Growing Potential

Land-Cultivators of the Colony of Victoria in the late 1830s-1860s

Submitted by
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Summary

Although the mid-nineteenth century crop-farmers as a distinctive group of colonial society have not been extensively researched, previous historians generally agree that most European settlers were far from prosperous owing to insurmountable environmental and economic odds they faced in their new homeland.

This thesis challenges the established view. It reconsiders the formation of the large class of greatly successful land-cultivators in Victoria between the late 1830s and 1860s. During that period the population boom stimulated colonial demand for agricultural produce and broadened the prospects for commercial crops in the colony. This thesis argues that the emergence of numerous local coastal and interior markets provided a constant and powerful stimulus for domestic crop-producers. Many thousands of European newcomers managed not only to settle themselves on the new land, with its unknown patterns of seasons and soils, but also to turn their predominantly small- or middle-scale farming undertakings into a highly profitable enterprise. The success of these agricultural producers chiefly derived from their access to relatively cheap fresh land resources, their intensive exploitation of unpaid family labour, their capacity to switch easily to more remunerative commodities, and their capability to learn quickly and then apply in practice new approaches to crop-farming.

Over that short period of the 1830s-1860s a large number of crop-producers were able to accumulate local agricultural experience, procure capital, and adopt advanced farming methods. This study demonstrates the success of early colonial cultivators who laid the foundation for the great territorial expansion of arable agriculture in the last quarter of the nineteenth century when Australia suddenly emerged as a global player on the world market of crop-commodities.
Statement of Authorship

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis submitted for the award of any other degree or diploma.

No other person’s work has been used without due acknowledgment in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

_____________________
Dmytro Ostapenko

_____________________
Date
## Abbreviations

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<td>HCCDA</td>
<td>Historical Census and Colonial Data Archive</td>
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<td>NSW. VP of LC</td>
<td>New South Wales. Votes and Proceedings of the Legislative Council</td>
</tr>
<tr>
<td>PROV</td>
<td>Public Record Office Victoria</td>
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<td>SLV</td>
<td>State Library of Victoria</td>
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<tr>
<td>VP of LA</td>
<td>Victoria. Vote and Proceedings of the Legislative Assembly</td>
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<tr>
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Introduction

In 1819 John Bigge, a high-ranking British official, was assigned to carry out a thorough investigation into the state of Australian penal settlement. Among many other subjects of his inquiry were the conditions of arable agriculture in New South Wales where land had been farmed since the time of the First Fleet. The advances of local cultivators, largely composed of ex-convicts, did not impress the Commissioner. Even though these crop-growers enjoyed free land grants and productive soils of the Hawkesbury districts, the contemporary hub of farming activities in the colony, he judged their husbandry methods primitive and financial positions weak.¹

In the same period as Bigge was delegated to Australia, William Charles Wentworth, a colonial-born farmer, tradesman and official, published his description of New South Wales. Wentworth commented on the poor returns from cropping owing to the small colonial market which could not absorb all surpluses in the years of bumper harvests. The wealthier agriculturalists favoured much more remunerative live-stock farming whilst many settlers with limited means tilled only a small part of their landholding preferring to travel ‘in search of labour till harvest time, at which period they returned, reaped, threshed and disposed of their crops, and, after recultivating the same spot, sought, during the rest of the year, employment as before’.²

James Atkinson’s account of colonial agriculture, which became available to the public in 1826, sounded even more critical. Atkinson, an experienced British farmer who also followed this occupation in the colony, testified:

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If a foreigner who had traveled through England, were afterwards to visit New South Wales, he would scarcely be able to persuade himself that the inhabitants where derived from the same stock; he could hardly believe that the people, who, in their mother country, cultivate their lands with such preserving industry and intelligence, should here became so extremely slothful and negligent; yet such is the case – the state of agriculture being rude and miserable in the extreme.  

In the 1820s Bigge, Wentworth and Atkinson would scarcely have anticipated the fact that just slightly more than half a century later the southern colonies would far surpass the mother country in crop production and even more, they would be jointly ranked one of the leading global grain producers. Yet this did happen. Despite the very poor beginnings of their predecessors, in the mid 1880s Australian farmers were able to supply overseas consumers with millions of bushels of wheat, reaping one-fiftieth of the world’s grain harvest.

Why did this great transition of Australian crop-farming take place? Two distinct groups of factors shaped this outcome. The factors of the first group were related to the natural scope for extension of European crop-farming in Southeastern Australia. The vast virgin plains in these territories were well suited for crop-production. Unlike many other recently colonised regions where white newcomers encountered a more fierce resistance from native inhabitants, British expansion across that part of the continent was not slowed by the indigenous population. Injustice towards indigenous people, the devastating effect of new diseases, and the distribution of alcohol had the horrible combined impact on Aboriginal society which greatly reduced its capacity to withstand white colonisation. Disregarding any rights of Aboriginal people and taking advantage of technological and military superiority, the British government

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simply declared all lands in the southern continent to be an integral part of a crown domain originally managed and distributed by the Imperial and then, from the mid-nineteenth century, by the colonial authorities. Even though the different methods for disposing of crown domain operated in Australia in the nineteenth century, white agricultural settlers accessed the ‘vacant’ land in Southeastern Australia with relative ease.

The factors of the second group concerned the necessity and then the capability of European newcomers to exploit these fresh land resources. Questions of how and why European land-cultivators extended their operations across Southeastern Australia in the nineteenth century are at the centre of this study. The existing academic literature on Australian rural history offers a credible and rational explanation of that progress. The Selection Acts passed by colonial policy-makers in the 1860s opened up interior plains for white agricultural settlement. Vast tracts of land sold off cheaply and advanced labour-saving machinery enabled European settlers to grow crops at a low cost. Improved husbandry methods, as well as new varieties of plants, further helped newly established farmers to overcome initial problems of declining yields and climate. The extension of a railway network over just-settled agricultural areas solved the problem of transportation of bulky crops to coastal ports from where the surpluses of Australian farmers could be shipped to large overseas markets.\(^6\)

This well-established representation of the nineteenth century Australian agricultural history exhibits, however, two weak points. The emphasis of researchers has been predominantly placed on the last third of the century when the pattern of agricultural settlement moved far inland and the domestic crop-farming industry commenced producing commodities for the global market. The structure of a monograph on the history of European farming in Australia by Bruce Davidson, a prominent expert in the field, illustrates this imbalance in scholarship. Davidson almost entirely neglected the progress of Australian cropping between 1820 and 1850, preferring to focus on the pastoral industry in that era. The period of the 1850s-1860s was only briefly sketched in a few pages, to acknowledge the positive impact of expanding markets of the gold decade and an increase in returns from cropping but also to stress the great impediments of costly labour.\(^7\) In contrast, the development of crop-farming in the following decades was given full attention, as it was scrutinised in three large chapters.

