

Appendix A

Mildura

History

In the early 1880s the pastures along the river where Mildura now stands were well regarded by pastoralists, and the history of Mildura dates back to March 1847 when a Mr Frank Jenkin swam a mob of cattle across from New South Wales, establishing himself at what was then known as *Yerre Yerre*. He failed to secure his tenure before Mr Armourer Forster obtained the land for Mr Hugh Jamieson, of Murray Downs (opposite Swan Hill on the New South Wales side of the Murray) station.

Mr Jamieson established himself and his brother Bushby there with 6,000 sheep. They built a homestead on the river bank above the red rock and called it Mildura. This was gazetted as the official name on 20 March 1858. An aboriginal word, *Mildura* is said to mean red rock. In 1878, the Jamiesons sold the property to Mr A. McEdward, and the Mildura run continued to flourish until the rabbit plague and the drought of the 1880s which reduced the country to such an extent that the Tapalin Pastoral Company took over the run in 1884. It subsequently passed into the hands of liquidators.

In late 1886, Mr George Chaffey came to Mildura. He had been successful in his model irrigation colonies in California and was attracted by the challenge of conditions he considered similar to those in California. He had heard of the possibilities of the River Murray from the Hon. Alfred Deakin, then Commissioner for Public Works and Water Supply in Victoria, and on investigating, was sufficiently impressed with the soil, sun, and water at Mildura to send for his brother William Benjamin to join him. The latter was the agriculturalist of the partnership. After many delays in registrations with the Victorian Government, an indenture was signed on 31 May 1887 by Sir Henry Brougham Loch, the Governor of Victoria, and the Chaffey brothers. The terms of this provided that they were granted 250,000 acres of land, an allotment of 50,000 acres to be first granted and then a right to be exercised of purchasing the adjoining 200,000 acres at £1 (\$2) per acre. Channels, pumping plants, roads, bridges, and other necessary improvements were to be constructed within twenty years. Water facilities were to be extended for a consideration to be paid by the settlers.

After the land was thrown open for selection in August 1887, the trek to Mildura began. A world-wide advertising scheme in newspapers and the famous "Red Book" eulogising the Mildura Irrigation Colonies resulted in the arrival of colonists from many lands, even including a future Governor of New Zealand (Lord Ranfurly). He cultivated citrus and sent the first consignment of oranges from Mildura to London in 1892.

Selectors arrived on the river bank at Mildura by paddle steamer, spring carts, bullock drays, on bicycles, and on foot. Within months the Chaffey Engineering Works, the town pump, and a store were erected on the river bank not far from the present wharf. Steam traction engines arrived by barge for clearing the land, and the river flats were dotted with tents and bush houses. Men were employed grubbing out the mallee; channels were excavated; flats ringbarked; and fencing commenced. First to plant their land were Mr Charles Trevatt, from the Wimmera, and Mr A. B. Skene, a Californian nurseryman.

The township of 1,000 acres was laid out on a similar plan to the Chaffey Irrigation Colonies in California. Deakin Avenue, the main thoroughfare, extended five miles to the south-west, with its double row of gumtrees down the centre, many of which flourish today.

By August 1888, the population was 550, and 400 of these had planted land with vines (mainly gordos and Zante currants), lemon and orange trees, apricots, and figs. In January 1889, there was a resident population of 1,000 persons. The large pumping engines designed by George Chaffey and made by Tangyes of Birmingham were installed at vantage points seven miles upstream to raise water from the river into irrigation channels which carried it to the blocks (of 10 acres or more) throughout the settlement. These units served the district for almost seventy years.

The first Shire Council met in April 1890 following the severance of Mildura from the Shire of Swan Hill.

To justify his faith in the young irrigation settlement W. B. Chaffey built a substantial two storeyed home in the mallee scrub overlooking the river. Shows of district fruits were held locally from 1890 onwards and W. B. Chaffey crushed the first vintage from his wine grapes in 1891.

Mildura prospered and in 1893 had a record harvest of fresh fruit. Unfortunately the river closed to shipping at the crucial moment, and the fruit had to be carried to Swan Hill by teams of horses and railed from there to Melbourne. When it arrived in the city markets it proved to be uneatable. By this time, Mildura settlement comprising Irymple Valley and Koorlong, had a population of 3,500 persons, and there were 8,225 acres of land under irrigation.

Following the advice of experts, currants, gordos and sultanas were dried in the sun on trays. In 1893, economic crises which crippled most of Victoria almost ruined Mildura. Many settlers left their properties. These were very difficult years for those who remained in the irrigation colony with salt seepage showing on blocks (killing trees and vines), yabbies (small crayfish) undermining the channels, banks closing, and men being paid in promissory notes. George Chaffey returned to California, while his brother remained to devote his life and work to saving the colony they had both established. In 1898, the salt menace was controlled in a primitive manner by the sinking of shafts on holdings. Federation in 1901 did

away with heavy interstate duties, and after the coming of the railway in 1903, Mildura began to prosper once more. Many settlers left to go to the West Australian goldfields in the mid-1890s but eventually returned to their homes in Mildura.

The Australian Dried Fruit Growers Association, an association of dried fruit growers to control the marketing of their produce, was formed in 1907. This proved a very important event as it gave the district some economic stability. Wire netting racks were introduced to facilitate the drying of fruit, and in 1909 a new area at Merbein, 7 miles downstream from Mildura, was opened. In 1911, the citizens of Mildura and district showed their confidence in W. B. Chaffey by presenting him with a motor car, to mark the silver jubilee of his choice for an irrigation colony. During the First World War markets for the district's produce were readily found in Great Britain.

These markets proved harder to hold afterwards and in 1920 a wide publicity campaign was organised for the A.D.F.A. to instruct Australians in the value of Mildura's dried fruit. The name "Sunraysed" was adopted for Mildura's products, and the whole of the irrigation settlement became known as "Sunraysia". This included Red Cliffs, the new soldier settlement established in 1920 10 miles upstream from Mildura, Irymple, Koorlong, Merbein and Birdwoodton (also a soldier settlement) and later Coomealla and Curlwaa. In 1920, Mildura was declared a borough, two years later the borough became a town, and in 1934, Mildura was declared a city. The industry was greatly assisted by the introduction in 1922 of the cold dip process which gives the dried fruit its golden colour. This process replaced the previous hot dip.

The depression which reached its peak in the 1930s affected the dried fruits industry much earlier. In 1924, the price of sultanas decreased from \$118 a ton to \$46. The Red Cliffs, Birdwoodton, and other soldier settlements along the Murray in Victoria, New South Wales, and South Australia were beginning to increase tonnage, and available markets could not take it all. Most soldier settlers were under lien to the Soldier Settlement Commission. At the end of the 1920s, because of over-production and low return, the Australian price level tended to be broken and it became necessary to seek government aid to assist with disposal of increased tonnage in overseas markets. In 1933, the Ottawa Agreement with Canada gave Australia preference in the Canadian market, and this became very important. Preferential tariff was also granted in the United Kingdom market. From 1933, stabilised markets and favourable trade agreements with the United Kingdom, Canada, and New Zealand helped the industry, but the outbreak of war in 1939 saw all stocks in Britain controlled and the price level fixed. Eventually a satisfactory price was agreed to annually, and there were no disposal problems. At the end of the Second World War, new

soldier settlements were established, such as Robinvale in Victoria, Coomealla in New South Wales, and Loxton in South Australia. Once again there was an increase in production, for which additional markets were sought.

Since the 1950s, there has been much development in mechanisation, automatic handling of work on blocks, packing sheds and transport overseas, and the improvement of quality and quantity of products. The programme of promotion of dried fruits at home and abroad is being helped by growers who pay about \$6 a ton each year for industry publicity.

By 1967, the city had a population of some 13,000 persons, and the settlement around Mildura about 17,000. An area of 42,000 acres (i.e., Mildura, Red Cliffs, Merbein, Irymple, and Koorlong) was under irrigation. The Merbein Research Station, established in 1917 largely to combat blackspot, has developed into the Horticultural Research Section of the Commonwealth Scientific and Industrial Research Organisation. "Rio Vista" for so long the home of the Chaffey family, is now a Museum, and part of Mildura Arts Centre.

Climate

Mildura has a dry climate with hot summers and mild winters. The average annual rainfall is only 11 in which is fairly evenly distributed through the year. However, there is great variability in the actual rainfall from month to month and from year to year; in some years, less than half the annual average has fallen, in other years almost double the normal rainfall.

All months of the year except July, August, and September, have been rainless on at least one occasion, and there have been several occasions when no rain has fallen for two successive months.

In summer the days are hot, the average maximum temperature being 90°F, and the nights are warm, with an average minimum temperature of 61°F. The highest temperature ever recorded in Victoria, 123.5°F, occurred at Mildura in 1906. However, the humidity is considerably lower than in southern Victoria, and there is usually a breeze in the afternoon.

In winter, the average maximum temperature is 60°F, but winter nights can be cold, the average minimum temperature being 40°F. Frosts (temperatures below 36°F) occur on an average of ten days a year, and have been known to occur as late as October.

Being situated in almost flat country, Mildura is well exposed to prevailing winds, and afternoons are rarely calm. On the other hand, strong winds (average speed over 25 m.p.h.) are infrequent, occurring about ten times per year. Strong winds in summer may occasionally cause duststorms, with greatly reduced visibility. Mildura is one of the sunniest places in Victoria, averaging eleven hours of sunshine a day in summer, and six hours a day in winter.

City of Mildura

The city is situated on the Victorian bank of the River Murray, but because of its elevated nature in relation to the river, it is not subject to risk during flood periods. It has good internal drainage facilities and almost all of the streets are fully constructed—full width, concrete curb and channel, attractive tree bays in the centre of the roads, and nature strips adjoining footpaths.

The city covers an area of 5,405 acres and at the 1966 Census the population was 12,900. There are 3,540 dwellings within the city, giving valuations of : Net annual value \$1,757,650, unimproved capital value \$10,980,806, capital improved value \$35,153,000.

There are nine councillors, and elections are held annually in August.

The nine city councillors comprise the members of the Mildura Sewerage Authority, which was formed in 1930. There are two major pumping stations and two minor ones. For all practical purposes, the whole of the city area is fully sewered and the average daily flow is 500,000 gals.

At the outfall the sewage is treated and irrigated on to pastures covering 200 acres and these in turn are the basis of a sheep breeding project for fat lambs and wool. An average of 2,500 sheep are fed, on dry land, from the pastures through the method of forage harvesting. All profits are used to offset the general rating structure.

The nine city councillors also comprise the trustees of the Mildura Cemetery Trust.

Shire of Mildura

Before 1886, the area now known as "Sunraysia" consisted of station country and large areas of uninhabited Crown lands in the Lower Murray Riding of the Shire of Swan Hill. In 1885, land in the area was valued by the Surveyor-General at twenty cents (20c) per acre. There were few people who elected to live there. The Shire of Mildura was created in 1890 as a result of the irrigation settlement, and its population in 1891 was 2,321.

In 1967 some 17,000 people lived in the Shire of Mildura. About 42,000 acres are under irrigation and the modern townships of Red Cliffs, (pop. 2,500), Merbein, (pop. 1,700) and Irymple, (pop. 1,100) form the nuclei of the various settlements.

The extensive dry farming areas in the west and south of the Shire do not rely on irrigation. Before the First World War, dry farming had been confined mainly to the Yatpool-Carwarp area, south of the irrigation settlement but, during the 1920s, the County of Millewa, in the west, was opened up and the railway constructed from Red Cliffs to Morkalla, near the South Australian border—a distance of some 60 miles.

Over 200 farms, most of them with an area of 640 acres, were surveyed and taken up. These were later found to be too small. In 1951 the Government resumed all of the land and re-allocated it in larger holdings, from between 2,000 to 4,000 acres each. From that time, improved soil conservation was introduced, better farming methods were devised, and slowly the Millewa prospered.

Water Resources and Utilisation

Historical

Mildura and its surrounding district are almost completely dependent on the water of the River Murray for their existence.

The average annual rainfall of the area is about 11 in.

In 1965-66, approximately 200,000 acre ft of water was pumped from the river for the irrigation of 55,810 acres of land for stock and domestic use, on 1,100 sq miles of dry farms, and for the supply of domestic and industrial water for the City of Mildura and the other townships of the area.

Prior to 1887, the whole area was leased by the Crown as poor grazing country (how poor is indicated by the annual rental of 1d per 14 acres for Mildura Station). In that year G. and W. B. Chaffey were granted part of the area as a concession of 50,000 acres to develop as an irrigation settlement. Financial difficulties encountered by both the promoters and the settlers in the first years resulted in the establishment by the Government in 1896 of the First Mildura Irrigation Trust with the responsibility, as a local government body, to operate and develop the irrigation area established by the Chaffeyes. (See also page 814.)

At this time an area of 8,000 to 9,000 acres was being irrigated. This area increased during the next ten years to 12,000 acres and remained substantially at this level for the next 40 years. Of recent years, the area of irrigated land served by the F.M.I.T. has increased to 16,700 acres.

In 1909, the State Rivers and Water Supply Commission established an irrigation settlement of 5,000 acres at Merbein, originally as a dairy settlement, but within two or three years it had followed the lead of Mildura and changed to the production mainly of dried grapes and citrus. Two years later, in 1911, two of the channels serving Merbein Settlement were extended to bring water to fill dams for domestic and stock use into 100 sq miles of dry country in the parishes of Yelta and Wargan to the west of the settlement. This enabled poor grazing land to be made available for dry farming. This development was followed, in 1917, by a domestic and stock scheme for supply to dry farms that had been selected in the Carwarp area. It served an area of 140 sq miles and was supplied by a small pumping station that was built on the River Murray a short distance upstream of the present Red Cliffs pumping station. This year also saw the commencement of the First World War Soldier Settlement in Sunraysia with the beginning of the extension of Merbein District. By 1920, this district had reached its full developed area of 8,400 acres.

Between 1921 and 1924 the main Victorian Sunraysia irrigation soldier settlement of Red Cliffs and Red Cliffs township were built. Red Cliffs District, with an area of 11,700 irrigable acres, was established for the production of dried vine fruits, water being pumped from the river at the eastern boundary of the settlement. Arrangements were made at this time to supply the Carwarp System through the Red Cliffs channel reticulation.

