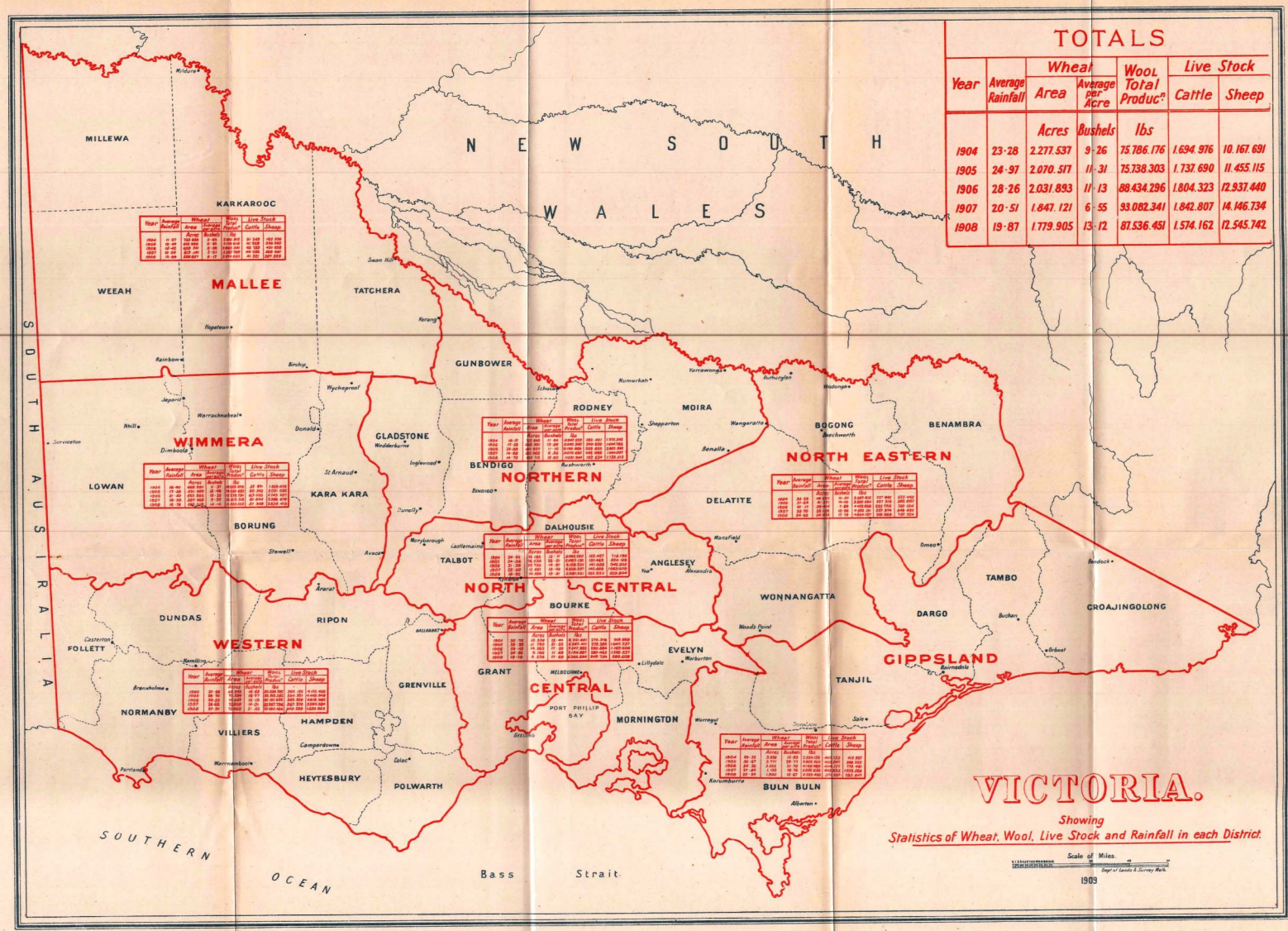

VICTORIA.

Showing
Statistics of Wheat, Wool, Live Stock and Rainfall in each District.

Scale of Miles.

Dept of Lands & Survey Melb.

1909

TOTALS

Year	Average Rainfall	Wheat Area	Wheat Average per Acre	Wool Total Product	Live Stock Cattle	Live Stock Sheep
		Acres	Bushels	lbs		
1904	23·28	2.277.537	9·26	75.786.176	1.694.976	10.167.691
1905	24·97	2.070.517	11·31	75.738.303	1.737.690	11.455.115
1906	28·26	2.031.893	11·13	88.434.296	1.804.323	12.931.440
1907	20·51	1.847.121	6·55	93.082.341	1.842.807	14.146.734
1908	19·87	1.779.905	13·12	87.536.451	1.574.162	12.545.742

PRODUCTION.

Land Settlement, etc.

Private and Crown lands.

The return for 1908 received from the Lands Department shows that of the total area of the State (56,245,760 acres) 27,953,071 acres are held privately, 23,283,002 acres being alienated in fee simple, and 4,670,069 acres in process of alienation. Crown lands have a total area of 28,292,689 acres, and comprise roads in connexion with lands alienated and in process of alienation, 1,664,335 acres; agricultural college and water reserves, 442,583 acres; State forests and timber reserves (under *Forests Act* 1907), 4,016,995 acres; permanently reserved for public purposes, 1,592,400 acres; other reserves, including State Forests and Timber Reserves (under Land Acts), 1,294,609 acres; unsold land in towns, &c., 1,571,344 acres; in occupation under grazing area leases, 3,183,800 acres; Mallee pastoral leases, 987,186 acres; all other licences and leases, 892,427 acres.

Land Acts.

The present system of disposing of the Crown land 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, again, has been amended by the Land Acts of 1903, 1904, and 1905.

Lands available for occupation.

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. The whole of the unalienated

lands of the Crown which are now available for selection, excluding available Mallee lands, are divided into the following classes :—

LANDS AVAILABLE FOR OCCUPATION 31ST DECEMBER, 1908.

County.	Classification.				
	First.	Second.	Third.	Auriferous.	Pastoral.
	acres.	acres.	acres.	acres.	acres.
Buln Buln	7,959	40,044	47,540	4,753	..
Croajingolong	..	..	489,500	14,150	593,200
Dargo	..	..	72,200	97,600	239,100
Tambo	..	..	179,100	3,800	366,950
Tanjil	..	..	21,700	49,500	360,000
Wonnangatta	..	320	115,006	..	946,270
Bogong	1,038	9,574	148,055	138,320	197,300
Benambra	..	..	150,646	88,683	426,580
Delatite	638	26,078	206,780	69,673	170,300
Moira	..	..	7,613	..	..
Anglesey	26	3,375	45,564	9,490	..
Bourke	..	3,376	..	..	..
Dalhousie	20	1,528	3,811	7,962	..
Evelyn	720	23,705	..	9,145	..
Mornington	..	5,720	50,164	..	..
Bendigo	230	921	5,892	13,809	..
Rodney	..	474	2,046	2,800	..
Borung	20	1,501	36,611	16,976	5,147
Gladstone	321	2,025	4,123	67,209	..
Lowan	..	233	47,373	..	11,880
Kara Kara	27	2,601	2,674	21,080	..
Talbot	391	495	638	78,499	..
Tatchera	..	70	..	..	..
Heytesbury	..	1,050	162,914	..	..
Polwarth	480	13,275	36,140	..	..
Grant	..	75	27,919	20,600	..
Grenville	..	40	..	29,760	..
Ripon	..	..	11,235	9,360	..
Normanby	..	285	74,406	..	..
Dundas	425	..	30,193	..	..
Villiers	..	..	238	..	..
Follett	..	117	15,884	..	..
Total	12,295	136,882	1,995,965	753,169	3,316,727

NOTE.—The figures in this table are exclusive of 2,392 acres of swamp or reclaimed lands and 17,080 acres of lands that may be sold by auction.

In addition there are 6,412,500 acres of Mallee land. The leases of these lands expired in 1903, and since that time the areas have been held principally on grazing licences renewable annually—the Government being entitled to resume possession at any time—thus they are classed amongst lands available for occupation. The total area of land available is, therefore, 12,647,010 acres.

Land Acts 1903, 1904, and 1905

The *Land Act* 1903 introduced important amendments in regard to the classification of unalienated Crown lands. It is provided that any such land may, before or after being classified, be made available for selection. It is also provided that the Governor in Council may, if at any time it appears that the value of any unalienated land is greater than the value as fixed by the provisions of the Land Act of 1901, increase the rates of the licence fees, rent or purchase money payable in respect thereof.

The *Land Act* 1904 deals principally with procedure.

The *Land Act* 1905 has for its principal enactment the conditions upon which bee range areas may be declared and bee farm site licences granted. Three bee farm licences, and an area of ten acres in the whole, is the limit allowed to any one person or company. All licences are issued for one year, but are renewable up to seven years.

Agricultural and grazing lands.

Crown lands of the first class, of which there are now 12,295 acres available for selection, are situated principally in the county of Buln Buln, and consist for the most part of good chocolate soil of volcanic origin, and the grey soil of the coal-bearing country. These areas are heavily timbered. The second class land is fairly distributed throughout the State, and comprises silurian and granite ranges, and lower lands of tertiary formation. A large portion of this land has chiefly a grazing value, though parts, comprising creek flats and gullies, are suitable for cultivation; but large areas are specially suitable for vineyards and orchards. The area of this class available is 136,882 acres. The area of third class lands, which, like the second class lands, are to be found in almost every county in the State, is very extensive, amounting to 1,995,965 acres available for selection.

Any person of the age of 18 years is eligible to take up or select under the Land Acts the area prescribed in accordance with the classification of the land—less the area of previous selections.

A grazing lease may be obtained of an area not exceeding 200, 640, or 1,280 acres of first, second, or third class lands respectively, for any term expiring not later than 29th December, 1920. Upon expiration of the lease the retiring lessee shall be paid for his improvements by the incoming tenant at a valuation limited to 10s., 7s. 6d., or 5s. per acre for the three classes respectively. The annual rent of a grazing area is not less than 3d., 2d., or 1d. per acre according to the value of land. The lessee of a grazing area may select thereout an agricultural or grazing allotment.

Agricultural and grazing allotments.

A person desirous of selecting and obtaining the freehold may do so by either taking up a grazing area lease and selecting thereout, as just described, or by obtaining direct an agricultural or grazing allotment without first taking up a grazing area lease. The purchase money is fixed at not less than 20s., 15s., or 10s., per acre, according to the value of the land; and is payable by even annual instalments, extending, in the case of a residential selector, over a period of 20 or 40 years, at his option; but, in the case of a non-residential selector over a period of 20 years only. The land is occupied during the first six years under *licence*, and during the remainder of the term under lease. During the period of the licence the land must be kept free from vermin and enclosed with a fence, and certain improvements must be made. After the expiration of the six years' licence, the selector, if all conditions have been complied with, can either purchase his holding by paying up the balance of the purchase money, the six years' instalments (licence-fees) already paid being

credited as part payment, or obtain a lease extending over 14 or 34 years, as the case may be, at the same annual rental, which is also credited to him as part payment of the fee-simple.

Perpetual leases.

Instead of selecting by way of licence and lease, by which system 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 till 1909. 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 five miles of the land for six months during the first year, and 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.

Pastoral lands.

The total area of the pastoral lands now available for occupation is 3,316,727 acres, situated in the counties of Wonnangatta, Croajingolong, Benambra, Tambo, Tanjil, Dargo, Bogong, Delatite, Lowan, and Borung. A large portion is difficult of access, being in high altitudes, where cultivation is impossible and grazing impracticable except during the summer months.

Swamp or reclaimed lands.

The total area of swamp or reclaimed lands amounts to 2,392 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) comprise 17,080 acres. Any 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 three 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 six to 20 half-yearly instalments with interest at 4 per cent. per annum. There are stringent provisions prohibiting agreements which would prevent fair competition.

Auriferous lands.

The "auriferous lands" comprise 753,169 acres, and are distributed over twenty counties in various parts of the State. Any portion of these lands which is found to be non-auriferous, or which can be alienated without injury to mining interests, may be transferred to a class or classes under which it may be selected. This class of land is, for the most part, suitable for fruit culture and grazing. Annual

licences are issued for areas not exceeding 20 acres, on payment of a yearly licence-fee of 5s. for areas of 3 acres or under, of 10s. for areas from 3 to 10 acres, and of 1s. per acre for areas over 10 acres. The licensee has the right to use the surface of the land only; cannot assign or sublet without permission; must either reside on the land or within four months enclose 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 licence 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 one acre or a lesser area 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 being 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.

Annual grazing licences.

Annual grazing licences to enter with cattle or sheep upon reserves or other Crown lands may be issued renewable for any period up to seven years, subject to cancellation at any time during the period. Any fencing erected by a licensee may be removed by him.

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, brickmaking, &c. Licensees of sites for residences, gardens, inns, stores, smithies, butter factories, or similar buildings, 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 which case any rents previously paid will be credited towards purchase money.

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, the scrub can be cleared off at a moderate cost. With the extension of railway facilities and by the utilization of some of the surplus waters of the Murray for irrigation there will be great scope for successful settlement in this country. There are now 6,412,500 acres included in the general list of unalienated lands available for occupation. The terms of purchase by licence and lease are very similar to those in respect of agricultural and grazing allotments previously

described, viz., for 1st, 2nd, and 3rd class land, not less than £1, 15s. and 10s. respectively, payable during either 20 or 40 years. Larger areas may be held, however, the maximum being 640 acres, 1,000 acres and 1,280 acres respectively. In the case of Mallee Perpetual Leases the rental must not exceed 1¼ per cent. of the unimproved value, and if one-fourth of the area be cultivated within four years and one-half by the end of the sixth year, or improvements be effected to the extent of 10s., 7s. 6d. or 5s. per acre, according to the classification, residence is unnecessary.

Alienation of land, 1900 to 1908.

During the year 1900, 494,752 acres were alienated in fee simple, including land selected in previous years; 406,145 acres were alienated in 1901; 523,574 acres in 1902; 510,080 acres in 1903; 584,010 acres in 1904; 907,339 acres in 1905; 344,519 acres in 1906; 181,050 acres in 1907; and 137,023 acres in 1908, the purchase money being £526,650 in 1900; £438,363 in 1901; £555,538 in 1902; £542,011 in 1903; £613,511 in 1904; £934,386 in 1905; £375,296 in 1906; £208,619 in 1907; and £176,335 in 1908. The Crown lands absolutely or conditionally sold during the last nine years were 232,783 acres in 1900; 523,464 in 1901; 306,806 in 1902; 347,813 in 1903; 263,180 in 1904; 226,197 in 1905; 179,755 in 1906; 197,545 in 1907; and 220,435 acres in 1908.

Pastoral occupation of Crown Lands.

The pastoral occupation of Crown lands on 31st December, 1908, was as follows:—

Number of Licences and Leases	21,766
Area (acres)	15,955,346
Annual Rental	£55,201

Total amount realized by sale of Crown Lands.

From the period of the first settlement of the State to the end of 1908, the amount realized by the sale of Crown lands was £32,321,689, or at the rate of £1 7s. 9d. per acre. It must, however, be remembered that payment of a considerable portion of this amount extended over a series of years without interest, and upon very easy terms.

"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 1908 there were submitted 660 applications to have brought under the Act land amounting to 58,742 acres in extent, and to £1,022,395 in value, whilst the land actually brought under the Act during the year by

application was 61,752 acres, valued at £983,132. Up to the end of 1908, there had been brought under the Act 2,499,755 acres valued at £50,840,581. The number of certificates of title issued in 1908 was 10,987.

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. Since 1884-5 the assurance fund has been reduced by £75,073 which amount was advanced towards the purchase of land adjoining the Titles Office, the fund receiving interest thereon at 4 per cent. per annum from the general revenue. The amount paid up to 30th June, 1908, as compensation and for judgments recovered, including costs, was £6,546, representing 32 claims.

Village settlement.

Chiefly with a view to providing an outlet for the unemployed labour of the State, 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. For the Village Communities certain lands were set apart and divided into allotments of from 1 acre to 20 acres in extent, to occupy which for periods of three years permits are granted to approved applicants. An applicant must not be under the age of eighteen, nor the owner in fee simple of 2 acres or upwards, nor the lessee of a pastoral allotment or grazing area, nor a licensee to occupy or improve an Agricultural Allotment. During the period over which the permit extends the occupant pays a rental of 3d. per acre per annum, or if he occupy Mallee land, of 1d. per acre per annum, and on the expiration of that period he is granted a lease for twenty years, during the currency of which he is required to pay half-yearly, in advance, a sum equal to the fortieth part of the price set upon the allotment, which is not less than £1 per acre; he has also to repay, in equal yearly instalments extending over the currency of his lease, any moneys which may have been advanced to him, and to pay the cost of surveying his allotment in ten half-yearly instalments extending over the first five years thereof. The lessee is required to comply with conditions of residence, and to bring one-tenth of his land under cultivation within two years of the date of his lease, and one-fifth within four years of such date; and in addition thereto he is required to put on the land permanent improvements to the value of £1 per acre within six years of such date. All conditions having been complied with, the lessee is entitled to receive a grant in fee at any time after six years from the date of lease on payment of the full amount due.

Homestead Associations and Village Communities.

The Homestead Associations were originally combinations of not less than six persons who desired to settle near each other. These Associations, however, proving unsuccessful, the part 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 this area was, however, found to be unsuitable for Village Settlement purposes, and has been withdrawn from the operation of the Act. After the Act had been in operation for some time, it was generally recognised that the area which a settler could acquire, viz., 20 acres, was too small, in many cases, to make a living on, and an area not exceeding £200 in value was allowed by the *Land Act* 1904 as the maximum. The area now occupied is 45,140 acres, and this is divided among 1,513 settlers giving an average of 29 acres each. At the time of the last report (July, 1909), there were 1,330 settlers actually residing on their allotments, and there were 183 who, though not residing on the properties, were improving them, making a total of 1,513 persons in occupation. Including wives and families, the total persons numbered 6,692. On 30th June, the stock numbered 8,505 bullocks, cows, and calves, 2,146 horses, 19,579 fowls, and 1,653 pigs, which, together with other stock (goats, sheep, &c.) were valued at £66,779. The area under cultivation was 21,284 acres, and the total value of improvements effected was £248,338.

The numbers specified above do not include a considerable number of settlers who have surrendered their Village Settlement leases and obtained licences in lieu thereof, under Section 47 of the *Land Act* 1901.

The total amount of monetary aid advanced to settlers was £67,379, and no advances have been made since 1903. At 30th June, 1909, £32,623 of the amount advanced had been repaid by the settlers.

Closer Settlement Act 1898.

A system by which the Government was enabled to purchase private lands for closer settlement from persons willing to part with them at a fair price, was introduced in 1898, by Part III. of the Land Act of that year. That part, with several subsequent amendments of minor importance, became Part IV. of the Consolidated Act of 1901, since superseded by the Closer Settlement Act of 1904. By this Act the Minister was empowered, after a favorable report and valuation had been obtained, to enter into a provisional contract for the purchase of land, copies of which contract and report were to be laid before Parliament; and if the Legislative Assembly, by resolution, declared it expedient to acquire such land, a Bill for the purchase thereof was to be introduced. The price to be paid by settlers of the land so acquired was so fixed as to cover cost of purchase, survey, and subdivision, value of land absorbed by roads and reserves, cost of constructing roads, cost of clearing, draining, fencing, and other improvements which the Board of Land and Works might effect prior to

disposal as farm allotments, and any other incidental expenses. Any person aged 21 (not a holder of rural land valued at £1,250, and who would not, by reason of the grant, become a holder of land exceeding such value) could be granted one farm allotment under conditional purchase lease. The purchase money, with interest at 4½ per cent., had to be paid by 63, or a lesser number of half-yearly instalments, two of which were required to accompany the application. The conditional purchase lease issued was for a term not exceeding 31½ years, and contained, so far as consistent, the usual conditions of perpetual leases, also the following:—(*a*) Improvements to the value of 10s. per acre; or, if the Board so determined, to the value of 10 per cent. of the purchase money, before the end of the third year; and to the same extent, in addition, before the end of the sixth year; (*b*) Personal residence or residence by wife or child over eighteen years of age for eight months during each of the first six years; (*c*) Not to transfer, assign, mortgage, or sublet within first six years; and any other conditions prescribed by the regulations. The fee-simple could be acquired after the first six years, if the conditions were complied with, on payment of the balance of principal. Forfeiture for non-payment of an instalment, could be prevented by payment thereof, with a penalty of 5 per cent. within three months, or of 10 per cent. within six months. Any tenant of land acquired by the Crown from his landlord could be granted a prior right to conditional purchase of any area not exceeding £1,250 in value, or £2,000 if there were a homestead. Power was given to close unused roads, and portions of the land acquired could be used for experimental farms.

Estates purchased under Act of 1898.

Under the authority of the Act of 1898, the following purchases were made:—

(1) The Wando Vale Estate, containing 10,446 acres, situated in the County of Dundas, purchased on 23rd March, 1900, for £63,984.

(2) The Walmer Estate, 13,769 acres, in the County of Borung, purchased on 23rd October, 1900, for £44,750.

(3) Brunswick Lands, 91 acres, in the County of Bourke, purchased on 7th November, 1900, for £2,644.

(4) The Whitfield Estate, 4,246 acres, in the County of Delatite, purchased on 1st November, 1900, for £36,095.

(5) The Eurack Estate, 5,108 acres, in the County of Grenville, purchased on 13th November, 1901, for £53,640.

The total of the purchase money and the incidental expenses, amounting to £211,095, represents part of a loan of £400,000 authorized by Acts No. 1602 and No. 1749 for the purposes of closer settlement. The vendors of the Whitfield and Eurack estates accepted £56,095 in Government 3 per cent. stock, and the balance in cash, the total cash payment over the five estates being £153,245.

Closer Settlement Act 1904.

On 30th November, 1904, an important Act was passed further providing for the acquisition and disposal of land for closer settlement—this Act, the Land Act of 1901, and other Acts amending

same being now treated as the land legislation of the State. The Act of 1904 is administered by a Board consisting of three persons appointed by the Governor in Council, and intrusted with power to acquire, either by agreement or compulsorily, blocks of private land in any part of the State for the purposes of closer settlement. Such land as may be acquired by the Board is to be purchased by money the proceeds of the sale of debentures or stock under this Act; or, with the consent of the Treasurer, of Victorian Government Stock. The Governor in Council during the first five years of the operation of the Act may for the purposes of the Act increase the amount of the Victorian Government Stock by a sum not exceeding £500,000 in any one financial year; or, instead of increasing the Victorian Government Stock, may issue debentures for the whole or any portion of such sum. The principal and interest on all stock and debentures issued is to be a charge on the Closer Settlement Fund created from all moneys received by the Board, and the fund heretofore known as the Farm Settlements Fund transferred to the Board.

Acquisition and Administration.

The Minister administering the Act may authorize the inspection of private land, and the Board shall affix its value when deemed suitable. If the Minister agrees with the Board's valuation the land may be acquired either by auction or other sale of the estate, or by purchase or exchange of land equivalent at a price not exceeding the Board's valuation, or by compulsory acquisition by resolution passed by both Houses of Parliament. Where money has been lent on land, unless with the consent of the mortgagee, no less sum shall be paid as purchase money for such land than the amount of money so lent with interest up to time of purchase. Difference of opinion as to the value of any land desired by the Board is to be referred to a Compensation Court for determination.

The Board may dispose of all lands thus acquired on conditional purchase lease as farm allotments, or as allotments for workmen's homes, or as allotments for agricultural labourers at fixed prices, the farm allotments to consist of an area of land not exceeding £1,500 in value (except in cases of homestead allotments when the value of land held may be increased to £4,000), the workmen's homes allotments not to exceed £100 in value, and the agricultural labourers' allotments not to exceed £200 in value. No lease of an allotment shall be granted to any person who is already the holder of land of the value of £1,500 (township land excepted), or who would thereby become the holder of land exceeding the value of £1,500, and not more than one allotment is to be held by one lessee. Conditional purchase leases are to be issued for such a term of years as may be agreed upon by the lessee and the Board, and provision is made for payment of the value of the allotment, and interest at a rate of not less than £4 10s. per cent. per annum, by not more than 63 half-yearly instalments. The leases provide for the destruction of vermin and the eradication of noxious weeds, for fencing and its maintenance, and other improvements of a permanent character; for personal residence on the estate; also that the lessee shall not transfer, assign, mortgage, sublet, or part with possession of the whole or any part

of the allotment within the first six years of the lease, special provision being made in cases of death or insolvency. A Crown grant may be acquired at any time after twelve years on payment of the balance of purchase money. In the case of workmen's home allotments, the lessee must, within four months, be in actual residential occupation of the allotment; and within one year from the date of the lease he must fence the allotment and erect a dwelling house of the value of at least £50, and not more than one dwelling house and one place of business shall be erected upon any one allotment. The condition regarding improvements to be made on agricultural labourers' allotments is that the lessee must within one year erect a dwelling house of a value of £30 upon the allotment, and within two years fence the allotment. Advances out of the fund may be made by the Board to lessees of workmen's homes and agricultural labourers' allotments. Such advances, with interest at 5 per cent., are made repayable by equal half-yearly instalments extending over a period not exceeding sixteen years. In lieu of such advance, and subject to similar conditions, the Board may cause dwelling houses and other improvements to be erected at a cost not exceeding £250.

Closer Settlement Act 1906.

Under the provisions of the *Closer Settlement Act* 1906, a lessee who is unable to pay his instalments, may, if the Board is satisfied that he has complied with the conditions of his lease, be granted suspension of payments up to 60 per cent. of the value of his improvements, and payment of the arrears may be made over a definite time, or his lease may be extended for a corresponding period.

Provision is also made whereby a lessee under the original Act (which did not contain this and other concessions) can surrender his lease and obtain a new one with the benefits and privileges of the amended Acts.

The Board may also set aside and reserve portions of any estate for special application by persons resident in Great Britain or Ireland, or any other country.

Closer Settlement Act 1907.

A further privilege is granted, by an amending Act passed in 1907, to lessees who may have spent all their capital in improving their holdings, and have not availed themselves of the provision to suspend their payments. The Board is empowered to grant advances to such lessees up to 60 per cent. of the value of existing improvements, in order that they may carry on farming pursuits, or to enable further improvements to be effected. Such sums advanced with interest at 5 per cent. are repayable by half-yearly instalments extending over sixteen years.

The Board is also authorized to enter into an agreement with any municipality to advance funds to the Council to carry out road-works or channelling to or on any estate acquired for closer settlement.

Closer Settlement Act 1909.

Under the *Closer Settlement Act* 1909, Section 8 of the original Act was so amended that the power to raise money for the purposes of the Act was extended for a further period of twelve months. Provision was made governing the payment of instalments, and conditions of forfeiture were added. The latter were of such a nature that if a lessee paid the whole or any portion of any amount

owing to the Board subsequent to a breach of any covenant or condition of the lease, such payment should not be deemed a waiver of such breach, also that lessees, on payment of a fine of 5 per centum, might secure, at the discretion of the Board, prevention of forfeiture.

This amendment also provided for the sale of areas for quarries for stone, gravel, &c.

Estates purchased.

Up to the end of the year 1904, no land had been acquired under the authority of the Act of that year; but up to date (June, 1909) the following purchases have been made:—

ESTATES FOR SUBDIVISION INTO FARM ALLOTMENTS.

Estate.	Area.	Situation.	Amount Paid.	No. of Allotments.
	acres.		£	
Wyuna ...	23,016	In the Goulburn Valley ...	120,875	141
Springvale ...	3,396	In Kiewa River Valley ...	25,895	20
Memsie ...	10,028	On River Loddon... ...	57,158	43
Overnewton...	11,336	Keilor Plains	71,492	75
Richmondvale	1,280	Near Traralgon	11,000	12
Restdown ...	17,894	On River Campaspe ...	60,391	55
Strathkellar ...	10,227	Near Hamilton	74,150	63
Bona Vista ...	2,000	Near Warragul	28,832	39
Werribee Park	23,214	Near Werribee	301,782	being subdivided
Lara ...	8,329	Near Lara	45,825	34
Willows ...	400	Near Traralgon	5,131	4
Greenvale ...	304	Near Geelong	7,298	6
Ercildoune ...	1,200	Near Burrumbeet ...	12,199	11
Tandarra ...	4,558	Near Bendigo	21,082	20
Dura ...	337	Near Port Fairy	3,200	8
Exford ...	8,054	Near Melton	64,039	54
Colbinabbin ...	19,164	Near Rushworth	110,198	68
Pirron Yaloak	1,050	Near Colac	23,725	16
Numurkah ...	2,360	Adjoining Numurkah ...	18,900	18
Allambee ...	5,023	Near Warragul	31,744	32
Keayang ...	1,494	Near Terang	14,965	12
Staughton Vale	9,830	Near Bacchus Marsh ...	66,465	50
Werneth ...	6,450	Near Cressy	31,042	21
Hogan's ...	444	Near Neerim	6,197	9
Balure ...	183	Near Condah	1,463	10
Inverary ...	1,260	Near Condah	7,547	24
Wein Wein Gurk	3,021	Near Swan Hill	8,684	13
Springs ...	398	Near Condah	2,289	8
Condah ...	157	Near Condah	1,724	to be subdivided
The Heart ...	3,793	Near Sale	55,139	47
Cohuna ...	5,111	Near Kerang	51,135	45
Mooralla ...	17,199	Near Hamilton	60,196	to be subdivided

Nine of the properties, viz., The Willows, Greenvale, Ercildoune, Dura, Springs, Balure, Wein Wein Gurk, Inverary, and Hogan's, embracing an area of 7,547 acres, were acquired under the provisions of section 6 of the Act, which enables the Board, with the

approval of the Governor in Council, to ratify and adopt any provisional agreement made between several intending purchasers and the owner of an estate, if satisfied that the agreement is a *bonâ fide* one, and the terms fair and reasonable.

Altogether, the Board has forty-nine properties, with an area of 240,090 acres, subdivided into 1,203 farm allotments and 589 workmen's homes allotments, of which 42 of the former and 106 of the latter remain unsold.

The sum of £337,803 had been repaid to the Closer Settlement Fund up to 30th June, 1909, and of this amount £169,665 has been transferred from that fund to revenue to meet interest due to stockholders: £121,247 has been drawn from the same fund for redemption and cancellation of stock, and for capital expenditure, the balance to the credit of the fund on 30th June, 1909, being £36,144. The balance of unredeemed stock is now £1,560,246.

Werribee Park Estate (23,214 acres), is to be made available in March, 1911, by which time an area of over 1,000 acres will probably be placed under irrigable conditions. The whole of the area is practically free from stone, and with the aid of artificial manures, responds readily to cultivation.

Konong Wootong Estate (10,038 acres), is the only area so far acquired under the compulsory clauses of the Act, and it is expected that it will be subdivided and made available in about twelve months' time.

Closer Settlement 1903, 1906, 1908, and 1909.

The following statement summarizes what has been done by the Government of Victoria in acquiring and subdividing land for the purposes of closer settlement and in putting settlers thereon up to 30th June, 1909, and includes information for the years ending 31st December, 1903 and 1906, and 30th June, 1908.

CLOSER SETTLEMENT, 1903, 1906, 1908, AND 1909.

	At 31st December.		At 30th June.	
	1903.	1906.	1908.	1909.
Estates Acquired—				
Number	5	36	45	49
Area ... acres	33,774	190,036	213,830	240,090
Cost ... £	214,064	1,359,590	1,523,205	1,656,172
Made Available and Occupied—				
Number of Holdings ...	289	1,014	1,655	1,792
Area ... acres	33,774	119,876	188,787	196,573
Resident Population ...	887	3,265	5,600	5,608
Area in course of preparation or occupation ... acres	...	...	23,214	41,191
Number of Allotments open for Application—				
Farm Lots	...	...	189	42
Workmen's Homes Lots ...	...	...		106

The cost per acre of the estates acquired averaged £6 6s. 9d. at the close of 1903, £7 3s. 1d. at the close of 1906, £7 2s. 6d. at the close of the financial year 1907-8, and £6 18s. 6d. at the close of the financial year 1908-9.

The land made available represents provision for 1,792 families, the area of the allotments averaging 117 acres at the close of 1903, 118 acres at the close of 1906, 114 acres at the close of the financial year 1907-8, and 109 acres at the close of the financial year 1908-9.

Production on Closer Settlement Estates.

The next table summarizes the extent of production on estates in working order:—

PRODUCTION ON CLOSER SETTLEMENT ESTATES: 1904-5 TO 1908-9.

—		1904-5.	1906-7.	1907-8.	1908-9.
Number of estates	..	4	18	25	33
Area of estates	acres	33,571	117,482	166,434	189,814
Area under crop	„	8,238	19,085	34,167	49,223
Area in fallow and sown grasses	„	2,773	13,585	13,017	16,553
Hands employed, male	No.	270	728	1,025	1,185
Hands employed, female	„	160	388	593	703
Area under cereals	acres	7,567	14,120	22,964	29,920
Area under root crops	„	132	423	435	473
Produce—					
Wheat	bushels	139,300	120,939	139,665	355,722
Oats	bushels		88,789	111,105	270,658
Other cereals	bushels		17,312	19,366	41,717
Hay	tons	2,298	5,511	9,072	26,130
Stock—					
Horses	No.	885	2,593	3,624	4,396
Cattle	„	4,212	10,245	14,257	13,699
Sheep	„	11,511	35,686	46,570	43,968
Pigs	„	1,692	1,585	1,768	2,185
Butter	lbs.	7,402	27,158	68,869	62,278
Hams and bacon	„	14,966	28,418	30,233	30,593
Wool	„	61,949	152,474	252,047	197,655
Stock slaughtered	No.	1,701	2,216	4,111	6,059

Small improved holdings.

An Act was passed in 1906 which empowers the Government to acquire land in rural districts as close as possible to centres of population, to enable persons to enter into the keeping of live stock, poultry, or bees, or the growing of vegetables, &c. Under the provisions of the Act, the Government may spend £150,000 per annum in the purchase of properties for the purpose, and in assisting settlers thereon with the necessary improvements.

In a *Pamphlet for Intending Settlers*, issued from the Lands Department, it is stated that:—

> "Each allotment will contain land to the value of £200 exclusive of cost of survey, clearing, draining, and making roads thereto. In addition to this, £150 may be advanced to enable the settler to effect, under proper supervision, the necessary improvements, such as buildings, fencing, cultivation, and the purchase of live stock and implements.

"Settlers must be over 21 years, and either natural born or naturalized British subjects. Every settler must be a probationary tenant of his block for a term not less than six, and not exceeding eighteen months, and may be employed during that period, under qualified foremen, in improving the holding, for which he may be advanced 20s. per week for the first six months, 15s. per week for the second six months, and 10s. per week for the third six months. From these weekly advances 5 per cent. interest on the value of the holding and the amount advanced for improvements will be deducted. At the end of six, twelve, or eighteen months, the probationary tenant may select the block, obtaining 31½ years to pay for the land, sixteen years to pay for the cost of improvements, and three years to pay for the cost of implements and live stock, with 5 per cent. interest added in each case. Residence is insisted on. At the end of six years the settler may transfer his holding with the approval of the Minister of Lands, and at the end of twelve years the whole of the unpaid balance on land and improvements can be tendered, and the holding made freehold property."

The following statement summarizes what has been done to 30th June, 1909, in acquiring and subdividing land for the purposes of small improved holdings:—

PARTICULARS RELATING TO SMALL IMPROVED HOLDINGS AT 30TH JUNE, 1909.

Estates Bought and Paid for—		
Number		13
Area	acres	5,289
Cost	£	93,478
Estates made available and occupied—		
Number		12
Holdings		260
Area	acres	2,903
Resident Population (settlers and their families) ...		1,410

In addition the Government has completed arrangements for the purchase of 796 acres, and there are also three estates having a total area of 539 acres, which are in process of purchase, but the value of which has not yet been fixed.

Workmen's homes and agricultural labourers' allotments.

Under the original Act, 91 acres were purchased at Brunswick, 4 miles from Melbourne, for £2,644, and after providing for roads and public reserves, the area was subdivided into 56 workmen's homes allotments, on which workmen might devote their spare time and labour to create for themselves comfortable homes under cheerful and healthy conditions. The allotments were made available for application on 4th February, 1901, under certain conditions, of which residence on the allotment and the effecting of improvements of a stated value were compulsory. Two bridges have been erected by the Depart-

ment, water mains have been laid down, and a public hall and a fire-station have been erected by the lessees, which, together with the homes built by the settlers, have changed the general appearance of the district.

Since the disposal of the Brunswick Estate, the Government has purchased the Dal Campbell Estate (45 acres), and the Cadman Estate (18 acres), adjoining the original Brunswick property, and has subdivided them into 96 allotments. The Phœnix Estate (23 acres), also in the Town of Brunswick, has been subdivided into 47 allotments. All the allotments have been disposed of, and the properties have been reticulated with water mains, and provided with road conveniences.

At Footscray, 31 acres have been secured, subdivided into 97 allotments of ¼-acre each, and disposed of.

Portion of the Penders Grove Estate (233 acres) in the Town of Northcote, has so far been subdivided into 149 allotments, a number of which are at present available for application.

Glen Huntly Estate (74 acres), has also been subdivided, and 109 of the 114 allotments provided have been disposed of; additional allotments will shortly be made available. Special arrangements were made in regard to this estate, whereby lessees could secure an advance up to £250 to assist them in effecting improvements, and building homes for themselves of a high standard, on large allotments of land. The success of this subdivision has been phenomenal; houses of an up-to-date pattern, and with every modern convenience have been erected, so that the estate now forms the nucleus of a model suburb.

Six Crown lands properties comprising a total of 2,690 acres are in the hands of the Board, and these have been dealt with as follows:—

At Warrnambool, 46 acres were subdivided and made available on 17th June, 1903, as 28 workmen's homes allotments. At Bacchus Marsh, the old police paddock (13 acres), was subdivided and disposed of on 5th November, 1903, to local working men in 1-acre allotments. At Leongatha, 53 acres were subdivided into five small farm allotments on 27th November, 1903. At Mortlake, 2,394 acres were subdivided into 13 farm and 15 agricultural labourers' allotments, and disposed of on 18th April, 1905. All these allotments have been taken up and are being satisfactorily worked by the lessees in occupation.

At Geelong, fronting the Breakwater-road, 3 acres have been subdivided into 10 allotments, and homes have been erected by the State for immediate occupation. All have been disposed of, and the lessees are effecting further improvements.

The Common at Ballarat, comprising 225 acres, has also been placed under the control of the Board, and has been subdivided into 18 allotments of about 10 acres each; 17 of them are now in the occupation of lessees, and on these the lessees are engaged in effecting the necessary improvements.

Up to 30th June, 1909, 555 applications for advances, aggregating £47,180, had been approved, and the money has been advanced upon the improvements actually effected by the lessees, valued at a bedrock estimate of over £95,000. Advances to settlers.

Water Supply and Irrigation.

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. Victorian Waterworks.

Waterworks—Capital Expenditure or State Advances, to 30th June, 1908.

Controlling Bodies.	Purposes of Supply.	Storage Capacity of Reservoirs.	Capital Expenditure or State Advances.
		Gallons.	£
State Rivers and Water Supply Commission—			
Coliban System	Domestic and Mining	8,825,037,000	1,239,524
Broken River	Stock, Domestic, &c.	...	14,853
		Cubic feet.	
Mallee Supply	" " ...	2,106,000,000	422,436
		Acre feet.	
Kerang Lakes	" " ...	91,830	10,008
Goulburn River Works and Goulburn Waranga Channel	Irrigation, &c. ...	218,090	861,462
Kow Swamp	" " ...	40,860	188,407
Loddon River	" " ...	14,000	156,408
Nyah and White Cliffs Pumping Schemes ...	" " ...	...	950
Irrigation and Water Supply Districts (19)	" " ..	...	840,250
First Mildura Irrigation and Water Supply Trust ...	" " ...	...	58,700
		Gallons.	
Waterworks Trusts (87) ...	Stock, Domestic, &c.	1,917,087,500	1,429,836
*Geelong Water Supply Works	Domestic	570,780,000	456,700
Municipal Corporations (32)...	Stock, Domestic, &c.	1,643,091,000	685,509
Melbourne and Metropolitan Board of Works	Domestic	6,533,000,000	3,826,447
Municipal and other control— on Gold-fields	Mining and Domestic	463,100,000	55,860
Abolished Irrigation and Water Supply Trusts (8)	Irrigation, &c. ...	...	31,952
Miscellaneous Expenditure ...	...	...	126,117
Total	...	...	10,405,419

* Sold to Geelong Municipal Waterworks Trust on 25th January, 1908, for £265,000.

Of the expenditure given in the case of the Melbourne waterworks, only £1,688,663 represents State moneys, this being the unredeemed balance of the outstanding debt taken over by the Melbourne and Metropolitan Board of Works on 1st July, 1891. Further particulars

relating to the Melbourne and Metropolitan Board of Works will be found on page 252, Part V., of this work.

Advances and expenditure for waterworks.

The succeeding table summarizes the amounts disbursed on State works and those granted and loaned 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.

—	Advances by State.	Interest Capitalized.	Free State Grants.	Capital Written Off.	Payments towards Redemption.	Debit, 30th June, 1908.
	£	£	£	£	£	£
State Works	..	..	2,798*	..	..	2,894,048
Irrigation and Water Supply Districts (19)	824,845	..	15,405	540,404	5,591	278,850
First Mildura Irrigation and Water Supply Trust ..	58,700	..	..	..	..	58,700
Waterworks Trusts (87) ..	1,347,253	6,870	82,583	335,664	68,166	950,293
Geelong Water Supply Works	..	..	..	..	..	456,700
Municipal Corporations (23)	675,966	43,633	..	165,870	87,951	465,778
,, (9)	9,543	346	..	..	9,889	..
Melbourne and Metropolitan Board of Works ..	2,389,934	..	..	..	701,271	1,688,663
Gold-fields' Reservoirs ..	..	..	..	..	..	55,860
Abolished Trusts (8) ..	31,709	..	243	31,679	30	..
Miscellaneous	..	..	..	..	..	126,117
Total	5,337,950	50,849	101,029	1,073,617	872,898	6,975,009

* 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 £342,773 have also been written off the liabilities to the State of what were originally Irrigation and Water Supply Trusts. Of these trusts, nineteen, which are now Irrigation and Water Supply Districts vested in the State Rivers and Water Supply Commission, were relieved to the extent of £261,363 of their arrears of interest; four, which are now Waterworks Trusts, were relieved of £66,617; and £14,793 arrears of interest was written off on account of eight abolished Trusts. Thus the total amount actually written off the liabilities of the Trusts (Irrigation and Waterworks) and Corporations is £1,416,390. Interest outstanding at 30th June, 1908, amounted to £47,457, viz., £17,195 against the First Mildura Trust, £20,512 against Waterworks Trusts, and £9,750 against Municipal Corporations.

STATE RIVERS AND WATER SUPPLY COMMISSION.

The *Water Act* 1905.

The *Water Act* 1905, which came into operation on 1st May, 1906, is "An Act to consolidate and amend the laws relating to the conservation and supply of water, to declare the law relating to certain rights in natural waters, the property in the beds and banks containing the same, and for other purposes." This Act is administered by the State Rivers and Water Supply Commission, consisting of three Commissioners, whose functions are principally administrative and advisory—the general construction of works on the part of the

State being imposed on the Board of Land and Works, that is to say, on the Department of Water Supply, whose chief professional officer is an officer of the Board. All State works are vested in the Commission, and the property powers and duties vested in or imposed upon the Commissioners of Irrigation and Water Supply Trusts, with the exception of the First Mildura Irrigation and Water Supply Trust, have been transferred to and vested in the Commission. The powers and duties of the Commission embrace the making and levying of rates and charges for the supply of water; the carrying out of surveys necessary to ascertain the nature and extent of the water supply and water storage resources of the State; determining the means and cost of improving such resources, and of improving and extending the works for the conveyance and distribution of water throughout the State, and deciding as to the areas capable of being profitably supplied with water from such works; determining the extent, character, and quality of lagoon, swamp, and marsh lands within the State, the cost of works for their drainage and improvement, and the benefits to be derived from such improvement; preparing proposals for the construction of works of water supply or reports upon proposed works of water supply; the systematic gauging and recording of the volume and flow of rivers and streams, and of the volume of lakes and lagoons, and the effect of climatic conditions upon such volumes within the State; boring and other explorations for ascertaining the existence and location of subterranean waters, and the character and quality thereof; recording, publishing, and making available for general information the results of all such surveys, gaugings, borings, and other explorations; instructing the occupiers of lands in irrigation and water supply districts in the best methods of irrigated culture, and of the utilization of water as applied to agriculture, also in general rural economy; ascertaining and recording the extent of land from time to time under irrigation in the several irrigation and water supply districts, and the nature of the crops grown in and the products of such districts; and promoting the discussion of matters of general interest among the settlers in the irrigation and water supply districts by public conferences.

The various waterworks and districts vested in the Commission and their capital debit at 30th June, 1908, are set forth in the following statement:—

WATERWORKS VESTED IN THE STATE RIVERS AND WATER SUPPLY COMMISSION.

	Capital Debit at 30th June, 1908.
(*a*) *Free Head-works.*	
	£
Broken River Works	14,853
Goulburn River Works and Waranga* Reservoir	731,738
Kow Swamp Works	188,407
Loddon River Works	156,408

* This work has not yet been completed or handed over to the Commission.

WATERWORKS VESTED IN THE STATE RIVERS AND WATER SUPPLY COMMISSION.—*continued.*

	Capital Debit at 30th June, 1908.
	£
(*a*) *Free Head-works*—continued.	
Lake Lonsdale Reservoir	50,326
Lower Wimmera Compensation Works	8,753
Long Lake Pumping Works	27,898
Kerang North-west Lakes Works	10,008
Total—Free Head-works	1,188,391
(*b*) *Other State Works.*	
Coliban System of Waterworks	1,239,524
Geelong Water Supply Works *	456,700
Glenorchy Works	10,294
Donald Weir	1,890
Mallee Distribution Works	67,803
Long Lake Works	15,656

Irrigation and Water Supply Districts.	Balance at Debit, 1st May, 1906.	Capital Expenditure since 1st May, 1906.	Balance at Debit, 30th June, 1908.	
	£	£	£	
Bacchus Marsh	5,257	..	5,257	
Benjeroop and Murrabit ..	5,672	257	5,929	
Boort East	6,517	..	6,517	
Boort North	2,058	..	2,058	
Campaspe	8,710	5,881	14,591	
Cohuna	56,733	6,777	63,510	
Dry Lake	719	..	719	
Gunbower West	5,889	126	6,015	
Kerang East	7,023	133	7,156	
Kerang South	618	14	632	
Koondrook and Myall	3,336	495	3,831	
Leaghur and Meering	2,422	..	2,422	
Macorna North	10,394	276	10,670	
Marquis Hill	5,399	..	5,399	
Rodney	70,417	20,616	91,033	
Swan Hill	4,800	1,955	6,755	
Tragowel Plains	34,870	..	34,870	
Twelve-Mile	1,772	..	1,772	
Wandella	9,714	..	9,714	
Total	242,320	36,530	278,850	278,850
Total—Other State Works ..				2,070,717

* Sold to Geelong Municipal Waterworks Trust on 25th January, 1908.

The receipts and disbursements by the State Rivers and Water Supply Commission during the year ended 30th June, 1908, were as follows:—

STATEMENT OF RECEIPTS AND EXPENDITURE, 1907-8.

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	38,920	14,972	5,207	9,765	29,155	..
Geelong (sold 25th January, 1908) ..	8,632	2,293	448	1,845	6,787	..
Goulburn	213	1,843	..	1,843	..	1,630
Loddon River ..	39	412	..	412	..	373
Kow Swamp ..	452	2,244	..	2,244	..	1,792
Broken River ..	6	231	..	231	..	225
North-West Lakes ..	302	255	..	255	47	..
Lake Lonsdale ..	137	265	..	265	..	128
Lower Wimmera ..	..	120	..	120	..	120
Irrigation and Water Supply Districts ..	34,097	28,686	7,240	21,446	12,651	..
Waterworks Districts—						
Long Lake ..	3,248	2,974	244	2,730	518	..
Sea Lake	1,516	4,204	..	4,204	..	2,688
Improvements to Natural Water-courses ..	..	387	..	387	..	387
Licences, Diversions, Pumping	548	..	..	..	548	..
	88,110	58,886	13,139	45,747	49,706	7,343
Not Earning Revenue.						
River Gauging and Surveys	...	3,197	...	3,197	...	3,197
New Projects ...	...	760	...	760	...	760
Miscellaneous ..	...	285	...	285	...	285
Loan Works—Services on account of, defrayed from vote ...	...	1,085	...	1,085	...	1,085
Total ...	88,110	64,213	13,139	51,074	49,706	12,670

NOTE.—This table does not take into consideration the question of interest on capital expenditure or capital debit.

The extent to which the different crops were watered, and the actual areas irrigated in the different districts of the State during the year 1907-8, are set forth in the next statement. Areas irrigated.

Irrigation—Areas of Crops Watered, 1907-8.