Such a close scholarly interest to the late nineteenth century does little to explain the transition of Australian arable agriculture from a backward and undeveloped domestic industry in the 1820s to an advanced global-scale enterprise fifty years later. There are only two large academic works exploring the development of Australian crop-farming in the decades preceding the Selection Acts of the 1860s. Edgars Dunsdorfs’ study of the national wheat industry included a chapter on the problems and achievements of colonial wheat growers in the 1820s-1850s. Dunsdorfs acknowledged the rapid enlargement of grain acreage and adaptation of new husbandry methods, yet stressed the insufficiency of domestic wheat production owing largely to problems with transportation, labour, and markets.\(^8\) Recently Geoff Raby published a monograph on the technological and innovative progress of Australian rural industries in 1788-1860, demonstrating that although local farming

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7 Davidson, *European Farming*, p. 127-129.

practices might appear to be backward, they in fact reflected technical responses of European agricultural settlers to new economic and environmental challenges.\textsuperscript{9} Dunsdorfs’ and Raby’s works clearly indicated that the mid-nineteenth century was in fact a dynamic period in the history of colonial crop-farming. This thesis explores some complexities of that dynamism.

In addition to the apparent chronological imbalance in scholarly interests, researchers in the field of economic agricultural history have been largely preoccupied with studying how material things such as implements, technologies, markets, railways, state policy and the like affected agricultural progress, largely leaving in the shadow the ‘human subject’, the producer who stood behind the impressive quantitative advances of Australian crop-farming. My argument is that it was not legislation, infrastructure, technology, and land availability that ultimately conditioned the rapid transition of Australia into a world player on the global market of crop-communities. These things were just facilities or means used by colonial cultivators who possessed the significant scope of choice, independence and individualism.

No matter how dense the railways network, or how extensive the overseas markets, or how effective the government support, or how fertile and inexpensive the inland soils, or how advanced the agricultural machinery might have been in the late nineteenth century, there had to be farmers aplenty who were capable of taking advantage of available opportunities. This consequently meant that those rural producers had to possess the first-hand practical knowledge and skills of Australian husbandry to utilise effectively vast opened-up land recourses. They had to be wealthy enough to establish their farms on the new land. After all, they had to be intelligent, pragmatic and proactive individuals to grasp new opportunities. The existence of the large class of successful domestic land-cultivators was, apparently,

an indispensable prerequisite to the establishment of Australia as a global crop producer.

The genesis of the class of domestic farmers was a gradual process. It commenced long before the great agricultural expansion of the last three decades of the nineteenth century. Although the history of European farming may be traced back to Governor Phillip’s times, the 1820s were the starting point for forging a new type of colonial land-cultivator when white settlement moved off far beyond the original Cumberland plain and when free immigration increased.

There are two short accounts of land-cultivators of the mid-nineteenth century offering the rough sketch of their positions. Dunsdorfs’ history of the wheat industry included a short description of New South Wales’ wheat-producers in the 1830s-1840s. Dunsdorfs admitted that grain production was concentrated in the hands of small cultivators who were not affected by any shortage of convict labour otherwise associated with the abolition of transportation in 1840. He further observed the general improvement in ‘the economic and social standing of the small wheat-growers’ before the gold discovery.

Lynnette Peel’s monograph on the agriculture of the Port Phillip region in 1835-1880 also contained some analysis of a community of local crop-growers. Similar to Dunsdorfs, she noticed the dominance of small-scale producers, yet her comments on their fortunes were far less favourable. Peel highlighted the difficulties of settlement, small market and deteriorating prices in the 1840s and then debt burdens, small acreages of farms, a lack of agricultural experience and a low standard of living in the following two decades.

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11 Ibid., p. 110.
This thesis, too, explores the positions of colonial small landholders of the mid-nineteenth century. It illustrates that small-scale farming was a remunerative enterprise, especially in Victoria in the 1850s, when tilled holdings of twenty acres might be "Tom Tiddler ground" (more productive than any diggings in the world) owing to the great demand for crop-commodities generated by the gold discovery.\textsuperscript{13} Furthermore, the small producer had a clear prospect of acquiring a larger farming unit as the bulk of relatively cheap Crown Land was opened up for agricultural settlement in the booming Central Victorian goldfields region. The accumulation of first-hand local farming experience and the adoption of new farming methods was also a rapid process accelerated by numerous agricultural societies then operating across that colony.

The main task of the thesis is, however, much broader than describing the fortunes of small landholders. This study recounts how and why many thousands of recent European agricultural settlers were able to transform themselves into a class of Australian farmers in the period between the 1830s and 1860s. The members of this class are primarily viewed in their capacity of being producers of crop-commodities.

The purpose of this enquiry is threefold. First, it offers a retrospective of the mid-nineteenth century Australian crop-farmers who as a distinctive, large and diverse class of colonial society have not been a subject of thorough investigation yet. Second, it contributes to a more complete account of Australian agricultural history of the 1830s-1860s. Third, it proposes new explanations for the outstanding farming progress of the later period by showing its foundations in the preceding development of a farming community.

Covering the national experience is too large to fit it within the relatively narrow boundaries of a PhD dissertation. The thesis concentrates on the history of Victoria’s crop-growers to suggest the pattern of a larger story. The study begins with a brief analysis of the progress made by agriculturalists in Southeastern Australia in the

\textsuperscript{13} \textit{Argus}, 1 April 1863, pp. 4-5
1820s-1840s. This is to contour the key research questions of the thesis within a broader framework and then to explore them more deeply in the colony of Victoria.

The thesis is guided by six principal research questions. First, did the inaccessibility to overseas markets affect the progress of a colonial farming community in the mid-nineteenth century? Second, who were those novice cultivators taking up crop-farming in the colony? Third, did the economic structure and character of a farming society change in the 1830s-1860s? Fourth, was crop-growing a profitable occupation at that time? Fifth, how did modifying land legislation influence cultivators? Sixth, did crop-producers adopt new approaches to farming and if so how fast was this process? As the argument is structured chronologically to demonstrate the growing economic potential of colonial cultivators over time, these closely interrelated questions run throughout the thesis.