By the early 1930s, widespread damage to irrigated properties had occurred through rising water tables. In 1934, the construction of drainage outfall systems to serve the F.M.I.T., Merbein, and Red Cliffs irrigation areas was begun. These systems consisted of underground pipe mains which discharged onto river flats or into evaporating basins. The work was completed in 1938.

Between 1924 and 1927, an area of about 940 sq miles in the Millewa area was opened for closer settlement. As allocation of blocks proceeded a domestic and stock channel system was constructed to keep pace. Water was obtained from the Murray at Lock 9 and was distributed to farm dams through a system of about 600 miles of earthen channels. The dry period of 1935 to 1945 resulted in many settlers leaving their farms culminating, in 1951, in the re-subdivision of the area into much larger holdings and a reduction in channel mileage to 400 miles. Produce of the area is practically confined to wheat and wool.

Since 1946 there has been a large increase in the area in Victorian Sunraysia which is irrigated by private diverters. The main areas of development have been upstream of Red Cliffs and north of Merbein.

In 1966-67, the area irrigated by private diversion was 5,800 acres and a part of the total area of 42,200 acres of irrigated lands in Victorian Sunraysia. Robinvale with an irrigable area of 5,638 acres is not included in this total.

Although irrigation in New South Wales was first authorised in 1890, it was not until 1904 that the first irrigation was carried out at Curlwaa. This area developed slowly until 1920 when 750 acres were being irrigated. Soldier settlement resulted in the settlement growing to 1,600 acres by 1926 when Coomealla Settlement commenced with the irrigation of 350 acres. The present irrigated area of Curlwaa is 1,800 acres. Coomealla had grown to an area of 2,700 acres by 1946 but since then the irrigated area in New South Wales Sunraysia has trebled to a total of approximately 13,500 acres. Of this area, about 3,500 acres are irrigated with water privately pumped from the Murray, whilst 10,000 acres are irrigated in areas controlled by the Water Conservation and Irrigation Commission.

Water Supply Works

The construction of the Hume Dam (Lake Hume) completed in 1936, and Locks 9, 10, and 11 (at Lake Cullulleraine, Wentworth, and Mildura, respectively) in the late 1920s has resulted in a regulated and dependable supply of water in contrast with the large fluctuations from season to season and year to year that is the pattern of natural River Murray flows.

In all constituted irrigation areas the method of supply of water to blocks is similar. Water is pumped from the river into a concrete-lined channel situated in a commanding location. From the channel the water is gravitated through further channels or is reticulated through pipelines to the irrigation blocks.

First Mildura Irrigation Trust.—Water for F.M.I.T. is first lifted 9 ft from the river to King's Billabong by a pumping station of 390 cusecs capacity and is then lifted 90 ft from the billabong to the channel system. The output of the pumping station is 200 cusecs. The area to which water right has been apportioned is 16,759 acres.

Red Cliffs.—In the primary lift from the river 160 cusecs are lifted 90 ft to the main channel which commands approximately one-half of the settlement. The second pumping station lifts 80 cusecs from the main channel a further 20 ft to command practically the whole of the remainder of the settlement. Two small areas of high land require further lifts of 15 ft. The total area to which water rights are apportioned is 11,582 acres. The area is served by 84 miles of concrete-lined channels and 37 miles of pipelines. There are 87 miles of pipes in the drainage outfall system.

Merbein.—The district is served by one lift of 100 cusecs of 90 ft from the river. Distribution is through 31 miles of concrete-lined channels and 31 miles of pipelines. There are 71 miles of pipelines in the drainage outfall system. Water rights are apportioned to 8,062 acres.

All pumping stations in F.M.I.T., Red Cliffs, and Merbein systems are electrically powered.

Millewa Domestic and Stock District.—Water is lifted from the pool of Lock 9 with a steam powered 100 cusecs pump into an earthen channel which gravitates to Lake Cullulleraine on the edge of the flood plain of the Murray. A main pumping station at the lake with 55 cusecs capacity and two other stations located within the area lift water to five different levels—the highest 270 ft above Lake Cullulleraine—from which it is distributed through 400 miles of earthen channel. One of the stations is steam powered and the other two powered by diesels. The conversion of the method of supply from earthen channels to a pressured pipe supply will commence in the near future.

The 200,000 acre ft of water pumped from the river in 1965–66 was used in the following manner: for use in urban areas 4,500 acre ft; for the filling of farmers' dams in the Carwarp, Millewa, and Yelta districts, 9,600 acre ft; and for irrigation, 186,000 acre ft.

First Mildura Irrigation Trust

The administration of water supply and drainage for the 16,000 acres of irrigated land in the immediate vicinity of the City of Mildura is the responsibility of the Mildura Irrigation Trust, which is the only Irrigation Trust not taken over by the State Rivers and Water Supply Commission when the Commission was established in 1906.

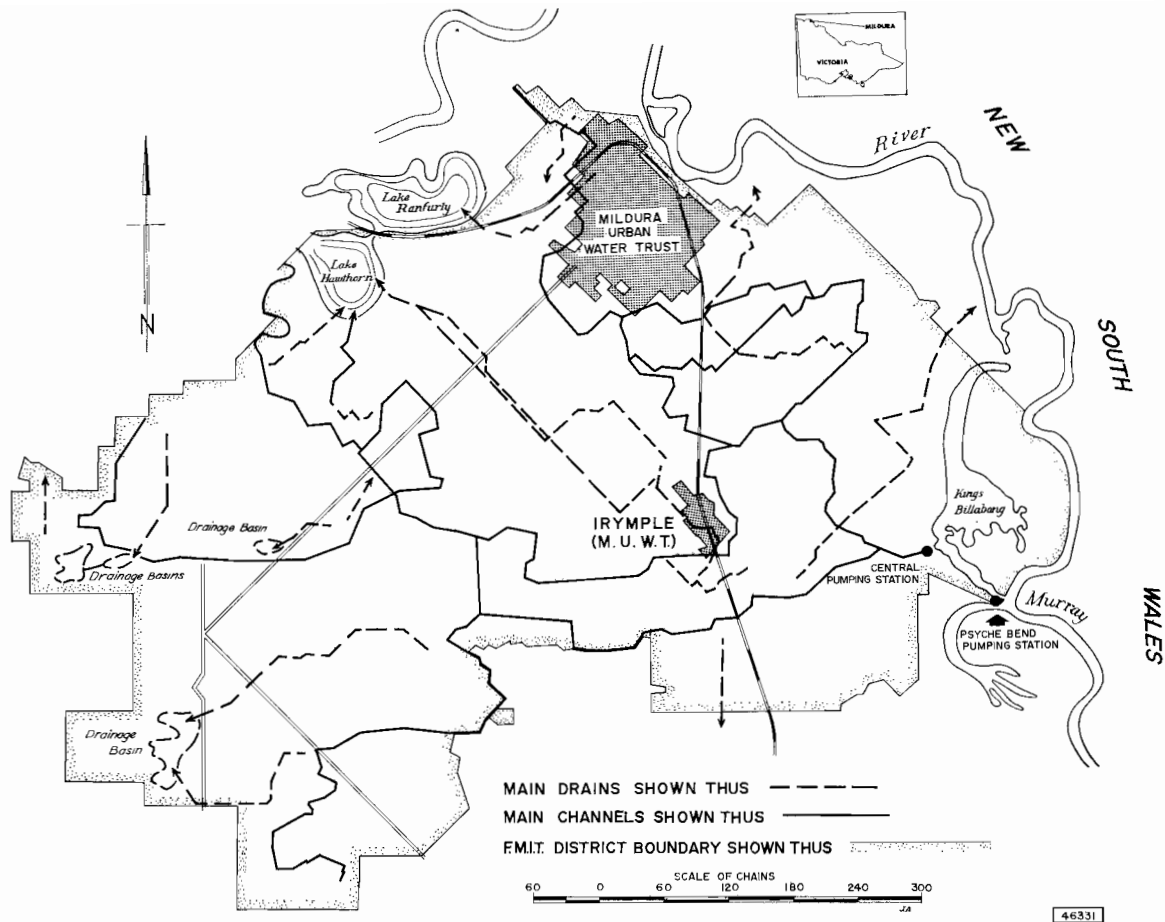


FIGURE 17.—Area covered by First Mildura Irrigation Trust and Urban Water Trust

Since then the Commission has established and administered the neighbouring irrigation districts of Red Cliffs (11,700 acres) and Merbein (8,400 acres). There is also a substantial area of land in the district irrigated by private diverters who pump direct from the River Murray.

The Trust was established by an Act of 1896 to maintain the water supply system which had been operated by the earlier Mildura Irrigation Company formed by the Chaffey Brothers. Shares in the Company had been issued to settlers co-extensive with water rights from the time the settlement began in 1887. However, the financial crisis of 1893, together with other factors such as channel seepage and inadequate communications, caused difficulties for the Chaffey Brothers and the settlers and finally led to the winding up of the Company.

The Mildura Irrigation Trust now has two pumping stations, capable of supplying an ultimate area of some 19,000 acres through a water distribution system consisting of 170 miles of channel and pipeline. One station pumps water from the River Murray to a billabong from where the other station pumps to a delivery point for the irrigation system.

Drainage is an essential counterpart to irrigation in the Mildura area and the Trust operates a sub-surface drainage scheme, consisting of 130 miles of pipeline and twenty-two drainage pumps.

Products of the irrigated area are predominantly dried vine fruits and the yields for the 1966-67 season in the Mildura Shire were : sultanas 52,349 tons, currants 3,477 tons, raisins 4,572 tons, and lexias 2,622 tons.

In the Mildura Irrigation Trust district, a water rate is struck each year to cover the cost of the four general irrigations essential to produce the crops. In addition, at least four special irrigations are supplied each year at cost to those growers requesting them. All charges for water or drainage in the Trust district are levied in proportion to the area served.

The volume of water pumped in 1966-67 was 43,063 acre ft in general irrigations, representing an average depth of 6.9 in per irrigation, over the total area supplied. In special irrigations 15,653 acre ft were pumped, giving an average depth of 8.7 in over the area watered.

Mildura Urban Water Trust

Until 1896, the duty of supplying water to the urban as well as the rural areas of the Mildura Settlement was discharged by the Mildura Irrigation Co. Ltd. After the First Mildura Irrigation Trust came into being in 1896, it took over the functions of the company, together with its assets and liabilities, and was in consequence charged with the supply of water to the rising township of Mildura, a duty it continued to discharge until 1921.

There was a change in the method of control of the town water supply in 1909 when the townspeople were given a voice in the matters that concerned them. This was brought about by the passing of an Act empowering the Governor in Council at any time to proclaim an urban section of the irrigation district of the First Mildura Irrigation Trust, and the necessary proclamation was made in May 1909. The urban section was controlled by three Commissioners appointed by the Irrigation Trust, and three elected by the ratepayers of the urban section district. The secretary of the Irrigation Trust acted as secretary of the urban section until 1912, when the urban section opened its own offices.

In 1921, the Mildura Urban Water Trust was divorced from the Irrigation Trust and constituted in its present form. Under the above Act, the Trust is controlled by six commissioners elected by the ratepayers. The Trust draws water from the River Murray and until December 1961, the only treatment available was that of chlorination which had been practised by the Trust since 1928.

In 1962, the Trust completed the construction of a 6.5 mill. gals per day water treatment plant on the same site as its office, workshop, stores, and pumping plant are located. This plant as constructed was the largest installation in one stage of water treatment undertaken in Victoria and over recent years the development by the Trust in extending its system to serve local fruit-growing properties saw the first stage of extensions completed in April 1967 which now allows the total output of the plant to reach 10.5 mill. gals per day. The ultimate capacity of the plant will be about 15 mill. gals per day. The present reticulation system extends to a radius of 6 miles and includes 110 miles of pipelines ranging through all sizes from 24 in to 3 in. Because of the flat terrain of Mildura, water must be stored in an elevated storage (water tower) to produce the necessary pressure. In September 1957, the Trust completed its large elevated storage built entirely of reinforced concrete and holding 600,000 gal with a top water level of 125 ft above ground.

Annual consumption of the Trust is 1,084.62 mill. gals with a maximum monthly figure of 151 mill. gals and a daily maximum of 7.25 mill. gals.

Land Use and Agricultural Development

Soils and Topography

The soils of the area belong to the Mallee group. They are formed from marine deposits left behind when the large inland sea covering this area retreated about one million years ago. Over time the winds have formed these deposits into a series of east-west dunes which range from 10 to 30 ft in height and are 10 to 20 chains apart.

A north-south section through one of these dunes shows that there have been a series of dry and wet periods when denudation, deposition, and soil formation have occurred; that the soils vary from deep sands on the ridges to shallow clay loams in the depressions or hollows; and that invariably a dense, relatively impermeable, clay layer is found in the deep subsoil and it is on this clay that perched water tables form under irrigation.

Whilst the types of Mallee soils vary greatly they have a number of features in common. The surface soils range from grey brown to red brown in colour, while the subsoils are lighter in colour because of the presence of lime.

The soil profile is distinctly layered with the clay, lime content and pH generally increasing with depth. The soils are alkaline throughout and in the virgin state contain substantial quantities of salt. The Commonwealth Scientific and Industrial Research Organisation has surveyed intensely the soils of all the Mallee horticultural areas and has prepared coloured soil maps with accompanying details relating to each soil type. These maps have proved useful for land usage, land valuation, drainage and irrigation recommendations, and in defining soil management practices.

Vegetation

There is a close relationship between soil type, topography, and vegetation. The very light soils on the crest of the ridges originally carried whip stick mallee and spinifex (porcupine grass) while the heavier sands on upper slopes carried a mixed vegetation of pine, belar, and sandalwood often associated with Cassia and Acacia species.

The brown and grey brown sandy loam soils on the lower slopes and some of the flatter areas were dominated by mallee trees and various species of Hakea, Myoporum, Acacia, and Eremophila. The heavier soils in the depressions between the ridges supported an open vegetation consisting mainly of large belar trees, a few shrubby species, and native grasses.