Districts.	Area under Irrigation (Acres).						
	Cereals.	Lucerne grown for Pasture and Hay.	Sorghum and other Annual Fodder Crops.	Pastures.	Vineyards, Orchards, and Gardens.	Fallows, &c.	Total.
Supplied from Goulburn State Works.							
Rodney	17 792	16.659	783	19,630	3,106	4,973	62,943
Echuca and Waranga	3,740	4,847	700	10,373	93	1,080	20,833
Total	21,532	21.506	1,483	30,003	3,199	6,053	83,776
Supplied from Kow Swamp State Works.							
Dry Lake	30	..	100	510	5	..	645
Gunbower West	369	429	350	1,669	31	..	2,848
Kerang East	1,141	171	641	2,587	6	..	4,546
Macorna North	924	93	1,222	7,149	..	59	9.447
Marquis Hill	511	64	359	2,302	..	..	3,236
South Kerang	87	122	124	583	..	4	920
Wandella (portion of)*	1,924	525	838	5,280	8	..	8,575
Total	4,986	1,404	3,634	20,080	50	63	30,217
Supplied from Loddon State Works.							
East Boort	1,538	18	119	758'	39	..	2,472
Leaghur and Meering	534	12	173	867	8	..	1,594
North Boort	577	..	17	416	24	..	1,034
Tragowel Plains	9,166	590	546	9,910	61	93	20,366
Twelve-Mile	632	138	158	1,214	..	..	2,142
Total	12,447	758	1,013	13,165	132	93	27,608
Not supplied from State Works.							
Bacchus Marsh	..	426	25	3	6	10	470
Benjeroop and Murrabit ..	1,128	95	67	2,700	42	..	4,032
Campaspe	502	205	58	580	7	..	1 352
Cohuna	4,254	3,092	2,824	23,039	205	36	33,450
Koondrook and Myall	1,056	212	436	5,412	28	..	7,144
Swan Hill	2,837	2,178	528	1,518	40	..	7,101
Western Wimmera	29	62	40	68	818	62	1,079
Total	9,806	6,270	3,978	33,320	1,146	108	54,628
Lands supplied from Kerang North-west Lakes	1,694	188	2,111	4,809	..	36	8,838
Lands supplied directly from Kow Swamp State Works ..	1,050	816	265	3,282	..	40	5,453
First Mildura	300	600	..	..	9,976	..	10,876
Supplied from Coliban State Works	408	82	233	288	1,180	..	2,191
Private Diversions in Kerang District	2,707	561	1,179	3,924	11	43	8,425
Grand Totals, 1907-8 ..	54,930	32,185	13,896	108,871	15,694	6,436	232,012
Grand Totals, 1906-7 ..	11,395	24,216	4,582	52,133	13,752	1,981	108 059
Increase	43,535	7,969	9,314	56,738	1,942	4,455	123,953

* The Wandella District is supplied with water from both the Kow Swamp and Loddon State Works. In the year 1907-8 one-third of the water used was from the latter source.

The areas irrigated in 1907-8 amounted, in the aggregate, to more than double the areas so treated in 1906-7. An analysis of the areas watered reveals that during 1907-8 47 per cent. of the total was devoted to pastures, 23 per cent. to cereals, 14 per cent. to lucerne, 7 per cent. to vineyards, orchards, and gardens, 6 per cent. to annual fodder crops, and 3 per cent. to fallows, &c.; also that of the increase in irrigation over the amount for the year 1906-7, 46 per cent. was devoted to pastures, 35 per cent. to cereals, 8 per cent. to annual fodder crops, 6 per cent. to lucerne, 4 per cent. to fallows, and 1 per cent. to vineyards, orchards, and gardens.

Water-works 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 their financial position are exhibited below.

WATERWORKS TRUSTS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1908.

Waterworks Trusts.	Cost of Works at 30th June, 1908, defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1908.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1908.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Alexandra	..	3,509	..	..	126	3,383	68
Avenel	..	2,284	..	..	153	2,131	80
Avoca	2,662	8,709	..	2,494	320	5,895	322
Bairnsdale	..	40,439	..	23,439	402	16,598	331
Ballan	..	1,100	..	..	232	868	17
Benalla	..	15,579	..	..	2,765	12,814	256
Bet Bet Shire	1,384	5,694	..	..	1,117	4,577	91
Birchip	819	6,133	..	..	210	5,923	115
Boort	28	1,150	..	150	35	965	34
Bright	..	2,990	..	..	280	2,710	109
Broadford	..	2,997	..	..	..	2,997	15
Carisbrook	..	8,400	..	2,400	254	5,746	115
Carrum	..	25,732	..	7,732	50	17,950	2,097
Charlton	2,769	7,877	..	887	22	6,968	354
Cobram	..	4,500	..	..	157	4,343	85
Dandenong	..	19,129	..	5,128	447	13,554	201
Daylesford Borough	..	24,207	2,793	3,139	1,397	22,464	448
Donald	3,058	8,166	..	1,166	288	6,712	134
Donald Shire	1,691	4,353	..	..	1,117	3,236	65
Echuca Borough	..	13,150	..	..	1,297	11,853	701
Elmore	..	4,000	..	..	339	3,661	73
Euroa	..	17,242	..	..	1,247	15,995	320
Gisborne	..	4,668	..	..	858	3,810	76
Hamilton	..	37,774	..	..	1,347	36,427	720
Healesville	..	4,661	..	..	476	4,185	84
Heathcote	..	7,394	..	..	394	7,000	140
Horsham Borough	..	17,713	..	7,712	494	9,507	190
Kara Kara Shire	1,522	8,203	..	..	315	7,888	158
Kerang	88	4,000	..	..	116	3,884	157
Kerang Shire	213	1,200	..	..	43	1,157	23
Kilmore	..	14,148	..	..	1,837	12,311	247
Koroit	..	5,502	..	2,047	264	3,191	64
Korumburra	..	11,492	..	..	1,002	10,490	..
Kowree	292	2,707	..	..	115	2,592	52

WATERWORKS TRUSTS—CAPITAL INDEBTEDNESS AND INTEREST OUTSTANDING, 30TH JUNE, 1908—*continued.*

Waterworks Trusts.	Cost of Works at 30th June, 1908, defrayed from—		Capital Indebtedness.				Interest Outstanding at 30th June, 1908.
			Increased by Interest Capitalized.	Reduced by—		At 30th June, 1908.	
	Free State Grant.	Loan Advances made by State.		Amounts Written Off.	Payments towards Redemption.		
	£	£	£	£	£	£	£
Kyabram	..	2,298	..	..	104	2,194	42
Kyneton Shire ..	..	26,680	..	..	11,236	15,444	311
Lancefield ..	..	7,083	..	..	413	6,670	138
Lawloit	1,302	12,095	..	..	512	11,583	231
Leongatha ..	..	7,503	..	..	57	7,446	149
Lilydale	..	6,311	..	..	30	6,281	192
Loddon United* ..	4,122	21,334	..	1,717	..	19,617	2,496
Longwood	..	2,400	..	550	78	1,772	35
Lowan Shire ..	1,258	11,680	..	..	496	11,184	223
Macedon	..	2,600	..	..	173	2,427	48
Mansfield	..	7,931	..	..	767	7,164	..
Maryborough ..	..	76,257	..	9,200	2,777	64,280	286
Mooroopna ..	..	3,053	..	1,400	79	1,574	63
Murchison	..	2,800	..	..	41	2,759	95
Nagambie	..	2,775	..	..	350	2,425	48
Nhill	799	10,068	..	2,482	318	7,268	145
Numurkah Shire ..	1,278	23,694	..	1,376	2,603	19,715	394
Omeo	..	3,982	..	..	344	3,638	146
Pyramid Hill ..	..	2,002	..	..	..	2,002	90
Riddell's Creek ..	..	3,500	..	497	124	2,879	57
Rochester	..	1,600	..	..	126	1,474	26
Romsey	..	4,700	..	..	863	3,837	77
Rushworth	..	4,500	..	..	95	4,405	88
Rutherglen ..	..	16,485	..	..	629	15,856	316
Seymour	..	27,959	..	..	1,586	26,373	526
Shepparton Urban ..	24	19,530	..	2,416	1,544	15,570	311
Shepparton Shire ..	110	17,123	..	1,376	1,116	14,631	292
St. Arnaud Borough	57	40,724	4,077	15,077	1,134	28,590	572
Stawell Shire ..	545	1,370	..	250	1,120	..	..
Sunbury	..	16,497	..	..	..	16,497	692
Swan Hill	231	3,988	..	..	128	3,860	..
Swan Hill Shire† ..	6,421	36,043	..	36,043	..	..	..
Tallangatta ..	..	3,761	..	..	..	3,761	87
Tatura	..	3,017	..	650	270	2,097	42
Traralgon	..	5,338	..	..	..	5,338	22
Tungamah Shire ..	4,130	12,241	..	..	546	11,695	233
United Echuca and Waranga ..	14,968	70,369	..	34,748	2,144	33,477	669
Upper Macedon ..	..	2,290	..	..	295	1,995	40
Violet Town ..	..	4,750	..	..	162	4,588	92
Wangaratta ..	..	9,888	..	..	157	9,731	194
Warracknabeal ..	262	4,474	..	..	436	4,038	74
Warrnambool ..	..	38,500	..	..	1,682	36,818	742
West Charlton ..	..	2,822	..	..	..	2,822	56
Western Wimmera	9,335	213,943	..	132,835	4,213	76,895	1,537
Wimmera United ..	19,818	151,178	..	36,392	4,749	110,037	..
Winchelsea Shire ..	..	4,420	..	..	173	4,247	85
Wodonga	..	7,722	..	..	326	7,396	148
Woodend	..	7,663	..	..	2,112	5,551	111
Wycheproof ..	1,500	10,481	..	700	906	8,875	..
Yarram	..	2,082	..	..	15	2,067	41
Yarrawonga Urban ..	1,897	8,800	..	..	1,333	7,467	148
Yatchaw	..	6,262	..	1,661	195	4,406	88
Yea	..	3,885	..	..	93	3,792	76
Total ..	82,583	1,347,253	6,870	335,664	68,166	950,293	20,512

* The property of this trust has been taken possession of by the State Rivers and Water Supply Commission, as provided by section 278 of the *Water Act* 1905.

† 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 trusts mentioned above have been relieved of 25 per cent. of their original liabilities to the State, and in addition, of £66,617 arrears of interest. The amount of interest outstanding represents about seven months' interest on the capital outstanding.

The following return contains full particulars of the receipts and expenditure of the Waterworks Trusts during the year ended 31st December, 1908:—

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1908.

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	501	1	40	542	43	214	151	33	441
Avenel	183	4	1	188	105	34	43	15	197
Avoca	495	139	1	635	208	137	451	34	830
Bairnsdale	1,429	87	9	1,525	335	269	753	60	1,417
Ballan	280	7	4	291	135	30	39	5	209
Benalla	969	480	28	1,477	710	395	584	..	1,689
Bet Bet Shire ..	339	..	..	339	30	29	312	..	371
Birchip *	..	..	..	..	..	..	..	..	..
Boort	254	..	..	254	221	38	22	..	281
Bright	270	..	1	271	97	48	69	4	218
Broadford § ..	..	..	..	..	..	..	..	..	..
Carisbrook	385	13	6	404	187	82	261	11	541
Carrum	2,071	..	67	2,138	481	122	1,000	9	1,612
Charlton	546	14	58	618	222	87	150	50	509
Cobram	368	..	20	388	181	102	200	34	517
Dandenong	832	..	2	834	106	131	457	7	701
Daylesford Borough	1,053	431	388	1,872	808	187	1,021	11	2,027
Donald	492	196	23	711	247	196	305	21	769
Donald Shire ..	267	..	1	268	304	38	138	31	511
Echuca Borough ..	1,579	15	7	1,601	656	488	370	52	1,566
Elmore	246	150	..	396	117	105	166	1	389
Euroa	737	237	12	986	77	103	759	20	959
Geelong ‖	5,046	1,368	134	6,548	1,320	873	..	7	2,200
Gisborne	308	..	6	314	155	43	173	..	371
Hamilton	2,417	310	58	2,785	675	358	1,629	85	2,747
Healesville	472	57	27	556	248	60	190	4	502
Heathcote	256	180	3	439	35	105	318	4	462
Horsham Borough ..	1,231	388	32	1,651	838	480	432	36	1,786
Kara Kara Shire ..	621	..	5	626	288	25	360	11	684
Kerang	978	..	1	979	490	212	176	15	893
Kerang Shire† ..	..	..	..	..	..	..	..	..	..
Kilmore	531	415	3	949	46	250	610	2	908
Koroit	419	162	..	581	389	151	126	..	666
Korumburra ..	513	309	81	903	70	130	596	..	796
Kowree	289	..	5	294	55	49	118	4	226
Kyabram	429	42	8	479	318	160	90	8	576
Kyneton Shire ..	1,304	875	35	2,214	119	226	1,786	..	2,131
Lancefield	429	..	..	429	95	49	303	3	450
Lawloit	1,244	..	14	1,258	459	281	527	51	1,318
Leongatha	529	25	15	569	63	70	328	9	470
Lilydale	354	52	2	408	28	89	205	19	341

(For footnotes see end of table.)

WATERWORKS TRUSTS—RECEIPTS AND EXPENDITURE, 1908—*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.
	£	£	£	£	£	£	£	£	£
Loddon United‡ ..	..	..	..	..	..	..	..	..	..
Longwood	140	2	53	195	68	40	80	3	191
Lowan Shire ..	1,216	..	25	1,241	576	333	508	28	1,445
Macedon	158	..	2	160	25	30	110	5	170
Mansfield	610	..	3	613	283	47	327	2	659
Maryborough ..	2,488	1,200	70	3,758	516	169	2,915	10	3,610
Mooroopna ..	314	41	3	358	123	154	35	7	319
Murchison	303	154	2	459	228	134	140	..	502
Nagambie	314	39	5	358	190	99	110	..	399
Nhill	964	69	46	1,079	810	50	330	15	1,205
Numurkah Shire ..	2,071	323	34	2,428	2,218	562	959	21	3,760
Omeo	310	..	21	331	115	29	165	3	312
Pyramid Hill ..	252	..	29	281	159	26	65	14	264
Riddell's Creek ..	214	..	1	215	29	46	131	2	208
Rochester	518	26	4	548	711	61	56	14	842
Romsey	283	2	4	289	51	44	174	3	272
Rushworth ..	581	..	4	585	235	162	200	28	625
Rutherglen ..	1,479	22	13	1,514	629	84	721	2	1,436
Seymour	601	1,097	35	1,733	165	171	1,049	7	1,392
Shepparton Urban ..	1,628	179	21	1,828	815	421	354	26	1,616
Shepparton Shire ..	1,261	21	14	1,296	344	260	665	27	1,296
St. Arnaud Borough..	1,669	66	29	1,764	282	154	1,300	9	1,745
Stawell Shire† ..	..	..	..	..	..	..	..	..	..
Sunbury	707	1	35	761	65	114	400	27	606
Swan Hill	596	13	14	623	356	217	176	8	757
Swan Hill Shire¶ ..	..	..	..	..	..	..	..	..	..
Tallangatta ..	234	..	239	473	331	66	..	11	408
Tatura	449	69	10	528	159	146	92	2	399
Traralgon§	..	..	..	..	..	..	..	..	..
Tungamah Shire ..	1,100	51	22	1,173	385	415	532	21	1,353
United Echuca and Waranga* ..	..	..	..	..	..	..	..	..	..
Upper Macedon ..	208	..	..	208	38	78	91	2	209
Violet Town ..	281	..	5	286	19	42	205	2	268
Wangaratta ..	1,267	317	33	1,617	656	432	442	14	1,544
Warracknabeal ..	928	73	20	1,021	574	138	168	20	900
Warrnambool ..	2,387	396	919	3,702	644	539	2,458	65	3,706
West Charlton ..	145	..	22	167	21	..	63	5	89
Western Wimmera* ..	..	..	..	..	..	..	..	..	..
Wimmera United* ..	..	..	..	..	..	..	..	..	..
Winchelsea Shire ..	355	..	2	357	44	73	193	3	313
Wodonga	449	145	2	596	202	163	336	7	708
Woodend	233	364	37	634	166	155	253	29	603
Wycheproof* ..	..	..	..	..	..	..	..	..	..
Yarram	294	32	3	329	114	16	94	4	228
Yarrawonga Urban ..	559	374	..	933	287	271	340	4	902
Yatchaw	299	..	..	299	13	35	200	2	250
Yea	239	213	40	492	204	189	86	20	499
Total ..	58,770	11,264	2,918	72,952	23,811	12,611	31,741	1,128	69,291

* The control and management of the works of this trust were taken over by the State Rivers and Water Supply Commission as from the 1st July, 1908, by virtue of the provisions of section 154 of the *Water Act* 1905.

† This trust is inoperative.

‡ The property of this trust has been taken possession of by the State Rivers and Water Supply Commission, as provided by section 278 of the *Water Act* 1905.

§ This trust had no ordinary revenue and expenditure in 1908.

¶ This trust was abolished under the provisions of the *Water Act* 1905.

‖ Half-year ended 30th June, 1908.

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 842 million gallons. Other important reservoirs in this group are those supplying Beechworth, Clunes, and Talbot, the respective storage capacities being 191, 225, 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, 1908.

Local Bodies.	Cost of Works to 30th June, 1908, defrayed from Loan Advances made by State.	Capital Indebtedness.				Interest outstanding at 30th June, 1908.
		Increased by Interest capitalized	Reduced by—		At 30th June, 1908.	
			Amounts written off.	Payments towards Redemption.		
	£	£	£	£	£	£
Arapiles Shire ..	3,600	..	..	909	2,691	54
Ararat Borough ..	49,935	..	18,266	1,404	30,265	598
Ballarat Water Commission	309,300	41,869	2,111	39.048	310.010	7,227
Beechworth Shire ..	30,035	1,256	5,958	3,973	21,360	..
Bet Bet Shire ..	1,000	..	985	15	..	..
Birchip Shire ..	2,669	..	..	308	2,361	..
Borung Shire ..	9,059	..	..	1,089	7,970	120
Castle Donnington Shire	4,309	..	..	493	3,816	57
Chiltern Shire ..	4,500	508	508	707	3,793	76
Clunes Borough Water Commission ..	70,195	..	62,395	331	7,469	149
Creswick Borough ..	3,500	..	..	3,500	..	59
Dimboola Shire ..	2,566	..	..	298	2,268	34
Dunolly Borough ..	2,190	..	..	805	1,385	28
Inglewood Borough ..	5,150	..	..	1,525	3,625	99
Karkarooc Shire ..	15,439	..	..	1,212	14,227	215
Kerang Shire ..	2,313	..	..	201	2,112	32
Korong Shire ..	1,565	..	..	399	1,166	23
Ripon Shire ..	3,000	..	..	1,297	1,703	34
Stawell Borough ..	108,506	..	61,661	3,754	43,091	860
Talbot Borough ..	15,000	..	13,986	55	959	19
Tarnagulla Borough ..	800	..	..	143	657	13
Wimmera Shire ..	28,890	..	..	26,2.0	2,680	53
Wycheproof Shire ..	2,445	..	..	275	2,170	..
Total ..	675,966	43,633	165,870	87,951	465,778	9,750

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.

As well as the above £9,889 (including £346 capitalized interest) was paid towards redemption by other municipal corporations, the balance of their liabilities to the State being transferred to Waterworks Trusts.

Abolished Trusts.

The irrigation and water supply trusts specified below were abolished, and the liabilities in respect of amounts due and owing to the Crown by such trusts on account of principal sums advanced by way of loan, and accrued unpaid interest thereon, were cancelled by provision in the *Water Act* 1905.

IRRIGATION AND WATER SUPPLY TRUSTS ABOLISHED AND LIABILITIES CANCELLED.

Name of Trust.	Cost of Works.			Written off.		
	Advances.	Grants.	Total.	Capital.	Interest.	Total.
	£	£	£	£	£	£
Dookie	630	..	630	630	171	801
Emu Valley ..	8,166	..	8,166	8,166	2,907	11,073
Harcourt	1,142	..	1,142	1,112*	335	1,447
Lerderderg ..	447	..	447	447	169	616
Millewa	973	..	973	973	582	1,555
Pine Hills	2,051	243	2,294	2,051	1,065	3,116
Torrumberry North ..	12,300	..	12,300	12,300	5,812	18,112
Werribee	6,000	..	6,000	6,000	3,752	9,752
Total ..	31,709	243	31,952	31,679	14,793	46,472

* £30 paid to Redemption Fund by Trust.

The Dookie works are now used solely for the supply of water to the Dookie Agricultural College, and the Emu Valley and Harcourt Works have been attached to the Coliban scheme.

Mildura irrigation scheme.

A full account of the history of the Mildura Settlement from its inception will be found in the *Victorian Year Book*, 1904. A short account of the scheme is as follows:—

In 1884, a Royal Commission was appointed to consider the question of the Conservation of Water in Victoria, and Mildura was chosen

as the site for an irrigation colony. In 1887, 250,000 acres of land in that locality were set apart for the experiment.

Two blocks of about 25,000 acres each were made available, upon the ordinary conditions for resumption and entry for mining, to the Messrs. Chaffey Bros. Irrigation works and improvements gave rights to grants in fee simple in these blocks, as well as in the remaining 200,000 acres, which, after three years, the licensees would be entitled to occupy, and sell, or dispose of, in parcels of not more than 80 acres for fruit-growing, or 160 acres for growing other products. No person was to have more than one block, and the licensees were not themselves to retain more than 5,000 acres of cultivated and irrigated land out of that granted to them in fee simple. Every parcel should have a sufficient water-right to run with the title as a perpetual easement, and a license to divert water from the Murray, sufficient for the purposes of the Settlement, was granted for 25 years. In return, the licensees covenanted to expend £300,000 in irrigation works within twenty years, in accordance with general plans approved by the Government.

On 30th September, 1887, the licensees assigned all their interest and rights to the Chaffey Brothers Company Limited. In December following, the Mildura Irrigation Company was formed.

By extensive advertising in Great Britain, many of the very best class of settlers were induced to emigrate and invest their capital. In 1892, the settlers complained of the non-performance by the licensees of their covenants. In March, 1893, the Chief Engineer of Water Supply visited the Settlement, and made extensive inquiries into these complaints, and into the state of affairs generally. His report revealing an unsatisfactory state of affairs, the First Mildura Irrigation Trust, consisting of six Commissioners and two Auditors, to be elected by the occupiers and owners of rateable land, was constituted, by Act of Parliament, in 1895. All the irrigation lands, works, and approaches were vested in them, and the terms of holding were revised in favour generally of the settlers.

In 1896, a Royal Commission was appointed to inquire into and report upon the condition and prospects of the Settlement. It found that the principal causes of failure were the grave errors made in laying out the Settlement, and in the provision made for the supply

of water for irrigation; the non-fulfilment of the obligations undertaken in the agreement, whereby the reasonable expectations of the settlers were disappointed; and the hopeless financial mismanagement of the company. It was decided to raise a loan to meet pressing necessities, and an overdraft was guaranteed by the Treasurer, the Chief Engineer of the Water Supply Department deciding what works it was necessary to carry out. From time to time the Government has granted further assistance, until on 30th June, 1908, the total amount advanced was £58,700, which, together with interest accumulated to that date, £17,195, represents the total indebtedness of the Trust to the Government.

A railway line has also been constructed, connecting Mildura with the Metropolis, and was opened for traffic towards the close of 1903.

Export of canned and dried fruits.

The success of the Settlement is now assured, and healthy progress is visible everywhere. Its products are consumed in Victoria in large quantities, and the other States of the Commonwealth are good customers for the canned and dried fruits. The following tables show that Victoria is building up an export trade in canned and dried fruits, most of which are raised at Mildura:—

EXPORTS OF CANNED AND DRIED FRUITS PRODUCED IN VICTORIA, 1896 TO 1908.

Year.	Canned Fruits.	Dried Fruits.	
		Raisins.	Other.
	£	£	£
1896	3,904	835	1,777
1897	6,849	1,147	4,510
1898	5,823	7,388	6,674
1899	9,672	7,524	8,286
1900	20,396	10,150	5,121
1901	31,015	15,095	4,963
1902	30,223	23,730	20,519
1903	30.799	48,137	8,631
1904	31,666	59,276	11,216
1905	36,427	47,131	9,677
1906	39,804	47,114	9,662
1907	48,718	123,679	18,257
1908	44,714	84,627	23,721

DESTINATION OF EXPORTS OF CANNED AND DRIED FRUITS PRODUCED IN VICTORIA, 1908.

Country to which Exported.	Canned Fruits—Value.	Dried Fruits.			
		Raisins.		Other.	
		Quantity.	Value.	Quantity.	Value.
	£	lbs.	£	lbs.	£
New South Wales ..	15,642	1,820,835	44,456	286,090	6,933
Queensland.. ..	8,447	634,091	14,905	325,173	9,300
South Australia ..	877	8,169	211	14,371	342
Western Australia ..	5,983	132,236	3,344	112,202	2,876
Tasmania	2,545	227,241	5,161	164,130	4,004
Other Countries ..	11,220	1,132,987	16,550	8,332	266
Total ..	44,714	3,955,559	84,627	910,298	23,721

The trade with the other States is rapidly growing, the value of the exports amounting to £125,026 in 1908, as against £128,762 in 1907, £91,177 in 1906, £87,391 in 1905, £85,049 in 1904, and £77,383 in 1903. The oversea trade rose from £5,403 in 1906 to £61,892 in 1907, but in 1908 amounted to only £28,036.

Population of Mildura.

The following figures, showing the population of the settlement at various periods since 1891, are a fair indication of its prosperity.

POPULATION OF MILDURA, 1891 TO 1908.

1891	April (Census) ...	2,321	1904	September	4,100
1896	September	2,000	1907	"	4,355
1901	March (Census) ...	3,325	1908	"	4,560

Revenue and expenditure of Mildura Irrigation Trust.

The following is a statement of the revenue and expenditure of the Mildura Irrigation Trust during the year ended 30th June, 1908:—

REVENUE AND EXPENDITURE OF FIRST MILDURA IRRIGATION TRUST, 1907-8.

Revenue.	£	*Expenditure.*	£
Arrears, Horticultural Assessment	3,988	Expenditure on Pumping Stations	11,482
Current Rates, Horticultural Assessment	12,355	Expenditure on Town Supply	1,230
Arrears, Town Assessment	398	Distribution of Water	3,785
Current Rates, Town Assessment	723	Interest	2,348
Miscellaneous	920	Other Expenditure	1,118
Total	18,384	Total	19,963

Meteorological Records.

The following table shows the average yearly amount of rainfall deduced from all available records to December, 1908, and the rainfall during 1906, 1907, and 1908, in each of the 26 basins or regions constituting the State of Victoria:—

RAINFALL—YEARLY RECORDS AND AVERAGES.

Name of Basin.	Rainfall.			
	Yearly Average, to Dec., 1908.	During 1906.	During 1907.	During 1908.
	Inches.	Inches.	Inches.	Inches.
Glenelg and Wannon Rivers	27·46	32·33	24·54	24·94
Fitzroy, Eumerella, and Merrie Rivers	30·46	32·69	28·12	29·40
Hopkins River and Mt. Emu Creek	25·42	29·45	23·10	21·56
Mt. Elephant and Lake Corangamite	24·74	29·15	23·66	20·17
Otway Forest	37·69	40·24	34·26	35·76
Moorabool and Barwon Rivers	24·88	28·97	23·80	17·49
Werribee and Saltwater Rivers	24·06	24·99	20·20	15·62
Yarra River and Dandenong Creek	35·38	35·65	31·45	25·86
Koo-wee-rup Swamp	35·16	35·18	31·67	24·50
South Gippsland	39·94	40·82	36·06	28·07
Latrobe and Thomson Rivers	35·74	37·15	34·55	24·87
Macallister and Avon Rivers	23·04	25·47	17·46	14·25
Mitchell River	28·21	27·65	19·10	18·07
Tambo and Nicholson Rivers	25·99	28·49	17·54	19·98
Snowy River	33·42	28·64	23·59	30·23
Murray River	20·15	28·24	15·26	17·12
Mitta Mitta and Kiewa Rivers	35·58	46·94	27·05	29·75
Ovens River	36·50	49·73	29·62	27·75
Goulburn River	25·88	33·40	21·69	20·19
Campaspe River	23·96	31·65	20·57	17·00
Loddon River	18·55	23·48	15·10	14·65
Avon and Richardson Rivers	15·83	19·58	14·16	15·20
Avoca River	16·77	20·22	13·68	14·67
Eastern Wimmera	21·28	27·55	18·59	19·13
Western Wimmera	19·32	25·15	18·53	18·46
Mallee Country	13·34	16·03	11·16	13·95
Weighted Averages	23·63	28·26	20·51	19·87

The rainfall recorded for each quarter in 1908, and the quarterly averages up to 1908 deduced from all available records, are as follows :—

RAINFALL—QUARTERLY RECORDS AND AVERAGES.

Name of Basin.	First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.	
	Amount, 1908.	Average to 1908.	Amount, 1908.	Average to 1908.	Amount, 1908.	Average to 1908.	Amount, 1908.	Average to 1908.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
Glenelg and Wannon Rivers	3.66	3.60	7.53	8.55	8.13	9.19	5.62	6.12
Fitzroy, Eumerella, and Merrie Rivers ..	4.54	4.78	8.91	9.36	10.01	10.02	5.94	6.30
Hopkins River and Mt. Emu Creek ..	3.43	4.08	6.03	7.68	7.41	7.58	4.69	6.08
Mt. Elephant and Lake Corangamite ..	3.22	4.31	5.30	7.18	7.27	7.32	4.38	5.93
Otway Forest	5.04	6.18	11.78	11.75	13.16	11.85	5.78	7.91
Moorabool and Barwon Rivers	3.00	4.34	4.58	7.07	5.71	7.13	4.20	6.34
Werribee and Saltwater Rivers	2.54	4.56	4.19	6.53	5.31	6.30	3.58	6.67
Yarra River and Dandenong Creek ..	4.40	6.76	8.00	9.92	8.22	9.46	5.24	9.24
Koo-wee-rup Swamp	4.20	6.74	7.63	10·06	7.80	9.76	4.87	8.60
South Gippsland	4.46	7.10	8.43	11.40	10.49	11.73	4.69	9.71
Latrobe and Thomson Rivers	3.95	6.89	6.77	9.50	9.01	10.18	5.14	9.17
Macallister and Avon Rivers	3.78	4.96	1.81	5.66	4.78	5.44	3.88	6.98
Mitchell River	3.86	6.76	2.25	7.40	6.92	6.66	5.04	7.39
Tambo and Nicholson Rivers	4.61	6.41	2.96	5.97	7.02	5·84	5.39	7.77
Snowy River	4.98	7.29	6.09	9.10	12.40	8.45	6.76	8.58
Murray River	2.67	3.71	5.92	5.90	5.39	5.74	3.14	4.80
Mitta Mitta and Kiewa Rivers	4.94	6.14	9.29	10.28	9.43	10.65	6.09	8.51
Ovens River	4.25	5.92	9.97	10.99	8.32	11.23	5.21	8.36
Goulburn River	2.25	4.06	7.47	7.78	6.50	7.81	3.97	6.23
Campaspe River	1.47	3.54	6.08	7.20	6.20	7.50	3.25	5.72
Loddon River	1.33	2.92	4.73	5.79	5.03	5.34	3.56	4.50
Avon and Richardson Rivers	1.41	2.27	5.36	5.22	5.15	4.63	3.28	3.71
Avoca River	1.24	2.33	4.96	5.33	5.14	5.06	3.35	4.05
Eastern Wimmera	1.59	2.73	6.85	6.92	6.93	6.67	3.76	4.96
Western Wimmera	1.92	2.12	6.42	6.53	6.43	6.41	3.69	4.26
Mallee country	1.64	1.89	4.08	4.45	5.13	3.98	3.10	3.02
State	2.79	4.08	5.86	6.77	6.94	6.93	4.28	5.85

RAINFALL IN REGIONS, DURING EACH QUARTER, 1906, 1907, AND 1908.

Percentage above the average, + (plus); below the average, — (minus).

Regions.	First Quarter.			Second Quarter.			Third Quarter.		
	1906.	1907.	1908.	1906.	1907.	1908.	1906.	1907.	1908.
	%	%	%	%	%	%	%	%	%
Western Districts	—16	—45	—17	+ 6	— 7	—14	+26	— 3	— 4
Cape Otway Forest	—48	—45	—19	— 9	—19	+ 1	+24	— 3	+11
Counties surrounding Port Phillip Bay	—14	—53	—37	—18	—18	—27	+16	— 8	—17
South Gippsland	— 8	—54	—37	—22	—12	—26	+13	*	—11
Basins of the Latrobe, Macallister, and Mitchell Rivers	+13	—57	—38	—47	—11	—50	— 4	—16	— 7
Basins of the Tambo and Snowy Rivers	+35	—49	—30	—73	— 7	—40	—34	—51	+35
All Northern Areas between the Ranges and the Murray, East of the Campaspe River	+22	—38	—29	+ 9	—29	— 8	+30	—16	—17
All Northern Areas between the Ranges and the Murray, West of the Campaspe River	+ 3	—38	—42	+21	—16	— 5	+34	— 3	+ 7

* Very slightly *above* average.

RAINFALL IN REGIONS, DURING EACH QUARTER, 1906, 1907, AND 1908—*continued.*

Percentage above the average, + (plus); below the average, − (minus).

Regions.	Fourth Quarter.			Year.		
	1906.	1907.	1908.	1906.	1907.	1908.
	%	%	%	%	%	%
Western Districts	+32	+ 7	—17	+15	— 8	—12
Cape Otway Forest	+26	+24	—27	*	—10	— 5
Counties surrounding Port Phillip Bay	+25	+20	—42	+ 2	—12	—31
South Gippsland	+39	+ 6	—52	+ 4	—11	—30
Basins of the Latrobe, Macallister, and Mitchell Rivers	+32	— 4	—40	— 4	—20	—34
Basins of the Tambo and Snowy Rivers	+33	—23	—26	—15	—32	—15
All Northern Areas between the Ranges and the Murray, East of the Campaspe River	+52	— 4	—35	+27	—21	—21
All Northern Areas between the Ranges and the Murray, West of the Campaspe River	+21	—11	—13	+22	—14	— 7

* Very slightly *below* average.

AVERAGES AND EXTREMES OF CLIMATIC ELEMENTS FOR THE SEASONS AND FOR THE METEOROLOGICAL YEAR DEDUCED FROM ALL RECORDS OBTAINED IN PAST YEARS AT THE MELBOURNE OBSERVATORY.

Meteorological Elements.	Spring.	Summer.	Autumn.	Winter.	Year.
Averages.					
Mean pressure of air in inches	29·964	29·924	30·083	30·082	30·013
Monthly range of pressure of air—Inches	0·894	0·798	0·808	0·982	0·870
Mean temperature of air in shade—°Fahr.	57·5	66·4	59·4	49·9	58·3
Mean daily range of temperature of air in shade—°Fahr. ..	18·8	21·4	17·7	14·2	18·0
Mean percentage of humidity. Saturation = 100	70	65	73	79	72
Mean rainfall in inches ..	7·23	5·84	6·62	5·74	25·43
Mean number of days of rain ..	37	23	30	41	131
Mean amount of spontaneous evaporation in inches ..	10·04	17·06	7·62	3·65	38·37
Mean daily amount of cloudiness—Scale 0 to 10	6·0	5·2	6·0	6·4	5·9
	h. m.	h. m.	h. m.	h. m.	h. m.
Mean daily duration of sunshine	5 58	7 51	4 34	3 52	5 26
Mean total of hours of sunshine	542	709	420	311	1,982
Percentage number of hours during which the wind blew from the various points of the compass: North ..	16·46	8·11	16·75	30·44	17·94
North-West	9·34	4·18	7·40	12·50	8·36
West ..	15·16	10·68	13·14	13·90	13·22
South-West	16·43	19·52	12·73	10·70	14·85
South ..	17·96	26·10	15·48	6·90	16·61
South-East	9·33	17·55	13·39	5·64	11·48
East ..	3·91	5·19	5·82	3·88	4·70
North-East	9·28	6·68	12·71	13·54	10·55
Calm ..	2·11	1·99	2·58	2·50	2·29
Mean number of days of fog ..	1	1	5	10	17

AVERAGES AND EXTREMES OF CLIMATIC ELEMENTS—*continued.*

Extremes.

Pressure of air.	Inches.	Temperature of air in shade.	° Fahr.
Greatest monthly range ...	1·503	Greatest monthly range ...	69·1
Smallest ,, ,, ...	0·489	Smallest ,, ,, ...	23·4
Greatest yearly range ...	1·719	Greatest yearly range ...	82·6
Smallest ,, ,, ...	1·169	Smallest ,, ,, ...	66·0
Highest air pressure on record	30·678	Greatest mean daily range ...	27·8
Lowest ,, ,, ,,	28·868	Smallest ,, ,, ,, ...	7·7
		Highest temperature on record	111·2
		Lowest ,, ,,	27·0

Solar radiation—highest on record	178·5	° Fahr.
Terrestrial radiation—lowest on record ..	20·4	,,
Greatest rainfall on record	44·25	Inches.
Smallest rainfall on record	15·61	,,
Horizontal motion in miles	81,118	
Mean hourly velocity of wind	9·2	

The table below contains the values of the principal Meteorological elements for the calendar year 1908, with the corresponding averages and extremes, based on the Observatory Records of 52 years:—

METEOROLOGY, 1857 TO 1908.

Meteorological Elements.	Yearly Averages and Extremes.			
	Year 1908.	Average for 52 Years.	Extreme between which the Yearly Average Values have oscillated in 52 years.	
			Highest.	Lowest.
Mean atmospheric pressure (inches) ...	30·045	30·013	30·076	29·961
Highest ,, ,, ,, ...	30·579	30·607	30·762	30·081
Lowest ,, ,, ,, ...	29·388	29·212	29·922	28·942
Range (inches)	1·191	1·395	1·719	1·169
Mean temperature of air, in shade (°Fahr.)	59·1	58·3	59·1	56·1
Mean daily maximum ... ,,	67·9	67·3	69·0	65·8
Mean daily minimum ... ,,	50·2	49·3	51·2	47·2
Absolute maximum ... ,,	109·3	105·1	111·2	96·6
Absolute minimum ... ,,	29·9	30·7	33·9	27·0
Mean daily range ... ... ,,	17·8	18·0	20·3	14·6
Absolute annual range ... ,,	79·4	74·5	82·6	66·0
Solar Radiation (maximum) ... ,,	158·6	161·1	178·5	108·6
Terrestrial Radiation (minimum) ,,	25·0	24·7	28·0	20·4
Rainfall (in inches)	17·72	25·43	44·25	15·61
Number of wet days	130	131	165	102
Year's amount of free evaporation (in inches)	39·510	38·181	45·657	31·590
Percentage of humidity (saturation = 100)	64	72	76	67
Cloudiness (scale 10 = overcast, 0 = clear)	5·5	5·9	...	...
Duration of sunshine (number of hours)	1,872	1,954*	...	...
Number of days of fog	13	16·6	...	...

* Average for 27 calendar years.

Agricultural Education.

Agricultural education.

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—at Dookie, Longerenong, Gunyah Gunyah, Olangolah, and Bullarto. The total area of these reserves is 13,664½ acres. Particulars are as follows:—

AREAS OF AGRICULTURAL COLLEGE AND EXPERIMENTAL FARM LANDS, 1908.

Name.	Area.	How Used.
	Acres.	
Dookie and Currawa	5,161½	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
Total	13,664½	

Agricultural College, Dookie.

In order to carry out experiments, devised for the purpose of ascertaining the suitability of the Victorian climate and soil for various kinds of useful products and of obtaining data respecting the rotation of crops, but more especially for the instruction of students in agriculture, a block of 4,806 acres was reserved in 1874, at Dookie, situated in the County of Moira, in the North-Eastern District of Victoria, on which to found, under the direction of the Council of Agricultural Education, a State Experimental Farm. The area has been increased at different times, 272½ acres being added in 1908.

The farm has, under the provisions of the *Agricultural Colleges Act* 1884, been vested in trustees, and all moneys received from the sale of stock and produce since June, 1885, have been paid into the Agricultural College fund.

The College has accommodation for 100 students, and there were 94 in attendance in 1908. The charges per head per annum are £25 for maintenance, £1 5s. for medical attendance and medicines, and £1 15s. for books and other school materials, or £28 in all. No charge is made for instruction.

The farm is thoroughly equipped with up-to-date buildings, improvements and appliances, and recently there have been erected a brick dining hall and kitchen, with servery, store rooms, &c., stables for 40 horses, three dormitories, and a horticultural building for practical demonstrations in fruit preserving, canning, &c. In addition to these, an enlargement of the chemical laboratory has been effected at a cost of £1,000. A line of 4-inch pipes from the Broken River has been laid down, and water can now be pumped to the College reservoirs, ensuring permanency of supply. Besides the usual sports grounds, there are rifle butts, both standard and miniature, on the estate.

The farm has 34½ acres under vines, and 20 acres under fruit trees, and in 1908 had 750 acres under cereals, hay, and green fodder. The live stock comprised 86 horses, 33 dairy cows, 60 other cattle, 1,800 sheep, and 200 pigs. The produce of the farm for the year was valued at £3,103, and the receipts comprised £2,370 from fees, and £1,603 from sale of produce. The expenditure for the year, including that on buildings and maintenance, amounted to £14,300.

Considerable attention is paid to experimental work in connexion with cereals, the raising of new varieties of wheat, suitable for the different parts of the country, receiving special attention.

Experiments with new fodder and other plants of economic importance are carried out, whilst attention is also paid to the indigenous grasses. A variety of medicinal and other plants is also grown on the farm for educational purposes. There is a 4¾ acre plantation of olives, of six varieties.

Manurial tests are carried out each year, and the results are published for the benefit of the farmers.

There is a good demand for seed wheat, oats, and barley from the college farm; whilst, for the commercial training of the students, a good deal of grain is marketed.

The ploughing, harvesting, and threshing are mainly carried out by the students under competent instructors. The students alone ploughed 1,000 acres last season, and cropped 750 acres, doing all the work.

Attention is being given to the breeding of draught horses and Indian remounts, several highly-bred Clydesdale mares, and a first-class stallion being used for stud purposes. Most of the horses used on the farm have been bred on it. The cattle include Ayrshires principally, also Herefords and Shorthorns. The breeds of sheep kept are Lincolns, Merinoes, Hampshire Downs, and South Downs. The raising of early lambs for the market receives considerable attention. The pigs kept are pure imported Berkshires, and imported large white Yorkshires. There is a good demand for them for stud purposes. The poultry industry is fostered, and pens of the best breeds are kept, a number of the birds having been imported from England.

Longerenong Agricultural College.

The Longerenong Agricultural College and Farm, under the control of the Council of Agricultural Education, is situated about eight miles from Horsham, and three miles from Dooen railway station. It accommodates thirty-five resident students, and several non-resident students, the sons of neighbouring farmers, also attend the classes. The farm contains 2,386 acres of land; of these about 700 acres are only fit for grazing, being low-lying and subject to floods in winter, but the remainder is good wheat-growing land. About 500 acres are cropped each year, the staple crop being wheat, of which the average yield per acre for the season 1908-9 was 22¾ bushels.

A seed farm of 50 acres for the propagation and crossing of wheat and other cereals has been established for the purpose of distributing new and improved cereals to agriculturists, and experimental work is being carried on with grasses, maizes, and other fodder plants.

The orchard, containing 28 acres—5 acres of which are planted with phylloxera-resistant vines—50 acres of lucerne, and about 10 acres of summer fodder-crops, are irrigated each season by water obtained from the Western Wimmera Waterworks Trust.

Considerable attention has been paid to tree-planting—sugar-gums, pepper-trees, and pines of different kinds bordering the roadways, and several plantations of fair extent being established on different portions of the estate. The paddocks are watered by seven tanks, varying in capacity from 1,000 to 5,000 cubic yards, which, in dry years, are filled from the irrigation channel. The college buildings have been thoroughly renovated, and are sewered on the septic-tank principle.

There are four silos on the farm, and the live stock in 1908 comprised 35 horses, 19 dairy cows, 35 other cattle, 1,500 sheep, and 25 pigs.

Lamb raising is one of the chief industries at Longerenong.

In 1908 the receipts comprised fees £499, sale of produce, &c., £1,794; the expenditure, including that on buildings and maintenance, amounted to £4,250.

Government Experimental Farming.

Wyuna Irrigation Farm.

In addition to the experimental farming carried on in connexion with the Dookie and Longerenong Agricultural Colleges, the Government has experimental farms at Wyuna, Rutherglen, and Whitfield. The Wyuna Irrigation Farm has an area of 540 acres, of which 256 acres are under crop (chiefly green fodder).

Government Tobacco Experimental Farm.

The Government Tobacco Experimental Farm is situated at Whitfield, and has an area of 113 acres, but owing to the fact that drainage operations were not completed in time to allow of clearing and cultivation, experimental work in tobacco growing has been restricted. Plants of seven varieties have been grown and distributed throughout the State, and large quantities of seed have been sent to intending growers.

Experiments in connexion with the industry are being conducted at Bruthen, Orbost, Mildura, and Gapsted, and prices for Victorian leaf continue to improve. A bonus of 2d. per lb. for high grade cigar leaf, of quantities of 5 cwt. and upwards, is now payable by the Federal Government.

The introduction of the tobacco transplanting machine to the Ovens district has led to a larger area being planted, the planter from the Government farm having been lent to farmers during the past season with successful results.

The crop of three (3) acres on the farm, consisting chiefly of pipe tobaccoes, is looking well. Experiments with fungicides on the

disease known as Blue Mould go to show that formalin treatments of the soil act beneficially. The area under cultivation in Victoria this season (1908-9), is the largest since 1896.

Government Viticultural Station.

The Government Viticultural Station is situated near Rutherglen, has an area of 913 acres, and is being used as a viticultural station, model orchard, and experimental farm. The expenditure in connexion with the station, including buildings and maintenance, amounted to £3,448 in 1908.

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.

As is well known, the ordinary European vines rapidly succumb to an attack of phylloxera—a disease caused by a tiny insect which injures the vine roots and quickly destroys vineyards wherever it obtains a footing. Phylloxera was discovered in Victoria in 1877. By its inevitable spread it soon destroyed the vines in the districts into which it had been introduced, and other districts became infected. The seriousness of these attacks led to the trials of many methods to exterminate the pest, all of which have unfortunately proved futile. French investigators had discovered that certain American vines were able to resist phylloxera, and these are used as stocks on which to graft the desired producing kinds.

There is a number of American vines grown, but all 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 were carefully collected regarding the growth of each variety in the very diverse soils purposely selected for these tests. Only such as are of vigorous growth are recommended.

To ascertain the grafting affinities of each kind of stock and scion, some of each of the principal wine and table varieties were grafted on each kind of resisting stock. These were then planted out permanently and the results noted. Growers can readily see by this plot 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. The work is done both by hand and machines. 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.

Large areas are devoted to the permanent growth of resistant stocks for the production of cuttings. A considerable area of more suitable land for nursery purposes has been taken up on the banks of the Murray, at Wahgunyah. Here a large irrigation plant and callusing frames, cottages, &c., have been erected.

To practically prove the efficacy of resistant stocks, grafted vines have been planted on the very sites of phylloxerated vines that had to be uprooted. These are growing luxuriantly, and afford striking testimony to their resistant value, since the vines by which they were originally surrounded are all dead as the result of the pest.

The principal resistant stocks grown belong to the genera Riparia and Rupestris, with their hybrids. As its name indicates, the Riparia in its native habitat loves moist, fertile soils along water-courses. Its root system is spreading and horizontal. Placed in such conditions as it is naturally accustomed to, it grows luxuriantly, but from the character of the root system, it is susceptible to drought. The species of Rupestris that are cultivated are more erect in habit than the Riparias, which are trailing. They are generally deeper rooted plants, and hence are better able to thrive in districts with a less generous rainfall. The Hybrids—usually designated by numbers—apparently inherit the good qualities of both parent plants, and have so far proved themselves most suitable for all conditions of soil and climate. They have also a wider range of affinity as graft-bearers.

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

As a college for the sons of vine-growers the Viticultural Station did not become popular, but the buildings are now being filled with boys from the Neglected Children's Department, who are being trained in scientific and practical agriculture and viticulture, and are already supplying vignerons and farmers with skilled labour of a class now difficult to obtain.

Experimental work is carried out with manures, cereals, grasses, fodder, and reputedly drought-resisting plants. Plots of selected wheats have been grown for seed for distribution, and the average yield of wheat per acre last season was 31½ bushels. A model orchard has been planted, and is worked under the supervision of the horticultural branch. Experimental dairying and the cross-breeding of dairy strains of cattle are also carried on, with a view to investigating the possibilities of dairying in the drier districts of the State. Milking and feeding sheds with necessary silos have been erected, and dairying, as practised in dry climates, forms part of the regular instruction. Sheep are also kept, and the growth of suitable summer fodder crops is an important branch of the work.

Gunyah Gunyah, Olangolah, and Bullarto.

The Gunyah Gunyah, Olangolah, and Bullarto reserves have never been used for the purposes of colleges, but Gunyah Gunyah is let for grazing and agriculture, and Bullarto for grazing.

Endowment lands.

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 144,294 acres,

and is described in the following table. At present the areas are let for grazing and agricultural purposes:—

ENDOWMENT AREAS.