During the period under investigation, the European settlement advanced rapidly in Victoria. In 1841 the fledgling Port Phillip district already hosted around 12,000 white settlers. Over the following two decades, the combined effects of pastoral expansion and gold discoveries increased the number of colonial residents fifty fold. The dramatic rise of population stimulated demand for agricultural produce and broadened the prospects for commercial crops in the colony. This thesis ascertains that the growth of numerous local coastal and interior markets in Victoria provided a constant and powerful impetus for the activities of land-cultivators throughout the 1840-1860s.

The potentially high profitability of growing cash crops, especially in the inland regions which were very rapidly populated with the gold rush of the 1850s, induced thousands of recent immigrants to arrive at the idea that market-oriented crop-
farming was well worth a try. While some European newcomers either failed completely or gained little on the new land, many more were able to adjust quickly to strange climate and soils and turned their farming undertakings into a viable money-making enterprise. With this rapid successful agricultural settlement the colony became virtually self-sufficient in foodstuffs by the late 1860s.

Contrary to the works of previous historians, this study advances a case for the long-term sustainability of small and middle scale colonial farming in the mid-nineteenth century. It is difficult, however, to adopt a precise definition of small- and middle-scale cropping farms for this thesis because of limitation of primary sources. Early colonial statistical returns furnish no evidence on the numbers of crop-producers, farms and their sizes, agricultural implements, or heads of livestock which makes generalisation at a theoretical level very problematic. In very broad term, a small farmer might occupy a landholding under 100 acres whilst a middle-scale crop-producer might have a larger allotment of 100 – 350 acres.

In March 1869 the Victorian agricultural statistics listed around 20,000 local cultivators who utilised allotments exceeding 30 acres in area and who were likely to make a permanent living from selling cash-crops, by virtue of the size of their farming establishment. Nearly half the members of this large farming community fell in the broad category of small farmers and nearly forty per cent comprised the category of middle-scale crop-producers.15

Even though some years brought declining market prices and poor harvests, which consequently provoked loud public complaints that echo frequently in modern scholarship, the majority of those small and middle-scale agriculturalists on their 30 – 350 acre blocks of land were in fact able to operate profitably and efficiently in mid-nineteenth century Victoria.

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The intensive exploitation of unpaid family members made them by and large independent of hiring labour which consequently diminished considerably their monetary input in crop-production. The small scale of farmsteads greatly simplified their relocation to other regions where the land resources might be more accessible and abundant but crop prices higher. When the situation in the colonial markets changed, the smallholders were also able to switch promptly to the production of commodities most remunerative in the prevailing conditions.

No less important as a factor in the rapid development of Victoria’s agriculture was the quality of ‘human material’ taking up crop-farming. Those predominantly small agriculturalists were recent migrants who had voluntarily abandoned their native land in order to settle themselves in the unknown Antipodes. That type of cultivator was initially prepared to learn in a new environment and be open to experiments and innovations. Various sources describe these agriculturalists as largely proactive, rational and commercially-minded individuals who were firmly determined to overcome all inevitable challenges and troubles in their process of settlement. On the other hand, the overwhelming proportion of colonial farmers were literate and shared common cultural and social backgrounds which consequently simplified greatly the process of diffusing new agricultural knowledge and experience.

Unlike their fellow-farmers from traditional, long-established rural European societies with strong economic and cultural ties to their farms, the representatives of the young farming community in Victoria had weak connections with the current place of their cropping operations. They did not hesitate to sell out a small farm and obtain larger allotments of fresh land taking advantage of the new legislation of the 1860s. Furthermore, a third of them leased either private or crown land held under insecure tenure. This further fostered mobility among the farming population which was so essential for the extensive colonisation of the later decades.

The study queries a widespread academic opinion that without an access to large overseas outlets for crops which were out of reach until the late nineteenth century,
the operations of Australian cultivators were greatly restrained by their paltry
domestic markets. Geofrey Blainey’s *Tyranny of Distance*, an iconic account of
Australian history, reflected these views:

Whereas most other commodities grown or gathered in Australia were only
produced in limited quantities because they could be sold in the small
Australian market, wool and gold could be produced in immense quantities
because they could reach a world market. Gold and wool thus created far more
employment and wealth than any other commodities in Australia.

Gold and wool indeed brought in enormous riches to Australia, yet it can still be
doubted these two staples created better long-term work prospects for Victorians
than crop-commodities produced for internal markets in the 1840s-1860s. In 1861
there were around 40,000 crop farmers and their labourers, or more than four times
as many as those engaged in stock farming. Although the gold rushes continued in
Victoria, crop-growers already composed a half of the mining population. Over the
next decade arable agriculture took the lead in the number of employed. In 1871
54,000 colonial residents were involved in cropping, 52,000 in mining and just 7,000
in livestock farming. At that time wool and gold remained the two key staple items in
Victorian exports, while crop-farming was still orientated to domestic consumers.

The thesis also assesses the validity of the staple theory, which explains the
economic development of a resource rich non-industrialised country. The theory
advocates that expanding staple exports contributes to the increase in that country’s
wealth and stimulates the growth of other sectors linked with the industries producing

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Yet, the theory in some cases is unable to clarify how and why technically advanced industries capable of producing large quantities of globally traded highly competitive commodities might, in fact, have developed within the framework of domestic society and economy.\(^{20}\)

While the gold-mining and pastoral industries which rapidly progressed in Victoria in the mid-nineteenth century could directly apply exogenous technologies, innovations, labour skills and experience to Australian settings and produce commodities instantly tradeable on the global markets, domestic arable agriculture needed a correspondently large local class of well-established farmers capable of growing crops at a low cost for overseas consumers. The thesis demonstrates that by the late 1860s this class was formed in the colony. Many thousands of its members possessed the capacity to resettle quickly on virgin interior plains and to commence producing cheap crops on large farming units, the key predeterminants of the rapid agricultural advances in the last third of the nineteenth century.