Crops in Relation to Soil Types

Generally, citrus is confined to the soils on the sandy ridges and upper slopes, which are free draining to a depth of 6 ft or more and have at least 30 in of lime-free top soil.

Although vines are being successfully grown on a range of soils extending from the light sands down to heavy clay loams, the best soils are the sandy loams which have 12 to 18 in of lime-free top soil and are free draining to a depth of 4 ft 6 in to 6 ft.

Crops in the Mildura Area

Vines

In the Mildura area and the surrounding districts of Red Cliffs, Irymple, Merbein, and Nangiloc there are about 42,000 acres of horticultural plantings. Approximately 90 per cent of the area is devoted to dried vine fruits comprising sultanas, gordos, waltham cross, and currants. Over 70 per cent of the dried vine fruits consist of sultanas and the present trend is for sultana plantings to increase further at the expense of currants and old citrus plantings on shallow marginal soil types. About 60 per cent of the Australian dried vine fruit pack is produced in the Mildura district.

The most important markets for dried vine fruits are the United Kingdom, Canada, New Zealand, and West Germany which collectively take 80 per cent of the pack ; the remaining 20 per cent is consumed in Australia.

Yield of dried vine fruits ranges from 25 cwt to over 3 tons of dried fruit per acre, with a district average of about 33 cwt per acre. As well as grapes for drying, there is a small acreage of table grapes which are mainly sent to Melbourne and Sydney and a small but increasing acreage of wine grape varieties to meet the growing demand for table wines.

The main management factors affecting vine production are the efficiency of irrigation and drainage, the extent of nematode infestation, the type of trellising used, pest and disease control, and the soil management practices used. Possibly the biggest step forward in recent years has been the release of high yielding sultana clones by CSIRO and the introduction of nematode resistant rootstocks for vines.

Citrus

There are about 3,500 acres of citrus in the area, the main varieties being valencia and navel oranges, mandarins, grapefruit, and lemons.

A trend toward larger holdings specialising in citrus production is evident, particularly in the Nangiloc and Colignan areas where growers pump their own water direct from the river.

There are three main outlets for citrus, namely, a developing export market, a well established home market, and an increasing outlet for citrus juices.

The need for increased production per acre has resulted in closer plantings of citrus, greater interest in better budlines and rootstocks, conversion to efficient forms of sprinkler irrigation, and better overall cultural techniques.

Vegetables

Whilst there are only a few growers concentrating entirely on vegetable production there is nevertheless a considerable acreage of vegetables grown each year as inter-row crops in young developing citrus groves. Improved transport facilities have greatly contributed to the interest in vegetable production in the district.

The main vegetables grown are cantaloups, beans, peas, carrots, lettuce, pumpkins, onions, red beet, and spinach. Most of these crops are grown to take advantage of early or late markets when supplies from other areas are limited in Melbourne and Sydney.

In addition there are over 800 glasshouses in the Mildura area mainly concentrating on early production of tomatoes and capsicums.

General Trends in District Horticulture

Rising costs and the need to produce more economically have resulted in greater mechanisation, a trend toward increased farm size, and greater crop specialisation and farming efficiency. This in turn has resulted in an increased grower demand for up to date technical information and research into current problems and possible future developments.

There has also been a general move to more organised and orderly marketing of produce in the area possibly prompted by increased competition and more exacting consumer requirements.

Advisory and Research Services

The Victorian Department of Agriculture provides an advisory service in the area which is supported and serviced by research in the field, a Plant Research Laboratory, and a Horticultural Research Station, both of which are located at Irymple.

In addition the Horticultural Research Division of CSIRO has a Research Station at Merbein studying the more fundamental problems of horticultural crops, while at Red Cliffs a number of irrigation and drainage problems are being investigated by the Irrigation Research Section of the State Rivers and Water Supply Commission.

Millewa Settlement

Following the successful establishment of the Chaffey irrigation settlement and, later, the return of servicemen from the First World War, demand for land west of Mildura increased.

Land was allocated in 640 to 800 acre blocks to each settler who then had to set about clearing the dense Mallee, Belar, and Murray Pine timber. Many problems soon became evident, usually as a result of insufficient knowledge of the environment and farming experience. It was soon found that the areas allotted were too small and frequent droughts tended to dissipate capital. When good seasons prevailed, (and these produced, on occasions, very high yields) prices received were often below costs of production. These factors and the depression of the 1930s brought about an exodus from the district. Many of those who stayed departed after the 1943 to 1945 drought.

In 1946, the Government appointed the North West Mallee Facts Finding Committee to investigate conditions and recommend ways of improving conditions for the remaining farmers.

As a result of its findings the area was re-allocated between 1947 and 1952 into larger holdings of from 3,000–5,000 acres, some even larger. The Wheat Stabilisation Plan which came into being during this period gave to the farmer satisfactory prices for his wheat and the high wool prices of the early 1950s together with a marked improvement in seasons made consolidation feasible since 1950. During this period debts on land and machinery could be paid off and formerly uncleared or regenerated scrub land produced cereals, wool and meat.

Since 1960 there has been development in management techniques, pasture improvement, better layout of subdivision, water supply and better farm practices. Farmers are now in a position where they can better withstand the stresses of the harsh environment.

This period of improvement and relative security led farmers to press for the opening up of Crown land adjacent to the existing settlement. The Government subsequently requested the State Development Committee to examine the development of Crown land to the south, west, and north of the settlement and to replace the existing open channel method of supplying water to farms with a piped system. The Committee's findings were that no major extension of the settlement should take place at this stage, but that the channel system should be replaced by pipelines. This latter decision, if implemented, would give even greater impetus to internal development of farms.

Dry Farming West of Mildura

The climate which admirably suits the dried fruit and citrus industries of Sunraysia poses considerable problems to the dry farmer west of Mildura in the area known as the Millewa.

Rainfall is low (10–11 in), often extremely uneven in distribution, both throughout the year and within short distances throughout the district. Although there are no topographic features of consequence it is quite common to have a difference of 2 in or 20 per cent of the average received within 10 miles of two given points. Reliability is also poor. Strong winds are often experienced in summer, early autumn, and July. The summer winds are strong and often occur in association with high temperatures. It is during these periods when most erosion of fallows occurs. July winds can and often do, cause considerable damage by sand blast to young seedlings.

Soils, while amongst the most fertile in the Mallee are more heavily textured than is desirable for cropping under this rainfall, particularly in the east section of the Millewa. Towards the west the soils are generally sandier but limestone is more abundant, increasing the depreciation rate of machinery. Topography is undulating, with soils being lighter as elevation increases. In some sections a regular pattern of east-west rises is found. The rises of a sandy to sandy loam nature are usually sharply defined from the sandy clay loam flats and not as fertile.

Land use in the area is cereal growing, (wheat, oats, and barley), fat lamb and wool production, and, to a lesser degree, vealer production.

Erosion of the sand rises by wind has been severe in the past but most are now reclaimed. Wind erosion still occurs during fallow periods when the land is prepared for sowing to wheat. Erosion control and reclamation of the land rises are achieved by first levelling drift accumulations either with a bulldozer or farm implements. Cereal rye is then sown as a primary stabiliser followed by the introduction of lucerne (*Medicago sativa*) and harbinger medic (*Medicago littoralis*) under a cover crop of either rye, oats, or wheat.

Erosion control of the flats is largely a matter of the employment of correct cultivation practices. The land is ploughed in July-August and subsequently cultivated to eradicate weeds, so conserving moisture to supplement the natural rainfall the following year. Wheat is sown from early May as rainfall permits.

The Soil Conservation Authority is actively engaged in assisting farmers in erosion reclamation and in advising on correct techniques to prevent further erosion.

Vine Fruits

Introduction

Considerable expansion of the industry took place after the First World War and again at the end of the Second World War. Red Cliffs and Merbein are prime examples of closer settlement following the First World War, and in these districts closer settlement has developed pleasant towns with modern amenities and a strong community spirit.

Owing to the ease with which some varieties of drying grapes can be diverted to wineries or to the fresh fruit market, it is difficult to assess accurately the number of vineyards and their acreage which are devoted solely to the production of dried fruits. The 1964 figure of 38,173 acres in Victoria gives a fairly close assessment. Since 1957 the acreage of currants has declined while that of sultanas and raisins, with a higher yield per acre, has increased.

Production

Because of the increasing cost and the difficulty of obtaining skilled labour, continued research is being carried out to mechanise cultivation and to improve vineyard management. However, much of the work must still be done by hand.

Irrigation is still largely by the furrow method, although some growers are experimenting with sprays. Drainage problems have been overcome by laying tile drains and this has improved soil conditions and helped increase production per acre.

Cinturing, which is the pruning of a thin layer of bark at the base of the trunk of the currant vines, is required to ensure setting of the fruit. The tedious hand work is, however, giving way to the use of hormone sprays. Giberellic acid, and other hormones, give promise of increased vine yields, and more efficient pesticides and fungicides are continually being evolved to combat insects, mould, and fungoid diseases.

The two greatest weather problems facing the producer are late frosts after bud-burst, and summer and early autumn rainfall. The first problem has been largely overcome by improved irrigation methods and the co-operative efforts of "frost clubs". While science can do nothing to prevent the summer rains, better forecasting and more frequent meteorological reports help to give the growers sufficient warning to allow protective measures to be taken. In addition to physical damage to the berries, summer rains bring high humidity which increases the incidence of mould attacking the fruit.

Currants being of relatively small size, can dry out naturally on the drying racks, but sultanas and raisins have to be dipped. The sultana grape is covered with a "bloom", a film of surface wax which inhibits the loss of water from the grape. The purpose of the dip is to remove the "bloom" or to open it up sufficiently to allow dehydration to take place.

Early dips were of a caustic solution which was heated, but over the years these have been gradually modified and today the usual sultana dip is a cold solution of oil and chemicals which opens up, but does not entirely remove, the "bloom". The hot dip is still preferred for raisins.

Marketing

In the early years of the industry, marketing was haphazard and growers were at the mercy of speculators. Prices fluctuated from season to season, and no grower could be assured of a reasonable return for his fruit. In 1907, the Australian Dried Fruits Association was formed by the amalgamation of the Mildura and Renmark Dried Fruits Trusts. These Trusts had earlier been established by growers to attempt to achieve some uniformity and price stability in marketing and to lessen the insecurity which had developed within the industry.

The Australian Dried Fruits Association is a voluntary and co-operative body of growers, packers and selling agents and, through its Board of Management now controls marketing within Australia and with the Australian Dried Fruits Control Board establishes quotas for export marketing. Although Australia has the highest home consumption rate of any producing country only some 20,000 tons of dried vine fruits are used locally each year. The balance has to be exported. The Association is engaged in a continuous programme of promotion to maintain and increase local sales. Expenditure on promotion for the year 1966-67 exceeded \$400,000.

To ensure that all growers will share equally in all markets, the Association conducts an equalisation scheme. The proceeds from all sales of a variety of dried fruit are pooled and, subject to quality grade variations which are set by the Association, are spread over the total seasonal pack of the appropriate variety. The Association controls the marketing of over 99 per cent of the Australian pack.

The United Kingdom is the most important of the export markets and takes a large percentage of the annual pack. Canada and New Zealand are also consistent and developing buyers, taking some 17,000 tons and 6,000 tons, respectively, each year.

Prior to 1962, prices for dried vine fruits fluctuated in the United Kingdom and on the Continent according to the production and marketing techniques of Greek and Turkish suppliers. Australia, in order to maintain its share of these markets, was forced to market at prices close to those quoted by the Greeks and Turks. In a year of high production in all three countries prices dropped and, at times, the returns received by Australian growers fell short of the cost of production.

In 1962, the Australian Dried Fruits Control Board agreed to an International Sultana Agreement between Australia, Greece, and Turkey and this has brought some stability to those export markets in which the countries compete.

Stabilisation

The Australian Dried Fruits Association has long been aware that the effect of the ever rising cost of production could, if coupled with a fall in export prices, result in growers' average realisations falling below the cost of production. The stability of export prices is largely dependent on the International Sultana Agreement, and as this is an agreement which must be negotiated and renewed each year, no long term price stability can be guaranteed.

In 1964, the Commonwealth Government agreed to a guaranteed price scheme for currants, sultanas and raisins based on the separate average cost of production of each variety. This scheme will run for a period of five years and will then be subject to renewal, if growers so desire.

Forestry

Nearly the entire north-western part of the State was clothed with dry-climate forests before settlement began, but extensive areas have since been cleared for cultivation under various land settlement schemes. The principal forest types are Mallee Scrub and Riverine.

The Mallee Scrub is a distinctive plant formation which gave the area its name. It consists of eight species of low-growing (mostly 10–12 ft, but up to 30 ft high) multi-stemmed eucalypt trees in mixed stands. Though much of this scrub has been cleared for cereal growing and grazing, there are still extensive areas remaining in the Sunset Desert (1,400,000 acres, west of Hattah) and in the Big Desert (1,600,000 acres, west of Hopetoun). Though of minor commercial value, these Mallee forests are very useful in protecting the sandy soil from erosion by wind.

Associated with the Mallee eucalyptus, but occupying the better quality land, are pure stands of Murray Pine (*Callitris* sp.), Belar (*Casuarina* sp.), Buloke (*Casuarina* sp.), and Sandalwood (*Myoporum* sp.). The original stands have been largely cleared for agriculture, but remnants are to be found in isolated pockets. The most extensive areas of these forests are now in the Kulkynie Forest (74,000 acres) and in the Yarrara Forest (6,000 acres). The original Murray Pine and Belar forests were extensively exploited for their durable timber, being required by the vine-growing industry for the construction of trellises and drying-racks.

The Riverine forests consisting of River Red Gum (*Eucalyptus camaldulensis*) and Black Box (*E. largiflorens*), are confined to the flood plain of the River Murray and its anabranches. These are now the main source of supply for farm fencing and vine trellises, posts, poles, railway sleepers, saw-logs, and firewood. In the early days

of settlement, these forests yielded large quantities of firewood for the steam-powered irrigation pumps and for the many river steamers which plied the River Murray. They are mostly re-growth forests now, and are managed for a sustained yield of forest products.