Parish.	Acres.	Parish.	Acres.
Ararat	1,100	Leeor	125
Ardno	210	Moyston	242
Alexandra..	79	Moyston West	319
Bellellen and Illawarra ..	750	Mullroo and Yelta	28,600
Beveridge Island	2,732	Meering	690
Brankeet	387	Myrrhee	394
Berringama	199	Mooroopna	98
Bealiba	135	Milloo	120
Bumbang	10,000	Mirampiram	99
Byawatha	108	Moira	136
Buckrabanyule	220	Mologa	107
Bringalbart	79	Nurcoung	230
Bangerang	58	Pental Island	17,350
Broadwater	198	Pannoomilloo	100
Carraragarmungee	1,864	Peechember	50
Cudgewa	732	Purnim	3,678
Colac Colac	420	Quantong	495
Corack East	474	Quambatook	380
Charam	331	Turrumberry North ..	615
Carchap	99	Tullich	400
Charlton East	228	Terrick Terrick East and West	160
Dropmore and Ruffy ..	454	Terrick Terrick East ..	40
Dinyarrak..	359	Tallandoon	116
Dartagook	120	Tarwin	167
Estcourt	2,831	Turrumberry	281
French Island	340	Tallygaroopna	430
Gooram Gong	582	Tragowel	250
Granya	586	Toolongrook	160
Gowangardie and Currawa ..	272	Wychitella	1,015
Glenpatrick	100	Walwa	200
Glynwylln..	524	Windham	452
Jumbuk	2,641	Wabba	335
Kunat Kunat	700	Warrenbayne	145
Karramomus and Tamleugh..	672	Wappan	293
Kerrisdale..	148	Woorak	630
Kaarimba	429	Waratah	148
Knowsley	103	Wareek	100
Knowsley East	296	Warrenmang	120
Korrak Korrak	150	Wail	240
Kinypanial	80	Wonthaggi North	2,535
Koonik Koonik	37	Yarck	569
Konnepra	126	Yanac-a-Yanac	168
Kerang	90	Yeringa	160
Lindsay Island	42,000	Yeerung	1,400
Laen	887		
Longwood..	242	Total	144,294
Lang Lang and Yallock ..	4,780		

The total annual rental of endowment areas was £7,950.

School of Horticulture.

This school is situated in Richmond Park. The site covers 33 acres of ground, and was originally part of the old police paddock. In 1890, the Government decided to start on this site an institution for the training of orchardists and small settlers, and during the past ten years much has been done to provide for the teaching of regular and casual students, and those visitors calling in search of special information.

Effective roads and culverts have been laid, model orchard blocks, farm land, gardens, and a student's training ground have been prepared, and a large variety of instructive implementa got together for use in class and field work. Domestic and farm animals of all kinds are now kept, and provide a helpful source of instruction to students.

An entirely new and complete orchard and farm equipment has been provided, including cow sheds and a modern dairy, pig styes, a poultry run, a silo, farm stock, and such other conveniences as will insure a thoroughly practical training for students. The estate includes orchard and grazing and arable land where garden and fodder crops are largely grown.

The school course includes regular lectures in agricultural and horticultural science, veterinary work, and the management of animals, dairying, pig and poultry breeding, and kindred subjects.

Practical work includes the propagation and management of orchard trees, citrus, table grapes, and bush fruits, harvesting, storing, packing, marketing, and drying fruit, vegetable culture, clearing, grading, and trenching of land, and management of soils, manures, and drainage. The principal and his assistant carry out this programme by giving lessons daily in the class-room and field.

Previous 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 of the school's doing generally helpful work in the service of the State. The flower gardens surrounding the principal's residence are noted for their beauty, and the instructional character of the work ever in progress makes the place well worth a visit at any season. The school year extends from February to December.

Agricultural High Schools.

Agricultural High Schools have been established recently at Warrnambool and Sale, and it is proposed to open others at Ballarat, Shepparton, Wangaratta, Mildura, and Leongatha. During 1907-8 the expenditure on these schools, including buildings, amounted to £3,634. They have been established under the following conditions:—

(*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 14 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 is appointed for each school, which 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 enrolled in the school.

Agricultural and Horticultural Societies.

Agricultural and Horticultural Societies, established on the principle of voluntary membership, and having for their object the improvement of the agricultural, pastoral, and horticultural industries, exist throughout the State. Accounts of some of the more important societies will be found in previous issues of this work. Ninety-six agricultural societies furnished returns for the year 1908, and particulars are set out below.

Agricultural Societies, 1906, 1907, and 1908.

Societies.	Area of Grounds.	Number of Members.	Government Grant.	Total Receipts (including Government Grant).	Total Expenditure.	Bank Overdraft.
	Acres.		£	£	£	£
Royal	37	1,861	...	9,825	10,028	9,467
Ballarat	11	351	64	1,539	1,616	374
Benalla	13	211	26	925	1,016	58
Bendigo	10	310	66	1,581	1,706	125
Colac	13	261	61	870	881	256
Geelong	150	309	70	934	910	438
Hamilton	21	259	87	1,518	1,139	54
Horsham and Wimmera	28	491	22	931	832	...
North-Eastern ...	25	316	68	827	784	772
Ovens and Murray ...	41	360	85	1,538	1,332	171
Shepparton	23	427	115	2,754	2,545	943
Others	1,228	11,570	1,702	32,572	33,254	10,193
Total, 1908 ...	1,600	16,726	2,366	55,814	56,043	22,851
Total, 1907 ...	1,613	16,849	2,160	56,801	55,360	21,768
Total, 1906 ...	1,590	16,131	1,778	55,378	64,054	24,346

The loan liability of these societies in 1908 amounted to £6,835, that of the Geelong society alone being £2,725. The Horticultural Societies furnishing returns for 1908 numbered 31, their membership being 3,213, the receipts for the year £3,344, including Government grant £245, the expenditure £3,199, the bank overdraft £324, and the loan liability £1,357.

Department of Agriculture.

This Department is controlled by a Minister of the Crown, and has a large staff of experts, with a Director of Agriculture at the head. These 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.

Inspection of Orchards, Nurseries, &c.

The orchards, nurseries, and gardens of the State are systematically inspected by the officers of the Government Entomologist. Nurseries are inspected every six months, and certified by the departmental inspector if clean and free from disease. Old, worn-out infected orchards are destroyed.

Plants and cuttings coming from foreign parts are fumigated at the new fumigating 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 entomologist has the right of examination, and, if necessary, of ordering a second fumigation.

The fear of introducing either of the fruit flies, Tephritis tryoni and Halterophora capitata, has induced the Agricultural Department to arrange for the more thorough examination of fruit from New South Wales, Queensland, 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.

The number of inspectors has been increased and a house-to-house system of garden inspection in the suburbs of Melbourne inaugurated.

The matter of field inspection is now distinct from the entomologist's work, a chief inspector having recently been appointed so as to enable the entomologist to devote more time to original research and study.

Besides giving lectures and making inspections and experiments, the entomological branch of the Department of Agriculture carries on a great deal of correspondence, possesses a library of books and publications on technical matters, and controls a valuable museum of economic entomology and ornithology, from which collections are sent to exhibitions and shows of agricultural societies.

General Remarks on Live Stock Diseases in Victoria.

No country in the world is so free from malignant infectious disorders in stock as Victoria. The State interferes in every direction to prevent the spread and importation of disease, and exercises a strict supervision over all animals slaughtered for food.

The inspection of meat products for export is carried out under stringent regulations, and by properly trained officers, and no meats are allowed to be canned unless they are of a perfectly wholesome character, and derived from animals free from disease. The premises where canning of meat is conducted are rigorously inspected, and cleanliness is a factor insisted upon in the packing operations.

The Commonwealth Government has now assumed control of all meats exported from Australia, and, in addition, Victorian State laws insist on a thorough inspection of meats for export, and all inspectors associated with the work are officials of the Crown. All countries where meats of Victorian origin are consumed are officially assured that meats canned in this State are subjected to the closest scrutiny. The State jealously guards the wholesomeness of all oversea products intended for food of man. The whole of the milk supply of the State is subjected to a strict inspection by the central government, and cleanliness in production and distribution is rigorously insisted on.

Horses.—Horses are particularly free from malignant infectious disorders. Glanders and farcy do not prevail anywhere in Australia. Tuberculosis does not occur in Victorian horses. Complaints caused by parasites that are common all the world over are occasionally encountered.

Cattle.—Rinderpest, eczema-epizootica (foot and mouth disease), Texas-fever or tick fever, a disease dependent on a malarial organism, Pyrosomum Bigeminum, and introduced into the blood of cattle by the cattle tick (Ixodes Bovis), do not exist in the State. The herds of Victoria are not seriously affected with tuberculosis. In consequence of the mildness of the climate, cattle do not require to be housed at any period of the year, and the continuous life in the open is conducive to the health of the animals, and to the suppression of the disease mentioned. Tubercle does not affect more than about 5 per cent. of Victorian cattle, and, as greater care is now being exercised by stock-owners in the feeding and sheltering of milch cows than formerly, it is hoped that in a few years the percentage noted will undergo a material decline. Parasitic diseases are rare in Victorian cattle, and none inimical to human health have ever been found.

Sheep.—Tuberculosis has never been observed in Australian sheep. Scab has been completely exterminated, and as regards other parasitic diseases no country in the world can produce so clean a bill of health for its ovines as Australia.

Swine.—Trichinosis (Trichina Spiralis) and "measles" (Cysticercus Cellulosæ), the hydatid stage of the tapeworm Tænia Solium of man, do not exist in Victoria. The conditions under which pigs are reared and kept in Victoria are conducive to their well-being and

freedom from disease. The mildness of the climate and life in the open are the great factors insuring their healthfulness. Tubercle does not exist in more than about 2 per cent. of Victorian swine.

Dogs.—Rabies (Hydrophobia) does not exist in Victoria, and there are no serious diseases prevailing in canines.

Poultry.—No serious diseases prevail in Victorian birds, and inspections of the poultry of the State are regularly conducted. The industry of rearing chickens and turkeys for export is now established on a solid basis, and the wholesomeness of such products originating in Victoria cannot be questioned.

Experimental Field Work, 1908-9.

The expansion of our rural industries, and the permanent adoption of methods considered impractical only a decade ago, suggests a review of the circumstances which have guided the Victorian farmer towards the present achievement. The Department of Agriculture has played no small part in bringing about increased production in every branch of agriculture, but its most useful teaching has perhaps been through the medium of a widely extended series of experimental plots designed upon lines which the farmer could follow with economy and profit to himself. In the wheat areas, these experimental plots preceded the grain drill and the now universal fertiliser. The demonstration of the soundness of new ideas, and the proof that wheat soils, instead of being worn out as was generally thought, were in reality unproductive only by reason of the methods in vogue ten years ago and incapable of utilizing the unlimited stores of dormant plant food, came at a period when a serious exodus of experienced farmers was threatened. Following upon the success of the field experiments came the widespread demand for grain drills and fertilizers. One has only to study the figures relating to the latter industry to realize that a new lease of life was given to Victorian farming through its agency. The new doctrine was determinedly preached by officers of the Department until the natural conservatism of the farmer was overcome. Since then, however, new problems have arisen. Altered conditions have given rise to circumstances which hitherto were not conspicuous. Among these may be noted the question as to whether the continuous use of phosphatic manures alone over a long term might not react injuriously upon the soil and prejudice its returns. Varieties of wheat more prolific in yield, by reason of newer origin and more care given to the selection of seed, are gradually superseding those of a short time ago. Rotation of crops and deep cultivation are being extensively tested throughout the State, so that, now, with a better general understanding of the underlying principles of agriculture, the danger of falling back into the errors of the past is considerably lessened. With the purpose of carrying out a series of experiments based upon scientific reasoning, and of ascertaining fundamental data concerning the response of the northern wheat soils under a variety of conditions, a highly interesting group of

experiments has been conducted during the past four years by the Superintendent of Agriculture. Areas of 10 acres have been secured in 26 representative localities in the principal wheat districts, a portion being cropped each year. Reference has already been made in previous editions of the *Year-Book* to the progress results from these fields. Summarizing these, they have so far confirmed the superiority of the superphosphate over other forms of phosphatic manures for wheat growing, also the inutility up to the present time of manures containing nitrogen and potash. The effects of subsoiling have served to illustrate the fact that in what are known as the "Northern Plains," a deeper system of cultivation is of advantage in increasing the yield of grain. It is probable that the enhanced yield is due to the increased moisture-holding capacity and improved drainage of these stiff sour clay soils.

The benefits of green manuring and rotation of crops are not likely to be manifested until the termination of these trials in 1912; but there is already accumulating evidence that such practices lead to an increased stock-carrying capacity of the land, and a considerable amelioration of the physical texture of the soil itself. Perhaps no feature of the usefulness of these fields has been more evident during the past four seasons than the introduction and comparison of a number of varieties of wheat and oats grown side by side, under identical conditions of cultivation and manuring. It has taken only one season to reveal the unsuitability of some varieties. Others have required confirmatory trials, and a very limited number have been conspicuous successes from the commencement. Of the latter, the variety which has survived all tests from a grain-producing point of view, is "Federation." An instructive illustration of the superiority of "Federation" over such a widely-grown variety as "Dart's Imperial," is to be found in the table below:—

Season.	Federation.			Dart's Imperial.		
	Mallee.	Wimmera.	North Plains.	Mallee.	Wimmera.	North Plains.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1905 ..	14 7	21.3	22.4	14.5	21.1	20.6
1906 ..	19.0	30.0	27.8	15.1	26.9	22 3
1907 ..	14.6	18.5	17.0	14.0	13.5	14.2
1908 ..	18.2	19.7	17.2	14.3	18.0	14.0
Average	16.6	22.3	21.1	14.4	20.3	17.7

In addition to conducting the trials already alluded to, with the view of ascertaining the yielding properties of different wheats the Department has in view the introduction of varieties having superior milling properties to those now generally in use. Up to the present time, the milling value of his wheat has not concerned the farmer very much; but if one studies the literature of other countries on this matter, it must be patent that the time is arriving when the commercial value of wheat, which is the staple food-stuff of all civilized nations, must be put upon a more logical basis. Wheat

is more or less valuable according as a greater or lesser amount of flour can be made from it, and the flour has a fluctuating value in proportion to its "strength" or water-absorbing capacity and content of gluten. In order to carry out co-related investigations upon this side of the wheat industry, the Department of Agriculture is installing a miniature flour-milling plant to test all varieties grown in the State. Work of this character, although not on such comprehensive lines, is being carried out in the other States of the Commonwealth, as well as in most European countries.

The potential value of such systematic investigations to Victoria is immense. Already our exports of wheat are 50 per cent. more than our home consumption. New markets for our flour are being opened up in the East and South Africa, and, in order to permanently secure that trade, only the best quality of flour can be safely exported. If our flour is of unknown quality, we stand at the mercy of our commercial rivals, whose article may be of superior bread-making capacity. It is anticipated that before next season's harvest is gathered, the Departmental mill will be available, not only as a guide to the farmer as to which is the best variety to grow, but to the miller and baker also, as a means by which they may arrive at an accurate determination of the values of flours from different wheats. A third safeguard for the wheat-growing industry will be found in the initiation of "stud" plots for breeding new varieties of cereals at Longerenong and Dookie Agricultural Colleges. The "Wheat Improvement Committee," consisting of the Director of Agriculture, the Superintendent of Agriculture, the Vegetable Pathologist, and the Principal of the Dookie Agricultural College, have charge of four stations upon the Government farms at Wyuna and Rutherglen, also at the Dookie and Longerenong Agricultural Colleges, where work of this character is being actively carried on. Results are to be looked for within a year or two, and there is little doubt that the study of varieties under close scientific observation from sowing to harvesting, must lead to the establishment of sound principles for the future guidance of the Victorian wheat-grower.

In Southern Victoria, the necessities of the dairyman, the breeder of lambs for export, and the potato-grower, have not been overlooked. A series of experimental plots, embracing green fodder crops of all kinds, roots, legumes and grasses, have been instituted, generally under the auspices of an Agricultural Society or other rural body. Varieties of maize, sorghum, and millet, have been given especial attention; and most useful work is being done in investigating the manure requirements of a variety of soils. The advantages of growing all fodder crops in drills, and the imperative necessity of cultivating between the rows, are demonstrations which must do much to extend the area of these crops. The old system of broadcasting fodder crops, to languish as the summer advances, is gradually giving way to more reasonable methods. It may also be mentioned that the maize industry is now receiving the same close attention as is

being given to wheat. The establishment of "stud" plots at Orbost, Bruthen, and Colac, whereon the characteristics of a number of varieties, both for fodder and grain, are being observed, is a step in the right direction. A great number of cross fertilizations between varieties were made last season, some of which are bound to produce hybrids of superior value to the parents. Variety trials in representative potato-growing districts now offer information of value to the potato-grower as a guide to the varieties best adapted to the local soil and rainfall.

Upon the experimental market-garden at Cheltenham, vegetables of every description are being grown for market, under the supervision of a practical market-gardener. Manure tests of every description are being made, and the results carefully tabulated. Vegetable diseases and insect pests injurious to crops are also being investigated. It is intended to make the experimental garden the demonstration ground for new varieties of seeds of all kinds. Carried out upon such common-sense lines, and based upon commercial success only, the results will, in a year or two, offer much useful information to the suburban vegetable-grower.

The activities of the Field Branch have also been directed towards the utilization of soils, hitherto considered as being of too low fertility for profitable working. Fringing the coast-line of Victoria, there are enormous areas of what is called "heath land," sandy in character and clothed with low heath and ti-tree. In the Portland district, an attempt has been made to show that with drainage and suitable manuring, land of this character can be made to produce profitable crops. Millet, rape, sugar beet, potatoes, and grasses, have shown such encouraging yields that the Government has initiated a comprehensive scheme for drainage, which when completed will permit of some 20,000 acres being put under grass or crop. There is little doubt that work of this useful nature will be extended to the large areas of similar land in South Gippsland.

It will be gathered from the above brief outline that the objectives of the Departmental inquiries are all in the direction of enabling the producer to handle his soil to more advantage, and at the same time with economy. It is the true function of a Department to demonstrate sound principles in farming, and past results point to the solid advantages accruing from the advice of experienced officers. The standard of cultivation in Victoria is decidedly on the up grade, and with modern implements there is no reason why the present production in all branches should not be doubled or trebled.

Forestry.

In the *Year Book* of 1903, an exhaustive paper setting out the history, position, and aim of forestry in Victoria, and the value of Victorian timbers from a commercial point of view, from the pen of Mr. H. Mackay, was inserted, and this was amplified by the author for the 1904 volume. The writer sets out that the true aim of forestry is the preservation of the forests by wise use. Forest areas must be maintained in a timber-yielding condition, denuded areas must be re-planted, and open plains, niggard as regards natural vesture, must be planted with suitable trees. Above all, the sylvan wealth with which nature has clothed hill, valley, and plain must be maintained and increased by correcting wasteful and inferior growth, and so regulating the yearly output of timber as to give the best yield possible without deterioration of the forest areas.

Victoria, with a total area of 56,246,000 acres, has about twelve million acres of woodland, and of this latter, over 4,600,000 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 600,000 acres, timber cutting is carried on in various parts. The bulk of the forest revenue is, however, derived from a total area of about 100,000 acres, the trees being felled on the selection system of treatment; while 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 some 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 our natural 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. Blackwood is a very valuable commercial timber—it is an acacia (*a. melanoxylon*). It should be added,

that a fair revenue is obtained from wattle bark, and that the State has established a number of wattle plantations, and a plantation of Valonia oak for tanning products; also that the Forest Department is selling at remunerative rates pine timber. Fruit, grown at Harcourt for export, is now packed in boxes made in Victoria, from the *insignis* pine timber grown in the State plantations. 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 new forest nursery, with provision for an annual output of from three-quarters of a million to a million tree-plants, is nearly completed at Creswick, and the existing nurseries at Macedon and North Creswick are about to be re-modelled. The plantations at Creswick, Lara, and Mt. Alexander are being gradually extended, and new plantations will be formed this year in the Wimmera district, in Southern Gippsland, and in coastal areas near Warrnambool and Frankston. Although some of this work is experimental, the experience gained in the propagation and growing of Australian hardwoods, as well as exotic conifers, has been of great benefit to the community. Transplants are distributed to farmers, municipalities, and State schools, the first-mentioned particularly benefiting by the planting of trees around their homesteads, the protection of homes from wind and weather adding greater comfort to the life indoors, and the shelter and shade afforded to live stock insuring healthier flocks and herds and increased returns.

In addition to the three nurseries, there are thirteen plantation trial stations, having a total area of 10,000 acres. The persons employed in connexion with the State forests and nurseries comprise administrative and professional staff, 10; protective staff, 56; and nursery staff, 17. The revenue from licences and royalties in 1908-9 amounted to £40,647.

A Forests Act, conferring reasonable powers of management and control on the conservancy staff, passed by Parliament on 6th November, 1907, came into operation on 1st January, 1908. Under this law, working plans regulating the general fellings and output of timber from the reserves, are being put in force, thus maintaining the forests in a productive condition.

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., 1903-4 TO 1907-8.

——	1903-4.	1904-5.	1905-6.	1906-7.	1907-8.
Expenditure.	£	£	£	£	£
Agricultural and Horticultural Societies, &c.	2,392	2,420	2,375	2,475	3,351
Seed Advances Act—Fees ...	67	9	23	67	57
Carriage of Agricultural Produce at reduced Rates—Allowance to Railway Department	48,000	46,280	41,787	25,000	...
State Forests and Nurseries	16,393	17,747	18,805	18,358	19,103
To promote the Agricultural, Dairying, Fruit, and Wine Industries	153	139	296	197	213
Milk and Dairy Supervision	...	...	...	5,103	8,092
Development of Export Trade	29,179	34,031	34,050	37,681	32,859
Village Settlements ...	86	68	67	97	99
Labour Colonies	1,999	1,000	493	500	450
Viticultural Education and inspection of Vineyards	1,871	2,347	3,021	3,757	5,196
Vegetation Diseases ...	4,147	4,202	4,257	4,297	8,600
Scab Prevention and Stock Diseases	7,417	7,190	7,319	6,790	6,323
Rabbit and Vermin Extermination	15,759	16,603	16,477	16,513	17,585
Rates on Mallee Blocks ...	182	541	...	...	...
Maffra Beet Sugar Factory ...	454	215	214	219	222
Technical Agricultural Education, &c.	12,077	13,641	14,428	23,316	25,487
Publishing Agricultural Reports	2,739	2,011	2,250	2,293	1,886
Carrum Advances Act ...	...	512	...	...	...
Advances to Settlers on account of Losses by Bush Fires, &c.	...	...	3,486	1,568	11,614
Departmental and other Expenditure	7,465	8,351	10,890	11,852	12,323
Total	150,380	157,307	160,238	160,083	153,460
Revenue.					
Department of Agriculture ...	23,156	32,557	28,115	35,310	39,473

From the foregoing it will be seen that the State has rendered material assistance to all the producing industries connected with the land. As well as the expenditure shown, £791 has been expended from loan funds since 1902-3 and 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.

Land occupied and cultivation and live stock thereon.

Information relating to land occupied and cultivation and live stock thereon was collected in March, 1906. 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 as follows:—

LAND OCCUPIED, AND CULTIVATION AND LIVE STOCK THEREON, MARCH, 1906.

Size of Holdings. (In acres.)	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.
		Acres.	Acres.	Acres.	Acres.	Acres.
1 to 100 ..	19,173	721,669	554,759	1,276,428	196,580	1,079,848
101 „ 320 ..	16,121	3,459,291	937,727	4,397,018	789,330	3,607,688
321 „ 640 ..	9,319	4,497,331	1,604,280	6,101,611	1,197,536	4,904,075
641 „ 1,000 ..	3,876	3,164,404	1,063,166	4,227,570	735,263	3,492,307
1,001 „ 2,500 ..	3,466	5,112,200	2,200,867	7,313,067	1,009,034	6,304,033
2,501 „ 5,000 ..	617	2,106,732	1,996,797	4,103,529	180,884	3,922,645
5,001 „ 10,000 ..	220	1,567,251	471,271	2,038,522	44,347	1,994,175
10,001 and upwards	195	4,134,067	176,916	4,310,983	43,521	4,267,462
Total ..	52,987	24,762,945	9,005,783	33,768,728	4,196,495	29,572,233

Size of Holdings. (In acres.)	Live Stock on Holdings. Horses.	Cattle. Dairy Cows.	Cattle. Other Cattle.	Sheep.	Pigs.
1 to 100 ..	38,595	80,316	80,681	88,890	41,950
101 „ 320 ..	81,449	226,112	254,445	562,167	92,929
321 „ 640 ..	74,901	151,163	221,002	1,155,133	59,120
641 „ 1,000 ..	41,839	65,571	131,666	1,138,179	25,119
1,001 „ 2,500 ..	48,450	51,697	158,878	2,387,139	20,232
2,501 „ 5,000 ..	11,815	12,332	54,375	1,475,643	3,161
5,001 „ 10,000 ..	6,786	5,232	45,558	1,194,246	980
10,001 and upwards	10,379	5,805	59,914	3,260,442	1,309
Total ..	314,214	598,228	1,006,519	11,261,839	244,850

The figures are exclusive of live stock travelling, and those in cities, towns, &c.; also of 1,288 holdings containing 749,798 acres of Crown lands not held in conjunction with any private land, and on which there were 73,382 acres of cultivation, 4,057 horses, 20,707 cattle, 78,283 sheep, and 3,352 pigs. The position disclosed was that 48,489 occupiers of 11,842,695 acres of private land up to 1,000 acres each, also occupied 4,159,932 acres of Crown land—a total

of 16,002,627 acres, and less than half of the total area in occupation. These occupiers, however, controlled 70 per cent. of the total cultivation, and possessed 75 per cent. of the horses, 87 per cent. of the dairy cows, 69 per cent. of the other cattle, 90 per cent. of the pigs and 26 per cent. of the sheep. To clearly illustrate the uses to which the land was put, percentages in each division, and the sheep carrying capacity of the area under pasture, are given in the following table:—

CULTIVATION AND SHEEP CARRYING CAPACITY OF LAND IN DIFFERENT DIVISIONS, MARCH, 1906.

Size of Holdings of Private Land. (In Acres.)	Percentage in each Division to Total of—				Live Stock Grazed reduced to Equivalent in Sheep.	
	Area Occupied.	Area under Cultivation.	Area used for Pasture.	Equivalent in Sheep Grazed.	Total.	Per Acre used for Grazing.
1 to 100 ..	3·78	4·68	3·65	6·00	1,440,822	1·33
101 „ 320 ..	13·02	18·81	12·20	17·73	4,259,999	1·18
321 „ 640 ..	18·07	28·54	16·58	17·21	4,137,133	·84
641 „ 1,000 ..	12·52	17·52	11·81	11·40	2,739,991	·78
1,001 „ 2,500 ..	21·66	24·04	21·32	17·20	4,135,089	·66
2,501 „ 5,000 ..	12·15	4·31	13·27	8·30	1,994,035	·51
5,001 „ 10,000 ..	6·04	1·06	6·74	6·52	1,566,846	·79
10,001 and upwards	12·76	1·04	14·43	15·64	3,758,546	·88
Total ..	100·00	100·00	100·00	100·00	24,032,461	·81

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. In this return it may be seen that 47·39 per cent. of the land occupied was in areas not exceeding 1,000 acres, and, after supplying 70 per cent. of the cultivation, contained 52 per cent. of the live stock; whilst holdings of over 1,000 acres supplied 56 per cent. of the total area used for grazing, and only 48 per cent. of the 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 capability 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 carry

at least twelve million more sheep than at present. Dairying is principally carried on in the small holdings, more than a third of the dairy cows being on holdings between 101 and 321 acres. Naturally, pigs also are most numerous on small holdings, the proportion found on those of the acreage mentioned being about the same as in the case of dairy cows, *i.e.*, over one-third of the total in the State.

Particulars of land occupied, and the cultivation thereon, were for the second time tabulated in March, 1908, and the results are as follows:—

LAND OCCUPIED AND CULTIVATION THEREON, MARCH, 1908.

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.
		Acres.	Acres.	Acres.	Acres.	Acres.
1 to 100 ..	20,915	770,437	499,601	1,270,038	196,613	1,073,425
101 ,, 320 ..	17,016	3,610,374	1,260,414	4,870,788	724,874	4,145,914
321 ,, 640 ..	9,309	4,497,030	1,801,899	6,298,929	1,080,130	5,218,799
641 ,, 1,000 ..	4,002	3,258,380	1,615,654	4,874,034	700,931	4,173,103
1,001 ,, 2,500 ..	3,728	5,479,097	2,392,619	7,871,716	1,014,799	6,856,917
2,501 ,, 5,000 ..	681	2,333,321	2,858,631	5,191,952	220,329	4,971,623
5,001 10,000 ..	231	1,589,186	424,276	2,013,462	52,539	1,960,923
10,001 and upwards	183	3,636,320	123,223	3,759,543	42,006	3,717,537
Total	56,065	25,174,145	10,976,317	36,150,462	4,032,221	32,118,241

The figures in this table are exclusive of 1,162,930 acres of Crown land, of which there were 94,602 acres under cultivation, not occupied in conjunction with privately-owned land. Comparing the position with that in 1906, it will be observed that in land privately owned, estates of over 10,000 acres were reduced by twelve in number, and by 497,747, or 12 per cent. in acreage, while estates up to 320 acres had increased by 2,637 in number, and by

199,851 in acreage, also that the increase in the total number of holdings was 6 per cent., whilst that in land alienated was less than 2 per cent.

In March, 1909, particulars relating to estates of over 5,000 acres were tabulated, and these are compared with the similar information for 1906 in the following table:—

AREA OF LAND OCCUPIED, CULTIVATION, AND LIVE STOCK ON ESTATES OF 5,001 ACRES AND UPWARDS, 1906 AND 1909.

Details of Estates.		1906.		1909.	
		5,001 to 10,000 Acres.	10,001 Acres and Upwards.	5,001 to 10,000 Acres.	10,001 Acres and Upwards.
Privately-owned land—					
Number of estates ...	...	220	195	202	168
Area occupied ...	acres	1,567,251	4,134,067	1,423,689	3,327,360
Area of Crown lands held in conjunction with that privately owned	,,	471,271	176,916	188,526	114,616
Area under cultivation ...	,,	44,347	43,521	41,262	37,193
Area under pasture ...	,,	1,994,175	4,267,462	1,570,953	3,404,783
Live stock on holdings—					
Horses	No.	6,786	10,379	6,176	9,657
Dairy cows ...	,,	5,232	5,805	3,210	5,006
Other cattle ...	,,	45,558	59,914	32,319	48,612
Sheep	,,	1,194,246	3,260,442	1,193,352	2,667,332
Pigs	,,	980	1,309	463	1,091
Equivalent in sheep of horses, cattle, and sheep	,,	1,566,846	3,758,546	1,468,286	3,085,610
Equivalent in sheep of horses, cattle, and sheep per acre	,,	·79	·88	·93	·91

Under each heading there has been a substantial reduction in the number and acreage of estates, and the average area of each in 1909 is less by about 1,400 acres in the larger estates, and by 76 acres in estates of from 5,001 to 10,000 acres. The proportion of the total area cultivated shows a slight increase, while, owing to the live stock having been reduced by a smaller proportion than the area, the average stock carried per acre shows an increase in the last three years.

The following tables show the land in occupation in March, 1909, in districts, and the uses to which the land was put:—

LAND IN OCCUPATION IN EACH DISTRICT OF VICTORIA, MARCH, 1909.

(Areas 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 ...	13,040	380,283	167,231	2,054,190	32,492	2,634,196
North-Central	5,508	185,419	20,293	1,856,988	11,533	2,074,233
Western ...	10,055	323,841	198,592	5,944,484	133,296	6,600,213
Wimmera ...	5,632	1,295,912	1,072	4,046,276	142,578	5,485,838
Mallee ...	2,906	815,679	3,580	3,724,469	2,079,972	6,623,700
Northern ...	9,818	1,230,436	17,733	3,805,574	16,418	5,070,161
North-Eastern	4,700	148,125	3,717	3,851,898	350,471	4,354,211
Gippsland ...	7,698	116,488	617,493	3,606,841	642,300	4,983,122
Total ...	59,357	4,496,183	1,029,711	28,890,720	3,409,060	37,825,674
	PERCENTAGE OF TOTAL OCCUPIED IN EACH DISTRICT.					
Central ...	...	14·44	6·35	77·98	1·23	100·00
North-Central	...	8·94	·98	89·53	·55	100·00
Western ...	...	4·91	3·01	90·06	2·02	100·00
Wimmera ...	...	23·62	·02	73·76	2·60	100·00
Mallee ...	...	12·31	·06	56·23	31·40	100·00
Northern ...	...	24·27	·35	75·06	·32	100·00
North-Eastern	...	3·40	·09	88·46	8·05	100·00
Gippsland ...	...	2·34	12·39	72·38	12·89	100·00
Total ...	...	11·89	2·72	76·38	9·01	100·00
	PERCENTAGE IN EACH DISTRICT OF TOTAL IN STATE.					
Central ...	21·97	8·46	16·24	7·11	·96	6·97
North-Central	9·28	4·12	1·97	6·43	·34	5·48
Western ...	16·94	7·20	19·29	20·58	3·91	17·45
Wimmera ...	9·49	28·82	·10	14·01	4·18	14·50
Mallee ...	4·89	18·14	·35	12·89	61·01	17·51
Northern ...	16·54	27·37	1·72	13·17	·48	13·41
North-Eastern	7·92	3·30	·36	13·33	10·28	11·51
Gippsland ...	12·97	2·59	59·97	12·48	18·84	13·17
Total ...	100·00	100·00	100·00	100·00	100·00	100·00

It will be seen from these tables that in the Wimmera, Northern, and Mallee districts, the greatest area under cultivation and the greatest proportion of cultivation to land occupied are found. About 24 per cent. of the land occupied in the Wimmera and Northern districts is devoted to agriculture, and these districts supplied over

56 per cent. of the cultivation in Victoria. In Gippsland, the Western, North-Central and North-Eastern districts, the land is very largely devoted to grazing; and in Gippsland considerable attention has been given to the cultivation of grasses, as 60 per cent. of all the sown grasses in the State is found to be there.

In the next table the distribution of cattle and sheep on pastoral lands in March, 1909, is given.

AREA OCCUPIED AND STOCK, 1909.

District.	Acres Occupied for		Number of		Stock—Equivalent of Sheep—per 100 acres used for Pasture.*
	Agriculture.	Pasture.	Cattle.	Sheep.	
Central	380,283	2,221,421	249,754	988,609	112
North-Central ...	185,419	1,877,281	102,920	899,844	81
Western	323,841	6,143,076	340,229	4,630,865	109
Wimmera ...	1,295,912	4,047,348	57,349	2,234,415	64
Mallee	815,679	3,728,049	41,321	507,323	20
Northern ...	1,230,436	3,823,307	192,624	1,733,515	76
North-Eastern ...	148,125	3,855,615	218,368	757,324	54
Gippsland ...	116,488	4,224,334	371,597	793,847	72
Total ...	4,496,183	29,920,431	1,574,162	12,545,742	73

* Reckoning six sheep as the equivalent of one head of cattle.

The area occupied does not include 3,409,060 acres regarded as mostly in an unproductive state, and horses grazing have not been allowed for in the stock. There has been a considerable decrease in the number of sheep—there having been 14,146,734 in March, 1908, as against 12,545,742 a year later. The decrease is spread over all districts, the greatest reductions being in the Western (453,419), Central (251,928), Gippsland (244,719), and Northern (230,492) districts. The practice among farmers of combining sheep-farming with agriculture is growing in the State with very satisfactory results. In the Mallee, the number of sheep shows an increase of 51 per cent. since 1906, and it is among the small holders that the increase is most noticeable.

Occupations of persons settled on the land—Pastoral and dairying (Census.)

The occupations of persons settled on the land are only collected in the census years in full detail.

In 1891 the number of persons engaged in pastoral and dairying pursuits was 15,296, and in 1901, 30,920. The full particulars for last census year are as follows:—

Return of Persons Engaged in Pastoral and Dairying Pursuits, 1901.

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.		Not at work for more than a week prior to Census.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Grazier, Pastoralist, Stock Breeder, and Relative Assisting	2,242	177	2,422	303	—	—	1,159	1,062	—	—
Station Manager, Overseer, Clerk	—	—	—	—	593	4	1	7	39	—
Stock Rider, Drover, Shearer, Shepherd, Pastoral Labourer	47	—	100	—	4,540	7	5	—	248	—
Dairy Farmer, and Relative Assisting	2,205	276	3,007	756	—	—	3,263	4,456	—	—
Dairy Assistant, Milker	—	—	—	—	3,194	386	—	—	32	3
Poultry Farmer	19	8	132	79	17	3	16	41	1	—
Stock and Brands Department Officer	—	—	—	—	18	—	—	—	—	—
Others, including Pig Farmers ..	3	1	10	—	34	—	2	—	2	—
Total	4,516	462	5,671	1,138	8,396	400	4,446	5,566	322	3

Total Males	23,351
Total Females	7,569
Grand Total	30,920

In 1891 the number engaged in agricultural pursuits was 82,482, and in 1901 that number had increased to 95,920. The following return gives particulars of persons mainly engaged in agricultural pursuits when the last census was taken:— Occupations of persons settled on the land—Agricultural (Census).

Return of Persons Engaged in Agricultural Pursuits, 1901.

Persons Following Agricultural Pursuits.	Employers of Labour.		In Business on their own account, but not employing labour.		Receiving Salary or Wages.		Relatives Assisting.		Not at work for more than a week prior to Census.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Farmer and Relative Assisting ..	13,267	1,099	15,096	1,693	—	—	16,361	13,238	—	—
Farm Manager, Overseer	—	—	—	—	359	6	—	—	3	—
Farm Servant, Agricultural Labourer	—	—	—	—	20,204	599	—	—	956	5
Market Gardener	859	19	1,647	32	1,518	9	576	132	22	—
Fruit Grower, Orchardist	493	44	868	91	700	43	465	172	14	—
Hop, Cotton, Tea, Coffee Grower	10	2	7	—	48	48	9	2	—	—
Tobacco Grower	10	—	25	—	24	—	1	—	—	—
Vine Grower, Vigneron	174	18	72	8	1,131	6	86	39	6	—
Sugar Planter	1	—	—	—	—	—	—	—	—	—
Horticulturist, Gardener	237	7	571	17	2,132	7	107	39	214	—
Agricultural Department Officer..	—	—	—	—	41	—	—	—	—	—
Others, Threshing Machine Owners and Workers, &c.	20	1	26	—	72	2	4	3	103	—
Total	15,071	1,190	18,312	1,841	26,229	720	17,609	13,625	1,318	5

Total Males	78,539
Total Females	17,381
Grand Total	95,920

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 six years the numbers were as follows :—

NUMBER OF PERSONS EMPLOYED UPON FARMING, DAIRYING, AND PASTORAL HOLDINGS, 1903 TO 1908.

Year.	Males.	Females.	Total.
1903	87,322	48,561	135,883
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

The number of hands ordinarily employed on any holding includes the occupier or manager, and those members of his family who actually work 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, and three years ago the collectors were asked to supply some information on the subject. From this and particulars available from other sources it is believed that this labour may be set down as approximately equal to about 23,000 men employed continuously throughout the year.

Wages—agricultural and pastoral.

In the following return will be found particulars showing the rates of wages paid (with rations) upon farms and pastoral holdings during 1908-9. The information has been furnished by the occupiers of holdings :—

WAGES, AGRICULTURAL AND PASTORAL, 1908-9.

Occupations.	Range.	Prevailing Rate.
Ploughmen	15s. to 30s. per week ..	20s. per week
Farm labourers	15s. to 30s. „ ..	20s. „
Threshing machine hands ..	6d. to 1s. per hour ..	6d. per hour
Harvest hands	4s. to 7s. 6d. per day ..	6s. per day
Milkers	10s. to 20s. per week ..	15s. per week
Maize pickers (without rations)	4½d. to 8d. per bag ..	5d. per bag
Hop pickers „ „	2½d. to 4d. per bushel ..	4d. per bushel
Married couples	20s. to 40s. per week ..	30s. per week
Female servants	5s. to 20s. „ ..	10s. „
Men cooks	15s. to 30s. „ ..	20s. „
Stockmen	£39 to £80 per annum ..	£52 per annum
Shepherds	£26 to £65 „ ..	£39 „
Hut keepers	£30 to £60 „ ..	£39 „
Generally useful men ..	15s. to 36s. per week ..	20s. per week

WAGES, AGRICULTURAL AND PASTORAL, 1908-9—*continued.*

Occupations.	Range.	Prevailing Rate.
Sheep washers	20s. to 30s. per week ..	20s. per week
Shearers, hand*	15s. to 30s. per 100 sheep	20s. per 100 sheep
,, machine* ..	17s. 6d. to 22s. 6d. ,,	20s. ,,
Bush carpenters	20s. to 60s. per week ..	30s. per week
Gardeners, market ..	15s. to 36s. ,, ..	20s. ,,
,, orchard ..	15s. to 36s. ,, ..	20s. ,,
Vineyard hands	15s. to 25s. ,, ..	15s. ,,

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

Area under cultivation.

In the following table are given figures showing the land under cultivation in each of the four years ended March, 1906 to March, 1909:—

CULTIVATION OF PRINCIPAL CROPS, 1905-6 TO 1908-9.

Crop.	Year Ended March.			
	1906.	1907.	1908.	1909.
	Acres.	Acres.	Acres.	Acres.
Wheat	2,070,517	2,031,893	1,847,121	1,779,905
Other Grain Crops ...	378,987	458,451	487,721	511,698
Root Crops	52,125	62,150	60,078	55,315
Hay	591,771	621,139	682,194	956,371
Green Forage	34,041	36,502	59,897	63,066
Vines	26,402	25,855	26,465	24,430
Orchards	52,274	54,021	54,111	54,946
Market Gardens	7,333	7,906	9,022	9,279
All other Crops	6,512	5,669	5,914	6,751
Land in Fallow	1,049,915	990,967	894,300	1,034,422
Total Cultivation ...	4,269,877	4,294,553	4,126,823	4,496,183

The area under cultivation, exclusive of permanent and artificial grasses, increased from 50 acres sown down with wheat in 1836 to 4,496,183 acres, under crops of various kinds and in fallow in 1908-9. The first returns of oats, maize, potato, and

tobacco crops were obtained in 1838, of barley and rye in 1839, of hay in 1841, of green forage and vines in 1842, of peas and beans in 1849, of mangel-wurzel, carrots, parsnips, turnips, and onions in 1855-6, of garden and orchard produce in 1856-7, and of chicory, grass and clover seeds, and hops in 1867-8. Returns of land sown with artificial grass were first procured in 1855-6, and since that year steady progress has been made. The area of land in fallow has also been increasing since 1858-9, and in later years the increase has been very marked, though a slight decline is shown in the last three seasons as compared with the land in fallow in March, 1906.

For the thirteen years—1896-7 to 1908-9—the total area under cultivation, its proportion to the area of the State—56,245,760 acres—and the yearly increases or decreases, actual and centesimal, were as follows:—

AREA UNDER CULTIVATION, 1896-7 TO 1908-9.

Year ended March.	Area under Tillage (exclusive of area under artificial Grass).		Yearly Increase (+) or Decrease (-)	
	Total.	Percentage of Area of Victoria.	Total.	Percentage.
	Acres.		Acres.	
1897 ...	2,925,416	5·20	...	...
1898 ...	3,144,574	5·59	+219,158	+7
1899 ...	3,727,765	6·63	+583,191	+19
1900 ...	3,668,556	6·52	-59,209	-2
1901 ...	3,717,002	6·61	+48,446	+1
1902 ...	3,647,459	6·48	-69,543	-2
1903 ...	3,738,873	6·65	+91,414	+3
1904 ...	4,021,590	7·15	+282,717	+8
1905 ...	4,175,614	7·42	+154,024	+4
1906 ...	4,269,877	7·59	+94,263	+2
1907 ...	4,294,553	7·64	+24,676	+0·5
1908 ...	4,126,823	7·34	-167,730	-4
1909 ...	4,496,183	8·00	+369,360	+9

The land under cultivation, including land in fallow, but excluding land under artificial grasses, in 1896-7, was 2,925,416, and in 1908-9, 4,496,183 acres, there being an increase in the thirteen years of 1,570,767 acres, or of 54 per cent. The increase has been fairly

and almost constantly maintained. There are, however, three years, in which a slight reduction appears. The area of land actually under crops of various kinds in 1908-9 was 3,461,761 acres.

The following return contains a statement of the production from cultivated lands for the past three years:— **Agricultural production.**

AGRICULTURAL PRODUCTION, 1906-7 TO 1908-9.

Produce.	Year ended March.		
	1907.	1908.	1909.
Wheat ... ... bushels	22,618,043	12,100,780	23,345,649
Other Grain ... ... ,,	11,113,463	7,005,248	13,516,894
Root Crops ... ... tons	216,622	175,704	196,813
Hay ... . ,,	881,276	682,370	1,415,746
Vines ... cwt. of grapes	752,826	535,804	561,679
Green Forage ... £	91,255	149,742	157,665
Orchards ... ... £	486,085	421,210	408,597
Market Gardens ... £	197,650	225,550	231,975
Other Agricultural Produce £	85,423	182,120	298,543

The principal crops grown in the State are wheat, oats, barley, potatoes, and hay.

Wheat was first grown in Victoria in 1836, and there was a general increase in the area under cultivation up to 1899-1900, when 2,165,693 acres were harvested. In the following two seasons there was a decline in the area, but after this there was an increase, until, in 1904-5, the area under wheat was 2,277,537 acres, the largest recorded, and the return therefrom was 21,092,139 bushels, or an average of 9.26 bushels per acre. In 1908-9 the area under wheat was 1,779,905 acres, which yielded 23,345,649 bushels, or 13.12 bushels per acre. The wheat crop in 1907-8 was the poorest during the last six years. **Wheat.**

An estimate of the area under wheat was made on 4th August, 1908, and an estimate of the wheat yield was made four months later on 1st December. The following were the forecasts:—

Estimated area under wheat for grain ...	1,885,200 acres
,, ,, ,, hay ...	200,000 ,,
Total	2,085,200 acres
Estimated produce of grain	24,164,350 bushels
Average per acre	12.82 ,,

The results showed that the estimated yield was only slightly overstated, principally on account of 78,005 acres more than was anticipated having been cut for hay. The estimated total area under wheat for grain and hay and the average yield of wheat were as nearly accurate as could be desired.

The results in detail of the wheat harvest in the last three years are shown in the accompanying table:—

WHEAT YIELDS FOR THE SEASONS ENDED MARCH, 1907, TO MARCH, 1909, IN COUNTIES.

Districts and Counties.	Year ended March.								
	Area.			Produce.			Average per Acre.		
	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.
	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushls.	Bushls.	Bushls.
Central—									
Bourke ..	2,568	1,544	1,794	41,065	19,483	28,632	15.99	12.62	15.96
Grant ..	11,500	7,509	7,213	206,587	84,904	130,754	17.96	11.31	18.13
Mornington ..	58	41	121	850	770	2,470	14.66	18.78	20.41
Evelyn ..	136	92	108	2,357	2,094	1,445	17.33	22.76	13.38
North-Central—									
Anglesey ..	1,224	694	884	13,164	5,870	16,834	10.75	8.46	19.04
Dalhousie ..	3,704	1,928	2,795	44,592	28,208	48,171	12.04	14.63	17.23
Talbot ..	17,804	10,039	10,885	281,115	136,005	211,842	15.79	13.55	19.46
Western—									
Grenville ..	4,997	5,098	7,968	92,296	90,051	167,294	18.47	17.66	21.00
Polwarth ..	40	..	7	329	..	87	8.23	..	12.43
Heytesbury ..	30	8	21	521	206	466	17.37	25.75	22.19
Hampden ..	1,391	3,294	2,278	19,629	51,153	47,475	14.11	15.53	20.84
Ripon ..	68,087	60,280	58,471	1,018,873	907,197	1,291,862	14.96	15.05	22.09
Villiers ..	880	1,139	1,524	14,889	19,169	21,015	16.92	16.83	13.79
Normanby ..	745	555	1,105	12,298	10,879	16,036	16.51	19.60	14.51
Dundas ..	1,866	1,255	1,183	26,756	21,281	19,784	14.34	16.96	16.72
Follett ..	631	379	303	9,629	8,638	4,568	15.26	22.79	15.08
Wimmera—									
Lowan ..	164,440	172,564	157,297	1,763,348	1,723,401	1,960,605	10.72	9.99	12.46
Borung ..	317,055	307,529	300,798	4,445,954	3,025,286	5,301,253	14.02	9.84	17.62
Kara Kara ..	111,710	107,375	104,223	1,635,021	1,077,558	1,792,609	14.64	10.04	17.20
Mallee—									
Millewa ..	..	..	..	..	..	..	..	..	..
Weeah ..	25,105	25,691	31,819	231,263	159,943	382,191	9.21	6.23	12.01
Karkarooc ..	326,998	318,792	284,057	2,666,564	800,131	2,587,595	8.15	2.51	9.11
Tatchera ..	286,138	269,058	242,961	2,576,608	273,695	1,597,398	9.00	1.02	6.57
Northern—									
Gunbower ..	33,543	23,738	23,753	354,722	87,200	249,688	10.58	3.67	10.51
Gladstone ..	102,807	104,285	98,221	1,483,018	796,239	1,492,342	14.43	7.64	15.19
Bendigo ..	103,257	91,673	95,267	1,501,076	576,712	1,509,691	14.54	6.29	15.84
Rodney ..	123,107	95,712	102,558	1,278,327	701,089	1,628,178	10.38	7.32	15.88
Moira ..	279,123	207,557	205,913	2,509,387	1,163,864	2,218,701	8.99	5.61	10.77
North-Eastern—									
Delatite ..	8,744	6,580	7,749	67,554	94,359	160,081	7.73	14.34	20.66
Bogong ..	29,962	21,433	26,214	231,592	211,805	423,751	7.73	9.88	16.17
Benambra ..	681	142	499	11,380	2,249	8,599	16.71	15.84	17.23
Wonnangatta	27	4	16	269	86	156	9.96	21.50	9.75
Gippsland—									
Croajingolong	65	38	27	1,076	589	318	16.55	15.50	11.78
Tambo ..	22	..	19	521	..	431	23.68	..	22.68
Dargo ..	..	..	11	..	..	147	..	..	13.36
Tanjil ..	3,306	1,045	1,749	72,983	19,763	21,957	22.08	18.91	12.55
Buln Buln ..	142	50	94	2,430	903	1,223	17.11	18.06	13.01
Total ..	2,031,893	1,847,121	1,779,905	22,618,043	12,100,780	23,345,649	11.13	6.55	13.12

It will be observed that the area harvested for wheat last season was 67,216 acres less than in the previous one, and 251,988 acres less than in 1906-7. The falling-off last season was principally in

the counties of Lowan, Karkarooc, and Tatchera. The total and average production in 1907-8, as the result of a most exceptional season, showed a serious reduction, but the yield in 1908-9 was the best of the last three seasons.