Within the Australian literature on agricultural history, there is currently no scholarly monograph where the mid-nineteenth century colonial crop-farmers have been the main subject of investigation. Nonetheless, a number of academic works, though not directly concerned with land-cultivators, reveal some valuable details on the advancement of an early farming community in Southeastern Australia. The experts assessed the effectiveness of land legislation, scrutinised the development of farming techniques, estimated the possible cost of wheat production, examined the social status of cultivators, and described the conditions of rural labour in the mid-nineteenth-century Australian colonies, mainly New South Wales and South Australia.\(^{21}\) There are also some studies investigating different aspects of the early


\(^{20}\) G Raby, *Making Rural Australia*, p. 6

history of Victoria, whose authors briefly described the state of Port-Phillip farming on the eve of gold discovery,\textsuperscript{22} sketched the progress of colonial agriculture in the 1850s,\textsuperscript{23} and scrutinised the working of the Land Acts in the 1860s.\textsuperscript{24}

Detailed research in the field of early rural history of Victoria is represented by two monographs published nearly forty years ago. Lynnette Peel’s investigation dealt with the development of agriculture around Melbourne and Geelong.\textsuperscript{25} The book by Joseph Powell, though mainly concerning the Western district of Victoria, viewed the working of land legislation and briefly indicated the economic problems of colonial land-cultivators in the late 1850s-early 1860s.\textsuperscript{26} The latter theme was also discussed in an article.\textsuperscript{27} The conclusions of both scholars sounded similar. The domestic crop-producers, especially those who worked the land in the coastal counties, were in hardship because of falling market prices, high costs of hired labour, soil exhaustions, and vagaries of weather. The distressing picture painted by Peel and Powell was somewhat determined by their focus on economic and environmental settings within which cultivators had to operate. As conditions of farming often did not


\textsuperscript{25} Peel, \textit{Rural Industry}.

\textsuperscript{26} JM Powell, \textit{The Public Lands of Australia Felix: Settlement and Land Appraisal in Victoria 1834-91 with Special Reference to the Western Plains}, Oxford University Press, Melbourne, 1970.

favour the crop-producers, it was ultimately assumed that they were struggling on their land in the 1850s-1860s.

Lately, however, the dismal image of Victoria’s land-cultivators of the mid-nineteenth century has been challenged. Geoff Raby in his PhD thesis and then in his monograph on the technical and institutional creativity in early Australian agriculture, drawing also upon Victorian sources, made evident that colonial farmers were quick to adopt new approaches to land-cultivation.28 Warwick Frost, analysing the reduction of wheat acreage in coastal and central Victoria in the second half of the nineteenth century, similarly argued that wheat-growing provided local farmers with stable returns, yet many deliberately preferred to reduce their grain-production because of the greater attractions of other activities.29

Some local histories have likewise described colonial cultivators as a rather prosperous and innovative category of colonial population. Weston Bate, for instance, in his meticulously written study of Brighton highlighted the advances of local settlers in the 1840s and then the farming boom of the gold decade.30 In his investigation of early Ballarat, Bate also observed the quick adoption of advanced machinery by thriving local farmers in the late 1850-1860s.31 Don Garden, narrating the early history of Heidelberg, noticed the extremely high returns of growing crops, part of which were even sent to mining areas by railway in the 1860s.32

At present a diverse array of academic literature yields valuable, yet unsystematic and fragmentary evidence about Victoria’s crop-producers of the 1840s-1860s. The different works with their emphasis on land legislation, settlement, rural industries, farming innovations, and local history, however, explicitly suggest that the orbit of

28 Raby, ‘Equipping an Agricultural Economy’; Raby, Making Rural Australia.
colonial cultivators was extremely complex and wide. Those people needed to learn intensively to master their skills and knowledge of Australian agriculture; they had to be innovative to utilise efficiently their available resources: land, labour, and capital; and, even more importantly, they and their families had to persist in their uneasy economic and social transition from the standing of recent migrants to the status of well-established Australian crop-producers.

Numerous primary sources contain copious valuable information on the mid-nineteenth century colonial cultivators. Ideally the story of farmers should have been narrated by listening to their own voices preserved in their diaries, financial accounts and personal correspondence. Regrettably, very few relevant documents dated to the 1840s-1860s have survived, providing rather patchy and sometimes difficult to interpret pieces of evidence. To a great extent, the thesis makes up for this deficiency by scrutinising successes or failures of individual farmers drawn from contemporary books and newspapers.

Probate records of farmers who died in the 1840s-1860s further help to meet the lack of first-hand personal documents. The laborious process of researching probates has been recently greatly simplified by the Public Record Office of Victoria making digitised copies of papers accessible online. These records yield some information on wealth enjoyed by land-cultivators. To demonstrate the changes in the financial standing of crop-farmers, random samples were taken from probate records for the different slices of time: 1847-1851, 1859-1860 and 1869. Furthermore, the inventories and wills occasionally attached to probates help to specify farmers’ assets and liabilities.

Rich collections of archival documents of the Lands Department including the reports of auctioneers of Crown Lands, selectors’ applications, Bailiffs’ evaluations of land improvements made by settlers, and reports from local Land Offices are also held in the custody of the Public Record Office. Although these sources concern only the disposal of or utilisation of Crown domain, thus entirely leaving out the vast bulk of
freehold land, they assist in determining the impact of the land legislation on the formation of a farming community. The great strength of the early records of the Lands Department is their extensive coverage, which offers the scope for statistical analysis of the working of the land legislation in different regions of the colony.

The minutes of some royal commissions, notably those on Immigration (New South Wales, Legislative Council, 1841, 1845, 1847 and Victoria, Legislative Council, 1852), Extension of Franchise (New South Wales, Legislative Council, 1844) and Tariff (Victoria, Legislative Assembly, 1859) furnish a vast array of personal opinions and estimations as to the problems of cultivators, their fortunes, and the structure of the farming community. The thesis demonstrates that quite often the respondents from the farming population overstressed their difficulties in order to obtain some benefits from the government, most commonly the imposition of duty on imported crop-produce. Where possible the farmers’ opinions and estimations are evaluated against evidence drawn from alternative sources.

Official statistics - mostly the colonial censuses and numerous agricultural returns - open a broad prospective for quantitative analysis of the general progress made by colonial agriculturalists. Inconsistencies in classification of statistical material, unreliable methods of data collection and changing administrative units are the serious weaknesses of early colonial statistics. To partially handle these problems, wherever it is attainable this study draws primary material from household returns filled out by collectors. From the mid 1850s the quality of published official statistics somewhat improved. Valuable numerical evidence is contained in the series of Agricultural and Livestock Statistics of Victoria, compiled by the Colonial Registrar-General’s Office in 1857-1867. Apart from general data on production, cultivated acreage, stock, farming implements, and the number of farmers, the series includes the reports of local collectors of agricultural statistics describing in detail farming problems and achievements.
Regular annual reports of the Board of Agriculture established in 1869 provide statistical evidence on the activities of numerous agricultural societies across the colony: exhibitions, field trials of machinery and implements, ploughing matches. Some agricultural societies also published their regulations and financial reports which give some indications on their structure, character of membership and budgets. The materials related to agricultural societies assist to estimate the needs in, and spread of, agricultural innovations among the farming population.