The total area of reserved forest in the north-west is 150,000 acres. The Forests Commission of Victoria is responsible for managing these reserved forests and for the timber and fire protection aspects of the "protected forests" of which the Sunset and Big Deserts are the principal areas.

Grazing of cattle in forest areas is an important sideline of forestry in this arid climate, where access to water and additional fodder are always in keen demand. Honey production from eucalypts is another minor industry of the forests.

The forests of the north-west play their part in the conservation of the native habitat, and as refuges for native fauna and flora. The Kulkyne Forest is a proclaimed sanctuary where numerous kangaroos and emus are readily seen, along with a variety of plants and birds. The forests generally are open for public recreation, but it is the Red Gum forests bordering the river which are frequently used for camping, fishing, and water sports.

CSIRO Division of Horticultural Research

The Merbein laboratory of the Division of Horticultural Research of CSIRO is situated about nine miles east of Mildura on a property of 86 acres.

This laboratory was founded in 1920 as the Merbein Viticultural Station and was financially supported by the Mildura Vineyards Protection Board. In 1927, it was taken over by the Council for Scientific and Industrial Research and became known as a Commonwealth Research Station. In 1962, together with a new laboratory at Adelaide, the Merbein Station became the Horticultural Research Section of CSIRO. In August 1967, the status of the Section was raised to that of a Division of CSIRO, with headquarters in Adelaide, South Australia.

In its early stages the Station was concerned with investigating the local problems that were of importance to irrigation farmers producing dried fruit. Some practical problems to which effective answers were found included the control of fungus diseases on vines by using copper-Bordeaux sprays, the development of dipping materials which accelerate the drying of grapes, the control of insect pests in dried grapes using ethyl formate, the development of a bud examination technique which permits the fruit production potential of sultana vines to be known in the autumn before cropping, and the development of ways to improve irrigation and drainage practices—the latter to overcome the salinity problems that occur when Mallee soils are irrigated.

In the present programme of investigations attention is being given to understanding and improving the performance of some of Australia's vines and fruit trees. The experimental work has been programmed under five headings :

(1) *Vine Improvement.*—By using the clonal selection method in which vine cuttings are propagated in families from single parents, it has been possible to obtain clones of sultana that have higher yields than unselected vines. Experiments are continuing to reveal the highest of the high yielding vines and to test whether the differences that exist are due to genetic origin or if susceptibility to disease has any effect. Other projects include direct breeding experiments of vines seeking earlier maturity in drying grapes, seedlessness in table grapes and improvement in the yield and quality in some of the wine varieties.

(2) *Grape Biochemistry.*—This programme aims to improve the standard of Australian dried grapes. In the processing work attempts are being made to find improved ways to wash the sand off the dried grapes and to seek alternative ways to dry and process grapes and other fruit crops. Sugar accumulation studies are designed to determine whether the time of ripening of grapes can be controlled.

(3) *Vine Physiology and Yield Forecasting.*—The study of the vine is undertaken to learn how to manipulate its critical phases of development which include the vegetative growth, the flowering and its subsequent development of small flower primordia into bunches, the setting of these grapes as firmly attached fruit in bunches and their development into fully ripe fruit. The effect of the use of growth regulators or plant hormones is being examined as these in some measure control the critical phases of development of all plants. The difficult problem of forecasting the yield of wine grapes is also being investigated. This work involves measuring the number and size of bunches on representative vines and correlating these figures with the final yield. Ultimately it is hoped that these investigations will serve to give much needed and helpful information both to the grower and the wine industry.

(4) *Orchard Ecology.*—In these investigations deciduous and evergreen tree fruit species (such as peach, apple, and citrus) are being used to determine the ideal orchard layout for maximum production. The efficiency of closely planted small trees is being investigated as is the development and use of dwarf rootstocks. New crops to southern Australia such as avocados and the nuts, pecans, pistachios, and macadamias, are being evaluated.

(5) *Nematology.*—Nematodes, one of the biggest single factors limiting horticultural production in this country, are under study. Included in their control are field trials with soil fumigation and the use of rootstocks for vines and peach trees that are resistant to attack from these predators. Studies are directed to ascertain the life cycle of the parasite, the factors that influence infection, and the precise nature of the infection process in the plants.

Economic Aspects

As the irrigation settlements developed, new towns were established six to ten miles from Mildura. These towns supplied most of the goods and services required and Mildura did not develop to any great degree until the middle 1920s, when motor transport changed many social patterns. By the middle of the 1930s, Mildura was growing as a centre, but until the Second World War, Mildura's economy was based on dried vine fruits and, to a lesser degree, citrus fruits.

Though vines and citrus still provide a living for most of the people in the area, Mildura, due to the changes in transport and development of new fields in primary, secondary, and tertiary industries, has since become the social and economic centre for the most densely populated large primary production area in Australia, parts of which have as many as 500 persons to the square mile.

Application of science and technology in primary industry has led to the development of new crops, increased yields, and the use of a variety of machinery. Better systems of irrigation and sub-surface drainage have contributed to bigger yields and better fruit. New crops include vegetables of many varieties, glasshouse tomatoes, and melons. Poultry is a new industry supplying meat and eggs. Expansion has occurred in the production of dried fruit vines and wine grapes and, to a larger degree, citrus.

The total requirement of whole milk for local consumption has recently been supplied by local dairy farmers and weekly livestock sales have been a great asset to farmers and graziers. In the field of secondary industries, processing of local materials includes limestone for roadworks, building construction, ready mix concrete, gypsum into plaster and plaster sheet, fruits into jam and juices, wine and spirits, clay products and meatmeal. The biggest industry is the processing and packing of dried vine fruits, citrus, and seeding and packing lexias.

For a city of its size, Mildura has not many industries which depend on outside sales for its markets, but there are a few firms making agricultural machinery and structural steel units for local and export trade. The number of secondary industry workers is low when compared with other cities of a similar size.

The main tertiary industries concern various aspects of tourist activities. Due to the pleasant autumn, winter, and spring weather, good communications, accommodation, and high civic standards, Mildura is well known as a tourist and convention city. The tourist trade is catered for by three hotels, three caravan parks, sixteen motels, numerous flats, and guest houses. Many sports clubs providing facilities attract many visitors. Mildura has a spacious Olympic swimming pool, golf courses, tennis courts and bowling greens; the latter provide for hundreds of bowlers who come annually in May to play in Australia's largest single club carnival.

The Mildura Arts Centre, licensed restaurants, clubs, and catering establishments, provide a high standard of amenities. Department stores, supermarkets, and other stores handle commodities for modern living. Specialists are available in most businesses and professions.

Wholesale warehouses are being established and most large finance and insurance firms have offices. Many State and Commonwealth service departments have offices; the latter group will soon be housed in a new two storey office block.

The Mildura City and Shire Councils have played a very important role in Mildura's development. Both have encouraged, and helped materially in the establishment and maintenance of the many facilities and amenities for the cultural, welfare, social, sporting, and entertainment requirements of the district and for the tourist trade.

For many years there has been a policy of street beautification. Thousands of trees and shrubs, indigenous and exotic, line the streets on the nature strips and in centre plantations.

Sunraysia is a prosperous district established in an arid and isolated part of the State. The average living standard is high which, to a large extent, is made possible because it is such a densely populated farming area. It is natural, therefore, that Mildura has become the education, shopping, service and social centre, not only for north-west Victoria but for south-west New South Wales and part of the Upper Murray in South Australia.

Electricity Supply

Electricity supply was first provided in 1909 by the Mildura Shire Council. The undertaking passed to the Borough on its formation in 1920 and so to the Town and eventually the City. The supply was changed from direct current to alternating current in 1927 when two generating sets, having a total capacity of 125 kVA, were installed. The Council extended supply to the nearby townships of Merbein, Irymple, and Red Cliffs. Meanwhile the State Rivers and Water Supply Commission erected a power station at Red Cliffs which commenced operation in 1922 to supply their pumping stations at Red Cliffs and Merbein.

The State Electricity Commission of Victoria acquired the City's undertaking in 1953, continuing to operate the power station until 1962. Following the erection of a 10,000 kVA steam power station at Red Cliffs by the State Electricity Commission in 1954, arrangements were completed by this body to acquire the adjacent State Rivers and Water Supply Commission station in 1956. The State Electricity Commission further augmented the supply with a 5,500 kVA diesel station which commenced operation in 1957.

In November 1962, completion of a 220,000 volt line from Kerang to the new Red Cliffs Terminal Station joined Mildura to the State system and assured adequate supply to the whole of Mildura and district, thus providing the means to continue extensions throughout Sunraysia and the north-western Mallee area.

Extensions to the Millewa were undertaken in 1959, supplying an area of over 1,000 sq miles of wheatlands. Other extensions and reinforcement works ensured that the whole of the closer settlement portion of Sunraysia was supplied with electric power. By December 1965, supply had been extended to Ouyen and the four electrical undertakings of the Shire of Walpeup were acquired. Also in 1965, supply from Red Cliffs Terminal Station was extended to Robinvale, where in August 1967, the Swan Hill Shire's undertaking was acquired thus providing the basis for the extension of supply to the remaining areas of the north-west part of the State.

The availability of an adequate supply of electricity provided a decided impetus to the development of the irrigated horticultural areas. There are now three major electrically operated pumping stations in the area: the State Rivers and Water Supply Commission's at Red Cliffs (2,500 hp) and Merbein (2,175 hp), and the First Mildura Irrigation Trust at Mildura (4,600 hp). Another major pumping station of 1,900 hp, located at Robinvale, is already partly powered by electricity and will in due course be completely converted.

In the Sunraysia district there are also several hundred private electrically-driven pumping plants either directly on the River Murray, providing relifts to higher ground, or operating the increasingly popular overhead spray irrigation systems. These smaller pumps in aggregate amount to approximately 8,000 hp.

Supply has also been extended to Murrayville which is situated on the Murray Artesian Basin where there is an enormous pumping potential from the extensive underground water. Electricity extensions throughout this area are providing a stimulus to bore pumping.

Electricity is used for farming, transport, refrigeration, air-conditioning, and domestic purposes, as well as for all urban water supply pumping, the Mildura Urban Water Trust having installed plant totalling 1,450 hp for this purpose and obtaining its water from the River Murray.

Educational Facilities

Mildura and its surrounding districts are provided with facilities for education for the kindergarten through the primary, secondary, and technical school stages and on to adult education. The W. J. Christie Centre caters for the special needs of handicapped children. A university was opened between 1947 and 1949 to accommodate the large number of students, particularly ex-servicemen, who wished to begin courses in medicine, dentistry, engineering, and architecture.

A bus system operates within a 40-mile radius to convey secondary and technical school students to Merbein, Red Cliffs, and Mildura.

The Victorian Education Department has set up centres and appointed specialist itinerant staff for in-service teacher training and for pupil instruction in primary schools in music, singing, physical education, and visual education.

Advisory councils and school committees have co-operated with the Education and Public Works Departments in developing school grounds and facilities. Mothers' Clubs assist through their fund-raising efforts in financing the purchase of a wide range of school equipment.

Primary Schools

Within 12 miles of Mildura are sixteen State primary schools. Enrolments in these schools in 1967 were Mildura (1,005), Mildura West (550), Mildura South (260), Irymple (245), Irymple South (80), The Lake (95), Merbein (350), Merbein South (95), Merbein West (65), Nicholl's Point (115), Stewart (78), Koorlong (45), Sunny Cliffs (80), Cardross (145), Red Cliffs (390), and Red Cliffs East (115). Another State school, City Gate Park, was due to be built in Mildura.

A Seventh-day Adventist School (28), and the three Catholic schools at Mildura (505), Merbein (85), and Red Cliffs (180) which are conducted by the Sisters of Mercy, follow the primary school courses initiated by the Education Department.

Secondary Schools

Established in 1961, Red Cliffs (340) and Merbein (225) are "Type 300" high schools, providing a common course in the first two years and allowing students to specialise in professional, commercial, and general education in Forms III, IV, and V.

Mildura High School set in 40 acres of ground is a co-educational school with an enrolment of 845 pupils. Its courses are designed to provide a wide range of subjects in the commercial, practical, and professional streams. For example, nineteen subjects are offered at the Leaving level and fifteen at the Matriculation stage. The school is the Matriculation centre for the neighbouring high schools and, in 1967 had an enrolment of 72 pupils in Form VI. A girls' hostel provides limited accommodation (eighteen students) for pupils in outlying areas of New South Wales, South Australia, and Victoria. About 100 students from New South Wales border areas receive their secondary education at Mildura High School.

Mildura High School has been closely linked with the founding of Mildura in the 1880s by the Chaffey Brothers. In 1891, on land specially set aside by the Chaffeyes, Lord Hopetoun, Governor of Victoria, laid the foundation stone of what was to be the Chaffey

Agricultural College but, because of financial difficulties the College was not built. However, in 1911, the Victorian Education Department agreed to erect a high school on the Chaffey College site and, in September 1912, the present school was opened with an enrolment of 43 pupils. Until 1955, when the Mildura Technical School was opened, Mildura High School was a multi-purpose school giving both secondary and technical education for students within a 30-mile radius.

Numbers in the senior classes show an upward trend which will continue to meet the demands of the community for further education and higher qualifications. In 1967, the Form V-VI enrolment was 180 compared with 97 in 1961. Broad general courses are designed to meet the needs of all students, not just those proceeding to tertiary institutions. To this end, courses are offered in the humanities, the sciences (including agricultural science), the commercial subjects, art, and at Form V level, in woodwork, domestic science, and needlecraft.

Conducted by the Sisters of Mercy, St Joseph's College (300) is the only registered secondary school in Mildura. A staff of eleven religious and lay teachers provides courses in the humanities to Matriculation and in science to Form IV level.

Technical Schools

Mildura Technical School, which occupies 20 acres of land in Deakin Avenue, Mildura, was opened in 1955 with an enrolment of 350 boys but became co-educational in 1964 when 80 girls were enrolled. The school caters for four stages—secondary, diploma, apprenticeship, and evening classes. The 1967 enrolment in each section was 850 boys and 320 girls, 45 boys and 5 girls, 160 boys, and 550 students, respectively. Due to this growth a second technical school, Mildura South, was to be established for boys.