The principal districts where wheat is grown are the Wimmera, comprising the counties of Lowan, Borung, and Kara Kara; the Mallee, comprising those of Weeah, Karkarooc, and Tatchera; and the northern, comprising Gunbower, Gladstone, Bendigo, Rodney, and Moira. Of the total wheat harvested in 1908-9, that in the counties enumerated was 1,646,867 acres, or 93 per cent. of the total, and the produce therefrom was 20,720,251 bushels, or 89 per cent. of the total in the State. The other districts are, however, not to be regarded as unsuitable for wheat-growing, as though providing only a small proportion of the area and produce in 1908-9 the average yield per acre was 57 per cent. greater than that in the counties mentioned.

The following table shows the area of each of the principal wheat-growing counties, the cultivation for the years of first and largest record, and for last year:—

WHEAT-GROWING COUNTIES: AREA AND PRODUCTION.

District and County.	Area of County.	First Cultivation Recorded.			Largest Cultivation Recorded.			Cultivation for 1908-9.	
		Year.	Area.	Average Yield Per Acre.	Year.	Area.	Average Yield Per Acre.	Area.	Average Yield Per Acre.
			Acres.	Bushels.		Acres.	Bushels.	Acres.	Bushels.
Western Dist.—									
Ripon ..	1,125,760	1855-6	40	35.62	1906-7	68,087	14·96	58,471	22·09
Wimmera Dist.—									
Lowan ..	3,181,440	1871-2	232	16·69	1892-3	257,685	8·58	157,297	12·46
Borung ..	2,740,480	1871-2	4,590	15·59	1903-4	424,224	13·67	300,798	17·62
Kara Kara ..	1,472,640	1871-2	7,987	14·34	1899-00	125,345	9·68	104,223	17·20
Mallee Dist.—									
Weeah ..	2,562,560	1891-2	40	21·00	1908-9	31,819	12·01	31,819	12·01
Karkarooc ..	3,797,120	1879-80	233	10·87	1902-3	371,069	·22	284,057	9·11
Tatchera ..	2,138,240	1871-2	2	12·00	1904-5	342,022	3·35	242,961	6·57
Northern Dist.—									
Gunbower ..	862,720	1871-2	181	13·36	1880-1	75,114	9·29	23,753	10·51
Gladstone ..	1,153,280	1869-70	7,988	17·46	1904-5	107,534	12·36	98,221	15·19
Bendigo ..	1,247,360	1869-70	21,038	16·26	1904-5	110,926	13·44	95,267	15·84
Rodney ..	1,087,360	1855-6	63	26·66	1898-9	132,273	13·92	102,558	15·8
Moira ..	1,986,560	1871-2	14,936	15·93	1904-5	328,811	10·87	205,913	10·77

In the next table the average yield of wheat per acre in each of these counties during the last ten years is given :—

AVERAGE YIELD OF WHEAT PER ACRE IN WHEAT-GROWING COUNTIES, 1899-1900, TO 1908-9.

District and County.	Average Yield of Wheat per Acre (in Bushels) during Year ended March.									
	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Western District—										
Ripon	19.17	16.75	18.13	9.60	15.32	16.57	16.59	14.96	15.05	22.09
Wimmera District—										
Lowan ..	5.90	7.43	8.53	3.21	13.47	11.32	12.43	10.72	9.99	12.46
Borung ..	6.41	8.83	7.22	.47	13.67	11.03	13.61	14.02	9.84	17.62
Kara Kara ..	9.68	10.10	10.19	1.38	15.97	12.50	14.59	14.64	10.04	17.20
Mallee District—										
Weeah ..	4.70	9.80	5.65	.46	12.39	7.24	7.54	9.21	6.23	12.01
Karkarooc ..	2.93	6.41	3.77	.22	10.76	3.30	5.77	8.15	2.51	9.11
Tatchera ..	5.19	4.83	3.22	.10	11.99	3.35	5.33	9.00	1.02	6.57
Northern District—										
Gunbower ..	6.33	9.56	3.93	.27	14.54	8.77	10.70	10.58	3.67	10.51
Gladstone ..	8.95	9.79	8.49	1.25	16.68	12.36	13.45	14.43	7.64	15.19
Bendigo ..	10.26	12.31	8.35	1.40	18.54	13.44	15.13	14.54	6.29	15.84
Rodney ..	11.07	13.04	10.82	4.37	17.40	12.40	15.37	10.38	7.32	15.88
Moira	8.68	11.70	9.27	1.15	17.18	10.87	12.71	8.99	5.61	10.77

The following table shows the area of each county, and the rise and fall in the cultivation of wheat in the central and north-central districts :—

WHEAT CULTIVATION IN CENTRAL AND NORTH-CENTRAL COUNTIES.

District and County.	Area of County.	First Cultivation Recorded.		
		Year.	Area.	Average Yield Per Acre.
	Acres.		Acres.	Bushels.
Central District—				
Bourke	1,101,440	1855–6	13,606	25·03
Grant	1,173,760	1855–6	12,072	25·65
Mornington	1,040,000	1855–6	943	29·57
Evelyn	750,080	1855–6	1,124	31·43
North-Central District—				
Anglesey	1,054,080	1855–6	129	28·77
Dalhousie	838,400	1855–6	3,113	26·67
Talbot	1,037,440	1855–6	445	33·68

District and County.	Largest Cultivation Recorded.			Cultivation in 1907–8.		Cultivation in 1908–9.	
	Year.	Area.	Average Yield Per Acre.	Area.	Average Yield Per Acre.	Area.	Average Yield per Acre.
		Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Central District—							
Bourke	1861–2	30,268	17·12	1,544	12·62	1,794	15·96
Grant	1861–2	35,349	15·86	7,509	11·31	7,213	18·13
Mornington	1860–1	3,153	14·03	41	18·78	121	20·41
Evelyn	1859–60	1,789	15·43	92	22·76	108	13·38
North-Central District—							
Anglesey	1874–5	4,146	12·96	694	8·46	884	19·04
Dalhousie	1869–70	25,124	21·47	1,923	14·63	2,795	17·23
Talbot	1871–2	76,555	13·81	10,039	13·55	10,885	19·46

The following is a table showing the area under wheat, the produce, and the average yield per acre, during the last thirteen years:—

WHEAT RETURNS, 1896-7 TO 1908-9.

Year ended March.	Area under Crop.	Produce.	Average per Acre.
	Acres.	Bushels.	Bushels.
1897	1,580,613	7,091,029	4·49
1898	1,657,450	10,580,217	6·38
1899	2,154,163	19,581,304	9·09
1900	2,165,693	15,237,948	7·04
1901	2,017,321	17,847,321	8·85
1902	1,754,417	12,127,382	6·91
1903	1,994,271	2,569,364	1·29
1904	1,968,599	28,525,579	14·49
1905	2,277,537	21,092,139	9·26
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

In 1902-3 wheat was grown on about 17,100 holdings, in 1903-4 on 17,400 holdings, in 1904-5 on 18,000 holdings, in 1905-6 on 18,362 holdings, in 1906-7 on 18,077 holdings, in 1907-8 on 16,303 holdings, and in 1908-9 on 16,968 holdings. The decline in the yield and in the average per acre, which is observed during the two seasons prior to 1903-4, was due to the severity of the seasons experienced all over the wheat-growing districts of the State. In 1903-4 the yield was the highest ever recorded, although the area under crop was not so large as in the previous year. The yield in 1905-6 was 23,417,670 bushels, and that in 1906-7, 22,618,043 bushels; in 1907-8, as the result of an adverse season, it again fell to the level of that in 1901-2, but in 1908-9 it reached 23,345,649 bushels, which is the third highest recorded. In addition to 1,779,905 acres harvested for grain, there were 278,005 acres of wheat cut for hay, so that the total area sown with wheat in 1908-9 was 2,057,910 acres; from information received from growers, it is estimated that the corresponding area for the season 1909-10 is 2,302,300 acres, or an increase of 244,390 acres, the additional acreage being principally in the northern district. The standard weight of wheat is reckoned to be 60 lbs. to the bushel, but the actual weight of a bushel of Victorian wheat, according to the standard fixed by the Chamber of Commerce, was 62½ lbs. in 1899-1900, 1900-1, and 1901-2; 61 lbs. in 1902-3; 60½ lbs. in 1903-4; 61½ lbs. in 1904-5; 63 lbs. in 1905-6; 62¾ lbs. in 1906-7; and 62½ lbs. in 1907-8 and 1908-9.

Population and breadstuffs.

The following table shows, for 1898, and each subsequent year to 1906, the mean population of Victoria; the stocks of old wheat and flour on hand at the beginning of each year; the quantity of wheat grown; the quantity (after deducting imports) of wheat, flour, and

biscuit exported; and the breadstuffs left over and available for home consumption. In addition to that required for food consumption, a quantity is used for seed purposes, equal, on an average, to three-quarters of a bushel per acre. Reliable information in regard to wheat imported across the border from New South Wales and South Australia is not now available, and this makes it impossible to state the particulars since 1906:—

POPULATION AND WHEAT RETURNS, 1898 TO 1906.

Year.	Mean Population.	Stocks of old Wheat and Flour on hand (1st January).	Wheat harvested for season ended March in each Year.	Wheat, Flour, and Biscuit.	
				Exported after deducting Imports.	Available for Home Consumption.
		Bushels.	Bushels.	Bushels.	Bushels.
1898 ...	1,172,950	330,224	10,580,217	1,855,951	9,054,490
1899 ...	1,186,265	1,282,902	19,581,304	10,662,011	10,202,195
1900 ...	1,193,338	2,121,700	15,237,948	7,011,242	10,348,406
1901 ...	1,202,960	1,872,000	17,847,321	10,248,093	9,471,228
1902 ...	1,207,110	1,525,288	12,127,382	3,899,246	9,753,424
1903 ...	1,208,880	903,616	2,569,364	−4,495,403*	7,968,383
1904 ...	1,207,537	173,708	28,525,579	18,616,831	10,082,456
1905 ...	1,212,517	2,609,878	21,092,139	15,427,229	8,274,788
1906 ...	1,227,072	549,930	23,417,670	17,053,652	6,913,948

* Net import.

Disposal of breadstuffs.

The manner in which the breadstuffs available for home consumption were disposed of in each of the eight years ended with 1905 was as follows:—

DISPOSAL OF BREADSTUFFS, 1898 TO 1905.

Year.	Wheat and Flour.				
	Quantity available for Home Consumption.	How disposed of—			
		Stocks on hand on 31st December.	Required for Seed.	Used for Food, &c.	
				Total.	Per Head.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1898 ...	9,054,490	1,282,902	1,770,941	6,000,647	5·12
1899 ...	10,202,195	2,121,700	1,772,602	6,307,893	5·32
1900 ...	10,348,406	1,872,000	1,696,000	6,780,406	5·68
1901 ...	9,471,228	1,525,288	1,529,249	6,416,691	5·33
1902 ...	9,753,424	903,616	1,616,946	7,232,862	5·99
1903 ...	7,968,383	173,708	1,626,954	6,167,721	5·10
1904 ...	10,082,456	2,609,878	1,807,351	5,665,227	4·69
1905 ...	8,274,788	549,930	1,705,182	6,019,676	4·96

With the exception of 1896 and 1903, the breadstuffs produced in the twenty-nine years ended with 1905 have been more than enough to supply home consumption. Wheat has, therefore, been exported each year, with these two exceptions. The maximum export was 18,616,831 bushels in 1904.

Stocks of wheat and flour.

As previously mentioned, there is now no reliable information of the wheat imported through border stations, and this makes it difficult to accurately account for the disposal of that harvested in 1908-9, but it is estimated that about 8,000,000 bushels are required locally for food and seed, which will leave over 15,000,000 bushels of Victorian wheat for export during the year. Information as to the stocks of wheat and flour on hand on 30th June, 1909, has been received from holders, and is as follows:—

WHEAT AND FLOUR ON HAND, 30TH JUNE, 1909.

Where Located.	Quantity in Bushels.		
	Wheat.	Flour (equivalent in Wheat).	Total.
Railway Stations and in transit ...	68,200	39,400	107,600
Sites leased from Railways	3,173,000	17,800	3,190,800
Mills and Stores (other than on Railways)	2,004,900	585,700	2,590,600
Farms	866,300	...	866,300
Total	6,112,400	642,900	6,755,300

Wheat production of world.

The wheat crop of the world, according to the latest statement of the United States Agricultural Department, except in the case of Australasia, was as follows in the last three years:—

WHEAT PRODUCTION OF THE WORLD, 1906 TO 1908.

Continent.	1906.	1907.	1908.
	Bushels.	Bushels.	Bushels.
Australasia	75,320,000	72,026,000	50,223,000
Europe	1,810,448,000	1,618,476,000	1,751,696,000
Asia	451,250,000	466,710,000	306,992,000
Africa	66,536,000	64,937,000	58,341,000
America, North ...	875,066,000	739,094,000	787,136,000
,, South ...	151,694,000	178,636,000	216,919,000
Total	3,430,314,000	3,139,879,000	3,171,307,000

Oats.

In 1908-9 the area harvested for oats in Victoria was 419,869 acres, from which a yield of 11,124,940 bushels, or the second highest on record, was obtained, giving an average of 26.50 bushels to the acre. The following return shows the harvest results for this crop for the last thirteen years:—

OATS GROWN, 1896-7 TO 1908-9.

Year Ended March.	Area under Crop.	Produce.	Average per Acre.
	Acres.	Bushels.	Bushels.
1897	419,460	6,816,951	16·25
1898	294,183	4,809,479	16·35
1899	266,159	5,523,419	20·75
1900	271,280	6,116,046	22·55
1901	362,689	9,582,332	26·42
1902	329,150	6,724,900	20·43
1903	433,489	4,402,982	10·16
1904	433,638	13,434,952	30·98
1905	344,019	6,203,429	18·03
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

In addition to the area shown for last season, there were 662,141 acres of oats cut for hay, so that the total area sown with oats was 1,082,010 acres in 1908-9. In August, 1909, it was estimated that the area under this grain for 1909-10 was 1,076,900 acres, or a decrease of over 5,000 acres as compared with the year 1908-9. Imports into Victoria during 1908 included 876,695 bushels of oats, as well as 640,299 lbs. of oatmeal, whilst in the same year there were exported 244,480 bushels of oats and 5,289,797 lbs. of oatmeal.

Barley.

The area under barley was 64,648 acres in 1908-9, of which 42,882 were under malting barley, and 21,766 under other barley. There is a remarkable fluctuation in the area of land sown with barley, which seems strange, seeing that the market for this product is uniformly good. The following table shows the returns for the last thirteen years. It will be noticed that the average per acre in 1905-6 is the best for the period covered by the table:—

CULTIVATION OF BARLEY, 1896-7 TO 1908-9.

Year ended March.	Area under Crop.		Produce.		Average per Acre.		
	Malting.	Other.	Malting.	Other.	Malting.	Other.	Total.
	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1897	53,421	8,952	641,406	174,199	12·01	19·45	13 08
1898	26,118	11,087	502,411	256,043	19·24	23·09	20·39
1899	33,584	14,275	776,785	335,782	23·13	23·52	23·25
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	339,282	26·17	23·80	25·50
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

During 1908 barley and malt were imported to the extent of 573,994 and 15,540 bushels respectively, the United States having supplied 61 per cent. and South Australia 37 per cent. of the former; exports accounted for 108,590 bushels of barley, and 412,827 bushels of malt, 75 per cent. of the latter having been sent to New South Wales. In the same year 981,271 bushels of barley were used locally in the production of 971,926 bushels of malt.

Potatoes.

The greatest area of land planted with potatoes was 57,334 acres in 1891-2; the next being 56,383 acres in 1894-5. The highest yield was 204,155 tons in 1890-1, the next 200,523 tons in 1891-2. The area planted in 1908-9 was 47,903 acres, and the produce 152,840 tons, or over 3 tons per acre. The following table shows the potato returns for the last thirteen years:—

POTATOES GROWN, 1896-7 TO 1908-9.

Year ended June.	Area under Crop.	Produce.	Average per Acre.
	Acres.	Tons.	Tons.
1897	43,532	146,555	3·37
1898	44,197	67,296	1·52
1899	41,252	161,142	3·91
1900	55,469	173,381	3·13
1901	38,477	123,126	3·20
1902	40,058	125,474	3·13
1903	49,706	168,759	3·40
1904	48,930	167,736	3·43
1905	46,912	92,872	1·98
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

Trade in potatoes is mainly confined to that with the Australian States, as in 1908, of 10,465 tons imported, all but 1 per cent. were received from Tasmania; while of 21,130 tons exported, 8,954 were sent to New South Wales, 5,009 to Queensland, 3,981 to Western Australia, and 3,010 to South Australia.

Hay.

Statistics of the hay crop were collected as far back as 1841, when 450 acres returned 900 tons. The greatest area sown, and the maximum production since that date were in last season, when 956,371 acres were cut for 1,415,746 tons; the next highest records were in 1903-4, when 733,353 acres produced 1,233,063 tons. The quantity of straw returned for the season 1908-9 was 164,455 tons. The following is a return of the hay crop for each of the last thirteen years :—

HAY RETURNS, 1896 TO 1908.

Year.	Area under Crop.	Produce.	Average per Acre.
	Acres.	Tons.	Tons.
1896	416,667	449,056	1·08
1897	580,000	659,635	1·14
1898	565,345	723,299	1·28
1899	450,189	596,193	1·32
1900	502,105	677,757	1·35
1901	659,239	884,369	1·34
1902	580,884	601,272	1·04
1903	733,353	1,233,063	1·68
1904	452,459	514,316	1·14
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

Hay making is largely confined to oaten crops, as of the total hay produced last season there were 1,026,621 tons of oaten hay, equal to 1.55 tons per acre harvested, 367,899 tons of wheaten hay, or 1.32 tons per acre, and 21,226 tons of hay made from lucerne and other crops, equal to 1.31 tons per acre harvested. The trade in hay and chaff was not very great in 1908; exports amounted to only 29,239 tons, of which 93 per cent. was sent to New South Wales and Queensland, while the quantity imported was 17,223 tons.

The five principal crops.

The area under the five principal crops during each of the last ten years, the production of these crops, and the proportion of each to the population, are exhibited in the following table. It is interest-

ing to observe the variations per head of the population in the areas under crop, and in the yields during the period covered by the table:—

AREA, PRODUCTION, AND AVERAGES PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1899-1900 TO 1908-9.

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	AREA.				
	Acres.	Acres.	Acres.	Acres.	Acres.
1900 ..	2,165,693	271,280	79,573	55,469	450,189
1901 ..	2,017,321	362,689	58,853	38,477	502,105
1902 ..	1,754,417	329,150	32,423	40,058	659,239
1903 ..	1,994,271	433,489	37,716	49,706	580,884
1904 ..	1,968,599	433,638	47,760	48,930	733,353
1905 ..	2,277,537	344,019	46,089	46,912	452,459
1906 ..	2,070,517	312,052	40,938	44,670	591,771
1907 ..	2,031,893	380,493	52,816	55,372	621,139
1908 ..	1,847,121	398,749	63,074	54,149	682,194
1909 ..	1,779,905	419,869	64,648	47,903	956,371
	PRODUCTION.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1900 ..	15,237,948	6,116,046	1,466,088	173,381	596,193
1901 ..	17,847,321	9,582,332	1,215,478	123,126	677,757
1902 ..	12,127,382	6,724,900	693,851	125,474	884,369
1903 ..	2,569,364	4,402,982	561,144	168,759	601,272
1904 ..	28,525,579	13,434,952	1,218,003	167,736	1,233,063
1905 ..	21,092,139	6,203,429	874,099	92,872	514,316
1906 ..	23,417,670	7,232,425	1,062,139	115,352	864,177
1907 ..	22,618,043	8,845,654	1,255,442	166,839	881,276
1908 ..	12,100,780	5,201,408	1,059,295	135,110	682,370
1909 ..	23,345,649	11,124,940	1,511,181	152,840	1,415,746
	AREA PER HEAD OF POPULATION.				
	Acres.	Acres.	Acres.	Acres.	Acres.
1900 ..	1·82	·23	·07	·05	·38
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

AREA, PRODUCTION, AND AVERAGES PER HEAD OF POPULATION OF FIVE PRINCIPAL CROPS, 1899-1900 TO 1908-9—*continued.*

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	PRODUCTION PER HEAD OF POPULATION.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1900 ..	12·81	5·14	1·23	·15	·50
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

The next table compares last season's yields of the principal crops with those of 1907-8 and the averages of the ten years ended in March, 1907.

AVERAGE YIELD PER ACRE OF PRINCIPAL CROPS, 1897-8 TO 1906-7, 1907-8, AND 1908-9.

Crop.	Yield per Acre.		
	Average of Ten Years, 1897-8 to 1906-7.	1907-8.	1908-9.
Wheat ... bushels	8·64	6·55	13·12
Oats ... ... ,,	21·26	13·04	26·50
Barley—Malting ,,	20·62	17·82	23·63
,, Other... ,,	23·16	14·76	22·87
,, Total ... ,,	21·32	16·79	23·38
Potatoes ... tons	2·93	2·50	3·19
Hay—Wheaten ,,	1·16	·82	1·32
,, Oaten, &c. ,,	1·42	1·08	1·54
,, Total ... ,,	1·33	1·00	1·48

Compared with the ten years' average the all round reduction per acre in the production of the principal crops in 1907-8 was entirely due to an exceptionally unpropitious season, and the substantial improvement in the averages in 1908-9 indicated the existence of conditions more favorable than those prevailing in normal years.

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, 1908-9.

District.	Percentage in each District of Area under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central	·52	8·41	35·58	37·32	20·47	34·55	3·13
North-Central	·82	9·75	11·07	23·47	8·87	4·48	1·77
Western	4·09	11·26	16·08	22·10	11·85	9·14	5·00
Wimmera	31·59	21·04	2·18	·66	15·97	2·89	46·90
Mallee	31·40	9·97	5·26	..	6·34	6·45	13·39
Northern	29·54	30·87	23·80	·05	24·80	13·79	28·60
North-Eastern	1·94	5·95	1·22	4·85	5·76	10·60	·96
Gippsland	·10	2·75	4·81	11·55	5·94	18·10	·25

NOTE.—For counties contained in each district, see table on page 620.

This statement shows that during last season 93 per cent. of the area under wheat was in the Wimmera, Mallee, and Northern districts; more than half that under oats was in the Wimmera and Northern districts; nearly three-fifths of that under barley was in the Central and Northern districts; and over four-fifths 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 Mallee, North-Eastern, and Gippsland districts. The Central district accounted for more than one-third of the area under minor crops, principally through a much larger area being used for gardens and orchards and for peas and beans 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, 1908-9.

District.	Percentage of Total Cultivation under—						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
Central	2·43	9·29	6·05	4·70	51·49	17·54	8·50
North-Central	7·85	22·09	3·86	6·06	45·58	4·67	9·89
Western	22·50	14·59	3·21	3·27	35·00	5·45	15·98
Wimmera	43·39	6·82	·11	·02	11·79	·43	37·44
Mallee	68·51	5·14	·42	..	7·44	1·52	16·97
Northern	42·73	10·53	1·25	..	19·28	2·16	24·05
North-Eastern	23·28	16·87	·53	1·57	37·22	13·81	6·72
Gippsland	1·63	9·89	2·67	4·75	48·81	29·99	2·26
Total of Victoria ..	39·59	9·34	1·44	1·06	21·27	4·29	23·01

NOTE.—For counties contained in each district, see table on page 620.

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

In Victoria the proportion of the land under each crop to the total area under tillage during the last eleven years was as stated hereunder :—

PROPORTION TO TOTAL CULTIVATION OF LAND UNDER EACH CROP, 1898-9 TO 1908-9.

Year ended March—	Proportionate Area to Total Cultivated Land of— (Exclusive of Area under Artificial Grass.)						
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Crops.	Fallow.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1899	57·78	7·14	1·28	1·11	15·17	3·64	13·88
1900	59·04	7·39	2·17	1·51	12·27	3·74	13·88
1901	54·28	9·76	1·58	1·03	13·51	3·62	16·22
1902	48·09	9·02	·89	1·10	18·08	4·13	18·69
1903	53·34	11·59	1·01	1·33	15·54	4·02	13·17
1904	48·95	10·78	1·19	1·22	18·24	3·90	15·72
1905	54·54	8·24	1·10	1·12	10·84	3·71	20·45
1906	48·49	7·30	·96	1·05	13·86	3·75	24·59
1907	47·31	8·86	1·23	1·29	14·46	3·77	23·08
1908	44·76	9·66	1·53	1·31	16·53	4·54	21·67
1909	39·59	9·34	1·44	1·06	21·27	4·29	23·01

It is shown on page 618, that in the period covered by this table, the area under cultivation steadily increased. By the figures in the table above it would seem that the actual area under wheat has not made anything like a corresponding increase. If, however, it be taken in conjunction with land in fallow which is mainly used for wheat cropping, it will be observed that in proportion to the total area under cultivation that used for wheat has been fairly uniform in the last eleven years, but that in the later years the practice to fallow preparatory to sowing has grown considerably.

The following information regarding prices in February and March has been procured direct from the growers. The table gives the average price for each of the last eleven years :— Prices of agricultural produce.

PRICES OF PRODUCE, 1899 TO 1909.

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.	
1899	2 2	1 $7\frac{3}{4}$	4 $2\frac{1}{2}$	2 $2\frac{1}{4}$	34 5	73 0	36 5	
1900	2 5	2 1	3 $2\frac{1}{2}$	2 $3\frac{1}{2}$	40 9	41 11	26 11	
1901	2 $5\frac{3}{4}$	1 $6\frac{1}{2}$	2 $10\frac{3}{4}$	1 $11\frac{1}{4}$	39 4	73 11	55 10	
1902	2 $10\frac{1}{4}$	2 4	3 $9\frac{1}{2}$	2 $9\frac{1}{4}$	55 5	77 7	84 4	
1903	6 0	3 $2\frac{3}{4}$	4 $5\frac{3}{4}$	3 8	100 1	91 3	47 1	
1904	2 8	1 $1\frac{1}{2}$	2 $10\frac{1}{2}$	1 $9\frac{1}{2}$	27 2	52 6	26 1	
1905	2 $11\frac{1}{2}$	1 6	3 $2\frac{1}{2}$	2 1	33 6	110 0	84 0	
1906	2 $10\frac{1}{2}$	1 $10\frac{1}{2}$	3 11	2 $8\frac{1}{2}$	38 0	115 6	101 5	
1907	2 9	1 $10\frac{1}{4}$	4 2	2 $2\frac{3}{4}$	38 2	59 1	37 6	
1908	4 $0\frac{1}{2}$	3 $0\frac{1}{2}$	4 $11\frac{1}{2}$	3 7	88 7	70 4	54 11	
1909	3 $9\frac{1}{4}$	1 $9\frac{1}{4}$	3 $9\frac{3}{4}$	2 5	46 0	80 0	51 0	

In Melbourne the price of wheat throughout last year was good, having ranged from 3s. $7\frac{1}{2}$d. to 4s. 7d. per bushel, and reached the latter price in the months of January and May. After May the price declined, and in December it was down to 3s. $7\frac{1}{2}$d. The highest and lowest prices in Melbourne during each month in 1908 were as follows :—

PRICES OF WHEAT IN MELBOURNE, 1908.

Month.	Price per Bushel.	
	Highest.	Lowest.
	s. d.	s. d.
January	4 7	4 $2\frac{1}{2}$
February	4 4	3 $10\frac{1}{2}$
March	4 6	4 3
April	4 4	4 3
May	4 7	4 6
June	4 6	4 $1\frac{1}{4}$
July	4 $2\frac{1}{2}$	3 11
August	4 $2\frac{1}{2}$	4 1
September	4 $1\frac{1}{2}$	4 $0\frac{1}{2}$
October	4 $1\frac{1}{2}$	4 0
November	4 1	4 0
December	4 1	3 $7\frac{1}{2}$

Yield of crops in Australasia.

The following return shows the yield of the principal crops in the various Australian States and New Zealand for each of the nine years ended March, 1909 :—

YIELD OF PRINCIPAL CROPS IN AUSTRALASIA, 1900-01 TO 1908-9.

Year ended March.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
WHEAT.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1901 ...	17,847,321	16,173,771	1,194,088	11,253,148	774,653	1,110,421	6,527,154
1902 ...	12,127,382	14,808,705	1,692,222	8,012,762	956,886	963,662	4,046,589
1903 ...	2,569,364	1,585,097	6,165	6,354,912	970,571	876,971	7,457,915
1904 ...	28,525,579	27,334,141	2,436,799	13,209,465	1,855,460	767,398	7,891,654
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	2,457,483	700,777	8,772,790
OATS.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1901 ...	9,582,332	593,548	7,855	366,229	86,433	1,406,913	19,085,837
1902 ...	6,724,900	687,179	42,208	469,254	163,653	1,702,659	15,045,233
1903 ...	4,402,982	351,758	520	620,823	161,714	1,752,745	21,766,708
1904 ...	13,434,952	1,252,156	70,713	902,936	255,300	1,621,950	15,107,237
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	1,119,113	38,811	1,280,235	741,261	1,946,010	18,906,788
BARLEY.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1901 ...	1,215,478	114,228	127,144	211,102	29,188	116,911	1,027,651
1902 ...	693,851	103,361	277,037	243,362	34,723	167,483	855,993
1903 ...	561,144	18,233	3,595	317,155	45,77-	201,133	1,136,232
1904 ...	1,218,003	174,147	510,557	487,920	51,4-7	212,459	1,160,504
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
POTATOES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1901 ...	123,126	63,253	20,014	14,566	4,835	93,862	169,042
1902 ...	125,474	39,146	22,402	15,059	5,739	114,704	206,815
1903 ...	168,759	30,732	3,257	28,312	6,200	163,518	193,267
1904 ...	167,736	56,743	17,649	31,415	4,315	168,419	208,787
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
HAY.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1901 ...	677,757	526,260	78,758	353,662	103,813	94,198	136,046*
1902 ...	884,369	472,621	122,039	346,467	89,729	88,125	125,968*
1903 ...	601,272	243,289	23,181	308,825	91,593	89,210	138,684*
1904 ...	1,233,063	816,810	136,117	479,723	119,156	115,513	154,334*
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	729,507	92,947	591,141	169,168	137,518	173,134*

* Estimated.

The following table shows the area under other than principal crops and the production since March, 1903:— Other crops.

OTHER THAN PRINCIPAL CROPS, 1903-4 TO 1908-9.

Crop.	1903–4.		1904–5.		1905–6.	
	Area.	Production.	Area.	Production.	Area.	Production.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Maize	11,810	904,239	11,394	623,736	11,785	641,216
Rye	2,021	29,586	2,267	30,578	1,959	28,893
Peas and Beans ..	8,960	213,735	11,523	201,145	12,253	265,206
		Tons.		Tons.		Tons.
Mangel-wurzel ..	1,564	21,305	1,441	13,894	1,657	16,400
Beet, Carrots, Parsnips, and Turnips	1,014	9,879	823	6,149	909	6,408
Onions	4,176	25,218	2,862	12,969	4,889	25,597
Green Forage ..	33,165	..	29,902	..	34,041	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds	2,749	35,660	2,249	27,300	2,767	33,281
		Cwt.		Cwt.		Cwt.
Hops	214	2,447	251	1,449	313	1,906
Tobacco ..	129	848	106	1,112	169	1,405
Vines—Grapes ..	28,513	654,965	28,016	452,433	26,402	498,590
Flax	259	61 fibre 1,226 seed	564	320 fibre 781 seed	500	332 fibre 2,357 seed
Gardens and Orchards	59,812	..	60,655	..	59,607	..
Minor Crops ..	2,403	..	2,716	..	2,763	..
Land in Fallow ..	632,521	..	853,829	..	1,049,915	..
Artificial Grasses	962,665	..	953,543	..	1,040,335	..

Crop.	1906–7.		1907–8.		1908–9.	
	Area.	Production.	Area.	Production.	Area.	Production.
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Maize	11,559	704,961	10,844	508 761	14,004	650,462
Rye	1,571	20,770	1,441	21,966	2,024	32,504
Peas and Beans ..	12,012	286,636	13,613	213,818	11,153	197,807
		Tons.		Tons.		Tons.
Mangel-wurzel ..	1,360	16,139	1,184	14 295	1,370	15,048
Beet, Carrots, Parsnips, and Turnips	713	5,644	496	3,650	702	4,541
Onions	4,705	28,000	4,249	22,649	5,340	24,384
Green Forage ..	36,502	..	59,897	..	63,066	..
		Bushels.		Bushels.		Bushels.
Grass and Clover Seeds	1,859	17,494	1,076	10,685	1,741	18,161
		Cwt.		Cwt.		Cwt.
Hops	323	2,787	248	1 179	189	1,094
Tobacco ..	133	603	345	2,764	413	†
Vines—Grapes ..	25,855	752,826	26,465	535.804	24,430	561,679
Flax	655	1,116 fibre 4,853 seed	1,263	60 fibre 2.710 seed	190	6 fibre 153 seed
Gardens and Orchards	61,927	..	63,133	..	64,225	..
Minor Crops ..	2,699	..	2,982*	..	4,218*	..
Land in Fallow ..	990,967	..	894 300	..	1,034,422	..
Artificial Grasses	1,095.642	..	1.095,471	..	1,029,711	..

* For details see page 644. † Not available.

Maize.

In the year 1901-2 there were 10,020 acres under maize, from which a return of 615,472 bushels was obtained. The area of land under this crop has been fairly constant since that year, and in 1904-5, there were 11,394 acres sown, and 623,736 bushels produced; in 1905-6, 11,785 acres produced 641,216 bushels; in 1906-7, 11,559 acres produced 704,961 bushels; in 1907-8, 10,844 acres produced 508,761 bushels; and in 1908-9 14,004 acres produced 650,462 bushels, of which 193,901 bushels were in the county of Tambo, 158,191 in Croajingolong, 120,890 in Dargo, 103,200 in Tanjil, 17,460 in Bogong, 14,823 in Delatite, 14,388 in Benambra, and 13,923 in Buln Buln. Other counties of the State also grow maize, but only to a very small extent.

Rye

In 1908-9, the area under rye was 2,024 acres, from which 32,504 bushels were obtained. The area under this crop decreased in each of the three seasons prior to 1908-9; but in that season it was higher than in any of the years following 1904-5. Rye was last season grown all over the State, except in the counties of Borung, Gunbower, Gladstone, Millewa, Weeah, Karkarooc, and Tatchera. In Delatite, the quantity yielded was 10,097 bushels, in Bogong, 4,234 bushels, and in Talbot 3,713 bushels. In Grant, Anglesey, Dalhousie, Dundas, Moira, and Benambra the produce exceeded 1,000 bushels, but in the other counties of the State it was under that quantity.

Peas and beans.

In the area under peas and beans there was an increase from 8,297 acres in 1901-2 to 12,253 acres in 1905-6, and to 13,613 acres in 1907-8; but in 1908-9 there was again a decline to 11,153 acres. The production in the eight years has increased, the yields being 169,971 bushels in 1901-2, and 197,807 bushels in 1908-9, the latter yield was, however, much below that for the year 1906-7. Peas and beans are generally grown in all the counties except those in the Mallee and Northern Districts. The principal crops last season came from Buln Buln, where 39,897 bushels were obtained; Grant supplied 26,987 bushels; Bourke, 20,791 bushels; Mornington, 20,259 bushels; and Dalhousie, 19,602 bushels.

Mangel-wurzel.

There has been a very considerable increase in the area under mangel-wurzel since 1900-1, there having been 865 acres in 1901-2, 1,360 acres in 1906-7, and 1,370 acres in 1908-9. During the same period the production increased from 9,679 tons in 1901-2 to 16,139 tons in 1906-7, and 15,048 tons in 1908-9. Mangolds are grown principally in the counties of Grant, Grenville, Mornington, Villiers, Buln Buln, Tanjil, and Bourke. In other counties the production is not large.

Beet, carrots, parsnips, and turnips.

The cultivation of beet, carrots, parsnips, and turnips, exclusive of those grown in market gardens, showed an increase of 42 per cent. in area and 24 per cent. in production in the last as compared with the previous season. In 1901-2, the land sown was 561 acres; in 1907-8 it was 496 acres; and in 1908-9 702 acres. The produce was 4,140 tons, 3,650 tons, and 4,541 tons in the respective years named.

Onions are grown in nearly every county south of the Dividing Range. The counties yielding the largest crops last season were—Bourke, Polwarth, Grenville, Grant, and Buln Buln. In Bourke the yield was 5,783 tons from 976 acres; in Polwarth, 4,603 tons from 906 acres; in Grenville, 3,167 tons from 745 acres; in Grant, 3,145 tons from 1,005 acres; in Buln Buln, 2,356 tons from 450 acres; in Mornington, 2,304 tons from 528 acres; and in Villiers, 1,758 tons from 407 acres. The total area under and production of onions in 1908-9 exceeded those of the previous year. The following is a return for the last fourteen years:— Onions.

ONION CULTIVATION, 1895-6 TO 1908-9.

Year.	Area.	Produce.	Year.	Area.	Produce.
	Acres.	Tons.		Acres.	Tons.
1895-6 ..	3,780	10,759	1902-3 ..	5,565	27,467
1896-7 ..	3,735	11,256	1903-4 ..	4,176	25,218
1897-8 ..	3,751	11,217	1904-5 ..	2,862	12,969
1898-9 ..	4,472	17,308	1905-6 ..	4,889	25,597
1899-1900 ..	4,436	19,905	1906-7 ..	4,705	28,000
1900-1 ..	2,815	12,766	1907-8 ..	4,249	22,649
1901-2 ..	4,151	20,859	1908-9 ..	5,340	24,384

During the last eight seasons the area devoted to green forage was lowest in 1904-5, when it was 29,902 acres. In 1908-9, it had increased to 63,066 acres, which is the highest recorded since 1877-8. Green forage.

The area under grass and clover for seed last season showed an increase on the figures for 1907-8; but with one other exception was the lowest during the last twenty years. The product returned from 1,741 acres in 1908-9 was 18,161 bushels, or an average of over 10 bushels per acre, and it is remarkable that such favorable results have not led to the reservation of a greater area for seed purposes. Grass and clover seed.

The hop-growing industry attained its maximum development in 1883-4, when 1,758 acres were planted, and yielded 15,717 cwt. Delatite, Dargo, Polwarth, and Bogong were the chief counties in which hops were grown last season, and yields were also recorded in Tanjil, Heytesbury, Evelyn, Buln Buln, and Tambo. There has been a heavy falling-off in the last twenty-five years, and the area and production of hops in 1908-9 were lower than in any other of the last thirty-three years. Last season there were only 32 growers, whose return from 189 acres was 1,094 cwt. Hops.

In 1895-6 there were 1,969 acres under flax or linseed ("Linum Usitatissimum"), but in 1898-9 the area had fallen to 72 acres. Since that year the area sown has increased, the returns for 1903-4 showing 19 growers of flax, who cultivated 259 acres, and produced 1,226 cwt. of seed, 61 cwt. of made fibre, and 4,769 cwt. of straw for treatment; in 1904-5 there was a considerable increase, the number of growers being 33, the area cultivated, 564 acres, and the produce 781 Flax.

cwt. of seed, 320 cwt. of fibre made, and 3,060 cwt. of straw for treatment; in 1906-7 there were 72 growers, and the area increased to 655 acres, which produced 4,853 cwt. of seed and 1,116 cwt. of fibre, with 13,800 cwt. of straw awaiting treatment; in 1907-8 there were 87 growers, and the area still further increased to 1,263 acres, but the season was very unfavorable to the crop, and only 2,710 cwt. of seed, 60 cwt. of fibre, and 9,800 cwt. of straw for treatment were returned; in 1908-9 there were only 21 growers who cultivated 190 acres, and produced 153 cwt. of seed, 6 cwt. of fibre, and 861 cwt. of straw. The Commonwealth has come to the assistance of the grower by offering a bonus of 10 per cent. on the market value of both fibre and seed, so there is a bright future for both the fibre and linseed oil industries.

In 1908 imports into Victoria included linseed to the value of £1,219; linseed oil, worth £40,281; and fibre, worth £104,063. After supplying local requirements there is an extensive market, as there is scarcely any limit to the demand for linseed and fibre in other parts of the world, so there is great promise that in this State the flax industry will become firmly established, and be very profitable.

Tobacco.

In addition to the Government tobacco experimental station (see page 594), there are 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 Evelyn, Anglesey, and Tanjil. Particulars relating to the cultivation of tobacco for the last thirteen years, are as follows:—

CULTIVATION OF TOBACCO, 1896-7 TO 1908-9.

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	..

The maximum quantity of tobacco grown was in 1880-1, when 17,333 cwt. of dry leaf was produced, but of late years tobacco growing in Victoria has been upon a small scale.

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 1900-01 the area was 30,634 acres, but since then there has been a falling off to 25,855 acres in 1906-7, and to 24,430 acres in 1908-9. The vineyards are distributed fairly all over the State. There are, however, districts where the principal industries are connected with vine-growing; the Shire of Mildura producing last season 268,790 cwt. of grapes; Rutherglen, 99,043 cwt.; and Yackandandah, 29,650 cwt. In the Goulburn Valley wine-making is a flourishing industry. In the Wimmera district, in the County of Borung, there are many vineyards, particularly in the Stawell Shire, where 18,090 cwt. of grapes were produced in 1908-9. At Mildura, the crop was principally dried for raisins and currants. The results of thirteen years' operations are as follows:—

VINE PRODUCTION, 1897 TO 1909.

Year ended June.	Number of Growers.	Area.	Produce.			
			Grapes Gathered.	Wine made.	Raisins Made.	Currants Made.
		Acres.	Cwt.	Gallons.	Cwt.	Cwt.
1897 ..	2,603	27,934	601,053	2,822,263	11,276	762
1898 ..	2,364	27,701	457,437	1,919,389	13,234	462
1899 ..	2,453	27,568	468,887	1,882,209	17,979	1,033
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

Of the total quantity of grapes gathered in 1908-9, 205,300 cwt. were used for making wine, 296,009 cwt. for raisins and currants, and 60,370 cwt. for table consumption and export. Of the 69,536 cwt. of raisins made, 32,102 cwt. were sultanas almost entirely from Mildura. That destructive insect affecting the vines, the phylloxera vastatrix, has not during recent years shown itself to any marked extent. Attempts are now being made to completely stamp out the pest by the Department of Agriculture through the distribution of disease-resistant stocks.

Raisins are now being 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., so there are over 49,000 cwt. of the production in 1909 available for export. With regard to currants, a year's consumption is about 29,650 cwt., so that although there has been a substantial increase in the production, it must extend largely before local requirements are met.

Orchards.

The total number of persons in the State growing fruit for sale was 5,586 in 1908-9, as against 5,241 in 1907-8, 5,367 in 1906-7, 5,163 in 1905-6, and 5,341 in 1904-5. The area under orchards in these years was 50,675, 49,212, 49,086, 47,312, and 47,205 acres respectively. The orchards are fairly spread over the whole State. The counties having the largest areas last season and the acreage in each were as follows:—Evelyn, 11,745 acres; Bourke, 11,070 acres; Mornington, 6,519 acres; Rodney, 2,897 acres; Talbot, 2,729 acres; Bendigo, 2,081 acres; Karkarooc (including Mildura), 1,788 acres; Borung, 1,656 acres; Grant, 1,505 acres; Buln Buln, 1,235 acres; and Bogong, 1,062 acres.

In the following table will be found a statement of the number of fruit trees and plants—showing trees bearing and non-bearing—producing the various kinds of fruit grown during the season 1907-8:—

RETURN SHOWING THE NUMBER OF FRUIT TREES, PLANTS, ETC., IN ORCHARDS AND GARDENS WHERE FRUIT WAS GROWN FOR SALE, 1907-8.

Fruit.	Number of Trees, Plants, &c., 1907-8.		
	Not Bearing.	Bearing.	Total.
Apples	795,188	1,155,966	1,951,154
Pears	225,916	261,959	487,875
Quinces	18,505	48,309	66,814
Plums	187,353	296,915	484,268
Cherries	100,228	231,084	331,312
Peaches	109,406	295,189	404,595
Apricots	43,312	260,351	303,663
Nectarines	1,807	5,048	6,855
Oranges	27,117	34,024	61,141
Lemons	14,111	46,465	60,576
Loquats	2,170	5,248	7,418
Medlars	63	197	260
Figs	4,846	29,274	34,120
Passion	4,203	7,251	11,454
Guavas	352	949	1,301
Pomegranates	152	93	245
Persimmons	253	517	770
Total Large Fruits	1,534,982	2,678,839	4,213,821
Raspberries	..	1,547,847	1,547,847
Strawberries	..	4,157,534	4,157 534
Gooseberries	..	297,853	297,853
Mulberries	430	1,145	1,575
Olives	652	3,165	3,817
Currants (Red, White, and Black)	10,327	77,906	88,233
Almonds	8,605	19,772	28,377
Walnuts	4,726	3,787	8,513
Filberts	1,197	2,052	3,249
Chestnuts	410	476	886
Total Nuts	14,938	26,087	41,025

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, 47,205 in 1904-5, 49,212 acres in 1907-8, and 50,675 acres in 1908-9, which is the largest area returned up to date. Details of the produce from orchards growing fruit for sale during the last nine years are as follows:—

ORCHARDS GROWING FRUIT FOR SALE, 1900-1 TO 1908-9.

Year Ended March.	Number of Fruit-growers.	Area under Gardens and Orchards.	LARGE FRUITS GATHERED.			
			Apples.	Pears.	Quinces.	Plums.
		Acres.	Bushels.	Bushels.	Bushels.	Bushels.
1901	5,400	44,688	893,418	251,384	71,357	172,467
1902	5,693	45,885	652,525	118,742	64,145	201,291
1903	5,301	44,502	903,853	248,030	91,665	154,112
1904	5,254	46,642	805,034	158,186	81,516	289,972
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

LARGE FRUITS GATHERED—*continued.*

	Cherries.	Peaches.	Apricots.	Oranges.	Lemons.	Figs.	Others.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1901	105,032	160,968	228,686	37,184	57,866	21,846	9,901
1902	111,891	284,312	234,101	60,150	64,954	18,135	9,363
1903	102,512	173,414	168,348	23,210	48,083	19,214	8,187
1904	124,423	260,589	336,899	27,670	61,429	26,405	8,863
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

	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.
1901	20,396	4,246	12,431	1,794	882	66,837	25,294	6,818	6,469
1902	13,610	4,435	10,436	1,383	968	72,528	18,435	3,469	6,990
1903	20,185	3,101	11,573	1,456	1,011	41,551	19,378	3,437	8,262
1904	22,377	3,122	14,199	2,312	1,327	113,791	13,276	2,223	6,677
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	5,487	12,276	2,054	3,307	69,378	15,863	5,339	3,506
1908	12,466	3,645	8,526	3,705	2,145	62,921	20,266	1,928	5,047
1909	8,640	4,874	6,950	1,278	2,747	91,230	23,100	3,323	3,355

The following return shows the average produce per tree for all trees for the years 1898-9 and 1901-2, and for all trees, and for bearing trees only, for the year 1907-8 :—

PRODUCE OF FRUIT TREES.

Fruit Trees.	AVERAGE PER TREE.			
	1898-9.	1901-2.	1907-8.	
			All Trees.	Bearing Trees.
	Bushels.	Bushels.	Bushels.	Bushels.
Apples	·90	·77	·32	·53
Pears	·59	1·00	·37	·70
Quinces	1·48	1·43	·72	·99
Plums	·46	·54	·32	·53
Cherries	·37	·40	·22	·31
Peaches	·56	·52	·72	·98
Apricots	·69	·83	·79	·92
Nectarines	·32	·92	·73	·98
Oranges	·51	·88	·47	·84
Lemons	·65	·87	·77	1·01
Loquats	·97	·49	·12	·17
Medlars	·40	1·53	·24	·32
Figs	·60	·69	·60	·70
Passion Fruit ..	·20	·43	·38	·60
Guavas	·14	·09	·04	·05
Pomegranates ..	·13	1·13	·33	·88
Persimmons ..	2·70	·63	·38	·56
Total Large Fruits only ..	·64	·72	·41	·64
	lbs.	lbs.	lbs.	lbs
Almonds	2·22	2·78	2·22	3·18
Walnuts	2·99	1·52	2·38	5·35
Filberts	1·34	1·73	·59	·94
Chestnuts	6·89	6·40	5·70	10·60

This table shows a fair increase in the average production of large fruits between 1898-9 and 1901-2, but a serious falling off in 1907-8, *i.e.*, when taking all trees into consideration; and this is probably due to the large planting of young trees during recent years.