The main daily metropolitan newspapers, the *Argus*, and the *Age* contain accounts of various farming matters provided by local respondents and regular general observations of colonial rural industries and their markets. In the 1860s the newspapers assigned their reporters to visits to the agricultural areas opened up for settlement. The result was a wealth of information on the process of agricultural settlement throughout the colony. Melbourne-based weeklies are similarly useful, especially the *Victorian Farmers’ Journal and Gardeners’ Chronicle*, the first agricultural periodical for Victoria. In 1864-1868 the *Journal* was incorporated into the *Weekly Age*, and from 1868 into the *Leader*. The correspondents of these periodicals visited a number of cropping farms in the vicinity of the metropolis in the 1860s, estimating the profitability of growing different crops and viewing farming practices. Country newspapers, which rapidly sprang up from the mid 1850s, too, contain plentiful descriptions of local farming routines covering state of agricultural markets, settlement progress, operations of agricultural societies and associations, and changes in husbandry methods. The numerous, commonly anonymous, contributors to regional newspapers often convey the sentiments of Victorian farmers.

To a great extent, the primary evidence which this thesis draws upon has been overlooked by previous historians in the field of early rural development of Victoria. This especially relates to probate records, archival documents on the working of the first three Land Acts and a wealth of diverse information generated by colonial periodicals specialising on agricultural themes. These types of information, however, commonly offer a direct impersonal insight into the economic activities of colonial
crop-producers whilst other historians assessed the fortunes of farmers largely through 'second hand accounts' provided by the collectors of agricultural statistics in the late 1850s-early 1860s. Some of these personal reflections, especially those describing the state of farming in Grant county sounded rather critical. This fact coupled with the natural market and climatic challenges of contemporary agricultural pursuits greatly predetermined the comments of modern specialists on the difficulties and troubles of colonial cultivators in the mid-nineteenth century.

Apart from presenting new historical evidence on the operations of colonial farmers, the thesis also adopts more advanced methods to handle available information. It employs the triangulation method for data analysis borrowed from the domain of Social Sciences. Following this approach numerous personal opinions, views and estimations are contrasted against available statistical evidence before arriving at certain conclusions. Furthermore rather than listing raw statistical information, as it was normally practiced by previous historians, the thesis utilises basic methods of quantitative analysis converting numerical evidence into index form or grouping data as frequency distribution charts.

It is important to emphasise that the scope for quantitative analysis is greatly restricted by generally poor and unsystematic available numerical evidence. Less than two decades that elapsed between the proclamation of Victoria and the late 1860s was hardly a sufficient time for the immature domestic bureaucracy to organise the collection of comprehensive rural statistics. Even half a century later the quality of Victoria’s published agricultural statistics was so low that Ian McLean, an economist and statistician, had to partially use narrative sources to contour the agricultural change of 1870-1910.\(^\text{33}\) The absence of manuscript Census records for the entire period of 1846-1871 as well as master copies of returns compiled by collectors of agricultural statistics makes quantitative analysis even more problematic. The aggregate figures for some agricultural activities and the total rural

population are what is normally furnished by published mid-nineteenth century primary sources. As a result, the development of the early farming community can only be very roughly quantified over time.

The thesis is divided into seven chapters. Chapter one contends that small-scale Australian farming in the 1820s-1840s was a sustainable institution which was generally able to support a booming population. The New South Wales cultivators managed to withstand declining grain-prices and bad harvests in the late 1830s-1840s by diversification of their produce and improving (though slowly) husbandry methods. South Australian agriculturalists benefiting from local physical settings and new harvesting machinery relied more heavily on grain-production. The thesis suggests that in both cases the demands of domestic markets stimulated the quantitative expansion and the qualitative changes of local farming communities.

Chapter two shifts the focus of the thesis to the Port Phillip district of the late 1830s-1840s. Similar to other regions of Southeastern Australia, small landholders composed the predominant proportion among local crop-growers. Another distinctive feature of the Port Phillip farming community was the rapid growth of tenant farming: many of cultivators did not possess land but rented it from private proprietors. The chapter argues that by 1851, regardless of low crop-prices and a lack of local agricultural experience, around one thousand small producers grew cash-crops for the residents of local townships. The access to relatively cheap land resources, the intensive exploitation of unpaid family labour, and the possibility of earning monetary income off farm greatly assisted European migrants to develop small-scale cultivation.

Chapters three and four explore the impact of the gold discovery on the land-cultivators in Victoria in the 1850s. Chapter three argues that the scale of immediate downturn in crop-farming operations in the early 1850s as well as the challenges with the declining crop prices at the close of the decade has been considerably overemphasised in academic literature. The evidence demonstrates that colonial
crop-producers quickly adjusted to new market conditions shifting to the production of non-wheat commodities yielding the maximum returns. Throughout the second half of the 1850s crop-farming sprang up in the goldfields counties where cultivators still enjoyed high prices by virtue of their inland location while their counterparts in the coastal counties were becoming increasingly concerned with the production of not tradeable world-wide commodities.

Chapter four analyses the character of a growing farming community in the main agricultural regions of the colony and the fortunes of the cultivators in the 1850s. It contends that small-scale cropping became an extremely profitable occupation in the gold decade, especially in inland mining regions. High market prices predictably raised the monetary value of output for small landholders, yet their moderate financial expenditures on hiring labour conditioned the relatively low cost of production. At the same time the high cost of labour greatly restrained the establishment of large farming estates at that time. The high profitability of small farming, the accessibility to land resources, and the capital raised by many with the gold rush led to the dramatic increase in the number of small landholders on freehold and leased allotments.

Chapter five calls attention to the greatly modified land legislation of the 1860s, considering the contents and provisions of the 1860, 1862 and 1865 Land Acts from the perspective of the producers of crop-commodities. It suggests that land selection campaigns especially those under the first two Acts were largely unsuccessful, since most opened up agricultural areas were remote from the prospective outlets for crop-commodities. On the other hand, the new legislation enormously promoted bona-fide agricultural settlement through the occupation licence scheme, notably section 42 of the 1865 Land Act. More than fifteen thousand colonial residents took advantage of this regulation because of their right to choose the location of a leased area and low rent-fees. Roughly a third of leaseholders were already established farmers who were able to enlarge the size of their farmland by occupying adjoining allotments of Crown Lands.
The last two chapters scrutinise the responses of farmers to the economic conditions of the 1860s. Chapter six examines the spread of new technologies among the rural population in the late 1850s-1860s. It makes evident the young age and literacy skills enjoyed by an overwhelming proportion of male crop-producers, two factors which increased their capacity to learn new farming practices. Furthermore, nearly thirty country-based agricultural societies created a network of centres at which thousands of farmers could share their experience of colonial agriculture and collectively develop more sophisticated methods of crop-production. The rapidly accumulated technical knowledge coupled with capital gained during the gold boom enabled a large number of farmers to equip their farms with advanced implements and machinery and to minimise problems with soil exhaustion in long-settled coastal counties.