In the first two years general secondary courses are followed with appropriate manual or domestic subjects. Girls may embark on commercial or professional courses in the third year and, for boys, art or commercial courses are available in the fourth year. Beginning at Form III level the school also offers a special course in agriculture.

Qualified students may gain the Intermediate and Leaving Technical Certificates in the fourth and fifth years of study. The school also offers the first two years of courses in Mechanical, Electrical, and Civil Engineering, Applied Chemistry, Art, and Business Studies. The trade section caters for apprenticeship courses in carpentry, plumbing, fitting and machining, motor mechanics, and the electrical trades.

The school conducts evening classes in a wide range of subjects for adults seeking to foster and develop interests in art, crafts, and subjects of a cultural or useful nature. Where there is a local demand for a particular course the school is empowered to establish it.

Mildura Base Hospital

The foundation stone for the first hospital was laid on 9 March 1892. The first building comprised four rooms and was occupied in June 1892.

In 1901, a new ward for male patients was constructed but with the continued growth of Mildura following the advent of the railways in 1903, the need for more beds became urgent and in 1909 an additional ward unit was added.

Following the First World War and the establishment of new settlements, more space was required for a surgical ward and separate accommodation for children.

The Hospital Committee appealed to the public for assistance, and as a result of the appeal was able to add "The Chaffey Ward", opened in 1920. In 1924, with assistance from the Shire Council, Borough Council, and the Victorian Government, the Infectious Diseases Wards were completed.

Existing facilities were becoming outdated and inadequate as Mildura expanded and consequently a new air-conditioned building was completed in August 1934 with 244 available beds. The Department of Health also constructed accommodation for the treatment of T.B. patients about this time. The hospital included an outpatients department and ancillary medical departments such as pathology, X-ray, and physiotherapy. A new nurses home was built in 1951.

Since 1955, new buildings have included a new pathology department, mortuary, blood bank, and outpatients facilities. In June 1967, the hospital had a total bed capacity of 260, a daily average of 175 inpatients, and expenditure for the year of more than \$1m.

Mildura Arts Centre

"Rio Vista", the mansion built in 1890 by W. B. Chaffey has, since 1956, become the Arts Centre of the City. An art collection given to Mildura in the 1940s by Senator R. D. Elliott inspired the City Council to establish, with the aid of a Government subsidy, a cultural project.

"Rio Vista" was purchased and renovated in the 1950s and opened to the public as Mildura's Art Gallery and Museum.

Between 1956 and 1966 various organisations such as a Gallery Society, Film Club, Historical Society, Ballet Guild, Field Naturalists Club, Little Theatre Group, met at "Rio Vista" and were involved in its annual festival: Gallery Week. The first national Australian Sculpture Competition was organised there in 1961 and repeated again in 1964 and 1967.

As the collections of paintings and sculpture grew and the needs of these organisations developed, it became apparent that larger premises were needed. The City Council launched a public subscription campaign, obtained another Victorian Government grant and eventually a new art gallery, nearly twice the size of the old building, and a modern 400-seat theatre was built alongside "Rio Vista". The new additions were opened by the Premier of Victoria on 12 November 1966.

Displays of local history and the indigenous properties of the region were set up in "Rio Vista", when the paintings and sculptures were moved into the new gallery. The transition from "Rio Vista's" 19th century decor into the spacious but nearly windowless art gallery next door was achieved with architectural taste and discretion. The art gallery, in fact, serves as a common entrance for both buildings: but it is set back from the facade of "Rio Vista" and its two storeys echo the verandahed levels of the old brick home. The exhibition programme for the art gallery is vigorous. Its own collection comprising the Senator Elliott gift and recent acquisitions (mainly modern Australian sculpture) are alternated with temporary loan exhibitions that range from modern European tapestries and industrial design to 18th century English paintings, furniture, and silverware. The Art Gallery and "Rio Vista" Museum of Local History are open to the public on seven days a week and during 1966-67, 51,000 visitors attended the exhibitions and functions there.

At the rear of the Gallery, above the workshop and storage areas, is a rehearsal studio. The theatre is professionally equipped, seating 400 patrons and providing optimum conditions for seeing and hearing. A Performing Arts Group has now been formed for the twelve or thirteen local companies using the theatre. Theatre attendances average 300 per night.

Apart from the various local users of the theatre, many distinguished companies and artists have performed there.

It would be difficult to assess the impact which this cultural project has had upon Mildura and its economically important tourist population. Professional teachers of ballet and drama have been engaged by the theatre users to improve the talents of the children and adults in Sunraysia. New cultural organisations have been formed to present or promote theatre productions in it and at least twelve special exhibitions each year have been seen in the art gallery which usually sponsors lecturers for the official openings. Three thousand school students visited the galleries during 1967. The annual celebration of the arts and entertainment, the Mildura Wintersun Festival, is organised by the Arts Centre each August and the triennial Sculpture Competitions are also held there.

Eighty thousand seven hundred and twenty-two people used the Museum, Art Gallery or theatre during 1967, and the Mildura Arts Centre has developed into an important part of the cultural and social life in north-west Victoria.

Appendix B

Australian National Accounts

General

The information given in this appendix has been derived from the publication *Australian National Accounts, National Income and Expenditure, 1953–54 to 1966–67*, published by the Commonwealth Statistician, Canberra.

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially those that relate to the production and use of goods and services and to transfers of income or capital between sections of the economy.

Concepts

The following notes describe briefly the fundamental concepts of production and the income and expenditure involved.

Gross National Product at Market Prices (usually referred to as the Gross National Product) is the total market value of goods and services produced in Australia within a given period, after deducting the cost of goods and services (other than capital equipment) used in the process of production. It is the sum, for all producers, of the value of their sales (including any indirect taxes levied thereon) plus increases in their stocks, less their purchases of goods and services from other producers. For those producers, like public authorities and financial enterprises who do not actually sell their output, it includes their output, instead of their sales, valued at cost.

Gross National Product at Factor Cost is defined as gross national product at market prices, less indirect taxes, but with the addition of subsidies, and is the total amount of gross national product accruing to the factors of production employed.

Net National Product is the resulting aggregate if depreciation is deducted from gross national product at factor cost. In the national accounts, allowances for depreciation are restricted to public and private enterprises, no depreciation being attributed to assets used by public authorities, non-profit making organisations, etc.

National Income is defined as the value of net national product, less total income payable overseas in the form of interest, dividends, undistributed income, etc., plus income receivable from overseas in

these forms. Adjustments are also made to deduct wages, professional earnings, etc., earned in Australia by non-residents, and to add similar incomes earned abroad by persons normally resident in Australia.

National Turnover of Goods and Services is the sum of the Gross National Product plus imports of goods and services. In turn, the total turnover of goods and services equals the sum of Gross National Expenditure and exports of goods and services.

Gross National Expenditure is the total expenditure within a given period on final goods and services bought for use in the Australian economy. It consists of personal consumption expenditure, fixed capital expenditure by private and public enterprises and public authorities, any increase in the value of stocks, and net current expenditure on goods and services by public authorities and financial enterprises.

Sectors

The following is a brief description of the sectors into which the economy has been divided for the purposes of the National Accounts :

- (1) *The personal sector* includes all persons and private non-profit organisations serving persons other than those included in the financial enterprises sector.
- (2) *The public authority sector* includes the whole of the activities of the Commonwealth Government, State and Local Governments, and semi-governmental bodies with the exception of the current operations of public trading and financial enterprises which are excluded. Public trading and financial enterprises are defined as bodies which aim at covering the bulk of their expenses either by sales of goods and services (trading), or by charges for services and net interest receipts (financial).
- (3) *The financial enterprises sector* includes both public and private financial enterprises which are regarded as providing the financial mechanism for the functioning of the economy rather than producing or distributing goods and services. In one way or another they are engaged mainly in the borrowing and lending of money. Examples of the enterprises included in this sector are banks, hire purchase companies, co-operative building societies, life insurance companies, and superannuation funds.
- (4) *The trading enterprises sector* includes all business undertakings engaged in producing goods and services. Thus it includes companies, public enterprises, partnerships, and self-employed persons, including farmers. Owners of all dwellings are included because they are regarded as operating businesses, receiving rents (from themselves), and paying expenses.

- (5) *The overseas sector accounts* record all transactions between Australian persons, businesses, and governments, and overseas residents.

National Accounts

Tables 1 to 7, which follow, summarise the transactions which have taken place in the Australian economy during 1966-67 with a production account and a capital account for the economy as a whole. For each of the different sectors, however, a current (or income appropriation) account is given. The following is a short description of the accounts which appear in the tables :

- (1) *The National Production Account* is a consolidation of the production accounts of each sector. Credited to the account are the following items : Net current expenditure on goods and services ; gross fixed capital expenditure ; change in value of stocks ; and exports of goods and services.

The payments side shows wages and salaries, indirect taxes, and imports of goods and services. The balance, which represents the gross operating surplus of trading enterprises, is carried to the Trading Enterprises Income Appropriation Account.

- (2) *The Trading Enterprises Income Appropriation Account* is shown as receiving the gross operating surplus of trading enterprises from the National Production Account, and property income, viz., dividends, non-dwelling rent, and interest from other sectors. This total is allocated to depreciation allowances and to various transfer payments.
- (3) *The Financial Enterprises Income Appropriation Account* shows property income as the sole receipt. The net current expenditure on goods and services of these enterprises is shown on the outlay side.
- (4) *The Personal Current Account* records as receipts, wages and salaries and transfer incomes. Payments include current payments for goods and services and transfer payments. The balance is transferred to the national capital account under the heading "Personal Saving".
- (5) *The Public Authorities Current Account* records receipts of taxes (direct and indirect), interest, and the net income of public trading and financial enterprises. Expenditure includes net current expenditure on goods and services by those government and semi-governmental bodies which are not trading or financial enterprises. Also included are cash benefits (paid to persons in return for which no service is rendered or goods supplied), interest paid, subsidies granted, overseas gifts, and grants towards private capital expenditure.

- (6) *The Overseas Current Account* records all transactions of a current nature between Australian and overseas residents. The balance of the account reflects the net inflow of capital from overseas and withdrawal from monetary reserves.
- (7) *The National Capital Account* shows, on the receipts side, the savings of the various sectors. The public authority surplus includes the net income of public enterprises. Payments include, for all sectors, purchases of new buildings and capital equipment and the increase in value of stocks.

AUSTRALIAN NATIONAL ACCOUNTS, 1966-67

1. NATIONAL PRODUCTION ACCOUNT

(\$m)

Wages, Salaries, and Supplements	11,509	Net Current Expenditure on Goods and Services—	
Gross Operating Surplus of Trading Enterprises—		Personal Consumption	.. 13,504
Companies	.. 3,249	Financial Enterprises	.. 317
Unincorporated Enterprises	3,888	Public Authorities	.. 2,684
Dwellings Owned by Persons	1,044	Gross Fixed Capital Expenditure—	
Public Enterprises	.. 700	Private	.. 3,692
Gross National Product at Factor Cost	.. 20,390	Public Enterprises	.. 1,204
Indirect Taxes, less Subsidies	.. 2,392	Public Authorities	.. 926
Gross National Product	.. 22,782	Increase in Value of Stocks	.. 451
Imports of Goods and Services	.. 3,690	Statistical Discrepancy	.. 219
National Turnover of Goods and Services	.. 26,472	Gross National Expenditure	22,997
		Exports of Goods and Services	.. 3,475
		National Turnover of Goods and Services	.. 26,472

2. TRADING ENTERPRISES INCOME APPROPRIATION ACCOUNT

(\$m)

Depreciation Allowances	.. 1,871	Gross Operating Surplus	.. 8,881
Interest, etc., Paid	.. 1,052	Interest, etc., and Dividends Received	.. 154
Company Income—		Undistributed Income Accruing from Overseas	.. 17
Income Tax Payable	.. } 2,152		
Dividends Payable	.. }		
Undistributed Income	.. }		
Unincorporated Enterprises Income	.. 2,922		
Personal Income from Dwelling Rent	.. 558		
Public Enterprises Income	.. 497		
Total Outlay	.. 9,052	Total Receipts	.. 9,052

AUSTRALIAN NATIONAL ACCOUNTS, 1966-67—continued

3. FINANCIAL ENTERPRISES INCOME APPROPRIATION ACCOUNT

(\$m)

Depreciation Allowances ..	29	Interest, etc., Received ..	1,371
Net Current Expenditure on Goods and Services ..	317	Dividends Received and Undistributed Income Accruing from Overseas ..	36
Interest Paid ..	476		
Company Income—			
Income Tax Payable ..	} 139		
Dividends Payable ..			
Undistributed Income ..			
Public Enterprises Income ..	130		
Retained Investment Income of Life Insurance Funds, etc. ..	316		
Total Outlay ..	1,407	Total Receipts ..	1,407

4. PERSONAL CURRENT ACCOUNT

(\$m)

Personal Consumption ..	13,504	Wages, Salaries, and Supplements ..	11,509
Interest Paid ..	197	Interest, etc., Received ..	616
Income Tax Payable ..	1,869	Dividends ..	388
Estate and Gift Duties Paid ..	154	Unincorporated Enterprises Income ..	2,922
Remittances Overseas ..	78	Income from Dwelling Rent ..	558
Saving ..	1,595	Remittances from Overseas ..	133
		Cash Benefits from Public Authorities ..	1,271
Total Outlay ..	17,397	Total Receipts ..	17,397

5. PUBLIC AUTHORITIES CURRENT ACCOUNT

(\$m)

Net Current Expenditure on Goods and Services ..	2,684	Indirect Taxes ..	2,551
Subsidies ..	159	Income Tax, Estate, and Gift Duties ..	2,879
Interest, etc., Paid ..	579	Interest, etc., Received ..	115
Overseas Grants ..	152	Public Enterprises Income ..	627
Cash Benefits to Persons ..	1,271		
Grants towards Private Capital Expenditure ..	54		
Surplus on Current Account ..	1,273		
Total Outlay ..	6,172	Total Receipts ..	6,172

AUSTRALIAN NATIONAL ACCOUNTS, 1966-67—*continued*

6. OVERSEAS CURRENT ACCOUNT

(\$m)

Exports of Goods and Services	3,475	Imports of Goods and Services	3,690
Interest, etc., Received from Overseas	} 110	Interest, etc., Paid and Dividends	
Dividends Receivable from Overseas		Payable and Profits Remitted	
Undistributed Income Accruing from Overseas	17	Overseas	353
Personal Remittances from Overseas	133	Undistributed Income Accruing to Overseas Residents	110
Overseas Balance on Current Account	648	Personal Remittances Overseas	78
		Public Authority Grants and Contributions	152
Total Debits to Non-Residents	4,383	Total Credits to Non-Residents	4,383

7. NATIONAL CAPITAL ACCOUNT

(\$m)

Gross Fixed Capital Expenditure—		Depreciation Allowances	1,900
Private	3,692	Increase in Dividend and Income	
Public Enterprises	1,204	Tax Provisions	28
Public Authorities	926	Undistributed Company Income	
Increase in Value of Stocks	451	Accruing to Residents	678
Total Use of Funds	6,273	Retained Investment Income of Life Insurance Funds, etc.	316
		Personal Saving	1,595
Statistical Discrepancy	219	Public Authority Grants towards Private Capital Expenditure	54
		Public Authorities Surplus on Current Account	1,273
Total Capital Funds Accruing	6,492	Overseas Balance on Current Account	648
		Total Capital Funds Accruing	6,492

The following tables are included to provide information of personal income and personal consumption expenditure within Victoria, during each of the years 1962-63 to 1966-67, together with an analysis of Victorian farm income during the same period. Tables are also given to show total Victorian figures relative to those of other Australian States.