In addition, large quantities of melons, rhubarb, and tomatoes were produced in these orchards, the following being the quantities returned for 1908-9—Melons, 17,807 cwt.; rhubarb, 39,998 dozen bundles, and tomatoes, 24,260 cwt. There were also 4,271 acres laid down in private fruit gardens, the value of the produce being estimated at about £8,500.

Previous to 1904-5 the value of the fruit produce of the State was estimated on the basis of £25 per acre; but during the last five years extensive inquiries have been made, the most prominent growers,

the various fruit associations, and others interested in the trade having been consulted, with the result that it has been decided to estimate only the value of such fruit as reaches the market. Upon this basis, and according to the prices received by the growers, the estimated value of the fruit sold was £341,891 in 1904-5, £345,844 in 1905-6, £451,672 in 1906-7, £386,807 in 1907-8, and £373,600 in 1908-9. This, of course, does not represent the actual value of all the fruit grown, large quantities being privately consumed in various ways, but no very reliable estimate of the value of such fruit can be prepared; it may, however, be set down at about £35,000.

In recent years some attention has been given to cider making, and, with a view of encouraging this industry, the Agricultural Department imported a complete cider-making plant, and had it sent to various districts, the consequence being that large quantities of cider were made by it. Local manufacturers of machinery have since made machines on the lines of the imported one, with the result that cider mills are being established in several districts.

Market gardens.

The area under market gardens for the year 1908-9 was 9,279 acres. In view of the fact that these gardens are generally situated near large centres of population, and that 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 stated at £231,975. 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, but the quantity has, principally under the head of apricots, since declined, though the figures for the last three seasons present a notable improvement when compared with those for 1905-6. The details for the last nine seasons are as follows:—

DRIED FRUIT, 1900-1 TO 1908-9.

Year ended June.	Apples.	Prunes.	Peaches.	Apricots.	Figs.	Pears.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1901 ..	28,944	35,931	97,254	411,526	62,639	..	636,294
1902 ..	42,218	33,789	90,328	328,599	66,472	..	561,406
1903 ..	18,178	28,996	70,759	110,666	69,069	8,935	306,603
1904 ..	25,137	58,293	114,096	184,960	17,599	..	400,085
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

Nearly all the dried fruit comes from Mildura, where fruit trees are to a large extent being replaced by vines of the sultana variety, which accounts for the falling-off in the quantity of dried fruit. At Mildura in 1908-9 there were 3,500,448 lbs. of sultana raisins made, which quantity represented an increase of 392,336 lbs. on the produce of the previous year.

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:—

MINOR CROPS, 1907-8 AND 1908-9.

Crop.	1907-8.		1908-9.	
	Area.	Produce.	Area.	Produce.
	Acres.		Acres.	
Artichokes	2	200 cwt.	...	...
Calabashes	19	6 tons	...	...
Chicory	283	174 tons (dry)	453	450 tons (dry)
Flowers	114	...	108	...
Garlic	...	...	3	68 cwt.
Gherkins	...	...	50	221 tons
Herbs	6	...	7	...
Millet—Broom ...	285	1,582 cwt. fibre 1,766 cwt. seed	486	2,253 cwt. fibre 2,094 cwt. seed
,, Japanese ...	4	40 cwt. seed	8	56 cwt. seed
Nursery	448	...	489	...
Opium poppies ...	...	...	2	8 lbs.
Pumpkins	1,688	17,606 tons	2,461	29,157 tons
Seeds—Agricultural and garden	57	...	84	...
Sunflowers	76	2,047 bushels	67	3,421 bushels
Total... ...	2,982	...	4,218	...

Land in fallow.

The fallowing of land in Victoria commenced in 1858-9, when 6,000 acres were so treated. With annual variations in acreage, but a general increase, the area in fallow reached 853,829 acres in 1904-5, 1,049,915 acres in 1905-6, 990,967 acres in 1906-7, 894,300 acres in 1907-8, and 1,034,422 acres in 1908-9. The system of fallowing is much more extensive in the wheat-growing counties than in the other districts of the State. It is gratifying to find that the enormous advantages obtainable from this mode of treating the land are now being properly recognised. Evidence of this is supplied by returns received in March, 1908, from which it appears that on fallowed land manured there was a gain in wheat yield of over 5 bushels per acre, while on fallowed land unmanured the gain was nearly 2 bushels per acre. In order to obtain definite information regarding the relative production from

fallowed and unfallowed land under wheat, particularly in a dry season like 1907-8, some of the principal growers in the wheat districts of the State were invited to furnish information on the subject, and the tabulated results of their replies are set out in the table which follows:—

WHEAT GROWING ON FALLOWED AND UNFALLOWED LAND, 1907-8.

District.	MANURED LAND.			
	Fallowed.		Unfallowed.	
	Area.	Yield per acre.	Area.	Yield per acre.
	Acres.	Bushels.	Acres.	Bushels.
Wimmera—				
Counties of Lowan, Borung, and Kara Kara	69,834	11·82	27,520	5·75
Mallee—				
Counties of Weeah, Karkarooc, and Tatchera	31,963	5·75	20,908	2·62
Northern—				
Counties of Gunbower, Gladstone, Bendigo, Rodney, and Moira	41,110	9·50	28,946	4·06
Western—				
County of Ripon	4,821	17·93	5,993	13·47
Total	147,728	10·07	83,367	4·93

Taking the districts as a whole, it will be seen that the yield per acre from the fallowed was more than twice as great as that from the unfallowed land; and taking the districts separately, this proportion is maintained in each of the three principal ones. In the Western District the difference is not marked, due probably to the fact that wheat-growing except on a very small scale was commenced in that portion of the State only in recent years.

Some information was also obtained in regard to wheat-growing on unmanured land, particulars of which, in the case of the counties of Karkarooc and Tatchera in the Mallee District (the driest in the State in 1907-8) are as set out below:—

District and County.	WHEAT GROWN ON UNMANURED LAND.			
	Fallowed.		Unfallowed.	
	Area.	Yield per acre.	Area.	Yield per acre.
	Acres.	Bushels.	Acres.	Bushels.
Mallee—				
Karkarooc	3,067	2·21	17,448	·95
Tatchera	2,453	3·06	17,323	·24
Total	5,520	2·59	34,771	·60

A striking difference is shown here between the yields from the fallowed and the unfallowed land, the latter being simply a failure.

Manure used.

In those counties which are included in the first, but not in the second table, the areas returned as unmanured were small, indicating that wheat growing on unmanured land is in them carried on to only a limited extent. This conclusion is confirmed by the increasing number of farmers using manure, and by the quantity of manure used in Victoria, as exhibited in the following table:—

MANURE USED FOR FERTILIZATION, 1898 TO 1908.

Year.	Farmers using.	Area used on.	Manure used—	
			Natural.	Artificial.
		Acres.	Tons.	Tons.
1898	7,318	225,830	143,586	16,052
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

During 1908 the quantity of manure imported into Victoria was 1,489,355 cwt., and its value £211,905, while the quantity exported was 732,878 cwt. valued at £156,065.

Use of artificial manures.

So widespread is the range of application of artificial manures and so universal has their use become in Victoria, that it would appear difficult to add anything of interest to the purchaser of these modern aids to agriculture. If there is one point more than another, with which the purchaser of manures is not entirely conversant, it is probably a knowledge of the safeguards afforded him by the Artificial Manures Act.

After divesting of their legal phraseology the clauses showing the intentions of the framers of this Act, it will be found that every vendor of artificial manures (over the amount of one half hundredweight) within the State is required each year during the months of October or November to furnish the Agricultural Chemist with samples of all manures, which it is intended to sell during the ensuing twelve months, together with a note of the selling price of each. From these samples the unit values or values of 1 per cent. of each class of plant food (Nitrogen, Phosphoric Acid, and Potash) in a ton of manure are calculated. The unit values so established operate for

twelve months only, and what is called the "real value" of all manures sold during that period is calculated from them. A list showing the "real value" and selling price of all manures will be found in the *Agricultural Journal*. The Act further requires that each bag of manure shall have a label attached showing the net weight and an analysis of the contents. It may not be generally known that each purchaser of manures is required under the Act to produce these labels if a case for prosecution arise. Purchasers of manures, therefore, may with advantage to themselves observe the precaution of keeping the labels.

In order to check the quality of manures despatched to the country, inspectors are empowered to take samples during transit, at a railway station, or on the farm itself. The compliance of the vendors with the guarantee given by them is best described in the words of the Agricultural Chemist:—"It is quite noteworthy that almost without exception the whole of the samples were well up to the guarantee, and in many cases were in excess of the percentages of fertilizing constituents guaranteed." So far, then, the Victorian farmer can have no fault to find with the quality of the article sold in the State.

As regards the price per ton, it is gratifying to find that farmers are able to purchase manures of equal quality at a cheaper rate per ton than that which rules in adjoining States.

It may be assumed that superphosphates form by far the largest proportion of manures sold, and the position is concisely put by the Agricultural Chemist in the statement "That a superphosphate of 20 per cent. water soluble and 1½ per cent. insoluble would cost per ton in Victoria, £4 11s. 6d., as against £5 3s. 10½d. in New South Wales and £6 5s. 3d. in New Zealand."

The unit values in several of the American States are also higher than those prevailing in Victoria. The Victorian purchaser of artificial manures may thus congratulate himself on being able to purchase high-grade manures at very moderate prices. It is, moreover, a matter of further congratulation that complete harmony exists between the Department of Agriculture as the administrator of the Act and the merchants whose business is amenable to its operation.

It has come to be recognised by progressive farmers that, valuable as are the effects of manures rationally used, their usefulness is controlled by the manner of the cultivation given to the land. In other words, it is unreasonable to expect the maximum benefit from manures on imperfectly tilled land, the moisture content of which

is below what it should be. Cultivation always has been, and always will be, the most important of all operations on the farm, and it is the recognition of this fact that leads to some persons securing better results than their neighbours.

The three watchwords in agricultural practice may be described as Cultivation, Rotation, and Fertilization, the proper observance of which leads to that higher standard of production towards which the demands of civilization are forcing the agriculturists of all nations to aspire.

Characteristics of Victorian soils.

The soils of Victoria, like those of every part of the world, 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, however, the amounts of the mineral elements of plant food present that are usually regarded as the true measure of fertility. 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 in 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 these 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 the formation of a base, wherewith other plant foods may combine and be held in such a manner as to become gradually available to 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 four or five years.

Useful as the work of soil analysis has been, its value will be made more manifest when the agriculturist has standards of fertility established 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.

Farm implements.

In recent years the number of engines, horse-works, and machinery, and other implements on agricultural, dairying, and pastoral holdings has been ascertained at the time of the collectors' visits. The particulars for the last two years are as follows:—

MACHINERY AND IMPLEMENTS ON FARMS AND PASTORAL HOLDINGS IN EACH DISTRICT, 1908 AND 1909.

Districts.	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.												
1908.														
Central ..	457	195	1,655	55	76	291	2,701	99	14,321	10,313	4,720	1,649	5,054	4,152
North-Central	286	72	1,073	129	45	346	1,892	66	5,318	3,914	1,244	1,133	2,058	2,225
Western ..	201	312	1,543	459	66	274	2,249	155	7,917	5,727	1,513	1,370	2,701	1,796
Wimmera ..	97	200	2,968	2,041	45	2,279	2,862	3,572	8,205	5,612	3,394	3,500	3,490	1,703
Mallee ..	113	23	854	707	35	1,417	855	2,564	3,556	1,906	2,049	1,342	974	846
Northern ..	555	102	1,970	3,661	105	3,140	4,844	3,173	12,745	8,182	5,018	4,389	2,801	4,284
North-Eastern	269	45	789	186	40	351	1,287	386	4,762	3,163	1,003	630	1,413	1,447
Gippsland ..	484	78	555	26	41	113	719	21	7,149	5,279	2,094	535	1,743	4,146
Total ..	2,462	1027	11,407	7,264	453	8,211	17,409	10,036	63,973	44,096	21,035	14,548	20,234	20,599
1909.														
Central ..	88	246	1,792	71	83	307	3,109	30	15,194	10,883	5,103	1,961	5,361	4,494
North-Central	291	85	1,073	158	37	332	2,071	47	5,666	3,847	1,422	1,218	2,106	2,422
Western ..	262	418	1,622	513	66	303	2,586	127	8,687	6,180	1,619	1,628	2,891	2,228
Wimmera ..	96	327	2,879	2,184	52	2,067	3,147	3,507	8,365	5,744	3,485	3,680	3,575	2,134
Mallee ..	143	66	845	701	43	1,391	1,001	2,612	3,574	1,940	2,129	1,494	1,010	988
Northern ..	600	140	1,881	3,702	115	2,802	5,089	2,857	12,334	8,177	4,876	4,382	2,764	4,336
North-Eastern	332	60	844	178	43	348	1,354	334	4,989	3,226	1,072	695	1,437	1,579
Gippsland ..	342	114	598	27	49	127	853	22	7,538	5,528	2,017	624	1,902	4,314
Total ..	2,554	1456	11,534	7,534	488	7,677	19,210	9,536	66,347	45,525	21,723	15,682	21,046	2 2,395

NOTE.—The returns collected in March, 1909, showed that there were also in use 361 milking machine plants, 2,994 shearing machines, and 3,246 wool presses.

Compared with 1908, the only decreases shown by the figures for 1909 are in the numbers of winnowers and strippers, and this position is the result of the increased use of harvesters, which, especially in the Wimmera and Northern districts have grown in numbers. The Central, Western, and Gippsland districts are mainly responsible for a marked increase in reapers and binders, grain drills, ploughs, and harrows. A substantial increase occurred also in cream separators, each district having contributed a share to the number added.

The following are particulars respecting dairy cows in Victoria in each of the last six years:— Dairying.

DAIRYING, 1903 TO 1908.

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.	
1903 ..	41,824	515,179	46,685,727	5,681,515	8,986
1904 ..	42,931	632,493	61,002,841	4,747,851	13,408
1905 ..	46,757	649,100	57,606,821	4,297,350	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

In 1908 the autumn was exceptionally dry, and as a result of this the number of cow-keepers and of dairy cows and the quantity of butter and cheese made showed a decrease in that year as compared with the year 1907. It is generally regarded that the milk required to make one pound of butter will make about 2 lbs. of cheese, and on this basis the figures in the table show that, after deducting supplies required for milk and cream consumed in their natural state and for milk concentrated, condensed, or preserved, the average production from each dairy cow was equal to 83 lbs. of butter in 1908, as against an average of 93 lbs. in 1907, 100 lbs. in 1904 and 1906, 92 lbs. in 1905, and 97 lbs. in 1903.

The numbers of horses, cattle, sheep, and pigs, in each census year since 1861, together with the number per head of the population at each period, are shown in the following table. The progress of the industries dependent on the breeding of stock is thus indicated:— Live stock.

LIVE STOCK PER HEAD OF POPULATION: RETURN FOR FIVE CENSUS YEARS.

Stock.	1861. Population 540,322.		1871. Population 731,528.		1881. Population 862,346.		1891. Population 1,140,405.		1901. Population 1,201,341.	
	Number.	Per Head of Population.	Number.	Per Head of Population.	Number.	Per Head of Population.	Number.	Per Head of Population.	Number.	Per Head of Population.
Horses (including foals) ..	76,536	·14	209,025	·29	275,516	·32	436,469	·38	392,237	·33
Cattle—										
Milch Cows	197,332	·37	212,193	·29	329,198	·38	395,192	·35	521,612	·43
Other ..	525,000	·97	564 534	·77	957,069	1·11	1,387,689	1·22	1,080,772	·90
Sheep ..	5,780,896	10·70	10,477,976	14·32	10,360,285	12·01	12,692,843	11·13	10,841,790	9·03
Pigs ..	61,259	·11	180,109	·25	241,936	·28	282,457	·25	350,370	·29

The animals are here averaged to the number of inhabitants of Victoria, a continually changing quantity. In the next table they are averaged to a constant quantity—the number of square miles in the State.

LIVE STOCK PER SQUARE MILE: RETURN FOR FIVE CENSUS YEARS.

Year.	Average per Square Mile (Area of Victoria, 87,884 Square Miles).				
	Horses.	Cattle.		Sheep.	Pigs.
		Milch Cows.	Other.		
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

The increase in each class was constant up to 1891, with the exception of a slight fall in the number of sheep between 1871 and 1881. Between the censuses of 1891 and 1901, however, there was a reduction in the numbers of horses, cattle generally, and sheep, probably due to the dry seasons in the intercensal period. There was also an exceptional export of horses to South Africa for some time prior to the 1901 census. The number of milch cows increased considerably in the decade, indicating the growth of the dairying industry, and explaining in part the largely augmented output of butter. The number of pigs steadily and satisfactorily increased throughout the intercensal periods preceding 1901; but since that year there has been a falling-off.

The following return shows the live stock in Victoria in each of the last three years. Tables showing the stock, classified in conjunction with holdings in March, 1906, will be found on page 609; and the sheep, further classified in different sized flocks, in March, 1908, are enumerated on page 659.

LIVE STOCK IN VICTORIA, 1907 TO 1909.

Live Stock.	1907.	1908.	1909.
Horses (including foals)...	406,840	424,648	424,903
Cattle—			
Dairy Cows	701,309	709,279	609,166
Other (including calves)	1,103,014	1,133,528	964,996
Sheep	12,937,440	14,146,734	12,545,742
Pigs	220,452	211,002	179,358

It will be seen that the figures for 1909 relating to all classes of stock, except horses, are below those of the previous year.

Horses, which include 43,380 foals reared, show an increase of 255, and as there was a net export of 836, the number that died was about 42,300, or 10 per cent. Allowing for accidents and old age, and for the scarcity of grass, due to the exceptionally dry autumn and winter, this is a light mortality, and indicates that the rearing of horses in Victoria is not interrupted by disease of any kind. Pigs continue to decline in numbers, though, as they are in good demand at high values, there is an excellent prospect of a most profitable return being obtained by persons rearing them.

In the following table will be found a statement of the average and the range of prices obtaining in Melbourne during the years 1907 and 1908 for live stock. The information has been extracted from the Melbourne *Stock and Station Journal* :— Prices of stock.

PRICES IN MELBOURNE OF LIVE STOCK, 1907 AND 1908.

Stock.	Prices in 1907.									Prices in 1908.								
	Average.			Range.						Average.			Range.					
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.		£	s.	d.	
Horses.																		
Extra heavy draught	48	3	0	40	0	0	to	57	0	0	48	7	6	45	0	0	to	55	0	0
Medium draught ..	33	15	0	25	0	0	to	46	0	0	36	2	6	31	0	0	to	40	15	0
Delivery Cart	27	16	0	16	0	0	to	35	0	0	28	7	6	24	0	0	to	32	10	0
Order Cart	18	15	0	14	0	0	to	22	10	0	19	7	6	17	10	0	to	23	5	0
Indian Remounts ..	31	12	0	23	0	0	to	38	0	0	28	7	6	22	10	0	to	33	10	0
Saddle and Harness	11	12	0	6	0	0	to	17	0	0	12	2	6	8	10	0	to	14	0	0
Carriage, per pair ..	162	6	0	110	0	0	to	200	0	0	170	0	0	160	0	0	to	180	0	0
Ponies	22	5	0	11	0	0	to	30	0	0	22	2	6	15	10	0	to	25	0	0
Fat Cattle.																		
Bullocks—																		
Extra Prime ..	14	11	8	11	15	0	to	19	10	0	14	7	0	11	12	6	to	18	7	6
Prime	12	8	1	10	0	0	to	16	5	0	12	12	0	11	2	6	to	15	7	6
Good	10	8	7	8	0	0	to	13	10	0	10	13	0	8	17	6	to	13	5	0
Good Light and Handy Weights ..	8	11	9	6	10	0	to	11	10	0	9	0	0	6	17	6	to	11	10	0
Second	5	16	2	4	7	6	to	9	0	0	7	5	0	5	7	6	to	9	10	0
Cows—																		
Best	8	14	2	7	0	0	to	12	15	0	9	10	0	7	10	0	to	12	0	0
Others	5	12	2	3	0	0	to	9	10	0	6	7	6	4	7	6	to	9	5	0
Young Cattle.																		
Prime Steers and Heifers	4	11	2	3	0	0	to	8	0	0	5	1	0	3	17	6	to	6	5	0
Calves, prime ..	2	16	2	1	15	0	to	4	0	0	2	17	6	2	5	0	to	3	10	0
,, good ..	1	18	4	1	0	0	to	2	15	0	1	19	0	1	10	0	to	2	7	6
Dairy Cattle.																		
Best Milkers ..	9	13	6	8	10	0	to	15	0	0	9	15	0	7	12	6	to	11	13	0
Good	7	15	6	7	0	0	to	9	10	0	7	11	0	6	16	0	to	8	3	0
Inferior	4	15	0	4	0	0	to	5	10	0	4	5	0	3	0	0	to	5	10	0
Springers, best ..	8	0	3	6	5	0	to	10	10	0	7	11	0	7	5	0	to	7	16	0
Heifers, best Springers	6	5	0	5	5	0	to	8	10	0	5	13	0	4	15	0	to	6	12	0
Dry Cows	4	3	0	3	5	0	to	5	0	0	4	1	0	3	10	0	to	5	0	0
Stores	3	1	10	2	0	0	to	4	0	0	3	1	0	2	12	0	to	3	9	0
Fat Sheep.																		
Wethers (cross)—																		
Extra Prime ..	1	3	0	0	16	0	to	1	14	0	1	1	0	0	15	2	to	1	9	0
Prime	1	0	4	0	12	6	to	1	8	6	0	18	4	0	13	4	to	1	4	6
Good	0	17	2	0	7	0	to	1	3	0	0	15	7	0	11	4	to	1	1	0
Ewes (cross)—																		
Extra Prime ..	1	0	2	0	13	0	to	1	10	6	0	17	7	0	12	6	to	1	4	6
Prime	0	17	8	0	10	6	to	1	6	6	0	15	3	0	10	6	to	1	1	0
Good	0	14	8	0	8	0	to	1	1	0	0	12	9	0	8	9	to	0	17	6

PRICES IN MELBOURNE OF LIVE STOCK, 1907 AND 1908—*continued.*

Stock.	Prices in 1907.			Prices in 1908.		
	Average.	Range.		Average.	Range.	
Fat Sheep—continued.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	
Wethers (merino)—						
Prime	0 18 5	0 10 6	to 1 8 0	0 16 5	0 11 3	to 1 3 0
Good	0 15 1	0 7 0	to 1 3 0	0 13 8	0 9 0	to 0 19 9
Ewes (merino) ..	0 11 1	0 6 6	to 1 4 0	0 11 2	0 6 7	to 0 17 6
Fat Lambs.						
Extra Prime ..	0 16 11	0 12 0	to 1 2 0	0 15 7	0 13 6	to 0 19 10
Prime	0 14 7	0 10 0	to 0 19 0	0 13 6	0 11 9	to 0 17 6
Good	0 11 11	0 7 0	to 0 16 0	0 11 1	0 8 10	to 0 14 3
Second	0 9 4	0 5 0	to 0 12 6	0 8 6	0 6 9	to 0 12 0
Pigs.						
Back Fatters—						
Extra Heavy Prime ..	4 14 7	2 15 0	to 7 17 6	5 17 6	3 18 6	to 7 13 6
Extra Prime and Weighty ..	3 6 0	2 0 0	to 4 15 0	3 18 0	2 17 6	to 5 5 0
Baconers—						
Extra Prime ..	3 1 1	2 4 0	to 4 8 0	3 10 6	2 12 6	to 4 16 0
Prime	2 13 9	1 17 0	to 3 18 0	3 1 6	2 6 0	to 4 3 0
Porkers	1 12 8	1 0 0	to 2 9 0	1 17 6	1 10 0	to 2 13 6
Stores	0 19 0	0 9 0	to 1 15 0	1 2 0	0 15 0	to 1 16 0
Slips and Suckers ..	0 8 7	0 2 0	to 0 18 0	0 9 6	0 4 6	to 0 15 6

Compared with 1907, the average prices of horses, fat cattle, and pigs in 1908 point generally to improved values; but those of dairy cattle and sheep show a reduction. The range of prices indicates fluctuations in values during each year as well as unevenness in the quality of all classes of stock.

Stock slaughtered.

The return of stock slaughtered in the last six years was partly furnished by the municipal authorities, and partly collected by the police. The number includes those slaughtered on farms and stations, as well as in municipal abattoirs. Previous to 1903, the returns were furnished solely by the municipal authorities, an estimate being made of the stock slaughtered privately. The following is a statement of the stock slaughtered during each of the last nine years:—

STOCK SLAUGHTERED : 1900 TO 1908.

Year.	Number Slaughtered.		
	Sheep and Lambs.	Cattle.	Pigs.
1900	2,371,415	248,797	231,752
1901	2,469,797	251,477	261,479
1902	2,827,938	233,206	224,431
1903	2,652,569	235,284	164,745
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

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

PURPOSES FOR WHICH STOCK SLAUGHTERED: 1900 TO 1908.

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.
1900	1,921,284	244,571	119,137	437,332	3,808	..	9,181	115	112,604	3,618	303	11
1901	2,016,863	249,079	134,276	431,740	980	..	10,087	937	127,145	11,107	481	58
1902	2,337,262	229,728	106,390	378,029	2,293	..	13,211	485	117,984	99,436	700	57
1903	2,337,958	231,682	52,681	294,906	1,630	4,200	11,400	1,473	107,754	8,305	499	110
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

The most noticeable figures in these tables are those relating to the sheep—a large proportion of which were lambs—slaughtered for freezing. Though less in 1908 than in the previous year they still point to the growth of the frozen-meat trade in Victoria.

The following is a return of the imports and exports of animals under principal heads during 1908. The export of horses was largely to New South Wales and India, and the trade in other live stock was principally with Australian States:— Gain or loss in live stock.

LIVE STOCK IMPORTED AND EXPORTED, 1908.

	Number of—			
	Horses.	Cattle.	Sheep.	Pigs.
Imported	6,407	86,722	1,562,447	3,301
Exported	7,243	118,315	1,049,334	108
Net Imports ...	...	..	513,113	3,193
Net Exports ...	836	31,593	...	...

The information in this table combined with that relating to stock held at the end of the year and stock slaughtered during the year shows that there were no very serious losses by death of live stock during 1908, though on account of the unusually dry weather during the first half of the year, there was, compared with 1907, an increased mortality. By deducting the decrease in the number on hand from the total of stock slaughtered and exported (net) during 1908, it is evident that after replacing losses by mortality, those reared give a net production for the year of about 1,100 horses, 43,000 cattle, 1,196,000 sheep, and 190,000 pigs.

In the last four years the wool production of the State has been arrived at by a new method, which gives a much more Wool production.

accurate estimate of the season's production than formerly. The information relating to the 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 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, SEASON 1908-9.

Districts.	Wool Clip, 1908-9. Sheep.	Lambs.	Total.
	lbs.	lbs	lbs.
Central	4,738,557	297,297	5,035,854
North-Central	4,490,688	218,935	4,709,623
Western	26,010,125	1,698,795	27,708,920
Wimmera	12,207,514	568,265	12,775,779
Mallee	2,559,140	97,596	2,656,736
Northern	8,372,575	313,523	8,686.098
North-Eastern	3,415,767	209,538	3,625,305
Gippsland	3,494,742	237,144	3,731,886
Total Clip* 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
		1907-8.	90 8-9.
		lbs.	lbs.
Wool clip		79,119,973	68,930,201
Estimated quantity of wool stripped from Victorian skins		5,109,096	7,523,250
Estimated quantity of wool on Victorian skins exported		8,853,272	11,083,000
Total production		93,082,341	87,536,451
Total value		£3,878,431	£3,556,168

* The average weight of the fleece in 1908-9 was—sheep, 5·98 lbs.; lambs, 2·11 lbs. ; sheep and lambs combined, 5·45 lbs.

The quantity of wool produced last season, as might have been expected from the reduced number of sheep, was about 6 per cent. less than in 1907-8. Its value was £3,556,168, or over 8 per cent. less than in the previous season, so that there was a reduction in the value per lb. as well as in the quantity.

Wool imported, exported, and used locally.

The following table shows the wool imported, exported, and used in the factories of the State, and the value of same. With an allowance for weight lost in washing and scouring and for the wool

on skins exported, the figures will give approximately the quantity of wool produced in the last ten calendar years:—

QUANTITY AND VALUE OF WOOL IMPORTED, EXPORTED, AND USED LOCALLY—1899 TO 1908.

Year	Wool Imported.		Wool Exported.		Wool Used in Manufactures in the State.				Wool Production—Greasy and Scoured (Approximately).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Rate per lb.		Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	s.	d.	£	lbs.	£
1899	63,067,135	2,351,059	121,877,604	5,701,410	2,867,884	1	0	143,394	61,678,353	3,493,745
1900	62,527,987	1,927,677	102,205,965	4,217,018	3,045,292	0	6	76,132	42,723,270	2,365,163
1901	61,796,450	1,840,066	131,623,062	4,350,285	3,408,526	0	6	85,213	73,235,138	2,595,432
1902	38,008,765	1,141,715	100,516,094	3,473,372	3,473,835	0	8	115,794	65,981,164	2,447,451
1903	36,726,396	1,381,647	84,560,603	3,186,054	3,772,390	0	9	141,464	51,606,597	1,945,871
1904	51,449,037	2,076,958	123,208,133	5,452,973	4,027,080	0	10	167,795	75,786,176	3,543,810
1905	67,935,833	2,911,556	125,181,191	5,420,259	4,493,041	0	10½	196,570	61,738,399	2,705,273
1906	82,989,583	3,578,056	141,696,567	6,154,382	4,765,687	0	10½	208,498	63,472,671	2,784,824
1907	70,940,674	3,111,249	167,506,723	7,372,148	5,600,873	0	9	210,033	102,166,927	4,470,932
1908	65,458,440	2,836,606	136,897,537	6,059,914	6,152,253	0	9	230,709	77,591,350	3,454,017

Wool production—Australasia.

The quantity and value of wool produced in 1907 in the various Australian States and New Zealand, estimated on the import and export returns, were:—

	Quantity. (Greasy, Washed, and Scoured.) lbs.	Value. £
Victoria	102,166,927	4,470,932
New South Wales	327,023,372	17,185,126
Queensland	81,575,260	4,132,791
South Australia	50,941,292	2,116,460
Western Australia	20,210,233	812,088
Tasmania	9,300,026	42,5203
New Zealand	175,395,533	7,820,695

The 1907 figures have been inserted, as the information for some of the other States for 1908 is not available.

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. Goldsborough, Mort, and Co.'s annual review:—

PRICES OF WOOL, 1906-7 TO 1908-9.

Class of Wool.	Average Value per lb. in—		
	1906–7.	1907–8.	1908–9.
GREASY MERINO.			
Extra Super (Western District) ..	up to 18¼d.	17½d. to 20½d.	17½d. to 19d.
Super	15½d. to 16½d.	16d. to 17d.	16d. to 17d.
Good	14d. to 14½d.	13d. to 15½d.	13½d. to 14½d.
Average	10½d. to 11½d	11d. to 14d.	12d. to 13d.
Wasty and Inferior	7½d. to 8½d.	6d. to 9½d.	7½d. to 8½d.
Extra Super Lambs	up to 20½d.	20d. to 21d.	up to 21½d.
Super Lambs	12½d. to 15½d.	14d. to 16d.	14d. to 16d.
Good Lambs	10½d. to 11¾d.	10½d. to 12½d.	11d. to 12d.
Average Lambs	8d. to 9½d.	7d. to 9d.	8d. to 8½d.
Inferior Lambs	5½d. to 7½d.	4½d. to 6½d.	5d. to 6d.

PRICES OF WOOL, 1906-7 TO 1908-9—*continued.*

Class of Wool.	Average Value per lb. in— 1906-7.	1907-8.	1908-9.
GREASY CROSSBRED.			
Extra Super Comebacks ...	up to 17½d.	17½d. to 18½d.	15d. to 16d.
Super Comebacks	15½d. to 16d.	up to 16½d.	11½d. to 14½d.
Fine Crossbred	13d. to 15d.	8½d. to 13½d.	11d. to 12d.
Medium Crossbred	12½d. to 13½d.	6½d. to 11d.	6½d. to 7½d.
Coarse Crossbred and Lincoln ...	9½d. to 11½d.	5d. to 9½d.	5½d. to 6d.
Super Fine Crossbred Lambs ...	13d. to 14½d.	13d. to 14½d.	11½d. to 12d.
Good Crossbred Lambs ..	11½d. to 12½d.	9½d. to 12d.	9½d. to 10½d.
Coarse and Lincoln Lambs ...	9½d. to 10½d.	6d. to 9d.	7½d. to 8½d.
SCOURED.			
Extra Super Fleece	up to 24¾d.	21½d. to 25d.	21½d. to 23d.
Super Fleece	22d. to 24d.	19d. to 22d.	20d. to 21½d.
Good Fleece	20½d. to 21½d.	17½d. to 20d.	18d. to 19½d.
Average Fleece	19½d. to 20½d.	16d. to 19d.	16½d. to 17½d.
RECORD PRICES FOR THE SEASON.			
Greasy Merino Fleece ..	18½d.	20½d.	19d.
" Comeback Fleece ...	17½d.	18½d.	16d.
" Merino Lambs ...	20¼d.	21d.	21½d.
" Comeback Lambs ..	14¾d.	14½d.	12d.
Scoured Fleece	24¾d.	25d.	23d.

Flocks of sheep.

Returns which were prepared in March, 1908, for the second time gave full information as to the flocks of sheep in Victoria at that date. The number of flocks and of sheep at that time in the different districts were as follows:—

NUMBER OF FLOCKS AND OF SHEEP IN DISTRICTS, 1908.

District.	Number of— Flocks.	Sheep.	Average Number of Sheep in a Flock.	Percentage of— Flocks.	Sheep.
Central ..	2,325	1,224,639	527	10.67	8.76
North-Central ..	1,803	1,056,890	586	8.28	7.56
Western ..	4,693	5,071,479	1,081	21.54	36.28
Wimmera ..	3,707	2,366,378	638	17.02	16.93
Mallee ..	857	479,948	560	3.93	3.43
Northern ..	4,307	1,921,028	446	19.77	13.75
North-Eastern ..	1,780	832,684	468	8.17	5.96
Gippsland ..	2,312	1,024,918	443	10.62	7.33
Total ..	21,784	13,977,964	642	100.00	100.00

The figures do not include 168,770 sheep which were travelling on roads, or which were in cities and towns. The average number of sheep to a flock in Victoria was 642, and this average

was exceeded in only one of its divisions—the Western District—in which were located some very large-sized flocks, and which, as a consequence, contained over 36 per cent. of the total sheep in the State, though possessing only 21½ per cent. of the total flocks. In the Northern, North-Eastern, and Gippsland districts, which contained 38½ per cent. of the flocks, but only 27 per cent. of the sheep, there was a much better distribution, and also the evidence that the raising of lambs and the production of wool were combined to a greater extent with cultivation. From 1906 there had been an increase of 5,717 flocks, and of 2,637,842 sheep, each district having contributed to both increases; but the average number of sheep in a flock had decreased during the period from 706 to 642 though the Wimmera, North-Eastern, and Gippsland districts showed increased averages. 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-raising in the community. A classification of sheep was also made according to sizes of flocks in each county. Excluding sheep travelling and in cities and towns, the following table shows the classification for the whole State:—

SHEEP ACCORDING TO SIZES OF FLOCKS, 1908.

Size of Flocks.	Number of—		Percentage of—	
	Flocks.	Sheep.	Flocks.	Sheep.
Under 500	15,797	2,415,541	72.52	17.28
500 to 1,000 ..	3,414	2,393,866	15.67	17.13
1,001 „ 2,000 ..	1,490	2,130,673	6.84	15.24
2,001 „ 3,000 ..	411	1,007,456	1.89	7.21
3,001 „ 5,000 ..	288	1,139,661	1.32	8.15
5,001 „ 7,000 ..	114	679,493	.52	4.86
7,001 „ 10,000 ..	100	864,734	.46	6.19
10,001 „ 15,000 ..	79	989,913	.36	7.08
15,001 „ 20,000 ..	39	684,469	.18	4.90
Over 20,000 ..	52	1,672,158	.24	11.96
Total	21,784	13,977,964	100.00	100.00

Flocks of over 15,000, though not very numerous, being only about one in every 240, accounted for almost as many sheep as those in the most general size—that under 500—which comprised 72½ per cent. of the total flocks. Of the largest flocks, 39 containing 1,233,268 sheep belonged to the Western District counties, and 4, containing 176,059 to the Central District counties. Flocks of the second largest size were also chiefly confined to the Western District, where 32 of them, representing 560,847 sheep, were found—so that as regards this size the district possessed over four-fifths of the flocks and sheep in the State. The Western District

had, altogether, over 36 per cent. of the total sheep in Victoria, but less than 16 per cent. of the number in this district were in flocks up to 1,000. In every other district the keeping of sheep was combined with agriculture to a much greater extent, as of the total in each district the proportion per cent. in flocks up to 1,000 was, in the Northern, 54; Mallee, 51; North-Eastern, 46; Wimmera, 46; Gippsland, 41; North-Central, 39; and in the Central, 36. Between 1906 and 1908 the flocks up to 1,000 increased by 5,157, or 37 per cent., and the sheep in them by 1,428,712, or 42 per cent.; while in the same time the flocks over 1,000 increased by 560, or 28 per cent., and the sheep in them by 1,209,130, or only 15 per cent.

Breed of sheep.

An attempt to estimate the numbers of sheep of different breeds in Victoria was made for the first time as at March, 1908. The result is shown below:—

SHEEP ACCORDING TO BREED, MARCH, 1908.

Breed of Sheep.	Number.
Merino	5,092,824
Comeback	3,253,749
Crossbred, coarse	1,839,075
,, Shropshire and Southdown	1,697,608
Lincoln	990,271
Shropshire	565,869
Other	707,338
Total ...	14,146,734

Lamb Raising.

The export trade in frozen lamb began in 1892, and, in the few years that have since elapsed, it has so enormously developed that it is now recognised as one of the principal industries of the State. In 1892, 11,794 centals of beef and mutton were exported, and, in 1894, 111,715 centals of mutton, or some 250,000 carcases, were shipped. In two years from its inception the trade had increased tenfold, and this prosperous beginning was an index of its future expansion. 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. The trade in lambs has since grown to such an extent that even the most sanguine prophecies concerning it seem likely to fall short of realization. In 1908 there were killed for export 652,882 lambs and 105,095 sheep. The year 1907 was a prosperous one for the meat industry, there being killed for export 702,767 lambs and 175,447 sheep. The shrinkage in 1908 was due to inclemency of season, absence of shelter and shortness of grass during the winter and early spring.

The soil and climate of Victoria are well suited to the economical production of both lamb and mutton, and breeds, if properly selected, would be profitable, not only as meat but 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 exceptionally mild conditions prevailing, the industry can be carried on with absolute success.

In Victoria the legislative trend is towards the breaking up of large estates, and many small holdings have been established. With the extension of the intense culture methods that are being impressed on farmers, lamb-raising will become a most extensive industry. Oversea markets for mutton and lamb are continually being opened up, so there is no risk of the trade being overdone.

The demand for lamb in Britain alone is ever steadily increasing, and supply and means of transport are the factors that must be duly considered on this side of the world.

The growing of wheat and the raising of lambs are two industries which are mutually dependent; farmers should, therefore, more actively combine these pursuits, as in so doing they would effect subtle transmutations in farming operations. Sheep moreover keep fields free from weeds, in addition to causing an enrichment of the ground.

The demand in Europe and America for mutton and wool, and in Japan for wool alone, is persistently increasing, while the supplies of these commodities are relatively decreasing, in consequence of the continuous growth and spread of population, and the increasing inability of stock owners in old countries to augment their flocks, because of the proportionate contraction of their grazing lands. 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 sheep will flourish and where extensive grazing areas are available. The possibilities, then, for settlers in Victoria who may embark in the industry of raising lambs for export oversea are unbounded; the hours of toil are neither long nor exacting, and the industry is now one of the most profitable and popular of farming occupations. With the continuous breaking up of large estates and the settlement of increasing numbers of small sheep-farmers on the land, mutton will become the primary and wool the incidental consideration, instead of the present reverse condition existing.

The time is coming when sheep will be grown in Victoria primarily for mutton, but, although this is evident, it is certain that the sheep will, in addition, require to be producers of good fleeces.

If special fodder crops were generally grown and methods of husbandry practised on the same lines as in New Zealand, it should be quite possible for Victoria to soon possess 25,000,000 sheep, whereas at present the number is only 12,545,742. The carrying capacity of a farm is increased by growing special fodder crops, yet, at the present time, although unlimited markets exist abroad, graziers do not make sufficient special provision for feeding their stock. They, for the

most part, rely entirely on the natural pastures. If, however, systematic efforts were made to extensively grow fodder crops, graziers would not only materially augment their own incomes, but would increase the resources and prosperity of the State.

Where rainfall is certain and irrigation possible lucerne as a mainstay fodder should be grown, for the cultivation of this crop vastly increases the carrying capacity of the farm. When the irrigation schemes of the Northern areas are completed an enormous impetus will be given to lamb production. Lucerne, rape, kale and turnips, which are the best fattening fodders for sheep, will then, no doubt, be grown in great luxuriance.

There is no limit to the demand for meat in Britain, and the only real rival we have in the London market 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 so actively practised as in Victoria.

The possibilities, then, for farmers engaging in the trade of raising lambs in Victoria for export are very great, and no apprehension need be felt that the outlet for lambs is likely to become contracted. The significant feature to keep before the mind is that the number of sheep all the world over is declining, whilst the population is rapidly increasing. Europe will, therefore, in the future have to depend largely on Australia for its mutton supply.

Raising lambs, although not an arduous vocation, is a calling in which one must possess some knowledge of farm practice and of the management of flocks, in addition to having an acquaintance with diseases incidental to sheep, before he can hope to meet with success.

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 indissoluble factor. Pigs are the best agents to profitably use up the waste products of a farm, and separated milk and damaged grain could profitably be converted into pork. Notwithstanding the high prices generally prevailing for pigs, and an incessant demand for pig products, pig-breeders supinely view this important branch of agriculture. There are only 179,358 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 exist 145,375,000 pigs. During the year only 2,296 carcases of pork were exported from Victoria.

Beef and Veal.

The raising of beeves for export is not as yet a great undertaking in the State, although the industry is capable of being established in districts where water is plentiful and where special fodder crops could be advantageously grown. The rearing of milk

herds is an important business in Victoria, for the production of milk is one of the staple industries of the State. The number of cattle being raised in the world is not keeping pace with the increase of population, and therefore short supplies of beef in thickly populated countries must inevitably result. It is estimated that there are about 420,550,000 cattle in the civilized countries of the world.

It is possible for Victoria to raise extensive herds, not only of dairy cattle, but also of beeves to furnish meat supplies for oversea markets. During 1908 there were exported 647 carcases of beef, and 11,662 carcases of veal.

Live stock in Australia and New Zealand.

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 the returns for the end of 1908, are as follows :—

LIVE STOCK IN AUSTRALASIA, 1908.

State.	Horses.	Cattle.		Sheep.	Pigs.
		Milch Cows.	Other.		
	Total Number.				
Victoria	424,903	609,166	964,996	12,545,742	179,358
New South Wales	591,045	777,099	2,178,785	43,332,947	215,822
Queensland ..	519,969	4,321,600		18,348,851	124,749
South Australia* ..	213,385	106,269	234,107	6,898,451	78,454
Western Australia..	116,850	31,512	710,598	4,098,519	46,673
Tasmania ..	39,883	50,931	154,896	1,728,053	47,943
New Zealand ..	363,259	536,629	1,236,697	22,449,053	245,092
	Number per Square Mile.				
Victoria	4.83	6.93	10.98	142.75	2.04
New South Wales	1.90	2.50	7.01	139.60	.69
Queensland ..	.78	6.45		27.37	.19
South Australia* ..	.56	.28	.62	18.15	.21
Western Australia..	.12	.03	.73	4.20	.05
Tasmania ..	1.52	1.94	5.91	65.92	1.83
New Zealand ..	3.47	5.12	11.80	214.31	2.33

* Exclusive of Northern Territory.

The most striking feature in the figures presented in this table is the all-round decrease in the number of pigs in the last three years. The reduction, since 1905, is as much as 37 per cent. in Western Australia, 34 per cent. in Victoria and Tasmania, 33 per cent. in South Australia, 30 per cent. in New South Wales, 24 per cent. in Queensland, but only 2 per cent. in New Zealand. There is no apparent reason for these reductions, as the rearing of pigs is a most profitable adjunct to farming or dairying. During the same interval cattle have slightly decreased in Victoria, Tasmania and New Zealand, but horses and sheep have increased in each State.

The stock, in proportion to area, are evidently most numerous in New Zealand, which possesses horses, cattle, and sheep equal to about 350 sheep to the square mile; Victoria comes next with 299; then follow New South Wales, with 216; Tasmania, with 128; Queensland, with 74; South Australia, with 29; and Western Australia, with the lowest average, having stock equivalent to less than 10 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, according to the *Year-Book*, United States Department of Agriculture, except in the case of Australasia:—

NUMBER OF SHEEP IN THE WORLD, 1907.

	No. of Sheep.
United Kingdom	30,011,000
Other European countries	162,855,000
Total Europe	192,866,000
Australia and New Zealand	108,704,000
Asia	91,576,000
Africa	36,493,000
North America...	61,625,000
South America	100,460,000
Total	591,724,000

Ensilage.

The importance of the preservation of forage in a green state is so great that the attraction of public attention to the question is highly desirable. Not only will stock eat anything of a vegetable nature that will make useful ensilage, but ensilage-fed animals at all times present an appearance of health and vigour. It cannot be affirmed that the uncertainty of the result of the system need militate against the trial. The silo is no longer in an experimental stage. Ancient nations are known to have practised the preservation of forage and fruits in a green state in large subterranean vaults; and for upwards of twenty years experiments on a large scale have been carried on, particularly in America, where the almost universal testimony of farmers is to the resulting economy in the feeding of cattle, and the consequent increased stock-carrying capacity of the land. As a result of these experiments, many farmers have introduced silos upon their holdings, but it is a matter of surprise that so little has been done in Australia. Dr. Cherry, in a paper on "The Modern Silo," points out particularly that "animals which chew the cud differ from all other classes in requiring their food comparatively juicy and bulky. Their digestive apparatus is formed to suit this kind of food. Hence the cow or bullock cannot thrive on exclusively dry food so well as a horse." In Victoria, where 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 another of the requirements 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 on every farm.

The returns for Victoria relating to the years 1901 to 1909 show that last season there was a substantial increase in the number of farmers who made ensilage and in the material used, as compared with the previous seasons. The following figures show how much has been done in this direction since 1900:—

ENSILAGE RETURNS, 1900-1 TO 1908-9.

Year Ended March.	Number of Farms on which made.	Weight of Materials Used.
		tons.
1901	131	5,834
1902	125	5,065
1903	111	4,703
1904	290	10,931
1905	300	12,779
1906	160	7,240
1907	210	10,581
1908	203	11,031
1909	392	18,205

Bee-keeping

The returns for 1907-8 show that there were 4,745 bee-keepers owning 27,505 frame and 15,707 box hives, producing 975,847 and 163,145 lbs. of honey respectively, and 24,521 lbs. of beeswax. In 1908-9 there were 4,303 bee-keepers owning 26,712 frame and 13,883 box hives, producing 2,141,820 and 231,808 lbs. of honey respectively, and 38,674 lbs. of beeswax.

The number of bee hives increased from 21,412 in 1900-1 to 49,120 in 1904-5, but declined to 40,595 in 1908-9. In 1891-2, the quantity of honey returned was 1,128,283 lbs.; after a decline in the next two years, the quantity gathered in 1894-5 was 1,323,982 lbs.; a falling off was recorded from that year to 1897-8, when the return was 195,163 lbs. A recovery has since been made, and the returns for the last five years indicate that the industry is making good progress. The production of honey in 1908-9, though less than in 1906-7, was more than double that in 1907-8, the increase having taken place principally in the counties of Borung, Dundas, Kara Kara, Lowan, and Talbot.

BEE-KEEPING, 1900-1 TO 1908-9.

Season ended May.	Number of Bee-keepers.	Bee Hives.	Honey.	Beeswax.
			lbs.	lbs.
1901	2,293	21,412	957,020	15,269
1902	3,776	22,083	572,477	13,530
1903	4,402	32,126	1,199,331	23,061
1904	5,609	40,759	833,968	18,979
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

Poultry production.

The numbers of the various kinds of poultry in the State at the date of the last census—31st March, 1901—as ascertained from the schedules, were as follows:—

Fowls	3,619,938
Ducks	257,204
Geese	76,853
Turkeys	209,823

Taking the above figures as a basis, it is estimated that the gross value of poultry and egg production for the year 1908 was £1,547,000.

Poultry and poultry-owners at census, 1881, 1891, and 1901.

The following table shows the number of poultry and poultry-owners as ascertained at the censuses of 1881, 1891, and 1901:—

POULTRY: RETURN FOR THREE CENSUS YEARS.

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

It thus appears that there was a falling off in the number of poultry-owners between 1891 and 1901, and although fowls showed a slight increase, there was a diminution in the other kinds of poultry. The United Kingdom in the five years ended December, 1908, imported annually £6,991,955 worth of eggs, of which 33 per cent. was from Russia, 24 per cent. from Denmark, 14 per cent. from Germany, 13 per cent. from Belgium, 15 per cent. from other foreign countries, and only 1 per cent. from British countries. It also imported in these years, an annual average of over £940,000 worth of poultry, 98 per cent. of which was from foreign countries.