Chapter seven illustrates that central Victoria cultivators expanded dramatically their wheat production in the 1860s, turning this region into a colonial granary by the close of the decade. The cheap fertile local lands which were unlocked with the 1865 Land Act, the high wheat prices which followed the rust of 1864, the opening Echuca-Melbourne railway which made possible the transport of bulky grain surpluses to the coast, and the natural scope for widespread employment of labour-saving harvesting machinery in the drier inland climate, were all factors which assisted central Victoria farmers to transform wheat-growing into a highly profitable venture. The relocation of the wheat industry further inland did not cause, however, the deterioration in the financial positions of coastal crop-producers, especially those working the land near Melbourne. The bourgeoning colonial capital city required mounting quantities of globally non-tradeable agricultural commodities which consequently provided a growing local community of small- and middle-scale farmers with a stable income from alternatives to wheat products.

The thesis demonstrates that the establishment of the large class of crop-producers was an extremely rapid process in Victoria in the 1830s-1860s. Catalysed by the gold discovery, over that short period of time many thousands of colonial land-
cultivators gained agricultural experience, adopted farming methods applicable to their new environment, accumulated capital, and moved their undertakings further inland to central Victoria. They built up a momentum of dramatic expansion of their operations on the vast plains across the Dividing Range, thus securing the transformation of Victoria into a large crop-exporter in the last quarter of the nineteenth century.
Chapter 1

Setting the Scene: European Crop-Producers in Southeastern Australia in the Second Quarter of the Nineteenth Century

By the early 1820s the penal colony founded by Governor Phillip in 1788 still remained a little British outpost on the edge of the enormous continent. During that period of around thirty years the production as well as consumption of crops was mainly centred on the Cumberland plain: the relatively small area of flat land confined by the sea on the one side and the Blue Mountains on another. In contrast to the initial slow growth of white settlement, in the second quarter of the nineteenth century the European presence spread out over Southeastern Australia, contributing to the regional dispersal of land cultivation and to the numerical increase of crop-producers.

This chapter sketches the general progress made by European cultivators in the colonies of New South Wales and South Australia in the 1830s-1840s. The objective of this account is to classify colonial crop-producers and ascertain their potential to operate efficiently in challenging environmental, social and economic settings. These themes will be addressed more specifically in the following chapters when the thesis focuses on the colony of Victoria. The first chapter, therefore, sets the scene for the local story of Victoria’s cultivators, placing it in the context of other Australian colonies. Its subject, however, is limited to the crop-farmers of New South Wales and South Australia, excluding European settlement in Van Diemen’s Land and Swan River. This is largely dictated by many economic, social, and environmental similarities shared by New South Wales, Victoria and South Australia which jointly compose the geographically distinct Southeastern Australian region (Please, see Map 1).
Map 1 British colonies in Australia in 1850
The content of the chapter is subdivided into three sections. The first section defines the categories of crop-producers in New South Wales. The second section analyses the impact of extending domestic markets on farming communities in this colony and the last section provides a brief account of South Australian crop-farmers in the 1840s.

All in all, the chapter accounts for the dominance of small producers in the cropping industries of both colonies. It demonstrates that small-scale commercial cropping was an achievable and viable aspiration for many thousands of European immigrants. The cost of agricultural settlement on small allotments of freehold or leased land was within the means of a large number of newcomers, while the rapidly expanding domestic markets secured outlets for their produce. The chapter supports Dunsdorfs’ view that small landholders became the chief wheat producers in New South Wales when the transportation and then the assignment system were abolished in the early 1840s.¹ Abolition deprived large farming estates of cheap convict labour and made large-scale commercial cultivation a loss-making enterprise. Furthermore the chapter affirms Dunsdorfs’ opinion that the economic positions of small agriculturalists improved in the 1830s-1840s, but he thought this was mainly because of their wheat production. Quite the contrary, New South Wales’ cultivators in the settled counties, especially those adjacent to Sydney, were increasingly concerned with producing alternative commodities (like hay or vegetables) which seemed to have paid agriculturalists better than the traditional wheat which was declining in price in the 1840s.

Apart from gaining some wealth, the members of the crop-farming community at the beginning of the golden decade were more concerned with technical innovations, than agriculturalists of the 1820s. This fact can be attributed to the change in the character of agricultural settlers: free-immigrants, who largely entered a farming occupation in the 1830s-1840s, were more open to change and more ready to learn

than ex-convicts. The application of new farming technologies were particularly noticeable in convict-free South Australia, where a bulk of fresh land suitable for commercial grain production offered scope for utilisation of harvesting machinery.

Prior to the gold discovery, in the Southeastern Australia region many thousands of small cropping units were in operation, the most efficient form of crop producing enterprise in the existing conditions. A large number of colonial residents were engaged in arable agriculture, procuring not only a moderate income but also practical experience of Australian farming.

**Forming a Farming Society: Categories of Crop-Producers in New South Wales**

In the 1820s, under growing social pressure for the provision of new lands, the government unlocked for agricultural colonisation four large areas outside the original small European settlement: the Goulburn plains southwest of Sydney; Camden and Illawarra just south of Cumberland; the Bathurst plains westwards across the Blue Mountains; and the Hunter River Valley further north from the capital of the colony.² Those opened-up lands were the officially proclaimed nineteen counties which were the limits of location of the colony of New South Wales (Please, see Map 2). Permanent settlement was only allowed within this defined area.

