ..	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)	£100 to £160 ,,	..
	,, (advanced) ..	£200 to £400 ,,	..
	Females (elementary)	£40 to £60 ,,	..
	,, (advanced)	£80 to £180 ,,	..
Clerical	Bookkeepers ..	40s. to 70s. per week	..
	Shorthand clerks and typists—male	40s. to 60s. ,,	..
	Shorthand clerks and typists—female	25s. to 45s ,,	..
Domestic servants*—males ..	Coachmen, footmen, grooms, gardeners	20s. to 30s. ,,	..
	Butlers	25s. to 40s. ,,	..
females	Cooks	20s. to 30s. ,,	..
	Laundresses ..	16s. to 25s. ,,	..
	Housemaids ..	12s. to 17s. ,,	..
	Nursemaids ..	10s. to 17s. 6d. ,,	..
	General servants ..	15s. to 20s. ,,	..
	Girls	9s. 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	26s. to 32s. 6d. per wk.	..
	Cooks	28s. 6d. to 42s. ,,	..
Night watchmen	Wharf, working, and outside patrol (other than foot)	..	57s. per week
	Outside patrol (foot)..	..	54s. ,,
	Others	..	48s. ,,
Lift attendants	.. .. ..	37s. 6d. to 42s. per wk.	..
Building	Bricklayers ..	..	71s. 6d. per wk
	Bricklayers' labourers	..	57s. ,,
	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) ..	..	71s. 6d. per week
	,, and gasfitters	..	66s. ,,
	Slaters and tilers ..	..	71s. 6d. ,,
Baking	Foremen or single hands	..	69s. ,,
	Persons not otherwise provided for	..	64s. ,,
	Jobbers	..	1s. 6d. per hr.
	Carters	..	48s. per week
	Pastrycooks ..	50s. to 62s. 6d. per wk.	..
	General workers—male	..	34s. 8d. per wk
	,, ,, female	..	20s. ,,

* With board and lodging.

WAGES IN MELBOURNE, 1913—*continued.*

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
Butchering	Slaughtermen		70s. per week
	Slaughter house labourers		42s. „
	Shopmen and small-goodsmen		60s. „
	Assistant small goods-men, salters, scalders, and general butchers		52s. „
	Delivery cart drivers		45s. „
Carters	Drivers of one-horse vehicles		45s. „
	Drivers of two-horse vehicles		50s. „
	Drivers of three-horse vehicles		54s. „
	Drivers of jinkers and boiler trucks	50s. to 60s. per week	
	Drivers of motor vehicles		50s. per week
Coal and wood yards	Yardmen in charge		47s. 6d. „
	Other yardmen		45s. „
	Carters	50s. to 55s. per week	
Coal and coke yards	Yardmen	54s. to 60s. „	
	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	42s. to 45s. per week	
	Casuals		1s. per hour
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 employés		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	Foremen		57s. 6d. per wk
	Journeymen		50s. „
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		60s. per week
	Assistants		50s. „
	Storemen, packers		45s. „
	Carters	45s. to 50s. 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	

WAGES IN MELBOURNE, 1913—*continued.*

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
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	Employés—male, full hands	..	65s. per week
	Employés—male, other	55s. to 62s. per week	..
	„ female ..	35s. to 46s. „	..
Livery stables	Adults	..	42s. per week
	Casual hands ..	..	1s. per hour
Laundry	Laundresses ..	17s. 6d. to 27s. 6d. per week	22s. 6d. per week
Undertakers	Persons conducting funerals and coffin-making	..	56s. „
	Drivers, grooms, and general workers	..	50s. „
Photography	Operators	60s. to 160s. per week	..
	Printers	40s. to 70s. „	..
	Retouchers—female ..	15s. to 60s. „	..
	Finishers—female ..	10s. to 25s. „	..
	Makers of photographic materials	40s. to 75s. „	..
	Finishers, packers—female	22s. 6d. to 27s. 6d. „	..
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 1913 :—

EMPLOYÉS UNDER WAGES BOARDS AND AVERAGE WAGES.

—	Males.		Females.	
	No.	Average Weekly Wage.	No.	Average Weekly Wage.
		£ s. d.		£ s. d.
Apprentices and improvers ...	14,269	1 1 9	11,803	0 12 3
General workers (mostly young persons)	3,259	1 0 2	1,486	0 14 6
Persons employed at minimum wage or over	58,163	2 16 0	19,139	1 7 10
Piece workers	2,191	3 5 9	3,679	1 3 9
Total	77,882	2 8 6	36,107	1 1 9

EMPLOYÉS OUTSIDE OF WAGES BOARDS, AND AVERAGE WAGES.

—	No.	Average Weekly Wage.
		£ s. d.
Males	6,175	2 6 8
Females	5,942	1 2 2
Total	12,117	1 14 8

Total 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: 1909 TO 1913.