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, 1908, sums amounting to £498,895 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	1903–4...	15,759
1889–90 to 1898–9 ..	208,638	1904–5...	16,603
1899–1900	14,801	1905–6...	16,477
1900–1..	15,817	1906–7...	16,513
1901–2...	17,250	1907–8...	17,585
1902–3...	16,489		

In addition to the expenditure of £498,895, referred to above, a loan of £150,000 was allocated to shires in 1890, and a further loan of £50,000 in 1896, for the purchase of wire netting to be advanced to land-holders, both of which loans have been repaid. 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 seven years was as shown in the following statement:—

RABBITS, HARES, AND WILD-FOWL SOLD AT THE MELBOURNE FISH MARKET, 1902 TO 1908.

Year.	Rabbits.	Hares.	Wild Fowl.
	pairs.	brace.	brace.
1902 ...	471,964	2,401	32,756
1903 ...	316,462	1,024	13,130
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

Frozen rabbits &c., exported.

Large quantities of frozen rabbits and hares have been exported to the United Kingdom and other oversea countries during recent years, the numbers and values for the last seven years being as follows:—

FROZEN RABBITS AND HARES EXPORTED OVERSEA: 1902 TO 1908.

Year.	Quantity.	Value.
	pairs.	£
1902	3,213,376	158,043
1903	3,447,077	165,580
1904	4,045,036	125,038
1905	5,093,952	219,665
1906	4,622,307	221,064
1907	3,251,231	154,789
1908	1,743,466	84,835

The fishing industry.

In the following tables some information is given regarding the fishing industry. The first shows the various fishing districts round the coast and on the Murray and Goulburn Rivers, the number of men and boats engaged, and the value of the general fishing plant in use. The second shows the approximate quantity and value of Victorian and other fish sold in the Metropolitan market during the years 1907 and 1908; and the third shows the quantity and value of Victorian fish sold in the Melbourne, Ballarat, and other markets during 1908:—

FISHERIES—MEN AND BOATS EMPLOYED, 1908.

District.	1908.			
	Number of Men.	Boats.		Value of Nets and other Plant.
		Number.	Value.	
			£	£
Anderson's Inlet	8	7	144	276
Barwon Heads and Ocean Grove ..	18	10	470	50
Brighton	5	4	100	77
Corner Inlet, Welshpool, and Toora ..	73	52	3,491	759
Dromana	20	15	565	200
Echuca	9	10	70	45
Frankston	11	13	175	100
Geelong	64	25	998	824
Gippsland Lakes	334	218	5,240	3,378
Kerang	7	5	12	20
Lorne	5	2	39	64
Mentone	11	9	75	80
Mordialloc	9	9	255	70
Mornington	18	15	576	416
Nathalia	26	16	48	48
Portarlington and St. Leonards ..	73	38	1,195	559
Portland	39	40	1,439	407
Port Albert	46	28	1,338	755
Port Fairy	51	29	1,680	363
Port Melbourne	47	34	931	880
Queenscliff	98	51	4,633	434
Sandringham	12	17	580	85
Sorrento, Portsea, and Rye	18	15	549	220
St. Kilda	6	3	42	100
Swan Hill	4	4	21	46
Warrnambool	8	6	125	85
Western Port (Cowes, Hastings, Flinders, San Remo, and Tooradin) ..	126	73	1,692	1,199
Williamstown	12	7	186	112
Total	1,158	755	26,669	11,652

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, 1907 AND 1908.

	1907.		1908.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Fresh Fish (Victorian) lbs.	10,365,428	56,146	9,746,408	60,915
Crayfish (Victorian) .. doz.	22,751	5,688	24,066	6,016
Imported Fish (fresh or frozen) lbs.	1,466,640	16,805	1,948,200	22,323
Oysters .. .. cwt.	20,165	10,385	18,599	9,764
Total	..	89,024	..	99,018

In addition to the above, 1,809 cwt. of smoked fish, and 225 baskets of prawns were sold in this market in 1908.

The quantity and value of fish caught in Victorian waters, and sold in the Melbourne and the Ballarat markets or elsewhere in 1908 were as follows:—

VICTORIAN FISH SOLD IN 1908.

Markets.	Quantity.		Value.	
	Fish.	Crayfish.	Fish.	Crayfish.
	lbs	doz.	£	£
Melbourne	9,746,408	24,066	60,915	6,016
Ballarat	577,920	1,731	3,067	378
Other	192,355	1,330	1,202	332
Total	10,516,683	27,127	65,184	6,726

In connexion with this subject, the quantities and values of the different classes of fish imported are of interest. The figures for the last two years are as follows:— Fish imported.

FISH IMPORTED 1907 AND 1908.

	1907.		1908.	
	Quantity.	Value.	Quantity.	Value.
Fish—		£		£
Fresh .. .. lbs.	584,971	6,789	1,426,967	16,602
Preserved by cold process ,,	833,972	13,904		
Smoked .. .. ,,	75,861	2,043	267,216	6,611
Fresh Oysters .. cwt.	27,009	13,980	23,652	12,081
Potted, &c.	..	2,065	..	3,214
Preserved, in tins, &c. lbs.	4,800,831	107,345	4,520,624	113,043
N.E.I. .. .. cwt.	6,043	11,085	7,543	13,440
Total	..	157,211	..	164,991

The most important item in this table is fish preserved in tins and other air-tight vessels, of which 3,818,378 lbs., or 84 per cent., came from the United Kingdom, the United States, and Canada in 1908.

Imports by United Kingdom of articles that may be further developed 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 here and would give very profitable employment. Some idea of the enormous importations by the United Kingdom from foreign countries of certain articles that may be profitably produced here is given in the table which follows. The figures, which are taken from the United Kingdom Board of Trade returns, represent the average annual imports for the five years 1904 to 1908:—

AVERAGE ANNUAL IMPORTS INTO THE UNITED KINGDOM, 1904 TO 1908.

Articles.	Annual Value of Imports into United Kingdom from—				
	Victoria.	Other States of Australia.	Other British Possessions.	Foreign Countries.	All Countries.
	£	£	£	£	£
Butter	1,298,534	1,279,166	2,283,348	17,671,516	22,532,564
Cheese	..	..	5,282,457	1,393,730	6,676,187
Eggs	..	..	90,180	6,901,775	6,991,955
Meats — Bacon and Hams	..	..	3,397,807	13,724,735	17,122,542
Meats—All other ..	621,865	1,278,937	4,262,606	16,922,885	23,086,293
Poultry and Game	..	..	36,449	1,025,357	1,061,806
Fruit—Fresh and Preserved ..	28,226	298,544	1,257,017	10,938,770	12,522,557
Flax and Hemp ..	..	..	1,024,174	6,560,528	7,584,702
Maize	..	..	676,043	10,973,385	11,649,428
Wheat	1,206,275	2,008,464	9,813,332	22,544,810	35,572,881
Wheatmeal and Flour	137,833	128,071	883,365	5,628,725	6,777,994
Wine	62,870	52,383	24,473	3,784,737	3,924,463
Leather	139,355	243,677	2,790,905	5,657,051	8,830,988
Skins, Furs, and Hides	377,461	806,241	3,103,944	5,551,610	9,839,256
Tallow and Stearine	153,983	692,034	557,738	1,402,492	2,806,247
Wool	3,211,882	8,672,303	10,087,062	4,433,618	26,404,865

As regards the sixteen articles specified, the requirements of the United Kingdom are to the extent of 66 per cent. met by foreign countries. Only $3\frac{1}{2}$ per cent. is supplied by Victoria, where bountiful soils and a salubrious climate give an opportunity of doing much more, especially in the further supply of butter, meats, fruit, and breadstuffs. 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. The figures for 1908 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, 1908.

—		Victoria.	Great Britain.
Area	acres	56,245,760	56,788,924
Wheat produced	bushels	23,345,649	52,535,139
Oats „	„	11,124,940	123,627,229
Barley „	„	1,511,181	54,720,439
Potatoes „	tons	152,840	3,917,618
Horses	No.	424,903	1,545,671
Cattle	„	1,574,162	6,905,134
Sheep	„	12,545,742	27,119,730
Pigs	„	179,358	2,823,482

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.

In the issue of the *Year-Book*, 1906-7, will be found an interesting and instructive article on "The Economic Minerals and Rocks of Victoria" by Mr. A. E. Kitson, F.G.S.

The following table gives particulars of the expenditure from Revenue in aid of the mining industry during each of the last five financial years:— Expenditure in aid of mining industry.

EXPENDITURE ON MINING: 1903-4 TO 1907-8.

—	1903-4.	1904-5.	1905-6.	1906-7.	1907-8.
	£	£	£	£	£
Mining Department ...	23,702	24,526	25,431	26,200	26,531
Mining boards ...	3,500	2,916			
Victorian coal—Allowance to Railway Department on carriage of ...	5,099	8,847	10,807	11,302	7,541

EXPENDITURE ON MINING: 1903-4 TO 1907-8—*continued.*

—	1903-4.	1904-5.	1905-6.	1906-7.	1907-8.
	£	£	£	£	£
Diamond drills for prospecting	4,993	10,823	11,231	13,124	13,150
Testing plants ...	2,358	2,664	2,463	2,548	2,093
Geological and underground surveys of mines	5,450	5,616	5,469	5,631	5,701
Miscellaneous ...	873	963	777	916	2,274
Total ...	45,975	56,355	56,178	59,721	57,290

Yearly grants are also made to Schools of Mines, particulars of which will be found on page 357 of this work, and in addition to amounts annually voted from the consolidated revenue, £85,100 has been appropriated from funds provided by the Surplus Revenue Acts, of which sum £54,417 has been expended during the last four financial years, principally in advances to companies and miners. Also, since 1st July, 1896, £271,022 has been apportioned from loan receipts and expended on mining enterprise, particulars of which expenditure are shown in the following statement:—

LOAN MONEY EXPENDED ON MINING ENTERPRISE.

	£
Advances to companies for development of mining ...	62,740
Draining metalliferous areas	62,532
Construction of roads and tracks for mining	57,579
Plant for testing metalliferous material	12,357
Construction of races and dams for water to be used in sluicing for gold	8,260
Advances to miners for prospecting	27,839
Purchase of cyanide process patent rights	20,000
Equipping Schools of Mines with mining appliances ...	9,975
Miscellaneous	9,740
Total	271,022

Of the amounts advanced to companies from loan funds, £15,534 has been repaid, and £8,236 has been recovered by taking

possession of and selling the plant, &c., of several companies which were unable to continue operations.

The following statement shows the manner of occupation of all persons connected with mining industries throughout the State according to the Census returns of 1901 :— Persons engaged in mining, 1901.

RETURN OF PERSONS ENGAGED IN MINING PURSUITS, 1901.

Persons following Mining Pursuits.	Employers of Labour.		In business on their own Account, but not employing Labour.		Receiving Salary or Wages.		Relatives assisting.		Not at work for more than a week prior to Census.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Mines Department officer (not Geologist)	..	..	..	..	76	3	..	1	..	..
Mining engineer, inspector, surveyor, (not Government) ..	15	..	32	..	90	..	..	..	11	..
Mine, gold (quartz), proprietor, manager, worker ..	216	2	1,567	..	7,747	..	65	..	925	..
„ gold (alluvial), proprietor, manager, worker ..	87	..	4,141	..	4,285	..	107	..	448	..
„ gold (undefined), proprietor, manager, worker ..	35	1	682	..	1,142	..	20	..	213	..
„ (undefined), proprietor, manager, worker ..	79	1	1,165	..	4,264	..	30	..	624	..
„ tin (lode), worker ..	..	..	1	..	..	..	..	..	1	..
„ tin (alluvial), proprietor, manager, worker ..	..	..	9	..	9	..	..	..	1	..
„ silver, proprietor, manager, worker	..	..	..	..	2	..	..	..	3	..
„ coal, proprietor, manager, worker	10	..	8	..	844	..	..	..	32	..
„ copper, manager, worker	..	..	1	..	9	..	..	..	2	..
„ precious stones, manager, worker	1	..	3	..	..	..	..	..	1	..
„ expert, amalgamator, diamond drill worker ..	5	..	12	..	56	..	..	..	3	..
„ director, agent, legal manager, clerk, secretary ..	65	..	97	1	334	8	1	1	17	..
Quartz crusher	17	..	14	..	573	..	1	..	30	..
Pyrites worker, ore roaster ..	2	..	2	..	61	..	..	..	2	..
Cyanide worker, &c.	32	..	7	..	170	..	..	..	1	..
Smelter, gold	..	..	1	..	3	..	..	..	..	..
„ other	..	..	..	..	17	..	..	..	4	..
Quarry proprietor, manager, clerk	41	1	51	..	1	..	7	..	..	..
„ man, worker	..	..	..	..	734	..	..	..	62	..
Others	..	..	1	..	..	..	..	..	1	..
Total	605	5	7,794	1	20,417	11	231	2	2,381	..

Total Males	31,428
Total Females	19
GRAND TOTAL	31,447

Gold miners.

The average number of men employed in mining is estimated annually by the Mining Department, and the figures for the nine years ended with 1908 are subjoined:—

NUMBER OF MEN EMPLOYED IN GOLD MINING, 1900 TO 1908.

Year.	Alluvial Miners	Quartz Miners.	Total.
1900	12,836	16,199	29,035
1901	12,886	14,891	27,777
1902	11,963	14,140	26,103
1903	11,058	14,150	25,208
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

The number of men employed in each mining district in 1908 was as follows:—Ararat and Stawell, 911; Ballarat, 4,247; Bendigo, 4,796; Beechworth, 4,114; Castlemaine, 2,669; Gippsland, 1,406; and Maryborough, 2,710.

Mineral produce.

The following table shows the quantity and value of the metals and minerals produced in Victoria up to the end of 1908:—

TOTAL MINERAL PRODUCTION TO 31ST DECEMBER, 1908.

Metals and Minerals.	Recorded prior to 1908.		Recorded during 1908.		Total Recorded to end of 1908.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Fine. ozs.	£	Fine. ozs.	£	Fine. ozs.	£
Gold	65,793,222	279,471,595	670,910	2,849,838	66,464,132	282,321,433
Silver ..	29,405	7,751	2,175	245	31,580	7,996
	1,260,389	195,099	23,490	2,590	1,283,879*	197,689
	tons.		tons.		tons.	
Coal, black ..	2,813,350	1,548,233	113,462	64,653	2,926,812	1,612,886
„ brown ..	48,466	19,632	500	125	48,966	19,757
Lignite	12,923	3,086	..	..	12,923	3,086
Ore—copper ..	17,508	209,251	983	3,928	18,491	213,179
„ tin ..	15,425	756,687	79	6,070	15,504	762,757
„ antimony ..	27,677	194,101	3,679	10,428	31,356	204,529
„ silverlead ..	793	5,760	..	..	793	5,760
„ iron ..	5,434	12,540	..	..	5,434	12,540
Wolfram	..	..	3	252	3	252
Diamonds ..	..	108	..	..	..	108
Sapphires, &c. ..	..	630	..	..	..	630
Gypsum ..	13,934	7,866	1,736	1,085	15,670	8,951
Magnesite ..	6	12	..	..	6	12
Kaolin	3,548	9,172	547	591	4,095	9,763
Diatomaceous earth	2,043	9,352	150	600	2,193	9,952
Pigment clays ..	..	..	2	24	2	24
Bluestone, Freestone, Granite, &c.† .. Limestone ‡ .. Salt (crude)‡ ..	..	3,537,644	..	90,616	..	3,628,260
Total ..	..	285,988,519	..	3,031,045	..	289,019,564

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

The total quantity of gold raised from its first discovery in 1851 to the end of 1908 was 70,677,668 ounces gross, or, as shown above, 66,464,132 ounces fine, the estimated value being £282,321,433. This sum is based on the average value of the gold received at the Melbourne Mint, which in 1908 was £3 19s. 1d. per ounce. The yield of gold for 1908—721,220 ounces gross, or 670,910 ounces fine —was 33,050 ounces gross, or 24,666 ounces fine, less than the yield of the previous year, mainly owing to the working out and closing down of some of the deep alluvial and lode mines and the falling off in the yields from several lode mines.

Mining district gold yields.

In the following return will be found the yield of gold from alluvial workings and from quartz reefs during 1907 and 1908 in each mining district of the State, according to the calculations of the mining registrars :—

DISTRICT YIELDS OF GOLD, ALLUVIAL AND QUARTZ, 1907 AND 1908.

Mining District.	1907.			1908.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	oz.	oz.	oz.	oz.	oz.	oz.
Ararat and Stawell ...	9,093	12,178	21,271	7,572	8,106	15,678
Ballarat	41,286	106,782	148,068	41,828	98,967	140,795
Beechworth	104,007	25,254	129,261	106,847	20,790	127,637
Bendigo	18,696	177,768	196,464	6,294	193,619	199,913
Castlemaine ...	38,446	63,944	102,390	31,968	52,092	84,060
Gippsland	8,467	66,715	75,182	7,360	58,656	66,016
Maryborough... ...	47,835	33,366	81,201	47,855	27,365	75,220
Total	267,830	486,007	753,837	249,724	459,595	709,319

According to these calculations, which fall short of the actual yields by 11,901 ounces in 1908 and by 433 ounces in 1907, alluvial mining shows a decrease of 18,106 ounces, and lode mining a decrease of 26,412 ounces in 1908 as compared with 1907.

Deep mines.

On 31st December, 1908, there were 14 mines on the Bendigo gold-field, with shafts over 3,000 feet deep, namely, New Chum Railway, 4,318 feet; Victoria Reef Quartz, 4,300 feet; Lazarus New Chum, 3,682 feet; New Chum and Victoria, 3,550 feet; North Johnson's, 3,498 feet; Lansell's 180, 3,354 feet; Great Extended Hustler's, 3,290 feet; Ironbark, 3,250 feet; Carlisle, 3,158 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 51, and, in some of the mines, winzes have been put down below the level of the bottom of the shafts. For instance, this has been done in the Victoria Reef Quartz to a depth of 4,558 feet; in the New Chum

Consolidated to 3,583 feet; in the New Shenandoah, to 3,332 feet; in the Princess Dagmar to 3,390 feet; and in the Eureka Extended to 3,319 feet.

The following are the deepest mines on other gold-fields:—Long Tunnel, Walhalla, incline shaft, 4,051 feet; South Star, Ballarat, 3,180 feet; Long Tunnel Extended, Walhalla, 3,030 feet; Magdala, Stawell, 2,410 feet; South German, Maldon, 2,225 feet; and Lord Nelson North, St. Arnaud, 2,085 feet.

Dredge mining and hydraulic sluicing.

Dredge mining and hydraulic sluicing continue to make good progress. Prior to 1900 the yield of gold from dredging operations was 90,528 ounces, and, from 1900 to 1908, 549,143 ounces were obtained from 3,738 acres worked, the average yield of gold being 147 ounces per acre, or 2.4 grains per cubic yard of material treated. The quantity of tin won during the period 1900-8 was 456 tons. The following tables give particulars of the industry for 1908:—

DREDGE MINING AND HYDRAULIC SLUICING, 1908.

District.	Number of Plants.	Gold won during 1908.	Dividends paid during 1908.*
		oz.	£
Ararat and Stawell	2	639	...
Ballarat	16	13,071	900
Beechworth	50	58,324	54,822
Bendigo	4	956	...
Castlemaine	29	17,906	4,487
Gippsland...	8	4,587	3,575
Maryborough	14	8,684	...
Unspecified	6	1,641	1,300
Total	129	105,808	65,084

* These figures are merely approximate, as information was not furnished in connexion with some privately-owned plants.

DESCRIPTION OF DREDGING AND HYDRAULIC SLUICING PLANTS.

District.	Bucket Dredges.	Hydraulic Pump Sluices.	Jet Elevators.	Gravitation Hydraulic Sluicing.	Total.
Ararat and Stawell ...	...	2	...	...	2
Ballarat	1	15	...	...	16
Beechworth	39	9	2	...	50
Bendigo	...	4	...	...	4
Castlemaine	2	25	2	...	29
Gippsland	5	2	1	...	8
Maryborough	...	14	..	...	14
Unspecified	...	...	...	6	6
Total	47	71	5	6	129

The 47 bucket dredges raised 12,780,248 cubic yards of material and won 55,158 ounces of gold; the 71 hydraulic pump sluices dealt

with 7,525,903 cubic yards of material for a return of 47,665 ounces of gold; the five hydraulic jet elevators put through 240,355 cubic yards of material for a return of 1,344 ounces of gold; and the six plants operating in connexion with hydraulic sluicing by gravitation dealt with 156,586 cubic yards of material, which yielded 1,641 ounces of gold. The total quantity of material treated by these plants, during 1908, was 20,703,092 cubic yards, representing an area of 784 acres, the amount of gold obtained being 105,808 ounces, and of tin 62½ tons, as against a treatment of 20,596,008 cubic yards in 1907, for 100,216 ounces of gold, and 73 tons of tin. The yield of gold per cubic yard of material was 2.4 grains, in 1908, as against 2.3 for the previous year. In 1908 the number of men employed in connexion with these 129 plants was 2,487, and their wages amounted to £198,783. Other returns in connexion with dredge-mining, &c., not referred to above, gave an additional yield of 793 ounces for the year 1908.

Value of machinery on gold-fields.

The following is a return showing the value of machinery used in alluvial and quartz mining for the five years ended 1908:—

VALUE OF MACHINERY ON GOLD-FIELDS, 1904 TO 1908.

Year.	Approximate Value of Machinery Employed in—		
	Alluvial Mining.	Quartz Mining.	Total.
	£	£	£
1904	628,520	1,551,990	2,180,510
1905	790,810	1,819,750	2,610,560
1906	809,150	1,817,070	2,626,220
1907	964,120	1,935,125	2,899,245
1908	933,470	1,897,825	2,831,295

Gold-mining dividends.

The following return shows the amount paid in dividends in each mining district of the State for the last six years:—

DIVIDENDS PAID BY GOLD MINING COMPANIES IN EACH MINING DISTRICT, 1903 TO 1908.

Mining District.	Amount Distributed.					
	1903.	1904.	1905.	1906.	1907.	1908.
	£	£	£	£	£	£
Ararat and Stawell ...	15,105	10,167	102	...	...	...
Ballarat	123,900	77,315	66,700	62,700	51,675	43,500
Beechworth ...	48,159	57,511	70,413	65,599	53,189	78,245
Bendigo	319,370	382,321	228,028	251,727	120,880	133,114
Castlemaine ...	15,138	17,240	35,465	37,701	39,568	18,669
Gippsland	34,700	41,844	28,504	56,897	50,850	44,515
Maryborough ...	44,780	37,000	25,219	10,069	1,250	1,250

Yields and dividends for the whole State for the last nine years are shown below:—

YIELDS AND DIVIDENDS 1900 TO 1908.

Year.	Value of Gold Produced.	Dividends Paid.
	£	£
1900	3,229,628	453,333
1901	3,102,753	427,997
1902	3,062,028	472,136
1903	3,259,482	601,152
1904	3,252,045	623,398
1905	3,173,744	454,431
1906	3,280,478	484,693
1907	2,954,617	317,412
1908	2,849,838	319,293

The dividends paid in the years mentioned range from 11 to 19 per cent. of the gold produced, the average for the nine years being about 15 per cent.

Gold raised in Australasia.

The following table summarizes the production of gold in Australasia from 1851, the year of its first discovery. Prior to 1898, Victoria was almost invariably the leading gold-producing State of the group, but since then Western Australia has taken first place. The following is a statement of the quantity recorded as having been raised in the respective States at different periods:—

GOLD RAISED IN AUSTRALASIA, 1851 TO 1908.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.*	Western Australia.	Tasmania.	New Zealand.
	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.
1901 ..	730,453	216,888	598,382	28,951	1,703,416	69,491	412,876
1902 ..	720,866	254,435	640,463	24,082	1,871,037	70,996	459,406
1903 ..	767,297	254,260	668,546	22,269	2,064,801	59,891	461,648
1904 ..	765,600	269,817	639,151	17,925	1,983,230	65,921	467,897
1905 ..	747,166	274,267	592,620	20,447	1,955,316	73,540	492,955
1906 ..	772,290	253,987	544,636	14,077	1,794,547	60,023	534,617
1907 ..	695,576	247,363	465,882	11,871	1,697,554	65,354	477,312
1908 ..	670,910	224,792	465,085	9,161	1,647,911	57,085	471,980
1901-8	5,870,158	1,995,809	4,614,765	148,783	14,717,812	522,301	3,778,691

* Quantity received at Melbourne and Sydney Mints.

The total production of Australasia from 1851 to 1900, inclusive, was 114$\frac{3}{4}$ million ounces (gross), more than half of which was

produced in Victoria. The Australasian production for the eight years, 1901 to 1908, was nearly 32 million ounces (fine), to which Western Australia contributed 14¾ million ounces.

The total production of gold and silver for all countries since 1860, and for the leading gold and silver producing countries in 1907, as set out in the following tables, have been extracted principally from the annual report issued in 1908, by the Director of the United States Mint. The figures relating to the year 1871 and subsequent years are those of the Bureau of the Mint, and have been compiled from information furnished by foreign Governments, and revised from the latest data:— World's production of gold and silver.

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	264,059,200	378,311,600	105,151,400
1870 to 1879	52,764,400	227,236,800	628,717,300	161,850,700
1880 to 1889	51,405,100	221,383,000	921,103,100	200,523,200
1890 to 1899	95,081,700	409,481,900	1,568,876,900	238,928,600
1900	12,315,100	53,036,700	173,591,400	22,422,200
1901	12,698,100	54,686,000	173,011,300	21,626,200
1902	14,313,700	61,416,600	175,102,300	19,354,800
1903	15,768,400	67,908,700	167,937,900	18,893,100
1904	16,779,400	71,274,800	164,195,300	19,569,200
1905	18,268,300	77,598,400	169,588,800	21,257,400
1906	19,366,500	82,264,500	165,754,800	23,055,100
1907	19,860,600	84,363,600	185,014,600	25,091,900
Total	389,935,800	1,674,710,200	4,871,205,300	877,723,800

WORLD'S PRODUCTION OF GOLD AND SILVER—PRINCIPAL COUNTRIES, 1907.

Country.	Gold.		Silver.	
	Ounces—Fine.	Value.	Ounces—Fine.	Value—Commercial.
		£		£
Africa	7,338,500	31,172,200	790,400	107,200
Australasia	3,660,900	15,550,700	19,083,000	2,588,100
Austria-Hungary	120,200	510,600	1,744,200	236,600
British India	502,300	2,133,700	...	...
Canada	405,600	1,722,700	12,779,800	1,733,200
Germany	3,200	13,700	5,088,100	689,800
Japan	134,100	569,400	2,835,500	384,500
Mexico	903,700	3,838,700	61,147,200	8,292,900
Peru	24,900	105,700	9,566,100	1,297,400
Russia	1,290,800	5,483,200	132,100	17,900
United States	4,374,800	18,583,300	56,514,700	7,664,600
Other Countries	1,101,600	4,679,700	15,333,500	2,079,700
Total	19,860,600	84,363,600	185,014,600	25,091,900

Coal production.

The following return shows the quantity of coal raised in each year, or group of years, since its first production :—

BLACK COAL RAISED TO 31ST DECEMBER, 1908.

Year.	Tons.
Prior to 1876	5,831
From 1876 to 31st December, 1890 ...	49,249
From 1891 to 31st December, 1900 ...	1,683,485
1901	209,329
1902	225,164
1903	64,200
1904	121,741
1905	155,136
1906	160,631
1907	138,584
1908	113,462
Total	2,926,812

Brown coal raised to 31st December, 1908, 48,966 tons.

In the annual report for 1908 of the Secretary for Mines it is stated that, "a splendid and extensive field of coal was discovered at Powlett River district by the Department through boring operations. A seam of good clean hard coal, so far as proved, extends over an area of 3 miles by 2 miles, and averages 6 feet in thickness.

In view of the probability of a State coal mine being established in the locality, the land some time ago was reserved from occupation for mining purposes."

There were five collieries being worked at the end of 1908, the output of each for that year being as follows:— Output of collieries.

OUTPUT OF COAL COMPANIES, 1908.

Companies.	Tons.
Outtrim-Howitt and British Consolidated ...	47,633
Jumbunna	58,552
Silkstone	6,967
Ferguson Quick	310
Morwell Brown Coal	500
Total	113,962

No dividends have been paid by any of these companies during the last five years.

The average number of persons employed in coal mining has fallen considerably since 1906, and was lower in 1908 than in any year since 1903. Coal miners.

VICTORIAN COLLIERIES—MEN EMPLOYED, 1900 TO 1908.

Year.	Average number of Persons (males) at Work.
1900	943
1901	1,011
1902	1,330
1903	468
1904	640
1905	652
1906	713
1907	621
1908	534

Of the persons employed in 1908, 5 were under 16 years of age, whilst the different classes of workers embraced 7 working proprietors, 21 managers and overseers, 11 accountants and clerks, 26 engine-drivers and firemen, 10 carters and messengers, and 459 miners, &c. The greatest number employed at any one time during the year was 624.

In 1903, from January up to the end of the year, the coal miners of Korumburra, Outtrim, and Jumbunna were on strike. The smallness of the number employed in 1903 was owing to the diffculty of obtaining men in place of the strikers, and to the interruption of trade caused by the strike.

Values of coal produced and imported.

The following statement shows the value of the local output, and for comparison, the quantity and value of black coal imported in each of the last nine years:—

BLACK COAL PRODUCED AND IMPORTED, 1900 TO 1908.

Year.	Raised in State.		Imported.		
	Quantity	Value.	Quantity.	Value.	
				Official.*	Actual.†
	tons.	£	tons.	£	£
1900	211,596	101,599	690,567	403,723	578,350
1901	209,329	147,191	710,918	446,058	595,394
1902	225,164	155,850	656,656	428,904	533,533
1903	64,200	40,818	796,407	450,781	623,852
1904	121,741	70,208	743,470	412,765	539,016
1905	155,136	79,035	745,477	387,069	475,242
1906	160,631	80,283	917,392	475,806	567,636
1907	138,584	79,681	883,245	489,421	636,672
1908	113,462	64,653	1,021,997	581,025	783,531

* Value according to Customs Returns which is the invoice value in New South Wales as given by importers.

† Estimated value found by adding to cost at Newcastle the actual freight, insurance, primage, &c.

The local production and imports of coal amounted to about 900,000 tons in each year from 1900 to 1905, but in 1906 they reached 1,078,023 tons; in 1907, 1,021,829 tons; and in 1908, 1,135,459 tons.

Coal raised 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	9,346	17,538,869	507,226	..	92,176	709,931
1878 to 1882..	13	8,503,937	305,692	..	54,010	1,408,893
1883 to 1887..	7,951	13,902,101	911,416	..	59,554	2,506,631
1888 to 1892..	83,967	17,738,842	1,444,669	..	216,882	3,179,846
1893 to 1897..	920,452	18,982,101	1,587,973	..	184,391	3,785,485
1898 to 1902..	1,151,329	26,721,213	2,440,078	434,716	242,114	5,566,597
1903 ..	64,200	6,354,846	507,801	133,000	51,805	1,420,193
1904 ..	121,741	6,019,809	512,015	138,550	61,612	1,537,838
1905 ..	155,136	6,632,138	529,326	127,364	50,464	1,585,756
1906 ..	160,631	7,626,362	606,772	149,755	52 895	1,729,536
1907 ..	138,584	8,657,924	683,272	142,372	55,900	1,831 009
1908 ..	113,462	9,147,025	696,332	175,248	61,038	1,860,975

NOTE.—For details of single years see issue of this publication for 1905.

The total known coal production of the world (exclusive of brown coal and lignite) in 1907 was about one thousand million tons (of 2,240 lbs.). Coal production of the world.

The following return shows the production and consumption of coal in the principal coal-producing countries of the world.

COAL PRODUCED IN VARIOUS COUNTRIES, 1907.

Country.	Production.	Value per ton at Collieries.	Excess of Imports (+) or Exports (−)	Number of Men Employed under and over ground.
	Tons.	s. d.	Tons.	
Australasia—				
Victoria	138,584	11 6	+883,074	621
New South Wales ...	8,657,924	6 9	−4,427,887	17,080
Queensland	683,272	6 6	+65,555	1,223†
Western Australia ...	142,372	7 9	+144,518	253
Tasmania	55,900	8 11	+95,000	138
New Zealand	1,831,009	10 7	+84,347	3,910
Austria	13,627,000	7 11	+9,330,000‡	69,995
Belgium	23,324,000	13 8½	−519,000	142,699
British India	11,147,000	4 8	−419,000	112,502
Canada	9,385,000	10 9	+7,906,000	22,075
France	35,586,000	11 2½*	+17,299,000	174,951*
Germany	140,885,000	9 8¾	−12,474,000	545,330
Japan	13,716,000	8 10	−2,904,000	106,58
United Kingdom	267,831,000	9 0	−85,157,000	918,400
United States	428,896,000	5 11½	−11,021,000	640,780*

NOTE.—Some of these figures are provisional.
* Figures for 1906. † Census Figures, 1901. ‡ Austria-Hungary.

There were 82 stone quarries, in which work was carried on during 1908; these gave employment to 763 hands, and the sum paid in wages was £57,868. These figures include the hands and wages connected with stone-breaking and tar-paving works carried on in conjunction with quarries, which cannot be separated therefrom. The quantity and value of stone raised during the last five years are set forth in the following table:— Stone quarries.

STONE QUARRIES: 1904 TO 1908.

Year.	Quantity of Stone Operated on—			Approximate Total Value of Stone Raised.
	Bluestone.	Sandstone, Freestone, Slate, &c.	Granite.	
	c. yds.	c. yds.	c. yds.	£
1904	295,213	253	444	44,943
1905	357,474	300	584	52,649
1906	393,873	222	983	58,373
1907	405,718	475	475	62,296
1908	491,446	1,594	713	76,658

Boring.

During 1908 the Mines Department had the following boring plant at work:—Six diamond drills with steam power, four percussion drills with oil power, and one hand-boring machine. Five of these machines were engaged in boring for deep leads (alluvial), and put down 97 bores; one in boring centre country (quartz), and put down 9 bores; and five in boring for coal, and put down 30 bores. The aggregate depth of the alluvial bores was 8,906 feet; that of the quartz bores 1,432 feet; and that of the coal bores 18,317 feet.

Government batteries.

Government batteries are located in 20 districts, and during 1908 treated 3,137 tons of ore, which yielded 2,373½ ounces of gold, the net cost to the Mines Department being £1,835.

Cyanidation.

There were 289 plants at work treating tailings by the cyanide process during 1908, this number representing an excess of 77 over that for the year 1907. The total quantity of gold obtained in the year was 77,245 ounces, valued at £277,032, from 1,225,768 tons of tailings, or an average of 1 dwt. 6 gr. per ton, being an increase of 242,734 in tonnage of tailings treated, and of 11,284 ounces in yield, as compared with the previous year. The records show that since the introduction of these methods, a grand total of 9,388,898 tons of tailings have been treated by cyanide and other processes for 861,250 ounces of gold, the yield being equal to an average of 1 dwt. 20 gr. per ton.

Mining accidents.

The number of accidents happening in 1908 in connexion with gold mining was 98, in which 19 persons were killed and 87 seriously injured. In the last twenty years the average number of men employed in gold mining was 26,755, and the average yearly number of accidents 107, 32 persons per annum being killed, and 84 injured, or 1.18 and 3.16 respectively per thousand employed. In coal mining during the twenty years, 1889-1908, there were 29 persons killed and 109 injured.

Manufactories.

Definition of a factory.

In order to secure uniformity throughout the States of Australia and New Zealand, in tabulating and promulgating statistics relating to manufactories, the Australian Statisticians have agreed to regard as factories all establishments employing, on the average, four hands or upwards, also those with less than four hands, where machinery is worked by power other than manual, and where the business carried on is that of making or repairing for the trade (wholesale or retail), or for export. Where two or more industries are carried on by one proprietor in one building, each industry is, where possible, treated as a separate establishment.

Classification of factories.

The following table shows the number of factories in each class of industry prepared on this basis, the power used, the number of persons employed, the salaries and wages paid to such persons

FACTORIES—WORKERS, WAGES, AND VALUE OF MACHINERY, PLANT, LAND AND BUILDINGS, 1908.

(excluding working proprietors), and the value of the machinery, plant, land, buildings, and improvements for the year 1908 :—

Nature of Industry.	Number of Manufactories.	Number using Machinery Worked by—					Actual Horse-power of Engines used.	Average Number of Persons Employed.				Number of Months in Operation during the Year.	Salaries and Wages paid during the Year, excluding Working Proprietors.	Approximate Value of—	
								Males.		Females.					
		Steam.	Gas.	Electricity.	Oil.	Water, Wind, Horse.		Working Proprietors.	Employés.	Working Proprietors.	Employés.			Machinery and Plant in Use.	Lands, Buildings, and Improvements.*
													£	£	£
Class I.—Treating Raw Material, the Product of Pastoral Pursuits, or Vegetable Products, not otherwise Classed.															
1. *Animal Products.*															
Boiling down	18	16	..	..	..	..	184	8	108	..	..	9.5	8,553	15,689	9,992
Bone milling	21	17	1	..	2	1	505	16	105	1	2	7.6	7,792	27,848	15,697
Sausage casings	5	..	..	..	..	..	..	3	126	..	..	11.0	11,485	938	2,918
Tanning, fellmongering, woolwashing	92	61	2	(9)1	5	(2)6	1,379	98	1,895	..	8	10.4	160,091	133,376	183,377
2. *Vegetable Products.*															
Bark milling	3	2	1	..	..	..	38	2	19	..	..	4.5	875	1,180	2,010
Chaff cutting, corn crushing	181	82	35	15	(1)46	3	1,434	189	730	4	8	6.8	43,009	56,948	124,943
Class II.—Oils and Fats, Animal and Vegetable.															
Oil, grease, glue	6	3	..	1	..	..	50	2	49	..	..	9.8	3,839	6,040	11,580
Soap, candle	17	15	1	(1)	..	..	923	12	509	..	14	11.7	43,463	109,768	98,896

FACTORIES—WORKERS, WAGES, AND VALUE OF MACHINERY, PLANT, LAND AND BUILDINGS, 1908—*continued.*

Nature of Industry.	Number of Manufactories.	Number using Machinery Worked by—					Actual Horse-power of Engines used.	Average Number of Persons Employed.				Number of Months in Operation during the Year.	Salaries and Wages paid during the Year, excluding Working Proprietors.	Approximate Value of—	
		Steam.	Gas.	Electricity.	Oil.	Water, Wind, Horse.		Males.		Females.				Machinery and Plant in Use.	Lands, Buildings, and Improvements.
								Working Proprietors.	Employés.	Working Proprietors.	Employés.				
													£	£	£
Class III.—Processes relating to Stone, Clay, Glass, &c.															
Brick, pottery, earthenware	119	40	3	(2)	8	68	2,892	114	1,670	..	41	9.1	165,246	137,826	207,021
Cement, including cement pipes ..	4	2	..	..	1	..	475	2	155	..	1	12.0	14,433	31,204	7,350
Lime	13	5	..	..	2	4	107	12	161	..	..	11.0	13,734	5,388	9,460
Asbestos	1	1	3	1	..	..	97	10	687	..	5	11.2 / 10.1	52,758	32,391	30,412
Glass (including bottles)	8														
Glass bevelling	20	2	1	9	..	..	60	19	189	..	3	11.0	17,834	4,529	27,210
Marble, stone dressing	37	4	4	5	..	..	115	45	378	..	2	11.8	40,059	12,465	34,918
Filter (stone)	2	1	1	..	..	..	5	7	76	..	..	7.8 / 11.5	6,992	1,290	5,485
Modelling in plaster, cement, &c. ..	4														
Class IV.—Working in Wood.															
Cooperage	12	1	2	..	1	..	23	17	91	..	..	11.1 / 11.6	8,037	3,370	15,240
Cork-cutting	2														
Dairy, domestic implements	2	1	..	3	..	..	22	4	59	..	..	11.9 / 11.8	5,027	1,747	3,470
Bellows	2														
Saw-milling, forest	120	120	..	..	..	..	1,584	151	1,485	..	1	8.0	126,409	98,804	15,764
Saw-milling, moulding, joinery, &c. ..	119	52	34	(4)23	1	..	2,680	129	2,392	3	11	10.9	235,264	118,617	177,341
Mantelpiece	10	1	1	(1) 1	..	..	44	12	217	..	1	10.7	17,463	2,080	8,430
Woodcarving, turnery	36	6	14		2	..	206	45	196	..	3	11.0	14,194	11,114	31,951

Class V.—Metal Works, Machinery, &c.																
Agricultural implement	52	28	(1) 7	(1) 1	(1) 9	1	704	60	1,373	..	8	11.4	134,884	69,335	71,825
Engineering, boilermaking, iron foundry	278	107	(9)11	(1)37	(1)14	1	3,130	338	5,557	2	31	11.4	549,868	491,208	378,804
Railway workshop	15	8	3	..	..	..	441	..	2,596	..	5	12.0	321,992	181,833	272,476
Cutlery, tool	13	..	9	4	..	..	48	15	50	..	1	11.0	4,349	5,162	10,879
Nail †	9	4	5	(2)	..	..	299	7	171	..	1	11.2	14,898	39,067	12,990
Iron safe, door	4	..	1	..	..	..	6	3	37	..	..	11.1	2,805	995	6,190
Sheet iron, tin (including japanning)	61	5	17	(2) 8	2	..	209	62	1,042	1	9	11.5	75,294	47,946	94,088
Oven, range	17	2	8	5	..	..	64	25	193	..	1	11.6	16,182	4,900	22,732
Pattern	9	..	2	6	(1)	1	25	10	34	..	..	12.0	2,819	1,295	3,580
Meter	4	1	1	(1)	..	..	27	1	105	..	..	12.0	8,330	4,792	5,455
Spring	3	3	..	..	..	..	35	3	56	2	..	11.7	3,997	5,603	6,050
Brass, coppersmithing	47	1	18	(1)19	3	..	196	56	600	..	18	11.7	46,021	28,803	54,598
Lead, shot, pewter, zinc, &c.	3	3	..	..	..	..	260	3	18	..	1	11.9	2,158	10,100	12,060
Wireworking	15	3	6	(1) 3	..	..	132	17	207	..	5	11.2	16,373	17,300	22,157
Metallurgical	5	2	1	1	..	..	38	8	45	..	..	10.2	4,737	6,066	4,981
Smelting	2	5	1	..	..	..	112	4	74	..	..	12.0	8,129	11,050	7,225
Pyrites	4											12.0			
Cyanide	91	20	2	(1) 1	(4)35	10	312	115	604	..	..	10.1	55,777	46,683	6,919
Class VI.—Connected with Food and Drink, or the Preparation thereof.																
1. *Animal Food.*																
Bacon-curing	26	22	(1) 2	(2)	(2) 1	..	312	30	300	..	10	10.8	27,862	26,448	32,843
Butter, cheese	215	195	(2 7	(1) 8	(1) 3	2	1,914	60	1,212	..	30	10.7	109,099	282,912	245,438
Butterine	1											12.0			
Creameries†	(116)	(112)	..	..	(4)	..	551								
Meat freezing, preserving	15	14	(1) 1	(5)	..	..	1,921	9	607	..	4	9.9	48,299	105,301	213,382

For footnotes see end of table.

FACTORIES—WORKERS, WAGES, AND VALUE OF MACHINERY, PLANT, LAND AND BUILDINGS, 1908—*continued.*

Nature of Industry.	Number of Manufactories.	Number using Machinery Worked by—					Actual Horse-power of Engines used.	Average Number of Persons Employed.				Number of Months in Operation during the Year.	Salaries and Wages paid during the Year, excluding Working Proprietors.	Approximate Value of—	
		Steam.	Gas.	Electricity.	Oil.	Water, Wind, Horse.		Males.		Females.				Machinery and Plant in Use.	Lands, Buildings, and Improvements.*
								Working Proprietors.	Employés.	Working Proprietors.	Employés.				
													£	£	£
Class VI.—continued.															
2. *Vegetable Food, including Products not Foods, but usually associated with the Manufacture of Foods.*															
Biscuit	4	4	(2)	(2)	..	..	131	4	704	..	370	12.0	54,236	44,532	51,850
Flour	63	51	2	(1)	..	3	4,199	48	727	..	1	9.6	78,906	254,671	224.740
Jam, pickle, sauce, vinegar	26	18	(1) 1	(4) 2	..	..	277	19	814	..	527	11.1	79,619	41,755	95,707
Oatmeal, maizena, starch, arrowroot	22	4	8	(1) 4	..	..	973	23	292	..	182	11.2	32,053	76,561	135,003
Macaroni	2											12.0			
Sugar, treacle, refining	1	10	(3) 6	(4) 7	..	..	616	26	946	2	727	12.0	109,931	112,576	162,332
Confectionery	26											10.4			
3. *Drinks and Stimulants.*															
Aerated water, cordial, &c.	147	67	(1)44	(1) 7	19	4	363	148	998	8	18	10.4	77,922	89,471	139.120
Malt	20	2	(1)13	(3) 1	2	..	181	8	168	..	1	12.0	19,985	21.002	129.376
Brewing	35	35	(2)	(6)	..	..	2,259	28	1,106	..	1	12.0	132,506	268.009	429,195
Distilling	8	7	..	..	..	..	176	7	84	..	..	7.0	10,312	61,240	80,205
Condiments, coffee, chicory, cocoa, chocolate, mustard, spice, &c.	9	4	5	..	..	..	419	7	159	..	101	10.1	21,033	25,160	59,090
Ice	14	12	(1) 3	(1)	1	..	732	6	189	..	2	11.5	17,997	49,392	72,304
Salt	2											8.4			

4. Narcotics.																	
Tobacco, cigar, snuff	13	2	..	(1) 3	..	..	391	14	924	..	1,604	11.8	145,982	100,880	165,736
Class VII.—Clothing and Textile Fabrics, and Fibrous Material.																	
1. Textile.																	
Woollen mill	9	8	(1) 1	(2)	..	..	2,348	6	807	..	944	11.9	96,844	263,100	117,828
2. Dress.																	
Clothing, tailoring	353	..	14	(1)46	1	..	188	337	1,593	21	6,235	11.3	413,266	38,853	416,947
Corset	2								‡55		‡358	12.0			
Dressmaking, millinery	517	..	3	44	..	..	120	51	144	440	8,207	10.8	255,925	31,188	343,675
									‡1		‡120				
Underclothing, skirt	125	2	(1)13	(2)51	..	..	276	51	171	84	4,034	11.0	156,429	41,019	148,274
									‡15		‡809				
Hat, cap	34	8	3	(1)15	..	..	253	31	561	8	903	11.1	93,653	29,650	65,263
									‡2		‡15				
Hosiery	19	..	3	(1) 4	..	..	48	10	41	11	491	11.3	21,327	25,606	17,930
											‡32				
Oilskin, waterproof clothing	4	..	1	(1) 2	..	..	6	3	41	1	126	11.9	9,248	2,096	17,300
											‡1				
Boot, shoe	139	3	39	(2)43	1	..	716	175	3,905	7	2,223	10.7	371,081	123,204	161,778
									‡29		‡9				
Fur	6	..	..	..	..	..	..	6	20	5	53	11.2	4,746	268	3,530
									‡4		‡7				
Umbrella	8	..	1	6	..	..	16	6	71	1	234	11.9	13,271	1,724	21,930
Dyeing	3	2	(1)	..	..	..	43	4	50	1	162	11.8	10,831	5,875	9,925
Feather Dressing	1											12.0			
3. Fibrous Materials and Textiles, n.e.i.															
Rope, twine, mat, bag, and sack ..	15	3	(1) 3	(1) 1	..	..	809	18	436	..	277	11.0	42,805	53,681	53,039
Tent, sail, tarpaulin	11	..	1	4	..	..	12	10	73	..	44	11.3	6,825	1,632	13,790

For footnotes see end of table.