A prospective settler could take land as a grant or, alternatively, purchased a holding from the Crown under the regulations operating briefly in 1824-26.\(^3\) The grant

system of land distribution, which was established in Governor Phillip’s times, allowed the residents of the colony to acquire land in their private possession at almost no cost. The extent of allotment was the Governors’ prerogative. Settlers with limited means, commonly ex-convicts, were generally provided with small plots of land under one hundred acres. Wealthier colonists might hope to receive much larger holdings encompassing a few hundreds or even thousands of acres.4

The long-running system of land grants coupled with the general character of the penal settlement stimulated the development of two distinctive categories of crop-growers in New South Wales. One category included small cultivators, commonly ex-convicts, another was formed by large landholders who practiced both live-stock and crop farming. The structure of farming communities varied across the colony, however. Figures 1.1 – 1.4 illustrate this fact by using evidence drawn from the 1828 Census returns. The first two figures group landholders from the hinterland Bathurst and coastal Parramatta districts by the extent of their allotments. It can be seen that small agriculturalists numerically dominated in the metropolitan area: every second Parramatta landholder had an allotment less than 100 acres. By contrast in the Bathurst district four-fifths of agriculturalists occupied holdings exceeding 100 acres.

According to the last two figures, landholders of less than 250 acres were likely to be the main producers of crop-commodities in the Parramatta district where they accounted for nearly two-thirds of local cropped acreage. At Bathurst, however, landholders of more than 1000 acres had under the plough almost half the tillage in the region reaping most of the local crop harvest. Land-cultivation was not the single commercial target for this kind of Bathurst agriculturalists who grazed nearly 21,000 sheep (75% of local stock) and 5,700 heads of horn cattle (80% of local stock).

Figures 1.1-1.2 Number of landholders by the size of allotment in the Parramatta and Bathurst districts

Figure 1.1 Parramatta district

![Graph showing number of landholders by size of allotment in the Parramatta district.]

Figure 1.2 Bathurst district

![Graph showing number of landholders by size of allotment in the Bathurst district.]

Figures 1.3-1.4 Amount of land cultivated on landholdings of different sizes in the Parramatta and Bathurst districts

Figure 1.3 Parramatta district

![Graph showing acres cultivated by size of allotment in the Parramatta district.]

Figure 1.4 Bathurst district

![Graph showing acres cultivated by size of allotment in the Bathurst district.]

Source: SLV. New South Wales. Colonial Secretary's office. 1828 Census and Householders Returns, [Microfilm].
That limited spread of small-scale arable agriculture in the inland districts stemmed from the bleak commercial prospects for cash-crops in these territories. Local populations were too small to generate significant demand for crop-produce so as to enable an agriculturalist to make a living from cultivation alone. Overland transportation of bulky crop-commodities from the Bathurst and Goulburn plains to the coast where most population resided was also economically unviable. Robert Dawson, the chief agent of the Australian Agricultural Company, concluded in the late 1820s that:

"The distance of [Bathurst] from Sydney over a difficult country ... will not admit of the settler pursuing agriculture beyond raising a supply for his own family, and a reserve against the casualties of seasons. The same causes must ever operate against the extensive cultivation of grain in all situations similar to this, and the raising of supplies therefore for the population of Sydney, or for any other towns near the sea, must be confined to those parts of the country which lie on the exterior or coast side of mountains."

In a similar way, a columnist of a Sydney newspaper, objecting to the imports of Van Diemen’s Land grain into New South Wales, was obliged to confess that it cost no more to ship crop produce to the city from the Derwent or the Tamar than it did from the Hawkesbury or some parts of the Hunter; from other colonial districts, such as Bathurst and Argyle, it cost as much as from Sydney to London.

Cropping land was the key source of earnings for small landholders, unless they were receiving permanent off-farm income, as William Charles Wentworth observed. It was financially worthless for small holders to take up their small and cheap areas in localities where substantial outlets for crops did not exist. These varying

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7 *Sydney Gazette and New South Wales Advertiser*, 29 January 1831, p. 2.
commercial prospects for crop-farming between settled counties were mirrored in the regional distribution of small land grants. Fertile lands of regions with easy access to transport were sought after by small grantees. In 1830 the authorities of the colony issued eighty five land grants where the size of allotment did not exceed 100 acres. Thirty four of those small grants were taken up in Northumberland county, sixteen in Camden county, fifteen in Cumberland county around Sydney, and the same number in adjacent Cook county. Only two grants were obtained in Argyle and none in Bathurst or Roxburgh counties. 8

Proprietors of the many large estates, which appeared in the newly opened coastal regions, were, however, also induced to develop commercial crop-farming. This was especially the case for the Hunter Valley region which soon gained the title of ‘garden as well as granary of New South Wales’ because of highly productive local soils and opportunity to ship crop surpluses to Sydney at a relatively low cost. 9 According to a contemporary observer, the settlement of the Hunter Valley was ‘the most respectable in the colony, the great bulk of the proprietors consisting of military and naval officers, or free immigrants’. 10 The materials of the 1828 Census, analysed by Thomas Perry, support this opinion. Approximately, two-thirds of 191 Hunter Valley land proprietors engaged in farming had come to the colony voluntarily and half of them possessed holdings exceeding a thousand acres. 11 70 per cent of all cultivated land was embraced in these large holdings, which also provided grazing spaces for 90 per cent of local sheep flock. 12

In addition to their personal wealth, under the assignment system the owners of large-estates could enjoy an access to the pool of unqualified yet abundant convict

8 New South Wales. Colonial Secretary's Office. Returns of the Colony of New South Wales, [Microfilm, 1830, p. 208
10 Cunningham, Two Years, p. 77.
11 Perry, Australia's First Frontier, pp. 137-138.
12 Ibid., p. 137.
labour.\textsuperscript{13} Alexander Berry, a pioneer and a large landowner on the southern coast of the colony, for instance, utilised labour of more than a hundred assignees.\textsuperscript{14} Acknowledging the advantage of convicts' labour, George Hobler, a large cultivator of the Hunter Valley, wrote in his diary in 1829: 'I have fifteen prisoners who do the whole of the work of the farm without my paying a shilling in wages … Those learnt how to thresh in a week'.\textsuperscript{15}

Both Hobler and Berry developed their cropping operations in the immediate proximity of potential outlets for their produce: an economic necessity dictated by costly transport. The rule was applied to most New South Wales farmers who sought to gain sustainable monetary benefits from cultivation. By the mid 1830s arable agriculture spread far beyond the Cumberland region, yet the production of cash-crops was mainly centred in coastal areas, from where the markets could be accessible. The very uneven distribution of colony’s crop-acreage demonstrates this fact. In 1832, colonial statistics recorded around 60,000 acres of land brought under the plough: four-fifths of that extent was tilled by Cumberland and Hunter Valley agriculturalists.\textsuperscript{16}