VICTORIA—PERSONAL INCOME

(\$m)

Particulars	1962-63	1963-64	1964-65	1965-66	1966-67
Wages, Salaries, and Supplements	2,369	2,576	2,881	3,104	3,386
Farm Income*	330	413	415	370	354
Income from Dwelling Rent	150	158	165	168	177
Cash Benefits from Public Authorities	246	270	288	306	333
All Other Income	637	706	764	808	861
Total	3,732	4,123	4,513	4,756	5,111

* Unincorporated farms only.

AUSTRALIA—TOTAL PERSONAL INCOME BY STATES
(\$m)

State	1962-63	1963-64	1964-65	1965-66	1966-67
New South Wales	4,942	5,449	5,942	6,107	6,824
Victoria	3,732	4,123	4,513	4,756	5,111
Queensland	1,653	1,864	1,969	2,078	2,248
South Australia	1,109	1,263	1,378	1,434	1,559
Western Australia	778	861	914	1,080	1,173
Tasmania	360	391	424	447	484
Total Australia	12,574	13,951	15,140	15,902	17,399

VICTORIA—PERSONAL CONSUMPTION EXPENDITURE
(\$m)

Particulars	1962-63	1963-64	1964-65	1965-66	1966-67
Food	688	730	790	835	890
Cigarettes and Tobacco	99	102	111	122	126
Alcoholic Drinks	166	179	191	215	234
Clothing, etc.	317	343	367	373	387
Chemists' Goods	80	85	92	97	103
Medical, Hospital, and Funeral Expenses	95	107	116	127	141
Rent	351	375	400	425	454
Gas, Electricity, Fuel	96	103	111	120	128
Household Durables	215	238	259	264	270
Newspapers, Books, etc.	52	60	63	66	70
All Other Goods <i>n.e.i.</i>	94	96	102	110	116
Travel and Communication	400	443	485	495	528
All Other Services	300	324	349	373	406
Total	2,954	3,184	3,437	3,622	3,853

AUSTRALIA—TOTAL PERSONAL CONSUMPTION EXPENDITURE BY STATES
(\$m)

State	1962-63	1963-64	1964-65	1965-66	1966-67
New South Wales	4,080	4,362	4,698	4,961	5,328
Victoria	2,954	3,184	3,437	3,622	3,853
Queensland	1,343	1,465	1,573	1,659	1,770
South Australia	903	995	1,088	1,140	1,201
Western Australia	690	743	799	873	958
Tasmania	311	328	348	366	394
Total Australia	10,281	11,077	11,943	12,621	13,504

VICTORIA—FARM INCOME

(\$m)

Particulars	1962-63	1963-64	1964-65	1965-66	1966-67
Gross Value of Farm Production—					
Wool	158	209	176	194	} 923
Other Pastoral Products	161	173	197	220	
Wheat	99	108	109	90	
Other Grain Crops	24	18	22	20	
Other Crops	130	147	164	153	
Farmyard and Dairy Products	204	226	243	242	
Total	776	881	911	919	923
Less Costs—					
Marketing Costs	85	83	96	96	} 563
Seed and Fodder	82	93	83	105	
Depreciation	72	79	86	91	
Wages and Salaries	50	51	53	54	
Other Costs	151	154	172	197	
Total	440	460	490	543	563
Total Farm Income	336	421	421	376	360
Less Company Income	6	8	6	6	6
Income of Farm Unincorporated Enterprises	330	413	415	370	354

AUSTRALIA—TOTAL FARM INCOMES* BY STATES

(\$m)

State	1962-63	1963-64	1964-65	1965-66	1966-67
New South Wales	353	434	404	189	415
Victoria	330	413	415	370	354
Queensland	229	284	230	205	235
South Australia	96	150	136	106	136
Western Australia	67	75	58	118	111
Tasmania	31	34	40	31	31
Total Australia	1,106	1,390	1,283	1,019	1,282

* Unincorporated farms only.

Appendix C

Principal Events from 1 July 1967 to 30 June 1968

1967

July 17 The Melbourne and Metropolitan Board of Works will begin detailed planning of four major road projects to cost \$48m.

July 27 The Department of Civil Aviation's \$1m HS-125 jet aircraft became the first jet to land at the new airport at Tullamarine.

July 29 Dr James Robert Knox, Melbourne's new Roman Catholic Archbishop, arrived at Essendon Airport.

July 31 State Cabinet has appointed an investigation committee to study effects of automation.

August 15 Melbourne's rainfall of 7.72 in between January and August 1967 is the lowest on record for the year.

October 4 The State Government has approved works to begin a \$45m project for completion in 1983 to provide extra water for Melbourne.

October 6 New State Government legislation for Victoria will abolish the option of trial by a judge and jury for motorists on certain serious driving charges. Drivers on some major charges will be dealt with by magistrates in courts of petty sessions.

October 13 Hastings Shire Council has announced details of its large scale plan for shore reclamation and construction of port facilities at Westernport Bay. The plan involves extending the shoreline out to the deep water channel, enabling wharves to be built.

October 13 The Japanese Prime Minister, Mr Sato, arrived at Essendon Airport for a short visit to Melbourne.

November 16 Legislation introduced in the Legislative Council will give greater autonomy to the Victoria Institute of Colleges including the responsibility for technical and technological tertiary education diploma courses.

December 17 The Prime Minister, Rt Hon. Harold Holt, C.H. was lost while swimming at Cheviot Beach, Portsea.

December 22 Leaders and representatives of twenty nations were among mourners at a memorial service in St Paul's Cathedral, for the late Prime Minister, Rt Hon. Harold Holt, C.H.

1968

January 10 Victorian Senator Hon. John Grey Gorton became the first Senator in Australia's history to achieve the office of Prime Minister. He subsequently resigned from the Senate and successfully contested the seat of Higgins in the House of Representatives.

January 31 Melbourne had its hottest day since Black Friday on 13 January 1939. The temperature rose to 110 degrees and stayed there for two hours.

1968

February 9 The Premier, Hon. Sir Henry Bolte, announced that Victoria would receive almost \$11m extra aid from the Federal Government this financial year because of the drought.

February 19 More than thirty houses were destroyed when fire ravaged the Dandenong Ranges.

February 26 The Yarra River in Melbourne was at its lowest level ever recorded. At Warrandyte, the level was only 3 in.

March 6 Melbourne's historic Cliveden Mansions has been sold at public auction for \$440,000. A \$5m convention centre will be built on the site in East Melbourne.

April 2 Three tenders totalling \$22.4m to build Melbourne's Lower Yarra Bridge were approved by the State Executive Council.

April 2 The Minister for Public Works, Hon. M. V. Porter, opened the first stage of 4.5 miles of the Tullamarine Freeway.

April 9 Under new legislation hotels and licensed restaurants in Victoria will soon be able to apply for cabaret licences to stay open until 3 a.m. The legislation will also, for the first time, allow hotels to have bar facilities without accommodation.

April 22 Health and welfare organisations supported the State Government's Bill to give courts power to order alcoholics and drug addicts convicted of offences to receive treatment at Government centres.

April 30 The State Executive Council gave final approval to the Master Plan for the Melbourne Metropolitan Area.

May 3 Victoria's drought is now considered to have ended, according to the Minister for Drought Relief, Hon. Sir William McDonald. Thousands of cattle which were moved to New South Wales to escape the drought have begun the long trek back to Victoria.

May 15 The Ethiopian Emperor, His Majesty Haile Selassie, landed at Essendon Airport to commence a short visit to Victoria.

May 23 The Prime Minister of India, Mrs Indira Ghandi, flew from Canberra to Melbourne for a one day State visit.

May 29 The Duke of Edinburgh, Prince Philip, was welcomed at Essendon Airport for the occasion of the Third Commonwealth Study Conference session in Melbourne.

May 30 Prince Philip opened the \$1.3m Australian National Science Centre, Clunies Ross House, in Melbourne.

June 28 The Royal Mint in Melbourne ceased its operations which have been transferred to Canberra.

Appendix D

Index of Special Articles in Previous Victorian Year Books

(Commencing with New Series : Volume 75, 1961)

The following is a list of *major* articles which have appeared in the new series of *Victorian Year Books* commencing with Volume 75, 1961, and which have been omitted in the current edition to make room for new material. Where an article has already appeared more than once, the reference to its latest appearance only is given, as earlier references can be traced back in previous appendices. References to articles and shorter sections which have been extensively altered in this edition are shown in the body of the text under the appropriate heading. This list will be revised each year to provide readers with an up-to-date cumulative index of special articles.

Contents	Year	Contents	Year
Aeronautical Meteorology ..	1967	Coastline of Victoria ..	1966
Agent-General for Victoria ..	1964	Company Law in Victoria ..	1967
Agricultural Extension Services	1968	Country Roads Board, History of	1961
Alfred Hospital	1963	Criminal Law	1963
Aluminium Industry	1967	Crown Lands and Survey	
Animal Husbandry	1963	Department, History of ..	1968
Apprenticeship Commission ..	1968	Crown Law Department ..	1965
Architecture in Victoria,		Currency, History of ..	1961
Development of	1962	Decimal Currency, Introduction	
Assurance, Life	1962	of	1968
Audio-Visual Education ..	1964	Drama, Opera and Ballet ..	1968
Austin Hospital, Heidelberg ..	1966	Dried Fruits Industry ..	1967
Australian Administrative Staff		Economic Aspects of Forests ..	1967
College	1961	Education—	
Australian College of Education	1961	Australian College of ..	1961
Australian Road Safety Council	1966	Handicapped Children ..	1968
Automation and Technical		History of Catholic ..	1961
Development in Industry ..	1967	History of Primary ..	1963
Aviation, Civil, History of ..	1962	History of State ..	1961
Ballarat	1963	Technical	1965
Bank, State Savings of Victoria,		in Victoria, 1945-60,	
History of	1961	Secondary	1962
Banking, History of	1961	University	1966
Bendigo	1964	Educational Broadcasts to	
Birds of Victoria	1966	Schools	1968
Broadcasting, History of ..	1961	Electricity Commission, State,	
Broadcasting and Television		History of	1961
Standards	1965	Employers' Associations ..	1964
Brown Coal Production : State		Epidemics	1967
Electricity Commission of		Export Trade, Law Relating to	1968
Victoria	1962	Farming Industry, Government	
Building—		Assistance	1964
Developments in Methods		Farm Management in Victoria ..	1967
since 1945	1964	Farming, Mechanisation of ..	1962
in Early Victoria	1968	Fish of Victoria	1967
Materials	1966	Flora of Victoria	1962
Chemical Industry	1963	Geelong	1962
Children's Welfare Department,		Geology	1961
History of	1961	Glass Industry	1965
Civil Defence and the State		Gordon Institute of Technology	1962
Disaster Plan	1966	Governors, List of	1961
		Health, History of Public ..	1961
		History of Victoria	1961