FACTORIES—WORKERS, WAGES, AND VALUE OF MACHINERY, PLANT, LAND AND BUILDINGS, 1908—*continued.*

Nature of Industry.	Number of Manufactories.	Number using Machinery Worked by—					Actual Horse-power of Engines used.	Average Number of Persons Employed.				Number of Months in Operation during the Year	Salaries and Wages paid during the Year, excluding Working Proprietors.	Approximate Value of—	
		Steam.	Gas.	Electricity.	Oil.	Water, Wind, Horse.		Males.		Females.				Machinery and Plant in Use.	Lands, Buildings, and Improvements.*
								Working Proprietors.	Employés.	Working Proprietors.	Employés.				
													£	£	£
Class VIII.—Books, Paper, Printing, Engraving.															
Printing (including newspapers, paper-bag, lithographic, electrotyping, stereotyping)	281	7	(6) 158	(22) 72	17	4	1,622	340	4,229	9	821	11.9	536,214	573,509	594,822
Photo lithography	4	..	1	3	..	..	10	6	52	..	1	11.8	6,644	6,792	6,710
Account-book, stationery, and rubber stamp	20	1	7	(1) 3	1	..	228	17	619	..	762	11.3	74,744	68,814	119,789
Ink, printing ink	6	..	4	..	..	..	33	5	46	..	2	12.0	3,756	1,715	6,904
Paper, strawboard, millboard	3	3	..	..	..	..	690	..	189	..	23	10.3	18,791	62,000	31,500
Fancy box, &c.	19	1	4	7	..	..	49	13	109	4	406	11.6	21,778	10,751	24,875
Die-sinking, engraving, medals, &c.	15	..	3	10	..	..	28	18	140	..	2	11.8	12,783	9,146	27,080
Class IX.—Musical Instruments.															
Organ, pianoforte	3	..	..	2	..	..	7	3	33	..	..	11.7	2,817	1,387	5,250
Class X.—Arms and Explosives.															
Ammunition	1											11.6			
Blasting powder, dynamite, lithofracteur, &c.	1	3	..	(1)	(1) 1	..	128	2	105	..	207	12.0	20,588	45,613	29,154
Fireworks	1											12.0			
Fuse	2											12.0			

Class XI.—Vehicles and Fittings, Saddlery, Harness, &c.															
Coach, carriage, waggon	267	18	15	13	11	3	268	333	2,288	..	9	11·8	169,848	46,897	207,683
Carriage lamp	1											11·8			
Cycle	66	..	17	29	1	..	104	57	561	1	14	11·7	41,416	16,617	86,182
Perambulator	5	..	1	1	..	..	4	6	75	1	2	12·0	5,749	566	3,840
Saddle, harness	44	..	1	3	..	..	5	48	313	1	39	11·8	26,313	3,002	54,250
Saddle-tree, saddlers' ironmongery, &c.	4	1	..	1	..	..	11	6	19	..	1	9·3	1,431	750	3,436
Whip	3	..	..	..	..	..	..	3	9	..	..	12·0	587	101	1,500
Class XII.—Shipbuilding, Fittings, &c.															
Ship, boat	5	..	..	..	..	..	..	7	22	..	..	12·0	2,142	175	2,190
Dock, slip	6	6	..	..	(1)	..	933	3	82	..	..	8·2	9,227	51,400	379,395
Class XIII.—Furniture, Bedding, &c.															
Upholstery, bedding, flock	39	5	6	(1)4	..	..	191	25	371	3	136	11·1	37,522	13,195	41,355
Bedstead	1											12·0			
Curled hair	3	1	2	..	..	..	29	3	44	..	5	11·3	3,191	1,357	1,738
Cabinet, including billiard table	129	4	(1)21	22	2	..	279	157	1,308	..	28	11·2	124,269	21,664	159,944
Picture frame	19	..	1	14	(1)	..	38	13	177	2	40	12·0	14,453	3,231	22,307
Venetian blind	5	2	..	1	..	..	14	6	36	..	..	12·0	2,281	662	6,460
Class XIV.—Drugs, Chemicals, and By-products.															
Blacking, blue, washing powder, &c.	14	4	(1) 3	(1) 2	1	..	90	11	166	1	109	10·8	16,347	8,868	30,590
Chemical	32	11	5	(3) 5	..	1	1,013	25	755	2	139	11·7	87,088	129,790	207,884
Essential oil	18	15	..	(1)	..	..	37	26	130	1	2	6·1	7,933	4,023	9,980
Paint, varnish, white-lead	2											12·0			

For footnotes see end of table.

FACTORIES—WORKERS, WAGES, AND VALUE OF MACHINERY, PLANT, LAND AND BUILDINGS, 1908—*continued.*

Name of Industry.	Number of Manufactories.	Number using Machinery Worked by—					Actual Horse-power of Engines used.	Average Number of Persons Employed.				Number of Months in Operation during the Year.	Salaries and Wages paid during the Year, excluding Working Proprietors.	Approximate Value of—	
		Steam.	Gas.	Electricity.	Oil.	Water, Wind, Horse.		Males.		Females.				Machinery and Plant in Use.	Lands, Building, and Improvements.*
								Working Proprietors.	Employés.	Working Proprietors.	Employés.				
													£	£	£
Class XV.—Surgical and Scientific Appliances.															
Philosophical instrument	7	..	..	6	..	..	7	4	29	..	2	12·0	2,082	1,590	6,410
Surgical instrument	5	..	1	4	..	..	4	3	17	..	3	11·4	1,601	556	2,492
Class XVI.—Timepieces, Jewellery, and Platedware.															
Goldsmithing, jewellery, gold-beating, electroplating	59	2	6	32	..	..	107	65	646	..	51	11·8	66,473	18,477	97,434
Class XVII.—Heat, Light, and Energy.															
Electric apparatus	6	..	2	4	..	..	95	4	86	..	1	11·7	7,868	6,744	9,938
Electric light	12	10	1	(3)	1	..	11,702	..	440	..	1	12·0	50,442	541,489	157,457
Gas,§ coke	47	5	(3) 2	..	..	..	639	4	1,294	..	..	12·0	168,077	1,233,651	474,821
Match	1											10·4			
Fire kindlers	1	2	..	..	..	..	48	4	19	..	95	11·7	4,978	2,250	3,162
Ironfounders' charcoal dust	1											12·0			
Hydraulic power	2	2	..	..	..	..	850	..	14	..	..	12·0	2,192	40,522	30,589

Class XVIII.—Leatherware (except Saddlery and Harness).																	
Fancy leather	..	..	..	16	3	(1) 1	5	..	..	92	19	193	..	90	11·7	18,551	6,265	21,085
Leather belting	..	..	..	5	..	2	2	..	..	21	7	57	1	2	11·1	5,050	3,400	9,488
Portmanteau, trunk	..	..	..	7	..	..	2	..	..	2	7	73	..	21	12·0	6,163	1,245	10,465
Class XIX.—Wares, not elsewhere included.																	
Basket, wicker	..	..	..	12	..	1	..	..	..	3	14	64	..	..	11·8	4,189	303	8,814
Bellows (see Class IV.).																	
Brush, broom	..	..	..	18	..	5	7	..	..	26	20	168	1	50	11·6	16,551	5,025	13,905
Rubber goods	..	..	..	9	7	(3) 2	(1)	..	..	427	3	531	..	200	9·8	50,974	51,507	34,145
Grand Total	..	..		4,608	1,220	(44) 741	(114) 658	(18) 195	(5) 109	58,945	4,056	56,711 ‡106	629	30,955 ‡1,351	..	6,380,296	6,957,606	8,589,027

NOTE.—Where different factories are bracketed the information has been combined in order to conceal the contents of individual schedules. The figures in parentheses indicate engines worked in conjunction with those of a different description.

* The value of land used in this column applies to purchased land only. Two hundred and forty-five establishments (including sixty-nine cyanide works) were carried on upon Crown lands; in these cases no valuation of the land has been given.

† Nailmaking is also carried on in conjunction with wireworking and saw and moulding mills. Creameries are not counted as separate establishments, but are regarded merely as branches of butter factories. The number of hands employed in creameries was 145 males.

‡ Factory workers, working at their own homes.

§ Including one Pintsch gas-works.

Classification according to hands employed.

The following grouping shows the factories arranged according to the number of hands employed:—

Under 4 hands	660 factories	1,689 hands.
4 hands	541 ,,	2,164 ,,
5 to 10 hands	1,697 ,,	11,811 ,,
11 to 20 hands	823 ,,	12,106 ,,
21 to 50 hands	545 ,,	16,805 ,,
51 to 100 hands	195 ,,	13,705 ,,
101 hands and upwards ...	147 ,,	35,528 ,,
Total	4,608 ,,	93,808 ,,

Of the 4,608 establishments, 2,923 used steam, gas, electric or other motive power, and employed 75,525 hands; and 1,685 used manual labour only, and employed 18,283 hands.

Factories, metropolitan and country.

In the next return will be found particulars for the years 1907 and 1908 of the factories in the metropolitan and country districts.

FACTORIES AND HANDS EMPLOYED, METROPOLIS AND COUNTRY: 1907 AND 1908.

Nature of Industry.	1907.			1908.		
	No. of Manufactories.	Average Number of Persons Employed.		No. of Manufactories.	Average Number of Persons Employed.	
		Males.	Females		Males.	Females
Metropolitan Area.						
1. Treating raw material, the product of pastoral pursuits, &c.	76	1,758	7	78	1,865	9
2. Oils and fats, animal and vegetable ..	12	478	12	12	484	13
3. Processes relating to stone, clay, glass, &c.	86	2,480	10	89	2,612	25
4. Working in wood	125	2,632	10	133	2,809	17
5. Metal works, machinery, &c. ..	363	10,161	55	387	10,298	72
6. Connected with food and drink, &c. ..	182	6,294	3,068	185	6,512	3,443
7. Clothing and textile fabrics, &c. ..	938	7,038	21,224	958	7,216	22,321
8. Books, paper, printing, engraving, &c.	223	4,519	1,878	227	4,600	1,933
9. Musical instruments	3	34	..	3	36	..
10. Arms and explosives	2	64	171	2	67	165
11. Vehicles, &c., saddlery, harness, &c. ..	192	1,945	39	199	2,035	46
12. Shipbuilding, fitting, &c.	10	123	..	9	91	..
13. Furniture, bedding, &c.	176	2,025	218	179	2,022	211
14. Drugs, chemicals, and by-products ..	42	853	261	45	919	248
15. Surgical and scientific appliances ..	11	45	5	12	53	5
16. Timepieces, jewellery, and plated ware	50	660	41	55	694	49
17. Heat, light, and energy	24	1,548	79	23	1,609	97
18. Leatherware, except saddlery and harness	23	316	102	28	356	114
19. Wares not elsewhere included ..	40	789	274	38	796	251
Total	2,578	43,762	27,454	2,662	45,074	29,019

FACTORIES AND HANDS EMPLOYED—*continued.*

Nature of Industry.	1907.			1908.		
	No. of Manufactories.	Average Number of Persons Employed.		No. of Manufactories.	Average Number of Persons Employed.	
		Males.	Females		Males.	Females
Country Districts.						
1. Treating raw material, the product of pastoral pursuits, &c.	247	1,412	14	242	1,434	14
2. Oils and fats, animal and vegetable ..	9	72	1	11	88	1
3. Processes relating to stone, clay, glass, &c.	117	861	32	119	913	27
4. Working in wood	165	2,003	2	170	1,989	2
5. Metal works, machinery, &c. ..	256	3,238	15	245	3,191	13
6. Connected with food and drink, &c. ..	474	3,397	135	464	3,155	145
7. Clothing and textile fabrics, &c. ..	282	1,466	3,390	288	1,511	3,542
8. Books, paper, printing, engraving, &c.	118	1,203	101	121	1,183	97
10. Arms and explosives	3	39	33	3	40	42
11. Vehicles, &c., saddlery, harness, &c. ..	185	1,629	20	191	1,683	22
12. Shipbuilding, fitting, &c.	2	21	..	2	23	..
13. Furniture, bedding, &c.	18	123	4	17	118	3
14. Drugs, chemicals, and by-products ..	22	199	10	21	194	6
16. Timepieces, jewellery, and plated ware	7	25	1	4	17	2
17. Heat, light, and energy	46	237	..	47	256	..
18. Leatherware, except saddlery and harness	1	4	..	1	4	..
Total	1,952	15,929	3,758	1,946	15,799	3,916
State.						
1. Treating raw material, the product of pastoral pursuits, &c.	323	3,170	21	320	3,299	23
2. Oils and fats, animal and vegetable ..	21	550	13	23	572	14
3. Processes relating to stone, clay, glass, &c.	203	3,341	42	208	3,525	52
4. Working in wood	290	4,635	12	303	4,798	19
5. Metal works, machinery, &c. ..	619	13,399	70	632	13,489	85
6. Connected with food and drink, &c. ..	656	9,691	3,203	649	9,667	3,588
7. Clothing and textile fabrics, &c. ..	1,220	8,504	24,614	1,246	8,727	25,863
8. Books, paper, printing, engraving, &c.	341	5,722	1,979	348	5,783	2,030
9. Musical instruments	3	34	..	3	36	..
10. Arms and explosives	5	103	204	5	107	207
11. Vehicles, &c., saddlery, harness, &c. ..	377	3,574	59	390	3,718	68
12. Shipbuilding, fitting, &c.	12	144	..	11	114	..
13. Furniture, bedding, &c.	194	2,148	222	196	2,140	214
14. Drugs, chemicals, and by-products ..	64	1,052	271	66	1,113	254
15. Surgical and scientific appliances ..	11	45	5	12	53	5
16. Timepieces, jewellery, and plated ware	57	685	42	59	711	51
17. Heat, light, and energy	70	1,785	79	70	1,865	97
18. Leatherware, except saddlery and harness	24	320	102	28	356	114
19. Wares not elsewhere included ..	40	789	274	39	800	251
Total	4,530	59,691	31,212	4,608	60,873	32,935

The factories in the metropolitan area in 1908 exceeded by 84 the number in 1907 and by 203 that in 1906, whilst those in country districts were fewer by 6 than in 1907, though exceeding by 45 the number in 1906.

The industries in the different classes showing a larger number of factories in 1908 than in 1907, both metropolitan and country, are as follows:—

Class 1—Boiling-down, 1; sausage casings, 1; tanning, fellmongering, 2; bark milling, 1. Class 2—Soap and candle, 2. Class 3—Brick, pottery, &c., 2; glass bevelling, 3; marble, stone dressing, 1. Class 4—Forest saw-milling, 1; saw-milling, moulding, joinery, 11; mantelpiece, 2; wood-carving, turnery, 2. Class 5—Engineering, boiler-making, iron foundry, 16; sheet-iron, tin, 1; oven, range, 3; pattern, 1; meter, 1; brass, copper-smithing, 2; wire-working, 3. Class 6—Meat freezing, 1; oatmeal, maizena, starch, arrowroot, 4; confectionery, 2; aerated water, cordial, 5; malt, 1; distilling, 1. Class 7—Clothing, tailoring, 16; dressmaking, &c., 5; underclothing, &c., 1; hat, cap, 1; hosiery, 1; tent, &c., 2. Class 8—Printing, 2; photo-lithography, 1; account-book, stationery, &c., 1; fancy box, 2; die sinking, &c., 1. Class 11—Coach, carriage, &c., 4; cycle, 9; whip, 2. Class 13—Upholstery, bedding, &c., 2; cabinet making, 2. Class 14—Blacking, blue, washing powder, &c., 2; chemical, 3. Class 15—Philosophical instrument, 1. Class 16—Goldsmithing, 2. Class 17—Electric light, 1. Class 18—Fancy leather, 3; portmanteau, 1. Class 19—Basket, wicker, 1.

The industries in which the number of factories was less in 1908 than in 1907 are:—

Class 1—Bone milling, 1; chaffcutting, &c., 7. Class 3—Lime, 1. Class 4—Cooperage, 2; dairy, &c., implements, 1. Class 5—Agricultural implement, 3; spring, 1; lead, shot, &c., 1; metallurgical, 4; cyanide, 5. Class 6—Bacon-curing, 1; butter, cheese, 8; flour, 5; jam, pickle, sauce, 1; sugar, 1; brewing, 2; condiments, &c., 2; salt, 1. Class 11—Perambulator, 1; saddle, harness, 1. Class 12—Docks, slips, 1. Class 13—Bedstead, 1; venetian blind, 1. Class 14—Essential oil, 2; paint, &c., 1. Class 17—Gas, 1. Class 19—Brush, broom, 2.

Since 1907 workers in metropolitan factories have increased by 2,877, there being an addition of 1,312 males and 1,565 females. Workers in country factories have during the same period increased by 28, the number of males being less by 130 and that of females greater by 158 than in 1907.

The industries in the State showing the largest increases in the average number of workers employed in 1908, as compared with 1907,

were as follows:—Tanning, fellmongering, with an increase of 105 males and 3 females; asbestos, with an increase of 104 males and 1 female; saw-milling, moulding, joinery, &c., with an increase of 218 males and 8 females; railway workshop, with an increase of 139 males; brewing, with an increase of 98 males; tobacco, &c., with an increase of 93 males and 430 females; woollen mill, with an increase of 71 males and 97 females; clothing, tailoring, with an increase of 73 males and 312 females; dressmaking, &c., with an increase of 26 males and 172 females; underclothing, &c., with an increase of 25 males and 273 females; hat, cap, with an increase of 18 males and 98 females; hosiery, with an increase of 14 males and 141 females; boot, shoe, with an increase of 121 females, but a decrease of 76 males; cycle, with an increase of 124 males and 8 females; and chemical, with an increase of 99 males and 2 females. Agricultural implement works employed 179 males less, but 2 females more, in 1908 than in 1907; and butter and cheese factories employed 150 males and 6 females less in 1908 than in the previous year.

Factories and works for seven years.

The following summary shows the power used, hands employed, and value of machinery, land, and buildings for each of the last seven years:—

FACTORIES—POWER, HANDS, ETC.: 1902 TO 1908.

Year.	Number of Factories.	Factories using Machinery worked by—				Actual Horse-Power of Engines Used.
		Steam.	Gas.	Electricity, Oil, Water, Wind, or Horse.	Manual Labour.	
1902	4,003	1,328	755	330	1,590	43,821
1903	4,151	1,316	724	437	1,674	42,750
1904	4,208	1,304	734	509	1,661	40,859
1905	4,264	1,276	715	615	1,658	43,492
1906	4,360	1,255	709	712	1,684	48,765
1907	4,530	1,270	727	838	1,695	52,703
1908	4,608	1,220	741	962	1,685	58,945

Year.	Average Number of Hands Employed.			Approximate Value of—		
	Males.	Females.	Total.	Machinery and Plant.	Land.	Buildings and Improvements.
				£	£	£
1902	49,658	23,405	73,063	5,082,023	3,045,291	5,125,969
1903	49,434	23,795	73,229	5,010,896	2,855,174	5,112,771
1904	50,554	25,733	76,287	6,027,134	2,721,076	4,919,975
1905	52,925	27,310	80,235	6,187,919	2,767,071	5,004,167
1906	56,339	28,890	85,229	6,450,355	2,857,411	5,204,699
1907	59,691	31,212	90,903	6,771,458	2,932,036	5,444,606
1908	60,873	32,935	93,808	6,957,606	2,972,959	5,616,068

This table shows that there has been considerable progress during the last seven years. The factories have increased to the extent of

605, the actual horse-power of engines by 15,124, the hands employed by 20,745, of whom 11,215 were males and 9,530 females; the approximate value of machinery and plant by £1,875,583, and that of buildings, &c., by £490,099. A noticeable feature in connexion with the power employed is the increase in the number of factories using electricity; in 1908 these numbered 658, an increase of 499 since 1902.

Hands employed, male and female.

In the next table the hands employed in factories during the last three years are grouped according to the nature of their work. The total hands show an increase of 2,905 compared with 1907, and of 8,579 compared with 1906 :—

TOTAL HANDS EMPLOYED.

	1906.	1907.	1908.
Males	56,339	59,691	60,873
Females	28,890	31,212	32,935
Total... ...	85,229	90,903	93,808

CLASSIFICATION OF HANDS EMPLOYED.

	1906.	1907.	1908.
Working Proprietors—			
Males	3,834	3,975	4,056
Females	611	629	629
Managers and Overseers—			
Males	2,266	2,318	2,222
Females	369	395	388
Accountants and Clerks—			
Males	2,181	2,314	2,461
Females	393	432	478
Engine-drivers and Firemen—			
Males	1,493	1,544	1,568
Workers in Factories—			
Males	42,654	45,319	46,545
Females	26,130	28,400	30,046
Factory Workers working in their own homes—			
Males	109	115	106
Females	1,322	1,314	1,351
Carters and Messengers—			
Males	2,793	3,000	2,945
All Others—			
Males	1,009	1,106	970
Females	65	42	43

In the subjoined statement are tabulated the principal items of outlay, and the value of articles produced or work done in connexion with each class of manufacturing industry for the year 1908 :— Wages, fuel, material, and output of factories.

VALUE OF WAGES, FUEL, MATERIALS, AND OUTPUT OF FACTORIES, 1908.

Class of Industry.	Value of—			
	Wages paid, exclusive of amounts drawn by Working Proprietors.	Fuel and Light used.	Materials used.	Articles produced or Work done.
	£	£	£	£
1. Treating raw material, the product of pastoral pursuits, &c.	231,805	26,645	1,982,659	2,470,988
2. Oils and fats, animal and vegetable ..	47,302	13,449	297,116	437,709
3. Processes relating to stone, clay, glass, &c.	311,056	96,970	142,295	734,972
4. Working in wood	406,394	8,083	622,079	1,248,867
5. Metal works, machinery, &c. ..	1,268,613	94,378	1,757,950	3,799,349
6. Connected with food and drink, &c. ..	965,802	143,485	8,354,376	10,902,277
7. Clothing and textile fabrics, &c. ..	1,496,251	46,886	2,956,029	5,213,188
8. Books, paper, printing, &c.	674,710	31,678	631,891	1,967,016
9. Musical instruments	2,817	27	1,353	5,794
10. Arms and explosives	20,558	1,188	52,594	108,907
11. Vehicles, &c., saddlery, harness, &c. ..	245,344	9,350	300,880	701,123
12. Shipbuilding, fitting, &c.	11,369	560	7,802	28,037
13. Furniture, bedding, &c.	181,716	3,737	312,766	592,879
14. Drugs, chemicals, and by-products ..	111,368	9,765	481,548	820,901
15. Surgical and scientific appliances ..	3,683	118	2,203	8,898
16. Timepieces, jewellery, plated ware ..	66,473	1,841	126,564	253,406
17. Heat, light, and energy	233,557	43,025	217,166	896,086
18. Leatherware (except saddlery and harness)	29,764	1,026	120,939	168,184
19. Wares not elsewhere included ..	71,714	6,360	293,860	429,179
Total	6,380,296	538,571	18,662,070	30,787,760

The total amount of wages paid during the year (£6,380,296) represents an average payment for all employés of £71 12s., an increase of £2 6s. on the average for 1907, and of £3 18s. on that for 1906. This increase occurred notwithstanding the fact that there was practically no change in the relative proportions of male and female workers during the three years, the proportions being :—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 for 1908 is very much below the general rate of wages, as shown in the table "Wages in Melbourne" on page 700, the reason being that the rate there mentioned relates to adult workers only, whereas the average payment of £71 12s. 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.

The proportion per cent. that each of the items of outlay bore to the value of the output in the last two years is shown in the next statement.

OUTLAY AND OUTPUT OF FACTORIES: 1907 AND 1908.

—	1907.		1908.	
	Value.*	Proportion per cent.	Value.*	Proportion per cent.
	£		£	
Wages	5,982,677	19·7	6,380,296	20·7
Fuel and Light ...	498,454	1·6	538,571	1·8
Materials	18,632,439	61·3	18,662,070	60·6
	25,113,570	82·6	25,580,937	83·1
Articles produced ...	30,399,945	100·0	30,787,760	100·0
Margin for profit and miscellaneous expenses	5,286,375	17·4	5,206,823	16·9

* Including value of repairs.

The percentage of the total of the various items of outlay to the value of articles produced has increased to the extent of .5 since 1907—wages, fuel, and light showing slight increases, but value of materials a slight decrease. The percentage that the difference between outlay and output, available for miscellaneous expenses and profit, bears to the output is consequently .5 less than in 1907.

In the following return will be found a statement of the rates of wages which obtained in the various industries in Melbourne during 1908, the information having been compiled from determinations of Wages Boards or collected direct from the employers:—

WAGES IN MELBOURNE, 1908.

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 ..	Foremen	..	42s. per week
Bone mill ..	Tallowmen ..	..	40s. „
	Labourers ..	..	36s. „
	Carters	36s. to 40s. per week	..
Sausage casing	Sausage skin cleaners	40s. to 48s. „	42s. per week
Tanning	Slicker whiteners ..	..	50s. „
	Fleshers	..	47s. „
	Jiggers and grainers ..	..	45s. „
	Rollers and strikers ..	..	43s. „
	Scudders, unhairers, and stoners	..	42s. „
	Labourers in sheds, vats, &c.	..	38s. „

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class I.—continued.			
Fellmongering	Foremen scourers, tanners, headers, and trotters	..	45s. per week
	Men in charge of limes	..	45s. ,,
	Hands at burring and fleshing machines	..	42s. ,,
	Wool sorters ..	..	45s. ,,
	Wool pressers and others	..	36s. ,,
Order 2.—Vegetable products.			
Chaff-cutting	Labourers ..	36s. to 42s. per week	37s.6d. ,,
Class II.—Oils and Fats, Animal and Vegetable.			
Oil, grease, and glue ..	Labourers ..	6s. 6d. to 7s. per day	6s. 6d.per day
Soap	Soapmakers	90s. to 95s. per week	..
	Assistant soapboilers ..	..	50s. per week
	Foremen	..	50s. ,,
	Man in charge of milling-room	..	48s. ,,
	Mixers	..	42s. ,,
	General hands ..	..	36s. ,,
	Wrappers, packers, and stampers (male)	..	36s. ,,
	Wrappers, packers, and stampers (female)	..	22s. 6d ,,
Candle	Stillmen	..	48s. ,,
	Acidifiers, glycerine distillers, pressroom and candle-room gangers	..	45s. ,,
	Candle moulders ..	..	41s. ,,
	Labourers	..	39s. ,,
	Carters	40s. to 42s. per week	40s. ,,
Class III.—Processes relating to Stone, Clay, Glass, &c.			
Brick	Patternmakers ..	..	1s. 4½d. per hr.
	Bricklayers ..	..	1s. 3d. ,,
	Engine-drivers ..	11d. to 1s. 0½d. per hr.	..
	Burners on kilns ..	..	1s. 0½d. per hr.
	Blacksmiths, carpenters facemen	..	1s. 0½d. ,,
	Drawers	..	1s. 1d. ,,
	Machine drivers, riggers and setters	..	11½d. ,,
	Firemen	..	11½d. ,,
	Pan and crusher attendants	..	11½d. ,,
	Clayholemen ..	..	11d. ,,
	Hand Moulders and Wheelers	..	10½d. ,,
	Truckers ..	..	10d. ,,
	Blacksmith's strikers	..	9½d. ,,
	Loftmen, yardmen ..	..	9½d. ,,
Glazed pipes	Burners	56s. 3d. to 62s. 6d. per week	..
	Flangers	..	54s. per week
	Setters, pressers, junction stickers, men in charge of plunges, head drawers	..	45s. ,,
	Labourers	40s. to 42s, per week	..
General pottery	Pressers, stoneware and flower pot throwers	45s. to 50s. ,,	..
	Handlers, turners, jiggerers (male)	..	45s. per week
	Placers, dippers ..	40s. to 45s. per week	..

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class III.—continued.			
General Pottery	Sagger makers		42s. per week
	Mould makers		50s. ,,
	,, assistants		45s. ,,
	Labourers	40s. to 42s. per week	
	Females employed in making general pottery		20s. per week
Tiles	Terra cotta pressers		45s. per week
	Tile moulders and pressers		42s. ,,
	Others employed		40s. ,,
	Females employed in making tiles		20s. ,,
Lime, cement, cement pipes	Labourers	7s. to 7s. 6d. per day	
Asbestos	Machinists	36s. to 42s. per week	40s. per week
Glass (including bottles)	Bottlemakers	60s. to 90s. ,,	75s. ,,
	Labourers and others	30s. to 42s. ,,	36s. ,,
	Lampware blowers	45s. to 50s. ,,	45s. ,,
	,, finishers	50s. to 60s. ,,	55s. ,,
Glass bevelling, &c.	Bevellers		45s. ,,
	Silverers		45s. ,,
	Cutters	45s. to 54s. per week	
	Cementers		35s. per week
Marble, stone-dressing	Carvers in marble and stone		82s 6d. ,,
	Carvers' assistants		69s. 8d. ,,
	Letter cutters		61s. 10½d. ,,
	Monumental carvers		67s. 6d. ,,
	Stone cutters and turners		60s. 6d. ,,
	Slate cutters		56s. 3d. ,,
	Machinists, cutting, planing and polishing	50s. to 66s. per week	
	Labourers, gritting and sanding	45s. to 46s. 10½d. ,,	
Stonefilter	Filtermakers		40s. per week
Modelling	Modellers	12s. to 14s. per day	
	Shop hands	10s. to 11s. ,,	
	Pressers		42s. per week
Asphalt	Asphalters and tarpavers	7s. 6d. to 9s. per day	8s. per day
Class IV.—Working in Wood.			
Cooperage	Coopers		60s. per week
Corkcutting	Corkcutters	35s. to 50s. per week	40s. ,,
Bellows	Bellows-makers	33s. to 48s. ,,	40s. ,,
Saw-milling, moulding, joinery, sash, door, box, &c.	Sawyers	48s. to 63s. ,,	
	Pullers-out	36s. to 45s. ,,	
	Carpenters and joiners	54s. to 62s. ,,	
	Machine workers	45s. to 64s. ,,	
	Woodturners		54s. per week
	Boxmakers		48s. ,,
	Box or case printing machine workers		45s. ,,
	Painters and glaziers		51s. ,,
	Polishers and coaters		50s. ,,
	Engine-drivers	48s. to 60s. per week	
	Salesmen, tallymen, ordermen		48s. per week
	Stackers		48s. ,,
	Labourers	39s. to 45s. per week	
Mantelpiece	Mantelpiece makers		52s. per week
	Polishers, coaters		50s. ,,
	Painters and glaziers		51s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class IV.—continued.			
Wood-carving, turning ..	Carvers	..	54s. per week
	Turners	..	54s. ,,
Class V.—Metal Works, Machinery, &c.			
Agricultural implement ..	Pattern makers ..	..	60s. per week
	Blacksmiths, fitters, turners, wheelwrights and carpenters	..	54s. ,,
	Blacksmiths' strikers	..	42s. ,,
	Iron annealers ..	..	45s. ,,
	Drillers	..	42s. ,,
	Belt cutters ..	..	45s. ,,
	Machinists, iron ..	..	48s. ,,
	,, wood ..	42s. to 58s. per week	..
	Sheet iron workers ..	..	48s. per week
	Painters	51s. to 54s. per week	..
	Engine-drivers ..	45s. to 54s. ,,	..
	Labourers, yardmen ..	39s. to 45s. ,,	..
Engineering, boilermaking, iron foundry	Blacksmiths ..	54s. to 72s. ,,	..
	Strikers	42s. to 45s. ,,	42s. per week
	Fitters and turners ..	60s. to 66s. ,,	60s. ,,
	Boilermakers and platers	60s. to 72s. ,,	60s. ,,
	Riveters	60s. to 72s. ,,	60s. ,,
	Moulders—Heavy ..	54s. to 60s. ,,	..
	,, Light ..	48s. to 54s. ,,	..
	Pipe moulders ..	48s. to 63s. ,,	..
	Planers and slotters ..	48s. to 60s. ,,	..
	Drillers	42s. to 48s. ,,	..
	Coremakers ..	48s. to 63s. ,,	..
	Patternmakers ..	..	66s. per week
	Iron dressers ..	40s. 6d. to 42s. per week	..
	Carpenters ..	54s. to 62s. ,,	..
	Labourers	40s. 6d. to 45s. ,,	..
	Furnacemen ..	45s. to 48s. ,,	..
	Engine-drivers ..	54s. to 60s. ,,	54s. per week
Cutlery	Cutlers and sawmakers	60s. to 80s. ,,	..
	Knifesmiths ..	50s. to 55s. ,,	..
	Saw and tool grinders and sharpeners	45s. to 60s. ,,	..
Nail, barbed wire	Nail makers ..	50s. to 70s. ,,	60s. per week
	Labourers	36s. to 40s. ,,	36s. ,,
	Barbed wire workers	40s. to 50s. ,,	45s. ,,
Iron safe, door	Fireproof safe, &c., makers	45s. to 80s. ,,	60s. ,,
Tinsmithing, galvanized iron, sheet iron, japanning	Tinsmiths	..	48s. ,,
	Sheet iron workers ..	..	48s. ,,
	Canister makers .	41s. 6d. to 46s. per week	..
	Galvanizers ..	45s. to 60s. ,,	..
	Japanners	38s. to 48s. ,,	..
	Stampers	43s. 6d. to 48s. ,,	..
Stove, range, oven	Stove and oven fitters	47s. to 51s. ,,	..
Pattern making	Pattern makers ..	..	66s. per week
Meter	Instrument fitters ..	48s. to 60s. per week	54s. ,,
Spring	Fitters, smiths ..	45s. to 60s. ,,	..
Brass, copper smithing ..	Brass moulders, finishers	..	48s. per week
	Brass polishers ..	..	42s. ,,
	Dressers, furnacemen	..	36s. ,,
	Coremakers, male ..	..	45s. ,,
	,, female ..	..	30s. ,,
	Coppersmiths ..	45s. to 54s. per week	..
Lead, shot, pewter, zinc ..	Labourers in lead and shot factories	40s. to 50s. ,,	42s. per week
	Zincworkers ..	..	48s. ,,
Wire working	Wire workers ..	42s. to 50s. per week	48s. ,,
Wire mattress	Weavers, framemakers	..	50s. ,,
	Weavers (female) ..	..	34s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class V.—continued.			
Smelting, chlorination, cyanide, pyrites	Metallurgists and assayers	£3 to £5 per week ..	£3 per week
	Cyaniders	36s. to 55s. ,,	..
	Chlorinators ..	36s. to 55s. ,,	..
	Smelters	45s. to 70s. ,,	..
	Roasters	36s. to 42s. ,,	..
	Furnacemen ..	42s. to 60s. ,,	..
	Labourers	36s. to 48s. ,,	..
Bedstead, fender	Blacksmiths ..	..	46s. per week
	Fitters-up	..	49s. ,,
	Assistant fitters-up ..	..	40s. ,,
	Chill fitters ..	54s. to 62s. per week	..
	Frame setters ..	..	52s. per week
	Chippers	..	40s. ,,
	Mounters of bedstead pillars	40s. to 49s. per week	..
	Grinders and polishers	..	55s. per week
	Japanners	40s. to 49s. per week	..
	Fitters (fender) ..	..	49s. per week
	Electroplaters ..	..	62s. ,,
	,, assistants	..	54s. ,,
	Brass lacquer and plate work polishers	..	46s. ,,
	Packers and storemen	.. ..	40s. ,,
	Japanners and polishers, female	..	24s. 6d. ,,
	Wrappers, female ..	..	17s. 6d. ,,
Class VI.—Connected with Food and Drink, or the preparation thereof.			
Order 1.—Animal Food.			
Bacon-curing	Slaughtermen, cutters-up, &c.	48s. to 63s. per week	50s. per week
Butter, cheese, concentrated milk	Factory managers ..	60s. to 100s. ,,	70s. ,,
	Butter makers, and churners	45s. to 50s. ,,	45s. ,,
	Labourers, packers ..	30s. to 40s. ,,	35s. ,,
Butterine, margarine ..	Labourers ..	30s. to 42s. ,,	40s. ,,
Meat preserving, freezing ..	Slaughtermen ..	..	25s. per 100 sheep
	Digestor hands, tallowmen	42s. to 50s. per week	..
	Boners	..	48s. per week
	Preservers' assistants	50s. to 60s. per week	55s. ,,
	Tinsmiths	50s. to 60s. ,, (piece-work)	..
	Labourers, packers ..	36s. to 48s. ,,	40s. per week
	Chambermen, &c. ..	40s. to 45s. ,,	42s. ,,
Order 2.—Vegetable Food, including products not foods but usually associated with the manufacture of foods.			
Biscuit	Factory foremen ..	50s. to 80s. per week	..
	Forewomen ..	20s. to 32s. 6d. ,,	20s. per week
	Cake makers ..	46s. to 52s. ,,	..
	Machine hands ..	35s. to 42s. ,,	36s. per week
	Packers—male ..	32s. to 37s. 6d. ,,	32s. ,,
	,, female ..	10s. to 20s. ,,	14s. ,,
Confectionery	Confectioners ..	..	50s. ,,
	Storemen	..	45s. ,,
	,, assistants ..	..	36s. ,,
	Labourers ..	..	30s. ,,
	Chocolate dippers—Male	..	30s. ,,
	Female	..	17s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class VI.—*Order* 2—continued.			
Flour mill	Millers and millwrights	55s. to 60s. per week	55s. per week
	Smuttermen, packermen	40s. to 45s. ,,	..
	Wheat shooters, truckers, &c.	..	40s. per week
	Engine-drivers ..	..	48s. ,,
Jam fruit-preserving, pickle, sauce, vinegar	Foremen	50s. to 80s. per week	..
	Tinsmiths	41s. 6d. to 46s. ,,	..
	Coopers	..	60s. per week
	Engine-drivers ..	..	48s. ,,
	General hands—male	..	36s. ,,
	,, ,, female	14s. to 16s. per week	..
Oatmeal, cornflour, macaroni	,, ,, male	30s. to 60s. ,,	..
	,, ,, female	12s. to 25s. ,,	..
Starch	Foremen	..	48s. per week
	Millers, stonedressers	..	42s. ,,
	General hands—male	..	36s. ,,
	,, ,, female	..	22s. 6d. ,,
	Engine-drivers ..	..	50s. ,,
Sugar, treacle refining ..	Vacuum hands and others	42s. to 115s. per week	..
Order* 3.—*Drinks and Stimulants.			
Aerated waters, cordials ..	Cordial makers ..	55s. to 80s. per week	60s. per week
	Bottlers ..	40s. to 42s. 6d. ,,	..
	Wirers, and washers ..	..	35s. per week
Malt	Persons engaged in turning floors, screening malt and barley, &c.	..	48s. ,,
Brewing	Top and cellarmen, cask washers, storemen	..	48s. ,,
	Farriers	48s. to 72s. per week	48s. ,,
	Carters, stablemen ..	..	48s. ,,
	Rackers, corkers ..	..	48s. ,,
	Packers, loaders ..	35s. to 42s. per week	..
	Syphoners	30s. to 35s. ,,	..
	Headers-up ..	..	30s. per week
Distilling	Stillmen	..	60s. ,,
	Brewhouse, millhouse hands (skilled)	48s. to 50s. per week	..
	Brewhouse, millhouse hands (unskilled)	..	42s. per week
	Coopers	..	60s. ,,
	General labourers and bottling hands	42s. to 48s. per week	..
Condiments, coffee, chicory, cocoa, chocolate, spice, &c.	General hands—male	35s. to 60s. ,,	36s. per week
	,, ,, female	12s. to 25s. ,,	20s. ,,
Ice, refrigerating	Storemen	40s. to 60s. ,,	42s. ,,
	Chambermen ..	40s. to 45s. ,,	42s. ,,
	Ice pullers	..	36s. ,,
	Engine-drivers, firemen	42s. to 60s. per week	48s. ,,
	Carters	42s. to 52s. ,,	45s. ,,
Order* 4.—*Narcotics.			
Tobacco, cigar, cigarette ..	Flake coverers ..	60s. to 80s. per week	65s. per week
	,, ,, (female)	32s. to 40s. ,,	37s. ,,
	General hands in pressrooms, &c., (unskilled)	43s. to 54s. ,,	..
	Gangers in pressroom	50s. to 70s. ,,	60s. per week
	Cigar makers ..	40s. to 60s. ,,	47s. ,,
	Cigarette makers (hand)—female ..	20s. to 30s. ,,	25s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class VII.—Clothing and Textile Fabrics and Fibrous Materials.			
Order 1.—Textile.			
Woollen cloth, blanket, rug ..	Foremen	50s. to 60s. per week	..
	Pattern weavers, tuners	46s. to 48s. ,,	..
	Power-loom weavers..	..	24s. per week
	Fettlers	..	38s. ,,
	Spinners	36s. to 40s. per week	..
	Wool scourers ..	..	36s per week
	Dye house labourers..	..	36s. ,,
	Wool dryers, warpers	..	36s. ,,
	Willey house labourers	..	36s. ,,
	Warpers—female ..	..	25s. ,,
Order 2.—Dress.			
Clothing, tailoring	Cutters—order ..	60s. to 160s. per week	80s. ,,
	,, stock ..	,,	52s. 6d. ,,
	Tailors	..	50s. ,,
	Trimmers, pressers ..	..	47s. 6d. ,,
	Machinists, examiners	..	45s. ,,
	Folders	..	40s. ,,
	Seam pressers ..	..	30s. ,,
	Brushers—male ..	..	25s. ,,
	Tailoresses, machinists, and buttonhole makers	..	21s. ,,
	Pressers and seam pressers—females	21s. to 30s. per week	..
Corset	Corset makers—female	17s. 6d. to 27s. 6d. ,,	22s. 6d. per wk
Dressmaking, milliner, ..	Dressmakers in charge	40s. to 160s. ,,	60s. ,,
	Dressmakers' assistants —female	..	16s. ,,
	Mantlemakers—female	40s. to 80s. per week	40s. ,,
	Mantlemakers' assistants—female	..	16s. ,,
	Milliners in charge ..	40s. to 80s. per week	40s. ,,
	Milliners' assistants—female	..	20s. ,,
	Pressers—female ..	21s. to 30s. per week	..
	Machinists—female ..	..	21s. per week
Shirtmaking, underclothing ..	Shirt makers—female	..	20s. ,,
	Underclothing makers —female	..	16s. ,,
	Laundry ironers, &c.— —female	20s. to 25s. per week	20s. ,,
Hat, cap	Body makers, and finishers—silk hats	50s. to 60s. ,,	55s. ,,
	Shapers, silk hats ..	55s. to 65s. ,,	60s. ,,
	Crown sewers, silk hats —female	20s. to 30s. ,,	25s. ,,
	Trimmers, silk hats— female	22s. 6d. to 26s. ,,	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	20s. to 30s. ,,	25s. per week
	Trimmers, straw hats— female	..	20s. ,,
	Blockers, pressers, women's hats	..	42s. 6d. ,,
	Machinists, caps— female	15s. to 25s. per week	20s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages. Range.	Wages. General Rate.
Class VII.—Order 2—continued			
Hosiery	Machinists, knitting—female	20s. to 28s. per week	22s. 6d. per wk.
	Machinists, sewing—female	17s. 6d. to 28s. ,,	20s. ,,
	Linkers—female ..	20s. to 24s. ,,	22s. ,,
	Pressers—male ..	45s. to 50s. ,,	47s. 6d. ,,
	,, female ..	20s. to 30s. ,,	25s. ,,
	Winders—female ..	16s. to 20s. ,,	18s. ,,
	Menders, &c.—female	18s. to 22s. 6d. ,,	20s. ,,
Oilskin, waterproof clothing	Cutters	..	45s. ,,
	Stickers	..	35s. ,,
	Machinists, &c.—female	..	20s. ,,
Boot, shoe	Makers, finishers, clickers, stuff-cutters, &c.	..	48s. ,,
	Machine operators ..	..	48s. ,,
	Assistant stuff-cutters	..	45s. ,,
	Lining cutters, and all others	..	42s. ,,
	Machinists—female ..	..	21s. ,,
Furrier	Cutters	50s. to 70s. per week	60s. ,,
	Machinists—female	18s. to 25s. ,,	20s. ,,
	Sewers—female ..	15s. to 20s. ,,	17s. ,,
Umbrella, parasol	Frame makers ..	40s. to 50s. ,,	40s. ,,
	Cutters	40s. to 55s. ,,	40s. ,,
	Finishers—male ..	25s. to 40s. ,,	30s. ,,
	Machinists—female ..	17s. 6d. to 25s. ,,	20s. ,,
	Tippers ,, ..	15s. to 20s. ,,	17s. 6d. ,,
Dye works	Dyers	60s. to 80s. ,,	70s. ,,
	Dyers' assistants and cleaners	35s. to 50s. ,,	40s. ,,
	Pressers	..	47s. 6d. ,,
	Pressers—female ..	21s. to 30s. per week	..
Ostrich feather	Feather dyers ..	60s. to 100s. ,,	70s. per week
	,, ,, assistants	35s. to 45s. ,,	40s. ,,
	Feather curlers, dressers, finishers (female)	15s. to 30s. ,,	20s. ,,
Order 3.—*Fibrous Materials and Textiles not elsewhere included.*			
Bag, sack (including calico bag)	Bagmenders ..	20s. to 35s. per week	30s. per week
	Calico bag-makers (female)	15s. to 20s. ,,	17s. 6d. ,,
Rope, twine	Undefined—male ..	36s. to 70s. ,,	40s. ,,
	,, female ..	15s. to 25s. ,,	18s. ,,
Tarpaulin, tent, sail ..	Tarpaulin, and tent makers	40s. to 50s. ,,	48s. ,,
	Sailmakers	..	60s. ,,
	Tarpaulin, tent, sail makers (female)	15s. to 22s. 6d. per week	20s. ,,
Class VIII.—Books, Paper, Printing, Engraving.			
Printing (including lithographic printing, electrotyping, stereotyping)	Printers—Compositors	..	56s. per week
	,, machinists	..	56s. ,,
	Proof readers ..	..	60s. ,,
	Printers—Linotype and monoline operators	70s. to 84s. per week	..
	,, monotype perforating machine operators	63s. to 77s. ,,	..
	Persons employed on monotype casting machines	..	45s. 6d. per wk.
	Feeders and others (male)	..	36s. ,,
	Feeders and others (female)	..	20s. ,,
	Lithographers ..	..	56s. ,,
	Stereotypers ..	..	56s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class VIII.—continued.			
Bookbinding, account book making, stationery, &c.	Bookbinders ..	..	56s. per week
	Feeders and others (male)	..	36s. ,,
	Pagers, folders, staplers, &c. (female)	..	16s. ,,
	Sewers and feeders—female	..	20s. ,,
	Paper rulers, guillotine machine cutters	..	56s. ,,
Ink, printing ink	Ink makers ..	45s. to 70s. per week	50s. ,,
Paper	Paper, &c., makers ..	..	60s. ,,
	Beatermen	54s. to 60s. per week	..
	Breakermen ..	45s. to 48s. ,,	..
	General hands ..	..	36s. per week
	Engine-drivers ..	..	54s. ,,
Paper bag, box, &c. ..	Box cutters ..	..	56s. ,,
	Other workers (male)	..	45s. ,,
	Box-makers (female)	22s. to 25s. per week	..
	Cardboard carton cutters	..	52s. per week
	All other carton workers—male	..	45s. ,,
	Stitchers, folders, &c. (female)	..	18s. ,,
Die sinking, engraving, &c. ..	Copper plate engravers	..	80s. ,,
	Die sinkers ..	..	60s. ,,
	Engravers, general ..	52s. 6d. to 70s. per week	..
	Process engravers ..	50s. to 90s. ,,	..
Class IX.— Musical Instruments.			
Organ, pianoforte	Organ builders, expert	84s. to 100s. per week	..
	,, ,, ordinary	54s. to 72s. ,,	54s. per week
	Tuners and voicers ..	..	72s. ,,
	Case makers ..	54s. to 60s. per week	54s. ,,
	Metal pipe makers ..	..	60s. ,,
Class X.—Arms and Explosives.			
Ammunition	Cartridge operators (female)	12s. to 23s. per week	17s. per week
	Mechanics (fitters, &c.)	55s. to 65s. ,,	..
	Labourers ..	36s. to 45s. ,,	..
Explosive	Nitro-glycerine workers	42s. to 55s. ,,	48s. per week
	Acid workers ..	..	45s. ,,
	Labourers and carters	36s. to 42s. per week	36s. ,,
Fireworks, fuse	Fireworks makers (male)	37s. 6d. to 45s. ,,	..
	Fireworks makers (female)	10s. to 16s. ,,	..
Class XI.—Vehicles, Fittings, Saddlery, Harness, &c.			
Coach, waggon, tramcar, spoke and felloe, wheelwright	Body makers ..	40s. to 60s. per week	45s. per week
	Wheelers	40s. to 50s. ,,	45s. ,,
	Smiths	40s. to 60s. ,,	48s. ,,
	Trimmers	40s. to 60s. ,,	48s. ,,
	Painters	40s. to 60s. ,,	48s. ,,
	Vicemen	35s. to 45s. ,,	40s. ,,
Carriage lamp	Lamp makers ..	48s. to 54s. ,,	48s. ,,
Cycle	Foremen	..	57s. 6d. ,,
	Assemblers ..	..	40s. ,,
	Filers	..	36s. ,,
	Frame builders ..	..	48s. ,,
	General repairers ..	..	42s. ,,
	Screw cutters and turning lathe men	..	50s. ,,
	Wheel builders ..	..	33s. ,,
Perambulator	Wickerworkers ..	..	50s. ,,
	Fitters up	30s. to 40s. per week	35s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class XI.—continued.			
Saddlery, harness	Saddle and collar makers	..	48s. per week
	Harness makers ..	..	48s. ,,
	Machinists (female) ..	..	20s. ,,
Saddle-tree, saddlers' ironmongery, &c.	Saddle-tree makers ..	48s. to 60s. per week	50s. ,,
Whip	Thong makers—male	..	44s. ,,
	,, ,, female	..	30s. ,,
Horse shoeing, &c	Farriers	48s. to 52s. per week	48s. ,,
Class XII.—Ship Building, Fittings, &c.			
Dock, slip	Shipwrights ..	..	12s. per day
	Foundry and shipsmiths	..	10s. ,,
	Painters	..	9s. ,,
	Labourers	..	8s. ,,
	Stevedores' men and lumpers	..	1s. 3d. per hr.
	Wharf labourers ..	..	1s. 1½d. ,,
Boat building	Boat builders (skilled)	48s. to 60s. per week	48s. per week
Class XIII.—Furniture, Bedding, &c.			
Bedding, flock, upholstery ..	Bedding and mattress makers	..	50s. per week
	All females over four years' experience	..	25s. ,,
	Upholsterers ..	..	56s. ,,
Carpet	Carpet planners ..	60s. to 65s. per week	..
	Carpet and linoleum layers	..	56s. per week
	Makers and repairers—female	..	25s. ,,
Curled hair	Curled hair, horsehair workers	30s. to 45s per week	36s. ,,
Furniture, cabinet making, chair, billiard table	Cabinet, chair, and couch makers	..	56s. ,,
	Carvers, turners, polishers	..	56s. ,,
	Billiard table and cushion makers	..	56s. ,,
	Machinists	56s. to 64s. per week	..
	Slate rubbers ..	..	45s. per week
Picture frame	Joiners, gilders ..	45s. to 50s. per week	..
	Machinists	..	52s. per week
	Mount cutters ..	45s. to 48s. per week	..
	Compo workers and stainers	37s. 6d. to 50s. ,,	..
	Compo workers and fitters-up (female)	..	21s. per week
Venetian blind, window blind	Venetian blind makers	36s. to 48s. per week	36s. ,,
Class XIV.—Drugs, Chemicals, By-products.			
Baking powder	Skilled, undefined ..	36s. to 60s. per week	..
	Wrappers (female) ..	12s. 6d. to 20s. ,,	..
Blacking, blue, washing powder, soda	Skilled, undefined ..	36s. to 60s. ,,	..
	Unskilled ,, ..	25s. to 32s. 6d. ,,	..
	Wrappers (female) ..	12s. 6d. to 20s. ,,	..
Chemical, drug, horse and cattle medicine	Makers of pharmaceutical preparations	60s. to 80s. ,,	60s. per week
	Others (unskilled) working in drugs, &c; disinfectant makers	30s. to 50s. ,,	36s. ,,
	Packers (female) ..	15s. to 22s. 6d. ,,	20s. ,,
Essential oil	Essence blenders ..	35s. to 55s. ,,	40s. ,,
Fertilizer	Artificial manure workers	..	36s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class XIV.—continued.			
Paint, varnish, white-lead ..	Paint and varnish makers	55s. to 60s. per week	55s. per week
	,, ,, assistants	..	40s. ,,
Class XV.—Surgical and Scientific Appliances.			
Optical, philosophical instrument, &c.	Opticians, &c. ..	40s. to 60s. per week	50s. per week
Surgical appliance, instrument	Surgical instrument makers	40s. to 70s. ,,	47s. 6d. per week
Class XVI.—Timepiece, Jewellery, Platedware.			
Electroplating	Electroplaters ..	..	62s. per week
	,, assistants	..	54s. ,,
	Metal polishers ..	42s. to 46s. per week	..
Goldsmithing, jewellery, goldbeating	Chainmakers, mounters, ringmakers, setters, &c.	..	50s. per week
	Female workers ..	..	30s. ,,
Watchmaking, &c.	Watchmakers	45s. to 70s. per week	54s. ,,
Class XVII.—Heat, Light, and Energy.			
Electric apparatus	Engine fitters and turners	60s. to 65s. per week	..
	Winders	48s. to 60s. ,,	54s. per week
Electric light	Engine-drivers ..	..	10s. per day
	,, ,, assistants	..	8s. 6d. ,,
	Firemen	8s. 6d. to 9s. per day	..
	Dynamo attendants	..	48s. per week
	Electrical fitters ..	..	10s. per day
	Switchboard attendants	8s. to 9s. per day	..
	Linemen	7s. to 8s. ,,	7s. 6d. per day
	Carboners	7s. to 7s. 6d. ,,	..
	Patrolmen	7s. to 9s. ,,	8s. per day
	Wirers	8s. to 9s. ,,	..
	Labourers, trimmers, greasers	7s. to 9s. ,,	..
Gas and coke	Stokers	..	..
	Enginemen ..	8s. 9d. to 9s. per day	8s. 9d. per day
	Purifiers	8s. 3d. to 9s. ,,	..
	Sulphate workers ..	7s. to 7s. 3d. ,,	..
	Stove repairers and fitters	..	8s. 3d. per day
	Service layers ..	8s. 4d. to 12s. 6d. per day	..
	Main layers ..	..	8s. 7d. per day
	Inspectors	..	7s. 9d. ,,
	Labourers	9s. to 12s. 6d. per day	..
Match	Vesta makers (female)	..	7s. per day
	Box makers (female)	12s. 6d. to 29s. per week	17s. 6d. per week
	Storemen, casemakers, &c.	12s. to 24s. ,,	15s. ,,
Ironfounders' dust, charcoal dust	Labourers ..	35s. to 45s ,,	40s. ,,
Hydraulic power	Enginemen ..	45s. to 48s. ,,	45s. ,,
	Firemen	..	9s. per day
	Fitters	..	8s. ,,
	Main layers ..	..	9s. ,,
	Special labourers ..	..	9s. ,,
	Ordinary labourers ..	..	8s. ,,
		..	7s. ,,