Produce.	Value in—				
	1909.	1910.	1911.	1912.	1913.
Cultivation.	£	£	£	£	£
Wheat	5,501,605	5,512,060	3,547,266	4,343,202	5,352,141
Oats	777,547	909,295	663,916	953,750	777,903
Barley, Malting ...	121,365	172,717	202,620	259,217	151,771
Barley, Other ...	45,816	54,665	58,823	73,213	85,033
Maize	119,725	96,166	147,357	119,305	121,234
Other Cereals ...	36,844	50,834	37,026	48,458	46,059
Grass and Clover Seed	3,290	4,066	2,376	5,802	5,177
Potatoes	517,775	534,515	614,540	678,448	573,227
Onions	98,325	63,723	177,744	176,142	138,257
Other Root Crops ...	29,245	35,160	20,398	26,691	25,469
Hay	2,432,840	2,455,560	3,200,109	4,010,979	2,565,740
Straw	239,385	158,834	116,911	105,407	101,614
Green Forage* ...	141,465	179,565	187,943	211,150	247,408
Tobacco	3,691	3,783	4,094	1,587	3,266
Grapes, not made into wine, raisins, &c.	31,181	26,704	45,500	31,486	25,639
Raisins, ordinary ...	35,919	35,854	52,628	41,934	49,375
" sultanas ...	94,639	96,408	142,932	171,884	126,651
Currants	49,334	48,829	88,899	60,421	71,413
Wine	61,996	90,828	81,952	120,611	116,822
Hops	4,822	5,247	4,714	9,062	6,279
Other Crops ...	39,117	48,943	44,064	56,015	63,937
Fruit grown for Sale in Orchards and Gardens	449,497	551,280	585,172	656,363	769,647
Fruit in Private Orchards and Gardens	9,060	8,100	8,432	8,180	8,250
Market Gardens ...	255,350	269,450	258,275	260,350	269,425
Total ...	11,097,333	11,412,586	10,293,691	12,429,657	11,701,737

* Exclusive of area under sown grasses.

VALUE OF VICTORIAN PRODUCTION, 1909 TO 1913—*continued.*

Produce.	Value in—				
	1909.	1910.	1911.	1912.	1913.
Dairying and Pastoral.	£	£	£	£	£
Milk consumed in natural state	805,480	950,940	1,036,000	1,419,900	1,274,590
Butter made ...	2,493,990	3,109,510	3,860,100	3,478,640	3,341,920
Cheese made ...	130,670	105,340	106,160	125,480	126,670
Cream made (not for butter)	19,850	22,480	21,160	22,940	23,800
Condensed, Concentrated, and Powdered Milk	66,425	46,940	260,324	362,480	396,436
Horses	261,268	388,556	520,580	328,020	454,820
Cattle	1,602,858	1,860,888	2,344,680	1,165,430	2,277,170
Pigs	470,081	541,785	454,815	389,350	678,355
Sheep (without wool)	1,317,320	1,298,740	1,558,170	709,660	1,572,420
Wool	4,044,755	4,318,100	4,142,747	3,751,083	4,032,954
Total ...	11,212,697	12,643,279	14,304,736	11,752,983	14,179,135
Mining.					
Gold	2,778,956	2,422,745	2,140,855	2,039,464	1,847,475
Coal	76,945	189,254	301,142	259,321	274,940
Stone from Quarries (including limestone)	88,610	114,955	151,426	161,843	167,567
Other Metals and Minerals	26,257	24,202	24,368	39,067	54,762
Total ...	2,970,768	2,751,156	2,617,791	2,499,695	2,344,744
Forest Produce.					
Timber (Forest Sawmills only)	189,130	248,315	265,990	265,980	290,280
Firewood (estimated)	402,600	428,670	446,700	457,890	494,580
Bark for Tanning ..	66,520	70,570	77,350	82,380	78,950
Total ...	658,250	747,555	790,040	806,250	863,810
Miscellaneous.					
Honey and Beeswax	19,768	25,926	21,861	39,425	26,077
Poultry production (estimated)	1,570,000	1,592,000	1,618,500	1,659,100	1,706,700
Rabbits and Hares	219,890	247,152	195,987	261,534	349,671
Fish	75,101	72,187	69,675	89,648	100,489
Total ...	1,884,759	1,937,265	1,906,023	2,049,707	2,182,937
Total Value of Primary Products	27,823,807	29,491,841	29,912,281	29,538,292	31,272,363
Manufacturing — Added Value*	12,748,654	14,189,438	15,958,576	17,752,167	18,714,999
Grand Total ..	40,572,461	43,681,279	45,870,857	47,290,459	49,987,362

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

Dairying and pastoral production showed a considerable advance in 1913, as compared with 1912. The season was also favorable to agriculture although there was a decrease in the total value of agricultural production. The cause of this decrease was a big fall in the price of hay. An illustration of the progress made in the manufacturing industries is contained in the figures relating to the amount added in the process of manufacture to the value of the raw materials used.

The value of production per head of the total population in each of the last five years was as follows :—

VALUE OF PRODUCTION PER HEAD OF POPULATION: 1909 TO 1913.

Produce.	Value of Produce per head in—									
	1909.			1910.			1911.			1912.			1913.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s*	*d.*
Cultivation	8	13	3	8	15	8	7	15	10	9	3	7	8	8	0
Dairying and Pastoral	8	15	1	9	14	7	10	16	6	8	13	7	10	3	7
Mining	2	6	5	2	2	4	1	19	8	1	16	11	1	13	8
Forest	0	10	3	0	11	6	0	12	0	0	11	11	0	12	5
Miscellaneous ...	1	9	5	1	9	9	1	8	10	1	10	3	1	11	4
Total Primary Produce	21	14	5	22	13	10	22	12	10	21	16	3	22	9	0
Manufactures ...	9	19	0	10	18	4	12	1	7	13	2	1	13	8	8
Grand Total ...	31	13	5	33	12	2	34	14	5	34	18	4	35	17	8

The greatest increase in the value of production per capita during the five years under review is shown to have taken place in the manufacturing industries, the output of which per head in 1913 represents an advance of 35 per cent. on that for 1909.