APPENDIX D—continued

Contents	Year	Contents	Year
Hospitals—		Music	1965
Alfred	1963	Nursing, History of	1961
Austin	1966	Oil Refining Industry	1961
Dental	1965	Old People's Welfare Council	1966
Fairfield	1961	Painting in Victoria to 1945	1964
Geelong	1962	Palaeontology of Victoria	1965
in Victoria	1964	Parliament—	
Prince Henry's	1964	Administrative Machinery of	1968
Queen Victoria Memorial	1967	Deadlock between Houses	1965
Royal Children's	1964	Presiding Officers of	1967
Royal Melbourne	1962	Parliamentary Committees	1964
Royal Victorian Eye and		Parliamentary Privilege	1966
Ear	1968	Pastoral Industry, History of	1963
St Vincent's	1965	Pastures, Development of	
Housing Commission of Victoria	1965	Victoria's	1962
Industrial Development in the		Petrochemical Industry in	
Post-War Period	1962	Victoria	1964
Irrigation	1962	Planning, Regional	1962
Lakes	1965	Planning, Town and Country	1961
Land Settlement, History of	1961	Plant Ecology of the Coast	1968
Latrobe Valley	1965	Port Phillip Pilot Service	1963
Law of Contract in Victoria	1965	Premier's Department, History of	1964
Law, Function of	1961	Private Legislation	1962
Law of Retail Sales and Hire		Post Office in Victoria, History of	1961
Purchase in Victoria	1966	Public Works Department,	
Law of Torts in Victoria	1964	History of	1967
Legislation, Private	1962	Publishing, Book	1965
Libraries, Victoria's Special and		Quarrying	1966
Research	1964	Research in Victorian	
Library Services, Regional	1965	Universities	1968
Lighthouses	1964	Retailing in Victoria	1962
Mammals	1963	River Improvement and Drainage	
Management Techniques in		Trusts	1968
Manufacturing Industry	1963	Rivers and Water Resources	1963
Manufacturing, History of	1961	Royal Society of Victoria	1963
Marine Meteorology	1966	Rural Finance	1965
Medical Research at Monash		St. Vincent's School of Medical	
University	1966	Research	1965
Medical Research at the Royal		Sanctuary, Sir Colin MacKenzie	1965
Women's Hospital	1965	Scallop Fishery	1967
Medical Research at the		Sculpture in Victoria	1964
University of Melbourne	1964	Secondary Industry, Development	
Medical School, University of		of	1965
Melbourne, 1862 to 1962	1963	Secondary Industry and Its	
Medicine, Developments from		Educational Requirements	1964
1910 to 1960	1963	Shepparton	1967
Melbourne City Council	1961	Short Term Money Market	1967
Melbourne Tramways, History of	1961	Social Services, Voluntary	1965
Meteorology in Fire Prevention	1968	Soil Conservation Authority	1961
Metropolitan Transportation		Soils of Victoria	1964
Committee	1968	Sport in Victoria	1964
Mines Department, History of	1961	State Electricity Supply, History	
Ministers of the Crown,		of	1961
1851-1855	1961	State Savings Bank, History of	1961
Ministries and Premiers,		Subdivision of Land in Strata	1968
1855-1955	1961	Teacher Training	1967
Molluscs of Victoria	1968	Telecommunications, Overseas,	
Money Bills	1963	History of	1962
Motor Vehicle Industry	1962	Television and Broadcasting	
Mountain Regions	1962	Standards	1965
		Television Programme Research	1966

APPENDIX D—continued

Contents	Year	Contents	Year
Television Technical Planning ..	1967	Victorian Railways, History of	1962
Tertiary Agricultural Education	1966	Voluntary Social Welfare Work	
Textile Industry	1968	for the Physically Handicapped	1968
Tourist Attractions in Victoria ..	1966	Walter and Eliza Hall Institute	
Trade, Victoria's, Pattern of ..	1964	of Medical Research ..	1968
Traffic Control in Melbourne ..	1968	Wangaratta	1968
Tramways, 1930-1961 ..	1963	Warrnambool	1966
Treasury, The	1966	Water Research Foundation ..	1966
TRESS System, P.M.G. ..	1963	Water Supply and Sewerage in	
University Development in		Country Towns	1968
Victoria	1966	Wildlife in Relation to Natural	
Victorian Provincial Gardens ..	1967	Resources	1962

Appendix E

List of Maps in Previous Victorian Year Books

(Commencing with New Series: Volume 75, 1961)

Map	Year	Map	Year
Alpine Regions of Victoria ..	1962	Physiographic Divisions of	
Annual Rainfall	1965	Victoria	1968
Average Annual Rainfall ..	1968	Port of Melbourne	1966
Chief Physiographic Divisions		Radio Navigation	1965
of Victoria	1968	Railway Lines of Victoria ..	1968
Civil Air Services	1963	Rainfall (Annual)	1965
Coal Deposits Located in		Rainfall Variability	1968
Victoria	1963	Regional Planning Boundaries	1962
Coastal Vegetation	1968	Regular Air Services	1964
Coastline of Victoria	1967	Rivers, Lakes, and Catchments	1965
Counties and Statistical Districts		Roads of Victoria	1966
of Victoria	1968	Shepparton Irrigation Area ..	1967
Dandenong Valley Authority	1968	Soils of Victoria	1964
Distribution of Beef Cattle ..	1964	State Electoral Provinces for	
Distribution of Dairy Cattle ..	1964	Legislative Council	1968
Distribution of Pigs	1964	State Electoral Districts for	
Distribution of Sheep	1964	Legislative Assembly	1968
Fishing Grounds of Victoria ..	1967	Statistical Divisions of Victoria	
Geological Features of Victoria	1961	(Annual)	1968
Lake Systems	1965	Town and Country Planning ..	1968
Latrobe Valley	1965	Wangaratta and Surrounding	
Melbourne and Surrounding		Shires	1968
Area as Defined by the		Warrnambool and Surrounding	
Greater Melbourne Plan ..	1962	District	1966
Melbourne and Surrounding		Water Resources and River	
Area: Boundary of P.M.G.'s		Basins	1966
"Extended Local Service		Water Supply System	1964
Area"	1962	Westernport	1967
Melbourne Statistical Division	1968	Wildlife Reserves	1966
National Television Network ..	1965	Vegetation Provinces of Victoria	1962
Natural Gas and Oil		Victoria's Main Power Trans-	
Exploration	1968	mission System	1968
Ornithological Regions of		Zones of Natural Occurrence of	
Victoria	1966	Principal Forest Types ..	1962

Where a map has been reproduced more than once, only the latest edition in which it appears is shown above.

Appendix F

A Select Bibliography of Books about Victoria

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- GREGORY, J. S.—A contribution to the bibliography of the economic geology of Victoria, to the end of 1903. *In* Records of the Geological Survey of Victoria. Melbourne, Department of Mines, 1904. 132 pages.
- HARRIGAN, L.—Victorian Railways to '62. Melbourne, Victorian Railways Public Relations and Betterment Board, 1962. 300 pages.
- HENDERSON, A.—Early pioneer families of Victoria and Riverina : a genealogical and biographical record. Melbourne, McCarron, Bird, 1936. 584 pages.
- HILL, E.—Water into gold. Melbourne, Robertson and Mullens, 1949. 328 pages.
- HUNTER, A.—The economics of Australian industry : studies in environment and structure. Melbourne University Press, 1963. 543 pages.
- IVERSON, H.—The leaders of industry and commerce : international edition, 1963–64. 572 pages.

APPENDIX F—*continued*

- KIDDLE, M.—Men of yesterday : social history of the Western District of Victoria, 1834–1890. Melbourne University Press, 1962. 574 pages.
- LEEPER, G. W.—Introducing Victoria. Melbourne University Press, 1955. 306 pages.
- McCRAE, H.—Georgiana's journal : Melbourne a hundred years ago. Sydney, Angus and Robertson, 1934. 314 pages.
- MASSOLA, A.—Bibliography of printed literature upon Victorian aborigines. *In* Memoirs of the National Museum of Victoria, No. 24, Melbourne, National Museum, 1959. 156 pages.
- O'CALLAGHAN, T.—Names of Victorian railway stations. Melbourne, Government Printer, 1918. 100 pages.
- PASTORALISTS REVIEW.—Pastoral homes of Australia : Volume 1, Victoria. Melbourne, Pastoralists Review, 1910.
- RIVETT, R.—Australian citizen : Herbert Brookes 1867–1963. Melbourne University Press, 1965. 218 pages.
- ROBERTSON, E. G.—Victorian heritage : ornamental cast iron in architecture. Melbourne, Georgian House, 1960. 230 pages.
- SANDS AND McDUGALL's directory of Victoria. Melbourne, Sands and McDougall, 1966. 2716 pages.
- SAUNDERS, D. *ed.*—Historic buildings of Victoria. Melbourne, Jacaranda for the National Trust of Australia (Victoria), 1966. 278 pages.
- SAYERS, C. E.—David Syme : a life. Melbourne, Cheshire, 1965. 312 pages.
- SERLE, G.—The golden age : a history of the colony of Victoria 1851–1861. Melbourne University Press, 1963. 456 pages.
- SHILLINGLAW, J. J.—Historical records of Port Phillip : the first annals of the Colony of Victoria. Melbourne, Government Printer, 1879. 142 pages.
- SMYTH, R. B.—The Aborigines of Victoria. Melbourne, Government Printer, 1878. 2 vols.
- TURNBULL, C.—Eureka : the story of Peter Lalor. Melbourne, Hawthorn Press, 1946. 50 pages.
- TURNER, H. G.—A history of the Colony of Victoria from its discovery to its absorption into the Commonwealth of Australia, in two volumes. London, Longmans, 1904.
- UNIVERSAL BUSINESS DIRECTORY. 17th *ed.*, 1966–67. South Melbourne, Directory House, 1966. 3 vols. *Contents* : Melbourne, city and suburbs ;—West Victoria;—East Victoria.
- VICTORIAN MUNICIPAL DIRECTORY : also Commonwealth and State guide and water supply record for 1966. Annual. Melbourne, Arnall and Jackson, 1966. 1150 pages.
- VICTORIAN STATE PARLIAMENTARY AND CIVIC GUIDE. 6th *ed.* Melbourne, Eric White Associates, 1966. 136 pages.
- WALKABOUT ; Australian way of life magazine. Melbourne, National Travel Association ; monthly ; 1934 to date.
- WHO'S WHO IN AUSTRALIA. 18th *ed.*, 1965. 952. pages.
- WORTHINGTON, J. M.—Index to the parliamentary papers, reports of select committees, and returns to orders, bills etc., 1851–1909. Melbourne, Government Printer, 1909. 324 pages.
- ZUBRZYCKI, J.—Settlers of the Latrobe Valley. Canberra, Australian National University, 1964. 306 pages.

Appendix G

Select Bibliography of Books Published in Victoria

The following list of books published in Victoria during 1967–68 is intended to be neither complete nor comprehensive. Its purpose rather is to illustrate the range and diversity of subject matter contained in books published in this State. It has been compiled in collaboration with the State Library of Victoria which receives a copy of every item published in Victoria under provisions included in the *Library Council of Victoria Act 1965* and before that in the *State Library Act 1960*.

- ADAMS, K. M.—The first Australians; prehistory–1810. Illustrated by G. Melrose. Melbourne, Lansdowne, 1968. (Seeing History, 1.) 98 pages.
- THE AGE (Newspaper), *Melbourne*.—The Holt report; a full investigation into the death of the Prime Minister of Australia, Mr Harold Holt, on December 17, 1967. Written by J. Larkin and G. Barker. Melbourne, 1968. (An "Age" Insight Book.) 121 pages.
- ALEXANDER, F.—Australia since federation; a narrative and critical analysis. Melbourne, Nelson (Australia), 1967. 352 pages.
- ANGUS, J. C.—A story of the districts included in the Shire of Wangaratta; published by the Shire Council to mark its centenary. Wangaratta, Shire Council, 1967. 105 pages.
- AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH—Research into education, improving its value to the practice of education; papers presented at a conference convened . . . 18–23 May, 1967. Hawthorn, 1967. 154 pages.
- AUSTRALIAN RESOURCES DEVELOPMENT BANK—Australian Resources Development Bank Limited. Melbourne, 1967. 8 pages.
- AUSTRALIAN SOCIETY FOR EDUCATION THROUGH ART—Collection of photographs of buildings of historical interest in Victoria. Melbourne, The Society, by courtesy of the National Trust of Australia (Victoria), 1967. 15 photographs 46×59 cm., 15 photographs, 26×21 cm.
- BACH, J.—William Bligh. Melbourne, Oxford University Press, 1967. 30 pages.
- BARNARD, M. F.—Miles Franklin. Melbourne, Hill of Content, 1967. 174 pages.
- BILLOT, C. P., *ed.*—Poets and poetasters of Geelong. Compiled and edited by C. P. Billot from the collection of Roy H. Holden. Geelong, Regional Library, 1967. 107 pages.
- BLAINEY, G. N.—Across a red world. Melbourne, Macmillan, 1968. 215 pages.
- BLAINEY, G. N.—The tyranny of distance; how distance shaped Australia's history. Melbourne, Macmillan, 1968. 365 pages.
- BLAINEY, G. N.—Wesley College, the first hundred years, by G. Blainey, J. Morrissey and S. E. K. Hulme. Melbourne, Wesley College in association with Robertson and Mullens, 1967. 240 pages.
- BORCHARDT, D. H.—Senescence and fertility. Melbourne, Cheshire for La Trobe University, 1967. 16 pages.
- BRASS, A. J. D.—Bleeding earth; a doctor looks at Vietnam. Melbourne, Heinemann, 1968. 189 pages.
- BROWN, I. F., *ed.*—The Australian Ballet, 1962–1965; a record of the company, its dancers and its ballets. Melbourne, Longmans, 1967. 154 pages.
- BULL, J. C.—Story of Gippsland shipping; discoveries of the early navigators, lakes, steamers, coastal windjammers, shipwrecks and famous captains, by J. C. Bull and P. J. Williams. Metung, The Authors, 1967. 110 pages.
- BUXTON, G. L.—The Riverina 1861–1891; an Australian regional study. Melbourne University Press, 1967. 338 pages.
- CAMERON, B. D.—National income; an introduction. Melbourne, Cheshire, 1968. (Australian Economics Handbooks.) 76 pages.