WAGES IN MELBOURNE, 1908—*continued.*

Industries.	Occupations.	Wages.	
		Range.	General Rate.
Class XVIII. — Leatherware (excluding Saddlery and Harness.)			
Leather Belting	Belt makers ..	48s. to 60s. per week	48s. per week
	Machinists	45s. to 48s. ,,	..
Portmanteau, gladstone bag	Leather bag and portmanteau makers	48s. to 50s. ,,	45s. per week
	Bagmakers (female) ..	18s. to 20s. ,,	..
Class XIX.—Wares not elsewhere included.			
Basket, wickerware ..	Wicker and bamboo workers	..	50s. per week
Broom, brushware	Millet broom makers	37s. 6d. to 47s. 6d. per week	..
	Hair broom, brush makers	48s. to 64s. per week	..
Rubber goods (including cycle tires)	Rubber workers, expert	60s. to 90s. ,,	60s. per week
	,, ordinary	39s. to 54s. ,,	..
	Trimmers, finishers, and small rubber goods makers (female)	16s. 6d. to 27s. 6d. per week	..
Quarry	Quarrymen, spawlers	48s. to 54s. ,,	..
	Machine feeders and truck fillers	..	45s. per week
	Stonebreakers ..	2s. 6d. per c. yd. (2½ in.)	..
	Labourers	..	42s. per week

WAGES IN MELBOURNE, 1908—*continued.*

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

Industry or Service.	Occupations.	Wages.	
		Range.	General Rate.
Educational*	Governesses ..	£20 to £40 per annum	..
	,, advanced	£40 to £60 ,,	..
	Teachers in private schools—		
	Males (elementary)	£50 to £100 ,,	..
	,, (advanced) ..	£100 to £300 ,,	..
	Females (elementary)	£20 to £40 ,,	..
	,, (advanced)	£50 to £150 ,,	..
Clerical	Bookkeepers ..	40s. to 70s. per week	..
	Shorthand clerks and typists	30s. to 60s. ,,	..
	Shorthand clerks and typists (female)	20s. to 40s. ,,	..
Domestic servants*—males ..	Coachmen, footmen, grooms, gardeners	20s. to 30s. ,,	..
	Butlers	25s. to 40s. ,,	25s. per week
females	Cooks	16s. to 30s. ,,	20s. ,,
	Laundresses ..	16s. to 20s. ,,	16s. ,,
	Housemaids ..	12s. to 15s. ,,	13s. ,,
	Nursemaids ..	8s. to 17s 6d. ,,	12s. ,,
	General servants ..	10s. to 17s. 6d. ,,	14s. ,,
	Girls	5s. to 10s. ,,	7s. ,,
Hotel servants*—males ..	Barmen	25s. to 40s. ,,	30s. ,,
	Waiters	20s. to 30s. ,,	25s. ,,
	Boots	12s. to 20s. ,,	20s. ,,
	Ostlers	17s. 6d. to 25s. ,,	18s. ,,
	Cooks	25s. to 60s. ,,	35s. ,,
females ..	Barmaids	15s. to 25s. ,,	20s. ,,
	Waitresses	15s. to 25s. ,,	17s. 6d. ,,
	Housemaids ..	15s. to 25s. ,,	17s. 6d. ,,
	Cooks	20s. to 30s. ,,	25s. ,,
Building, &c.	Bricklayers ..	..	12s. per day
	Hod-carriers ..	..	9s. ,,
	Carpenters and joiners	..	10s. 8d. ,,
	Labourers	..	8s. ,,
	Masons	..	10s. ,,
	Painters and glaziers	..	9s. ,,
	Paperhangers ..	..	9s. ,,
	Plasterers	10s. to 11s. per day	..
	Plumbers	..	10s per day
	Plumbers, licensed sanitary	11s. to 12s. per day	..
	Signwriters and decorators	10s. to 11s. ,,	..
	Slaters	..	10s. per day
Baking	Bakers, bread (foremen)	54s. to 80s. per week	..
	,, ..	..	50s. per week
	Carters, bread ..	..	40s. ,,
	Pastrycooks ..	46s. to 56s. per week	..
	General workers (male)	..	30s. per week
	Ornamental workers (female)	20s. to 32s. per week	..
Butchering	Slaughtermen ..	..	60s. per week
	Shopmen	..	57s. 6d. ,,
	General butchers ..	..	47s. 6d. ,,
	Small goods men ..	57s. 6d. to 70s. per week	..
	Lorry drivers ..	..	45s. per week
	Delivery cart drivers ..	..	40s. ,,
Laundry	Laundresses ..	20s. to 24s. per week	20s. ,,
Photography	Operators	50s. to 120s. ,,	..
	Printers	30s. to 60s. ,,	50s. per week
	Retouchers (female) ..	15s. to 40s. ,,	..
	Finishers (female) ..	10s. to 20s. ,,	15s. per week
	Makers of photographic materials	36s. to 80s. ,,	45s. ,,
	Finishers, packers — female	17s. 6d to 25s. ,,	17s. 6d. ,,

* With board and lodging.

The number of tanning, fellmongering and wool washing establishments was increased by two during 1908, making 92 in operation at the close of the year. The hands employed increased from 1,893 to 2,001, and the wages paid during the year to the hands (excluding working proprietors) amounted to £160,091. The following table shows the approximate value of the machinery, plant, land, buildings, and improvements during each of the last nine years :— Tanneries, &c.

VALUE OF TANNERIES : 1900 TO 1908.

Year.	Approximate Value of—		
	Machinery and Plant in Use.	Land.	Buildings and Improvements.
	£	£	£
1900	91,530	51,250	117,960
1901	99,710	47,750	98,950
1902	103,329	54,179	104,114
1903	110,796	48,341	112,407
1904	109,095	41,979	104,005
1905	114,863	46,301	112,714
1906	114,951	47,139	110,155
1907	124,064	51,194	123,124
1908	133,376	53,713	129,664

The quantity of bark used in connexion with tanning operations in 1908 was 10,024 tons. The output of tanneries for each of the last nine years was as follows :—

OUTPUT OF TANNERIES, ETC. : 1900 TO 1908.

Year.	Number Tanned of—			Sheep Skins Stripped.	Wool Washed (weight after washing).
	Hides.	Calf Skins.	Sheep and other Skins.		
				No.	lbs.
1900 ...	500,549	165,802	1,395,600	1,431,811	6,866,383
1901 ...	406,260	181,522	676,936	615,614	8,511,171
1902 ...	424,786	189,886	313,166	453,660	5,279,916
1903 ...	397,367	179,425	629,465	925,263	6,197,723
1904 ...	381,473	134,003	674,105	651,672	5,285,409
1905 ...	393,695	139,506	544,145	562,705	4,543,927
1906 ...	485,620	132,210	518,139	612,598	5,676,464
1907 ...	492,572	188,007	548,765	851,516	7,230,675
1908 ...	498,947	127,798	1,027,460	1,253,875	7,803,992

These figures 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 in 1908 was £275,229, and of that exported, £386,734. The export of Victorian leather was valued at £325,559.

Soap and candle works.

There were seventeen soap and candle works in operation in 1908 —being two more than in the previous year. These factories employed 523 hands and twelve working proprietors. The amount of wages paid to the hands in 1908 was £43,463. The value of the machinery, plant, land, buildings, and improvements, and the quantity of soap and candles produced in each of the last nine years were as follows :—

SOAP AND CANDLE WORKS—VALUE AND PRODUCTS: 1900 TO 1908.

Year.	Approximate Value of—			Products.	
	Machinery and Plant in Use.	Land.	Buildings and Improvements.	Soap.*	Candles.
	£	£	£	cwt.	cwt.
1900 ...	95,114	42,675	58,049	122,458	46,624
1901 ...	97,260	42,870	60,940	132,031	47,313
1902 ...	91,325	39,967	56,852	150,698	49,406
1903 ...	103,411	42,288	64,354	138,045	45,052
1904 ...	101,486	38,295	62,961	162,126	41,521
1905 ...	105,529	36,605	61,588	150,261	42,049
1906 ...	104,244	36,171	59,829	154,570	43,094
1907 ...	106,326	35,921	60,239	153,478	47,688
1908 ...	109,768	36,517	62,379	162,757	37,705

* Not including soap made in small soap works not classified as factories, viz., 11,220 cwt. in 1900, 11,109 cwt. in 1901, 14,490 cwt. in 1902, 13,369 cwt. in 1903, 7,902 cwt. in 1904, 7,185 cwt. in 1905, 11,706 cwt. in 1906, 10,527 cwt. in 1907, and 7,125 cwt. in 1908.

The quantity of tallow used in 1908 in the manufacture of soap and candles was 127,193 cwt. in factories, and 2,915 cwt. in minor works.

The quantity of soap, perfumed and other, imported during 1908 was 3,001,897 lbs., and its value was £56,340; during the same year there were exported 6,120,753 lbs. valued at £75,239, including 5,205,286 lbs. of Victorian manufacture valued at £55,458. The quantity of candles imported was 708,089 lbs., and the value £14,968; those exported weighed in the aggregate 1,213,280 lbs. and were valued at £26,596, included in the exports being 983,593 lbs. of Victorian-made candles, valued at £21,592.

Brickyards, potteries, earthenware, &c.

The brickyards and potteries at which work was carried on during the year numbered 119. The hands employed numbered 1,711, and the working proprietors 114. The sum of £165,246 was paid to the employés in wages; and the value of land, plant, buildings, &c., was £344,847. The estimated value of the bricks made in these brickyards in 1908 was £231,946.

The number of bricks made, and the value of pottery and of pipes and tiles manufactured during each of the last nine years, were returned as follows :—

BRICKS, POTTERY, PIPES, AND TILES: 1900 TO 1908.

Year.	Number of Bricks Made. *	Value of —	
		Pipes and Tiles.	Pottery.
		£	£
1900	83,477,275	55,751	19,870
1901	84,898,000	73,060	23,695
1902	90,545,280	71,074	27,289
1903	77,826,631	81,732	34,572
1904	80,026,511	53,454	31,438
1905	90,990,284	56,086	27,205
1906	112,966,270	58,349	27,570
1907	123,281,100	66,390	29,070
1908	124,985,542	72,024	33,029

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

The expansion of building operations, especially in Melbourne and suburbs, during the last three years, is demonstrated by the number of bricks made.

Forest saw-mills, &c.

The number of forest saw-mills being worked in 1908 was 120. The hands employed numbered 1,486, and the working proprietors 151; while the wages paid amounted to £126,409. The approximate value of machinery, plant, land, buildings and improvements, together with the quantity and value of timber sawn, during each of the last nine years, appear in the following statement :—

FOREST SAW-MILLS: 1900 TO 1908.

Year.	Approximate Value of—			Timber Sawn.	
	Machinery and Plant in use.	Land.	Buildings and Improvements.	Quantity.	Value
	£	£	£	Super. ft.	£
1900	104,500	7,520	27,350	44,782,330	125,121
1901	91,810	6,170	13,500	46,495,885	134,310
1902	81,898	6,380	11,854	40,494,660	128,430
1903	80,039	1,495*	10,797	38,841,322	116,845
1904	89,760	1,966*	12,301	49,250,000	147,750
1905	87,757	2,553*	10,861	47,635,358	142,905
1906	90,305	1,168*	9,286	51,103,000	153,309
1907	99,723	1,421*	11,199	55,873,500	181,590
1908	98,804	2,669*	13,095	54 602,200	177,460

* Value of land occupied by saw-mills only.

The other factories in which operations on wood were carried on numbered 183, and comprised cooperage and cork-cutting works (14), employing 91 persons and 17 working proprietors, and paying £8,037 in wages; dairy and domestic implements and bellows

works (4), employing 59 persons and 4 working proprietors, and paying £5,027 in wages; saw-milling, moulding, and joinery works (119), employing 2,403 persons and 132 working proprietors, and paying £235,264 in wages; mantelpiece works (10), employing 218 persons and 12 working proprietors, and paying £17,463 in wages; and wood carving and turnery works (36), employing 199 persons and 45 working proprietors, and paying £14,194 in wages. The total amount paid in wages to workers in wood, other than those employed in forest saw-mills, was £279,985; and the approximate value of land, buildings, machinery, &c., in use in the works was £373,360.

Firewood, &c.

As the result of an investigation, it has been estimated that the approximate value of the production of firewood for consumption in a year is £397,000. 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.

Bacon and ham curing.

There were 26 establishments curing bacon and hams in 1908, or one less than in 1907. The hands employed numbered 310, beside whom there were 30 working proprietors. The wages paid to employés amounted to £27,862. Further details of the industry for the last nine years are as follows:—

BACON CURING: 1900 TO 1908.

Year.	Approximate Value of—			Pigs Slaughtered for Curing.	Weight of Bacon and Hams Cured.
	Machinery and Plant.	Land.	Buildings and Improvements.		
	£	£	£	No.	lbs.
1900 ...	23,210	7,680	25,200	102,086	9,761,553
1901 ...	27,900	8,690	27,670	109,283	11,485,460
1902 ...	29,611	9,231	30,625	112,244	11,507,224
1903 ...	26,810	5,721	23,415	88,541	9,633,206
1904 ...	27,822	5,641	25,730	104,604	11,229,768
1905 ...	28,335	5,941	25,650	117,582	11,360,698
1906 ...	28,217	6,031	29,140	135,492	12,910,575
1907 ...	25,530	5,245	26,575	145,513	13,609,144
1908 ...	26,448	5,190	27,653	129,677	11,518,404

This table does not include pigs slaughtered for curing, nor bacon and hams cured in small curing works; the pigs so slaughtered numbered 7,533 in 1900, 3,145 in 1901, 2,295 in 1902, 2,438 in 1903, 2,124 in 1904, 2,801 in 1905, 2,680 in 1906, 2,771 in 1907, and 2,263 in 1908; the quantity (in pounds) of bacon and hams cured was 506,225 in 1900, 211,250 in 1901, 195,098 in 1902, 181,745 in 1903, 194,102 in 1904, 246,374 in 1905, 252,348 in 1906, 244,837 in 1907, and 194,328 in 1908

In addition, the following quantities of bacon and hams were returned as having been cured on farms:—2,936,769 lbs. in 1900, 3,314,906 lbs. in 1901, 2,736,048 lbs. in 1902, 2,689,900 lbs. in 1903, 3,428,074 lbs. in 1904, 4,826,593 lbs. in 1905, 4,888,243 lbs.

in 1906, 3,691,739 lbs. in 1907, and 2,698,669 lbs. in 1908. The total quantity of bacon and hams cured in 1908 was thus 14,217,073 lbs.—a falling off of 3,328,647 lbs. as compared with 1907.

Imports and exports of bacon and hams.

The quantity and value of the imports of bacon and hams in 1908 were 513,510 lbs., and £16,891 respectively; there were exported 2,895,691 lbs., valued at £115,883, including 2,608,434 lbs., valued at £104,387, cured in Victoria.

Butter and cheese factories.

The number of butter and cheese factories, including 1 butterine factory but exclusive of creameries, was 216 in 1908. Of these factories, 169 made butter, 12 made butter and cheese, 3 made butter and concentrated milk, 29 made cheese only, 2 made concentrated milk only, and 1 made butterine. There were 116 creameries attached to the factories. The number of hands employed was 1,242, and the number of working proprietors 60, these two combined representing a decrease of 156 as compared with the previous year. The approximate value of machinery, plant, land, buildings, and improvements was £528,350. The quantity of milk received at the factories and creameries was 146,656,005 gallons in 1906, 137,866,515 gallons in 1907, and 104,980,863 gallons in 1908. The output from butter and cheese factories during each of the last nine years was as follows:—

BUTTER AND CHEESE FACTORIES: 1900 TO 1908.

Year.	Butter.	Cream Sold.	Cheese.	Concentrated Milk.
	lbs.	gallons.	lbs.	gallons.
1900 ...	48,839,996	38,274	2,508,843	263,138
1901 ...	40,824,928	50,092	2,073,940	266,083
1902 ...	32,927,546	23,739	2,128,835	243,904
1903 ...	40,707,377	17,882	3,602,988	236,581
1904 ...	55,058,391	7,242	2,599,443	226,810
1905 ...	52,274,639	16,513	2,447,938	232,310
1906 ...	63,231,222	20,332	2,852,687	309,138
1907 ..	59,050,231	25,442	2,691,957	390,388
1908 ...	44,383,168	17,527	2 473,682	315,129

Butter and cheese made on farms.

In addition to the quantity of butter and cheese made in the factories, the following quantities were returned as having been made on farms:—Butter, 6,764,122 lbs. in 1900, 6,032,644 lbs. in 1901, 6,300,208 lbs. in 1902, 5,978,350 lbs. in 1903, 5,944,450 lbs. in 1904, 5,332,182 lbs. in 1905, 4,856,946 lbs. in 1906, 4,696,123 lbs. in 1907, and 4,078,230 lbs. in 1908; cheese, 1,775,327 lbs. in 1900, 1,900,728 lbs. in 1901, 1,720,726 lbs. in 1902, 2,078,527 lbs. in 1903, 2,148,408 lbs. in 1904, 1,849,412 lbs. in 1905, 2,024,906 lbs. in 1906, 1,705,952 lbs. in 1907 and 1,854,962 lbs. in 1908.

Total butter and cheese made.

Taking the returns of butter from all sources, the largest quantity, 68,088,168 lbs., was made in 1906, the returns for 1907 and 1908 being 63,746,354 lbs. and 48,461,298 lbs. respectively.

The largest quantity of cheese returned as having been made in factories and on farms was 5,681,515 lbs. in 1903. The quantity made in 1907 was 4,397,909 lbs., and, in 1908, 4,328,644 lbs.

Imports and exports of butter and cheese.

In 1908 there were imported 6,044,333 lbs. of butter valued at £305,824, and there were exported 27,947,596 lbs. valued at £1,354,067, of which 26,541,908 lbs. valued at £1,281,312 were produced in Victoria. The quantity of cheese imported was 627,137 lbs., and the value £20,434; the total exports weighed 1,134,186 lbs., and their value was £36,030; the weight and value of Victorian made cheese included in these exports being 1,010,837 lbs., and £31,942 respectively.

Meat freezing and preserving works.

The works for freezing and preserving meat numbered 15 in 1908, and employed 611 hands and 9 working proprietors, the wages of the employés amounting to £48,299. The approximate value of machinery, plant, land, buildings, and improvements in 1908 was £318,683. The output in each of the last nine years was as follows:—

MEAT FREEZING AND PRESERVING: 1900 TO 1908.

Year.	Frozen.			
	Cattle.	Sheep.	Rabbits.	Poultry.
	Qrs.	No.	No.	No.
1900...	16,096	437,242	4,840,128	44,050
1901...	6,395	417,721	3,990,460	71,490
1902...	1,338	375,178	6,218,422	34,228
1903...	1,424	294,906	7,003,022	41,460
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	866,498	6,413,560	56,275
1908...	16,508	773,396	4,057,896	22,826

Year.	Preserved.			
	Beef.	Mutton.	Rabbits.	Fish.
	Cwt.	Cwt.	Cwt.	Cwt.
1900...	5,593	2,198	24,874	831
1901...	3,304	2,417	26,303	1,140
1902...	7,705	14,913	16,537	2,134
1903...	8,796	2,653	17,380	4,492
1904...	4,248	491	14,977	535
1905...	4,866	1,435	6,665	...
1906...	6,011	1,700	496	...
1907...	11,944	2,478	64	...
1908...	7,557	2,309	1,730	...

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; and 11,662 calves, 2,296 pigs, and 29,796 hares in 1908.

The following statement shows the imports and exports (including Inter-State transfers) of frozen and preserved meats, exclusive of bacon and ham, during 1908 :— Imports and exports of meats.

MEAT IMPORTED AND EXPORTED, 1908.

—	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
Meats, Frozen—		£		£
Mutton	278,322 lbs.	3,410	28,386,896 lbs.	408,733
Beef	3,126,234 "	34,751	1,680,294 "	19,971
Pork	30,605 "	1,021	452,423 "	11,087
Rabbits and Hares	...	...	...	85,980
Poultry	6,614 "	206	...	8,466
Game	884 "	52	876 "	71
Other	488,667 "	5,397	176,504 "	3,244
Meats—Fresh and smoked ...	183,423 "	1,582	72,799 "	1,123
,, Potted and concentrated	...	4,626	...	1,070
,, Preserved in tins ...	613,711 "	20,022	1,364,682 "	29,878
,, Not elsewhere included	1,080 cwt.	1,912	13,626 cwt.	39,343
Total value ...	...	72,979	...	608,966

The number of flour mills in 1908 was 63, and the number of persons employed in them 776, of whom 48 were working proprietors. The wages paid to employés amounted to £78,906. Further particulars for nine years are given in the following table :— Flour mills.

FLOUR MILLS : 1900 TO 1908.

Year.	Approximate Value of—			Wheat Ground into Flour.	Flour Made.
	Machinery and Plant.	Land.	Buildings and Improvements.		
	£	£	£	bushels.	tons.
1900	297,880	74,442	184,470	8,387,323	169,739
1901	280,130	70,530	175,520	9,482,175	190,845
1902	256,980	76,121	171,125	8,491,224	170,696
1903	261,530	68,917	166,869	5,762,849	115,368
1904	235,508	52,220	147,559	10,012,476	202,314
1905	238,139	56,910	157,785	10,282,491	209,058
1906	243,149	59,540	163,322	10,892,056	219,166
1907	264,566	63,157	174,150	11,731,183	235,185
1908	254,671	57,167	167,573	9,564,068	192,687

Other grain operated on amounted to 81,658 bushels in 1900, 75,704 bushels in 1901, 126,765 bushels in 1902, 139,702 bushels

in 1903, 157,403 bushels in 1904, 75,595 bushels in 1905, 111,719 bushels in 1906, 123,885 bushels in 1907, and 123,879 bushels in 1908.

Imports and exports of bread-stuffs.

During the year 1908, 2,394,301 lbs. of Victorian biscuits valued at £48,862, and 63,626 tons of Victorian flour valued at £554,887, were exported; as well as 197,443 lbs. of biscuits, valued at £4,514, and 3,124 tons of flour, valued at £27,768, which were the produce of places outside the State. There were imported in the same year 177,626 lbs. of biscuits, valued at £4,865, and 3,803 tons of flour, valued at £34,403.

Jam, pickle, and sauce works.

There were in 1908, 26 establishments in which the manufacture of jams, pickles, and sauces was carried on; the number of persons employed therein was 1,360, of whom 19 were working proprietors. The wages paid to the employés amounted to £79,619, and the value of machinery, plant, land, and buildings was £137,462. The materials used and the output for each of the last five years were as follows:—

JAM, PICKLE, AND SAUCE WORKS: 1904 TO 1908.

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

Imports and exports of jams, sauces, &c.

In 1908, 2,256,296 lbs. of jams and jellies, valued at £31,914 were imported, as well as preserved and pulped fruit, valued at £28,002, and pickles and sauces, &c., valued at £15,885. In the same year there were exported 8,147,045 lbs. of jams and jellies, and 359,202 lbs. of fruit pulped; also preserved fruits valued at £52,059, and pickles and sauces valued at £20,510. Of these exports the following represented the production of Victoria:—6,773,251 lbs. of jams and jellies, and 322,886 lbs. of fruit pulped, preserved fruit valued at £44,714, and pickles and sauces valued at £16,119.

Sugar refineries

There was only one sugar refinery at work in 1908, and, as it is the practice to refrain from disclosing the details of a single business, information relating to this industry cannot be given for

that year. The following are the particulars for each of the eight years, 1900 to 1907 :—

SUGAR REFINERIES : 1900 TO 1907.

Year.	Number of Sugar Refineries.		Actual Horse-power of Engines Used.	Average Number of Hands Employed.	Approximate Value of—			Cane Sugar Treated (Raw).	Sugar Refined.	Treacle Refined.
	Total.	Using Steam Engines.			Machinery and Plant.	Land.	Buildings and Improvements.			
					£	£	£	cwt.	cwt.	cwt.
1900	2	2	424	301	74,500	7,000	56,000	1,004,913	944,049	34,080
1901	2	2	424	324	74,500	7,000	56,000	1,129,586	1,052,742	40,320
1902	2	2	424	346	82,000	10,000	76,500	952,801	879,521	51,052
1903	2	2	474	344	83,500	10,000	76,500	1,087,005	1,025,583	51,109
1904	2	2	506	343	83,500	10,000	76,500	1,123,381	1,071,995	36,803
1905	2	2	526	352	87,500	10,000	76,900	1,143,742	1,079,454	42,219
1906	2	2	776	409	88,550	10,000	83,400	1,317,172	1,238,010	47,109
1907	2	2	777	495	88,550	10,000	90,050	1,157,751	1,092,876	33,470

The raw sugar treated is imported. The quantity of cane sugar imported into Victoria during 1908 was 1,505,263 cwt., of which 1,418,197 cwt. came from Queensland, and 35,353 cwt. from Mauritius. During the same year 119,194 cwt. of sugar and molasses were exported, of which 112,392 cwt. were sent to other States of Australia.

Production of sugar in Victoria.

An effort now being made to revive the beet sugar industry in Victoria directs attention to a possible new source of wealth to the farmer. It will be remembered that some eleven years ago Parliament passed an Act devoting £100,000 towards promoting the establishment of the 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 of some 2,000 acres of beet from local landholders,, the industry, after various vicissitudes, was compelled to cease operations after two manufacturing campaigns. The Government, under the terms of its mortgage, took over the building and plant, which, since 1899, has remained idle.

In seeking for the causes of past failures, the more extended knowledge now possessed of the problems surrounding the industry indicates that such failures were mainly attributable to want of experience on the part of beet-growers, combined with unprecedently dry seasons and an unsuitable class of field labour. While there is no particular art in beet-growing, the crop demands prompt attention at the period of thinning or spacing, and, moreover, calls for the exercise of particular care in keeping it clean during growth. In this, beet-growing is not singular. Onion-growing necessitates the most painstaking care if maximum crops are to be secured. Potato and

maize crops also call for the assistance of a large amount of unskilled labour for digging and picking respectively. The beet-growers at Maffra were imperfectly equipped with suitable implements and vehicles, and were severely handicapped by flooded roads during the period of delivery to the factory. At the time these conditions were abundantly sufficient to deter beet-growers from persevering with the crop.

During the past ten years, efforts have been made from time to time by successive Governments to recreate interest in beet-growing and re-open the Maffra factory. Proposals of a most liberal character have been put forward, but up to the present time they have not been acceptable to Gippsland farmers, principally for the reason that they did not provide for some assistance in the shape of field labour.

The present Government some months ago secured the services of Dr. Walter Maxwell, a sugar expert of high repute, who, after exhaustive inquiries, strongly recommended that a fresh attempt should be made to revive the industry upon such a basis that the work which the dairyman and small farmer found himself unable to attend to, would be undertaken on his behalf by an organized system of field labour, superintended by the Beet Expert attached to the Department of Agriculture (Mr. Lee).

It was determined to establish numerous experimental plots throughout Gippsland, and thus familiarize a large number of landholders with beet-growing. Meanwhile, an active campaign of lectures, explanatory of the Government proposals and different phases of the industry, is being carried on. Farmers living within three miles of the Gippsland railway line from Bairnsdale to Dandenong will be invited to grow small areas of beet, not exceeding five acres, for factory purposes. With a clear twelve months in which to work up interest in the matter, undue haste will be avoided, and no person will engage in beet-growing without a full understanding of what it demands of him. It is proposed to offer 16s. per ton for all beets delivered at Maffra. Beet will be bought at all stations on the line at a reduced price to compensate for cost of carriage by rail to the factory.

Prime seed will be provided at cost price, and growers will be further assisted by the provision of suitable implements. The by-product in the shape of beet pulp will be an invaluable aid to the dairying industry, and there is little doubt that this factor will induce many dairymen to grow small areas of beet for the factory. Another by-product from the factory is lime scum. The majority of Gippsland soils are deficient in lime, which, at present prices, has a very restricted use.

From a purely agricultural point of view, beet-growing offers greater prospects of success than most other crops. There is an unlimited market for all the produce grown, and a fixed price per ton which is known to the grower before the seed is planted. This is not the case with such crops as onions, potatoes, or grain. Moreover, there are no costly items, such as bags, twine, &c., to provide for. The beet-grower is able to carry out every operation in the field himself, and thus can obtain the maximum of monetary advantage.

A review of the position of the State in regard to the consumption of sugar offers a most powerful argument in favour of the permanent establishment of beet-growing as an agricultural industry. Victoria consumed in round figures 70,000 tons of sugar in 1908, about 95 per cent. of which quantity was produced in Queensland.

Under the terms of the Sugar Bounty Act, the various States of the Commonwealth contribute each year a large sum of money to provide compensation for the loss of black labour in the cane-fields. This bonus is at the rate of £3 per ton of sugar produced by purely white labour conditions. Victoria's contribution has been as follows :—

1902-3	£18,923
1903-4	29,873
1904-5	38,935
1905-6	46,520
1906-7	100,456
1907-8	173,855

In addition to the above sum of £173,855 in 1907-8, the imports of sugar into Victoria amounted in value to £798,048. The sugar bill thus reaches the enormous figure of £971,903.

Part at least of this sum could be kept within the State. The production of sugar in Victoria would considerably increase the Excise dues, and at the same time would lead to the distribution of a very large sum in the shape of wages, stores, freight, &c., besides extending the markets for other agricultural products. As a factor towards successful settlement on small holdings, sugar beet has no rival. Its cultivation can be carried on in conjunction with an already established farm practice, and need not supersede any crops now grown. The growing of root crops of any kind calls for a higher standard of farming than the growing of cereals, and by introducing a much needed system of rotation, it provides for the maximum utilization of the resources of the soil. Under irrigation, beet-growing in the northern districts of Victoria has very bright prospects of success. Experimental plots are being established in several localities this year, and if it be found that successful crops can be grown there is little doubt that capital will be found for the erection of factories to treat the product.

Breweries.

There were 35 breweries in 1908, or two less than in the previous year, but the hands employed, 1,135, were 98 more than in 1907. The approximate value of the machinery, plant, land, buildings, and improvements, the materials used, and the quantity of beer made during each of the last nine years were as follows :—

BREWERIES : 1900 TO 1908.

Year.	Approximate Value of—			Materials Used—			Beer Made.
	Machinery and Plant.	Land.	Buildings and Improvements.	Sugar.	Malt.	Hops.	
	£	£	£	cwt.	bushels.	lbs.	gallons.
1900 ...	204,840	230,530	269,410	111,863	598,094	648,648	16,162,550
1901 ...	212,280	236,310	271,600	113,686	608,445	650,214	16,563,068
1902 ...	211,036	228,990	273,325	115,258	625,441	677,262	17,162,680
1903 ...	209,492	229,965	277,383	102,651	552,042	569,981	15,423,149
1904 ...	231,687	229,965	291,180	100,430	530,771	544,524	14,927,873
1905 ...	232,354	198,760	291,738	99,230	529,067	582,012	15,176,439
1906 ..	235,980	197,985	289,982	101,692	533,531	623,249	16,409,465
1907 ...	249,579	212,785	316,262	106,004	542,806	665,236	16,900,336
1908 ...	268,009	155,922	273,273	109,347	556,040	684,879	17,582,833

Distilleries.

The number of distilleries was 8 in 1908, or one more than in 1907 ; the hands employed decreased from 106 to 91 during the year ; but the estimated value of the machinery, plant, land, buildings, and improvements increased from £128,585 to £141,445. Although there has been some improvement in the last four years, the industry is still a long way behind what it was in 1900 and 1901. The materials used in manufacture, and the quantity of spirits distilled in each of the last nine years, were as follows :—

DISTILLERIES : 1900 TO 1908.

Year.	Materials Used.							Spirits Distilled.
	Wine.	Malt.	Wheat.	Maize.	Other Grain.	Sugar and Molasses.	Beer.	
	Gal.	Bush.	Bush.	Bush.	Bush.	lbs.	Gal.	Proof ga
1900	160,301	91,223	2,353	3,692	26	4,652,480	...	439,117
1901	148,584	123,394	1,541	16,000	2,464	2,853,760	2,265	490,550
1902	128,272	16,744	87	11,880	2,507	1,780,016	...	190,644
1903	207,621	...	...	...	...	...	1,187	41,083
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

Spirits made by vine-growers for fortifying wine are not included in this table. The following quantities were distilled for that purpose during the last nine years in vineyards:—30,554 gallons in 1900, 38,058 gallons in 1901, 49,867 gallons in 1902, 56,851 gallons in 1903, 73,210 gallons in 1904, 78,163 gallons in 1905, 60,521 gallons in 1906, 53,517 gallons in 1907, and 50,954 gallons in 1908.

Tobacco, &c. manufactories.

There were 13 tobacco manufactories in 1908, or the same number as in the previous year. As compared with that year, there was an increase of 523 in the number of hands employed and of £15,252 in the value of machinery, plant, land, buildings, and improvements, such value having grown from £251,364 to £266,616. The material used, and the output also very materially increased, as will be seen from the particulars for the last nine years given in the following table:—

TOBACCO FACTORIES: 1900 TO 1908.

Year.	Unmanufactured Leaf Operated on.		Quantity Manufactured of—			
	Colonial.	Imported.	Tobacco.	Snuff.	Cigars.	Cigarettes.
	lbs.	lbs.	lbs.	lbs.	No.	No.
1900... ...	276,407	1,661,632	1,722,236	794	11,584,442	111,010,705
1901... ...	230,113	2,542,580	2,365,831	1,133	13,025,840	125,693,600
1902... ...	205,434	1,379,905	1,630,510	550	11,936,455	100,817,104
1903... ...	304,049	2,052,100	2,390,976	813	9,336,975	58,928,535
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

NOTE.—The quantity manufactured in small factories (£5 licences) is included in the above table.

Woollen mills.

There were 9 woollen mills working in 1908, the same number as in the two previous years, but there was a general improvement in the business of the mills. Compared with 1907, the horse-power of the engines had increased from 2,187 to 2,348, the number of hands from 1,589 to 1,757, and the approximate value of the machinery, plant, land, buildings, and improvements from £376,070 to £380,928.

The quantities of wool and cotton used and of goods manufactured in each of the last nine years were as follows :—

WOOLLEN MILLS : 1900 TO 1908.

Year.	Quantity of Scoured Wool Used.	Quantity of Cotton Used.	Goods Manufactured—			
			Tweed and Cloth.	Flannel.	Blankets.	Shawls and Rugs.
	lbs.	lbs.	yards.	yards.	No. of Pairs.	No.
1900 ...	1,831,000	178,332	971,267	1,596,120	56,340	3,500
1901 ...	2,023,509	250,184	818,975	2,229,617	49,302	4,600
1902 ...	2,149,897	273,335	708,749	2,612,343	67,609	5,718
1903 ...	2,130,100	368,749	662,381	3,201,275	77,601	6,565
1904 ...	2,368,871	211,256	697,726	3,301,004	86,253	8,431
1905 ...	2,663,587	499,630	738,924	3,355,013	145,106	8,516
1906 ...	2,825,218	658,882	840,649	3,637,846	146,628	8,383
1907 ...	3,311,097	914,003	867,789	4,088,383	199,743	12,089
1908 ...	3,610,925	965,042	922,176	4,396,862	228,621	15,222

Boot factories.

The growth of the boot industry in the last thirty-eight years is shown in the next table :—

BOOT FACTORIES : 1871 TO 1908.

Year.	Number of Factories.	Number of Operatives.	Value of Land, Buildings and Machinery.	Wages Paid.
			£	£
1871 ...	29	1,471	34,019	...
1876 ...	67	2,264	93,372	...
1880 ...	105	3,919	196,809	...
1885 ...	91	4,100	205,773	...
1890 ...	92	3,787	226,950	...
1894 ...	90	3,735	191,300	...
1898 ...	89	4,019	179,945	...
1900 ...	108	4,812	204,080	...
1903 ...	136	5,267	229,396	299,176
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

The following table shows the quantities of goods manufactured in each of the last nine years :—

OUTPUT OF BOOT FACTORIES : 1900 TO 1908.

Year.	Goods Manufactured—	
	Boots and Shoes.	Slippers.
	No. of pairs.	No. of pairs.
1900	3,446,809	66,740
1901	3,125,799	92,174
1902	3,613,487	216,483
1903	3,574,761	150,012
1904	4,065,881	189,108
1905	3,951,033	165,892
1906	4,001,580	175,575
1907	4,290,122	182,039
1908	4,164,410	193,949

NOTE.—The number of slippers returned for 1902, and each year since, includes canvas shoes and house-boots, which were not returned previous to those years.

It was ascertained that the value of the boots and shoes produced in Victorian factories in the year 1900, at manufacturers' selling prices (that is, wholesale price) was £900,000 in round figures, equal to 15s. per inhabitant per year. The value of the output of Victorian boot factories for 1908 was £1,307,329, giving an average of £1 0s. 8d. per head of the population, and the value of the imported boots in the same year was £103,850, or 1s. 8d. per head, more than half of these boots being re-exported. There were also exported about one-third of the locally made boots.

The progress of the boot manufacturing industry is a matter in which the pastoral and agricultural industries of the State are directly concerned, Victorian boot manufacturers being large consumers of leather made from the hides and skins produced in the State. The development of the leather and boot trades whereby raw material produced is made up locally, is of importance in furthering the general prosperity of the State.

The imports to and exports from Victoria of boots and shoes at different periods in the past 67 years are shown in the following table :—

TRADE IN BOOTS : 1842 TO 1908.

Year.	Imports.	Re-export of Imported Boots.	Victorian-made Exports.	Total Exports.
	£	£	£	£
1842	5,457	...	...	...
1865	632,448	118,646	4,894	123,540
1870	303,437	45,840	588	46,428
1875	202,532	61,941	14,106	76,047
1880	100,941	68,011	54,131	122,142
1885	109,998	21,263	25,482	46,745
1890	127,286	21,402	15,645	37,047
1893	40,993	12,467	6,828	19,295
1897	33,962	5,420	48,213	53,633
1900	49,295	6,489	61,463	67,952
1902	80,537	8,515	186,224	194,739
1903	79,704	14,537	237,127	251,664
1904	95,078	47,147	280,895	328,042
1905	93,879	45,733	294,016	339,749
1906	101,308	47,853	335,789	383,642
1907	111,292	58,458	414,640	473,098
1908	103,850	59,628	430,556	490,184

It is interesting to note the value of boots exported from Victoria to each of the other States of the Commonwealth, and to observe how the trade with these States tends to develop. The particulars for the last four years are as follows :—

EXPORTS OF BOOTS TO AUSTRALIAN STATES : 1905 TO 1908.

State to which exported.	1905.	1906.	1907.	1908.
	£	£	£	£
New South Wales ...	143,767	138,216	193,280	195,274
Western Australia ...	65,029	81,136	77,369	49,407
Tasmania	49,803	61,966	68,743	79,112
South Australia ...	39,947	54,032	75,041	86,979
Queensland	32,407	34,700	40,093	66,850
Total	330,953	370,050	454,526	477,622

The number of electric light works was 12 in 1908, or one more than in 1907, and there was a marked advance in the industry in all other ways. The number of hands employed was 441, against 398 in the previous year, and the horse-power of the engines used was raised from 9,948 to 11,702. Other particulars relating to this class of works for the last nine years are given in the following table :— Electric light works.

ELECTRIC LIGHT WORKS : 1900 TO 1908.

Year.	Approximate Value of—			Electricity Supplied.
	Machinery and Plant.	Land.	Buildings and Improvements.	
	£	£	£	British Units.
1900 ...	145,580	16,060	37,700	6,100,519
1901 ...	220,690	15,240	86,730	6,680,214
1902 ...	204,022	10,000	67,661	6,450,560
1903 ...	198,751	9,750	76,733	5,626,568
1904 ...	374,850	12,085	98,809	6,644,343
1905 ...	416,847	13,709	107,543	7,698,394
1906 ...	491,171	14,378	129,951	9,760,046
1907 ...	496,314	10,048	130,836	12,542,614
1908 ...	541,489	9,823	147,634	14,310,482

Forty-seven gasworks were in operation in 1908, or one less than in the previous year. The quantities of coal used, of gas made, and of coke produced, during each of the last nine years are shown hereunder :— Gasworks.

GASWORKS : 1900 TO 1908.

Year.	Coal Used.	Gas Made.	Coke Produced.
	tons.	cubic feet.	tons.
1900 ...	153,455	1,516,531,100	77,255
1901 ...	159,374	1,567,649,380	84,546
1902 ...	169,356	1,642,652,799	92,308
1903 ...	166,018	1,628,889,400	94,947
1904 ...	166,307	1,649,396,000	97,357
1905 ...	168,007	1,707,184,000	98,559
1906 ...	178,251	1,810,405,800	105,909
1907 ...	189,190	1,975,892,500	112,050
1908 ...	206,408	2,144,834,000	126,530

Oil was used as well as coal in the manufacture of gas, the number of gallons consumed each year being 108,531 in 1902, 105,651 in 1903, 117,114 in 1904, 137,247 in 1905, 154,486 in 1906, 163,215 in 1907, and 187,237 in 1908.

Total production.

The following is a return of the value of production in Victoria for each of the last three years. This shows for 1908 a total of £36,282,409, or, compared with the previous year, a decrease of £992,245, or nearly 3 per cent.

VALUE OF VICTORIAN PRODUCTION: 1906 TO 1908.

Produce.	Value in—		
	1906.	1907.	1908.
Cultivation.	£	£	£
Wheat	3,109,980	2,443,906	4,405,303
Oats	810,851	791,162	989,844
Barley, Malting	140,425	185,498	192,964
Barley, Other	65,407	56,009	60,345
Maize	70,496	87,973	116,402
Other Cereals	47,391	45,947	47,404
Grass and Clover Seed ...	4,519	2,671	4,540
Potatoes	333,678	383,145	411,840
Onions	79,800	108,155	138,408
Other Root Crops	24,233	36,842	42,811
Hay	1,681,768	3,023,128	3,256,308
Straw	37,906	133,898	246,682
Green Forage	91,255	149,742	157,665
Tobacco	1,529	3,967	4,748
Grapes, not made into wine, raisins, &c.	38,877	37,243	33,103
Raisins, ordinary	89,577	56,737	41,489
" sultanas	90,896	53,511	60,994
Currants	21,994	19,296	21,472
Wine	110,761	68,280	89,819
Hops	12,960	5,502	5,105

VALUE OF VICTORIAN PRODUCTION: 1906 TO 1908—*continued.*

Produce.	Value in—		
	1906.	1907.	1908.
Cultivation—continued.	£	£	£
Other Crops	28,509	36,082	37,468
Fruit grown for Sale in Orchards and Gardens	476,215	411,412	400,055
Fruit in Private Orchards and Gardens	9,870	9,798	8,542
Market Gardens	197,650	225,550	231,975
Total	7,576,547	8,375,454	11,005,286
Dairying and Pastoral.			
Milk Consumed in natural state	737,719	749,618	760,658
Butter made	2,978,860	2,855,305	2,388,743
Cheese made	116,860	109,948	126,252
Cream made (not for butter) ...	20,083	22,430	21,320
Concentrated Milk	59,515	78,078	63,026
Horses produced	335,538	273,700	15,274
Cattle "	2,480,226	2,056,198	298,606
Sheep "	1,913,202	1,716,908	597,880
Pigs "	325,381	424,660	380,650
Wool "	3,869,000	3,878,431	3,556,168
Total	12,836,384	12,165,276	8,208,577
Mining.			
Gold	3,280,478	2,954,617	2,849,838
Coal	80,283	79,731	64,778
Stone from Quarries (including limestone	63,272	70,945	84,479
Salt (crude)	9,273	41,766	31,950
Other Metals and Minerals ...	21,550		
Total	3,454,856	3,147,059	3,031,045
Forest Produce.			
Timber (Forest Saw-mills only)	153,309	181,590	177,460
Firewood (estimated) ...	385,000	391,000	396,750
Bark for Tanning	64,260	62,580	56,694
Total	602,569	635,170	630,904
Miscellaneous.			
Honey and Beeswax	39,015	14,380	28,488
Poultry production (estimated)	1,500,550	1,525,000	1,547,000
Rabbits and Hares	164,547	132,823	85,506
Fish	67,775	66,621	71,910
Total	1,771,887	1,738,824	1,732,904
Total Value of Primary Products	26,242,243	26,061,783	24,608,716
Manufacturing.—Added Value*	10,306,963	11,212,871	11,673,693
Grand Total... ...	36,549,206	37,274,654	36,282,409

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

In comparison with the two previous years a good increase was shown in 1908 under cultivation and manufactures. The increase in the value of cultivation as compared with 1906 was due to improved prices, and, as compared with 1907, to increased production. The large reduction shown in the dairying and pastoral production was quite exceptional, and was the result of a most unfavorable year for grazing stock. Besides a large reduction in butter and wool production, there were heavy losses of horses, cattle, and sheep. The value of production per head of the total population in each of the last three seasons was as follows:—

VALUE OF PRODUCTION PER HEAD OF POPULATION: 1906 TO 1908.

Produce.	Value of Produce per head in—		
	1906.	1907.	1908.
	£ s. d.	£ s. d.	£ s. d.
Cultivation	6 3 6	6 14 4	8 13 11
Dairying and Pastoral... ...	10 9 2	9 15 2	6 9 9
Mining	2 16 4	2 10 6	2 7 11
Forest	0 9 10	0 10 2	0 10 0
Miscellaneous	1 8 10	1 7 11	1 7 5
Total Primary Produce	21 7 8	20 18 1	19 9 0
Manufactures	8 8 0	8 19 10	9 4 6
Grand Total	29 15 8	29 17 11	28 13 6

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