APPENDIX G—*continued*

- CAMPBELL, D. G.—Drought ; causes, effects, solutions. Melbourne, Cheshire, 1968. 135 pages.
- CANTLON, M.—Homesteads of Victoria 1836–1900. Melbourne, Georgian House, 1967. 108 pages.
- CARTER, I. R.—God and three shillings ; the story of the Brotherhood of St Laurence. Melbourne, Lansdowne, 1967. 173 pages.
- CARTER, O. V.—Walter Zumstein ; pioneer. Horsham, Horsham and District Historical Society, 1967. 12 pages.
- CHAPMAN, T.—Six views of Hobart Town ; from sketches by T. Chapman ; lithographed, printed and published by T. Bluett, Hobart Town, V. D. L. Melbourne, Evans, 1967. Facsimile reprint of Hobart Town Views first published in 1844. 7 plates.
- CLARK, C. M. H.—A history of Australia ; II. New South Wales and Van Diemen's Land, 1822–1838. Melbourne University Press, 1968. 364 pages.
- CLARK, G. J.—In fear of China. Melbourne, Lansdowne, 1967. 219 pages.
- CORDEN, W. M.—Australian economic policy discussion ; a survey. Melbourne University Press, 1968. 71 pages.
- CUNNINGHAM, K. S.—An Australian school at work, by K. S. Cunningham and D. J. Ross. Hawthorn, Australian Council for Educational Research, 1967. 160 pages.
- DALZIEL, A. J.—Evatt the enigma. Melbourne, Lansdowne, 1967. 186 pages.
- DAVIDSON, F. G.—Economics and economic policy. Melbourne, Cheshire for La Trobe University, 1967. 15 pages.
- DUTTON, G. P. H.—The hero as murderer ; the life of Edward John Eyre, Australian explorer and Governor of Jamaica, 1815–1901. Melbourne, Cheshire, 1967. 416 pages.
- DUTTON, G. P. H.—On my island ; poems by Geoffrey Dutton. Illustrated by John Perceval. Melbourne, Cheshire, 1967. 40 pages.
- DUTTON, G. P. H.—Poems soft and loud. Melbourne, Cheshire, 1967. 79 pages.
- ELLIOTT, B. R.—The landscape of Australian poetry. Melbourne, Cheshire, 1967. 346 pages.
- FINN, E.—Garryowen's Melbourne ; a selection from *The chronicles of early Melbourne 1835–1852* by Garryowen. Edited by Margaret Weidenhofer. Melbourne, Nelson (Australia), 1967. 197 pages.
- FISHER, J. A.—History of Yaapect, 1898–1966. Compiled by J. and F. Fisher for the occasion of the "Back to Yaapect", Easter, 1966. Yaapect, The Author, 1966. 31 pages.
- FITZGERALD, R. T.—The printers of Melbourne, the history of a union. Melbourne, Pitman in association with the Printing and Kindred Industries Union, 1967. 173 pages.
- FOX, R. G.—The concept of obscenity. Melbourne, Law Book Company, 1967. 193 pages.
- FRAUCA, H.—Birds of Australia ; from the seas, swamps and scrubs. All photographs by Claudy and Harry Frauca. Melbourne, Heinemann, 1967. 122 pages.
- GARDINER, L. B.—The eye and ear ; the Royal Victorian Eye and Ear Hospital centenary history. Melbourne, Robertson and Mullens, 1968. 114 pages.
- GILL, S. T.—Early views of Geelong ; set of reproductions presented by the Geelong Regional Library. Geelong, Regional Library, 1967. 10 plates.
- GUNSON, N.—The good country ; Cranbourne Shire. With contributions by L. M. Key. Melbourne, Cheshire, 1968. 308 pages.

APPENDIX G—*continued*

- HAGGER, A. J.—Price stability, growth and balance; Australia's economic objectives. Melbourne, Cheshire, 1968. 317 pages.
- HALL, R. J. G.—The Australian Light Horse. With foreword by R. E. Wade. Puckapunyal, The Author, 1967. 105 pages.
- HARDY, F. J.—The unlucky Australians. Melbourne, Nelson (Australia), 1968. 257 pages.
- HARRIS, M.—The land that waited, by Max Harris and Alison Forbes. Melbourne, Lansdowne, 1967. 1 vol., unpagged.
- HETHERINGTON, J. A.—Melba; a biography. Melbourne, Cheshire, 1967. 299 pages.
- HIGHAM, C., *ed.*—Australians abroad; an anthology. Edited by C. Higham and M. Wilding. Melbourne, Cheshire, 1967. 211 pages.
- HILL, R.—Australian birds. With a foreword by Prince Philip, H.R.H. the Duke of Edinburgh. Melbourne, Nelson (Australia), 1967. 281 pages.
- HOUGHTON, S. (Holdsworth).—A scheme devised for the classification of historical material relating to the City of Brighton, Victoria. Devised and compiled for the Brighton Historical Society and Brighton Public Library. Cheltenham, The Author, 1967. 69 pages.
- HOY, E. E.—Harrietville; 115 years of continuous gold seeking. Wangaratta, The Author, 1968. 40 pages.
- HUCK, E. A.—The Chinese in Australia. Melbourne, Longmans, 1968. 117 pages.
- HUDSON, W. J., *ed.*—Towards a foreign policy, 1914–1941. Edited with an introduction by W. J. Hudson. Melbourne, Cassell, 1967. 141 pages.
- INTERNATIONAL CONGRESS ON HUMAN RELATIONS, *3rd, Melbourne, 1967.*—The technological change and national efficiency. A collection of papers presented during the 3rd International Congress on Human Relations held in Melbourne, May 8 to 10, 1967. Melbourne, Federation Promotions, 1967. 138 leaves.
- ISAAC, J. E.—Wages and productivity. Melbourne, Cheshire, 1967. A project of the Committee for Economic Development of Australia. 157 pages.
- JASPER, B. S.—A history of Rutherglen. Rutherglen, Rutherglen Wine Festival Committee, 1967. 10 pages.
- JENNINGS, M. J., *ed.*—Australia's explorers; a collection of contemporary documents. Compiled and edited by M. J. Jennings. Melbourne, Hill of Content, 1966. 27 pages.
- JENNINGS, M. J., *ed.*—The discovery of Australia. Melbourne, Hill of Content, 1968. 12 pieces in folder.
- JENNINGS, M. J., *ed.*—Federation; a collection of contemporary documents. Compiled and edited by M. J. Jennings. Melbourne, Hill of Content, 1967. 15 pieces in folder.
- KENEALLY, T. M.—Bring larks and heroes. Melbourne, Cassell, 1967. 247 pages.
- KING, H.—The admiral's wife; Mrs Phillip Parker King, a selection of letters, 1817–1856. Edited with an introduction by Dorothy Walsh. Melbourne, Hawthorn Press, 1967. 147 pages.
- LEESE, J.—English education and Australia. Melbourne, Cheshire, 1968. 118 pages.
- LINDSAY, Lady J. B. (Weigall)—Picnic at Hanging Rock. Melbourne, Cheshire, 1967. 212 pages.
- LONEY, J. K.—Shipwrecks along the Great Ocean Road. Apollo Bay, The Author, 1967. 1 vol.
- LONEY, J. K.—Warrnambool, the graveyard of ships; wrecks and strandings in and around Lady Bay. Apollo Bay, The Author, 1967. 20 pages.
- MacCALLUM, M. B., *ed.*—Ten years of television. Melbourne, Sun Books, 1968. 155 pages.

APPENDIX G—*continued*

- McCHESNEY MATHEWS, M. *comp.*—The Melbourne Society of Women Painters and Sculptors; brief history from 1901–1959. Melbourne, Melbourne Society of Women Painters and Sculptors, 1959. 38 pages.
- MacKENZIE, B.—Singers of Australia, from Melba to Sutherland, by Barbara and Findlay MacKenzie. Melbourne, Lansdowne, 1967. 309 pages.
- MACKERRAS, C. P.—China observed, 1964–1967, by Colin Mackerras and Neale Hunter. Melbourne, Nelson (Australia), 1967. 194 pages.
- MADDERN, I. T.—The history of Toongabbie, Victoria, 1862–1967. Toongabbie, 1967. 20 pages.
- MARONG, *Shire Council.*—Shire of Marong, 1864–1964. Marong, 1964. 42 pages.
- MASSOLA, A.—Bunjil's cave; myths, legends and superstitions of the Aborigines of south-east Australia. Photographs by John Gollings. Melbourne, Lansdowne, 1968. 208 pages.
- MAXWELL, J. A.—Commonwealth–State financial relations in Australia. Melbourne University Press, 1967. 124 pages.
- MENZIES, Sir R. G.—Afternoon light; some memories of men and events. Melbourne, Cassell, 1967. 384 pages.
- MENZIES, Sir R. G.—Central power in the Australian Commonwealth; an examination of the growth of Commonwealth power in the Australian federation. Melbourne, Cassell, 1968. 198 pages.
- MEO, L. D. (Foley).—Japan's radio war on Australia, 1941–1945. Melbourne University Press, 1968. 300 pages.
- MIDGLEY, S.—The diaries of Sarah Midgley and Richard Skilbeck; a story of Australian settlers. 1851–1864. Edited by H. A. McCorkell. Melbourne, Cassell, 1967. 208 pages.
- MONTGOMERY, E. H.—Timbertop; an innovation in Australian education, by E. H. Montgomery and J. R. Darling. Melbourne, Cheshire, 1967. 155 pages.
- MORRISON, M. E.—To Wycheproof and back. Compiled by M. E. Morrison, Wycheproof, Victoria, "Back to Wycheproof" Committee, 1967. 32 pages.
- MULVANEY, D. J.—Cricket walkabout; the Australian aboriginal cricketers on tour 1867–8. Melbourne University Press, 1967. 112 pages.
- MUNDAY, B. J.—Mainstreams in Australian history, by B. J. Munday and J. R. Grigsby. Line drawings by C. Green. Melbourne, Cassell, 1968. 174 pages.
- MYERS, D. M.—A new university in a changing world. Melbourne, Cheshire for La Trobe University, 1967. 15 pages.
- NORTH EASTERN HISTORICAL SOCIETY, *Rutherglen Branch.*—Rutherglen and its history. Rutherglen, Wine Festival Committee, 1968. 1 vol.
- PALMER, M.—Tarrawarra; 130 years on a Victorian property. Melbourne, Hawthorn Press, 1967. 31 pages.
- POLLARD, J., *ed.*—Birds of paradox; birdlife in Australia and New Zealand. Edited by J. Pollard. Melbourne, Lansdowne, 1967. 246 pages.
- POWELL, R. W.—Back to Boisdale, Gippsland, Victoria, April 13–15, 1968, souvenir, 1840–1968. Boisdale, Back to Boisdale Celebrations Committee, 1968. 24 pages.
- POYNTER, J. R.—Russell Grimwade. Melbourne University Press, at the Miegunyah Press, 1967. 312 pages.
- QUILAN, L. M.—Here my home; the life and times of Captain John Stuart Hepburn, 1803–1860, master mariner, overlander and founder of Smeaton Hill, Victoria. Melbourne, 1967. 212 pages.
- RAGGATT, Sir H. G.—Mountains of ore. Melbourne, Lansdowne, 1968. 406 pages.

APPENDIX G—*continued*

- ROBINSON, W. S.—If I remember rightly; the memoirs of W. S. Robinson, 1876–1963. Edited by G. Blainey. Melbourne, Cheshire, 1967. 234 pages.
- SEMMLER, C. W.—Twentieth century Australian literary criticism. Edited by C. Semmler. Melbourne, Oxford University Press, 1967. 370 pages.
- STEVENSON, A.—High living; a study of family life in flats, by Anne Stevenson, Elaine Martin and Judith O'Neill. Melbourne University Press, 1967. 172 pages.
- STEVENS, F. H.—Then the water wheel turned; a history of Lockington and district, 1867–1967, by F. Stevens and E. O'Brien. Bendigo, Victoria, Rochester Shire Council for the Lockington Branch of the C.W.A., 1967. 148 pages.
- SUTCLIFFE, J. T.—A history of trade unionism in Australia. With a foreword by G. W. Ford. Melbourne, Macmillan, 1967. First published 1921. 282 pages.
- WAKEFIELD, N. A.—Naturalist's diary. Melbourne, Longmans, 1967. 214 pages.
- WHITE, O. E. D.—Melbourne. Photographs by G. De Lisle. Melbourne, Hill of Content, 1968. Captions in English, German, Italian and French. 208 pages.
- WILLIAMS, P. J.—Shipwrecks at Port Phillip Heads since 1840, by P. J. Williams and R. Serle. 4th ed., Melbourne, Maritime Historical Productions, 1967. 64 pages.
- WILSON, G.—Murray of Yarralumla. Melbourne, Oxford University Press, 1968. 334 pages.

Appendix H

Publications Issued by the Victorian Office, Commonwealth Bureau of Census and Statistics

Printed Publications

Victorian Year Book (Price \$1.50 plus postage)

Victorian Pocket Year Book (Price 20c plus postage)

Mimeographed Publications

(Free on application)

General

Victorian Monthly Statistical Review

General Statistics of Local Government Areas (Irregularly)

Building

Building Approvals (Monthly)

Building Approvals by Local Government Areas (Quarterly)

Building Statistics (Quarterly)

Building Statistics: Number of New Houses and Flats: Preliminary Estimates (Quarterly)

Demography and Social

Demographic Statistics

Divorce Statistics

Education Statistics

Estimated Age Distribution of the Population of Victoria

APPENDIX H—*continued*

Estimated Population and Dwellings by Local Government Areas
 Hospital Morbidity Statistics
 Industrial Accident Statistics
 Vital Statistics : Preliminary

Factory Production

Factory Statistics : Preliminary
 Factory Statistics
 Production Statistics (Monthly)

Finance, Local Government, and Transport

Fire, Marine, and General Insurance Statistics
 Housing Finance Statistics (Quarterly)
 Local Government Finance Statistics
 Mortgages of Real Estate (Quarterly)
 Motor Vehicle Registrations (Monthly)
 Road Traffic Accidents Involving Casualties (Quarterly)
 Road Traffic Accidents Involving Casualties

Mining

Mining and Quarrying Operations

Rural

Agricultural Statistics
 Apicultural Statistics
 Apples and Pears in Cool Stores (Monthly : March to November)
 Chicken Hatchings and Poultry Slaughterings Statistics (Monthly)
 Citrus Fruit Production
 Cultivating Implements on Rural Holdings (Triennial)
 Fruit and Vineyards
 Grain and Seed Harvesters on Rural Holdings (Triennial)
 Grasses and Clovers Harvested for Seed
 Livestock : Preliminary Numbers
 Livestock Statistics
 Machinery on Rural Holdings
 Maize Production
 Oats and Barley : Acreage
 Onions : Acreage and Production
 Pick-up, Balers and Forage Harvesters on Rural Holdings (Triennial)
 Potatoes : Acreage, Production, and Varieties
 Potatoes : Estimated Acreage
 Rural Holdings : Classified by Type of Activity (Irregularly)
 Rural Statistics
 Tractors on Rural Holdings (Triennial)
 Vegetables : Acreage and Production
 Viticultural Statistics
 Wheat : Acreage and Varieties
 Wine and Brandy : Wholesale Sales and Stocks

N.B.—The listed publications are issued ANNUALLY except where otherwise indicated.