Although the government initially intended to constrain agricultural colonisation within the settled counties circled around Sydney, that territory very soon proved to be too small to provide adequate grazing spaces for a rapidly developing pastoral industry. Over the 1820s-40s the number of sheep in Australia increased approximately a hundred times, reaching ten million in 1851.\textsuperscript{17} To graze one sheep on natural pasture, a contemporary stock farmer might need to utilize from three to five acres, which indicate enormous total requirements for pastoral lands in the

\textsuperscript{13} Cunningham, Two Years, p. 131.
\textsuperscript{14} New South Wales. Votes and Proceedings of the Legislative Council (thereafter NSW. VP of LC), 1844, vol. 2, General Grievances, Minutes of Evidence Taken Before the Select Committee on General Grievances. Evidence of Alexander Berry, p. 720.
\textsuperscript{16} Returns of the Colony of New South Wales, 1832, p. 203.
\textsuperscript{17} GJ Abbott, The Pastoral Age; a Re-Examination, Macmillan, Melbourne, 1971, p. 87.
colony at that time. No regulations of what was then a thinly-spread colonial bureaucracy could prevent this powerful striving for lands in the grassy interior. By 1841 the territories ‘beyond boundaries of location’ which stretched a hundred miles further inland, hosted 718 pastoral stations and almost 10,000 local residents.

As overland transportation of foodstuffs from the coast to the distant pastoral districts was a costly and troublesome venture this stimulated the occupiers of many pastoral runs to develop subsistence cropping on small allotments nearby their establishments. Furthermore, there was a common practice among proprietors and licensees of pastoral runs to allow their employees to cultivate small paddocks of land for personal needs. The great and surreptitious spread of cultivation in the inland districts was reflected in the report of the Immigration Committee of 1845 which concluded that ‘consumption of wheat in the colony is … to a great extent met by the growth on grazing stations in the interior’. The Sydney Morning Herald similarly stressed that: ‘Few stations of any magnitude are without their ‘cultivation paddocks’ where grain and vegetables are raised for the use of the squatter and his establishment, and sometimes tobacco for sheep-dressings’.

The land-cultivation of pastoralists in some cases reached an extraordinary scale. In the mid 1830s the Australian Agricultural Company which grazed its 60,000 sheep flock on the pastures to the north of the Hunter River, brought under the plough more than 500 acres of land. Despite this impressive figure, on the whole, inland crop-farming was just an economic supplement to the pastoral industry. Apart from

18 NSW. VP of LC, 1841. *Appendix to the Report to the Committee on Immigration*, p. 12.
19 New South Wales, *Census of 1841*.
21 NSW. VP of LC, 1835, *Minutes of Evidence Taken before the Committee on Immigration*, Evidence of C.D Riddell, p. 288.
23 *Sydney Morning Herald*, 24 April 1852, p. 2.
small cropped paddocks on squatters’ runs, farming plots could rarely be seen in the colonial interior prior to the mid-nineteenth century. The 1851 Census listed only 324 residents who were permanently engaged in land-cultivation in all seventeen New South Wales pastoral districts, almost thirty-four times less than the total number employed in sheep and cattle grazing.\textsuperscript{25}

In addition to the small consumption and consequently limited market for crop-commodities in the pastoral districts, the potential spread of interior cultivation was considerably restrained by land legislation which changed dramatically in the 1830s-1840s. Under the influence of Edward Gibbon Wakefield’s ideas, which stressed the necessity to balance the extent of occupied land with labour and capital available in the colonies, the authorities ended the policy of free distribution of land. In July 1831 the grant system was abolished and a new policy of auctioning Crown Land at a minimum price of 5 shillings per acre was brought into operation. The minimum auction price grew to 12 shillings per acre in 1839, and two years later it further increased to £1 per acre, exceeding the productive value of land in the thinly populated pastoral districts. In March 1843 a new Act of the British Parliament created additional difficulties for prospective hinterland landholders by stating that land could not be sold outside the proclaimed counties ‘except under special circumstances’\textsuperscript{26}.

The Order-in-Council of 1847 was the last important piece of land legislation prior to the gold rush. In order to secure the investments in the land which the pastoral licensees had to make, the Order gave them the exclusive right to purchase part of their run. The area could not exceed 640 acre and the price was fixed at £1 per acre. The cultivation of leased public domain was strictly prohibited unless ‘for the


\textsuperscript{26} NSW. VP of LC, 1847, vol. 1, \textit{Land Regulation}, pp. 1, 42, 76.
supply of family and establishment of such lessee’. The Order even banned barter of ‘the produce they [squatters] raised upon the land held under pasturing leases’. The crop-farming operations of Crown Land pastoral tenants, therefore, may be described as ‘one from hand to mouth’.

While subsistence crop-farming practiced on squatters’ stations was gradually expanding throughout the pastoral districts, the market-oriented farming in the coastal agricultural areas of New South Wales underwent structural changes. Even though the government abolished the grant system which had enabled many undercapitalised settlers to access free Crown Lands, the colonial authorities tried to promote small-scale agricultural settlement in the 1830s-1840s. Some unsold tracts of good lands in the proximity of towns, the coast and navigable rivers were still auctioned in small lots, which might give certain chances for newcomers with modest capital to acquire a plot of land close to markets. The prices to be paid for such Crown Lands, however, tended to be high. While the minimal cost for country land was initially fixed at 5 shillings an acre, the purchasers of Crown Land in the counties of Cook and Cumberland had to spend as much as £5-12 per acre in the early 1830s.

The purchase of an allotment through Crown Land auctions was, however, unlikely to be a common approach for small agricultural settlers to get on the land. As early as the late 1820s contemporaries observed that most fertile and handily located lands in the settled counties had been already in the possession of large proprietors. In 1827, Peter Cunningham, for instance, admitted that many newcomers were compelled to take up a grant in remote regions because of the shortage of available unoccupied Crown lands close to the populated areas. He complained, however,

28 Sydney Morning Herald, 24 April 1852, p. 2.
that the greater part of private domain lay idle ‘since the person owned too large allotments to cultivate by his own capacities.’\textsuperscript{31} The figures of the 1828 Census also point out that even in the Parramatta district in the immediate vicinity of Sydney, most land possessed by large proprietors was not cultivated. The sample of fifty six local landed households indicates that the eight largest estates comprised an area of nearly 16,000 acres, or three-quarters of the total area encompassed by sampled holdings. Only one per cent of that large extent of land was put under the plough.\textsuperscript{32} In these circumstances, it is no wonder that in 1828, when the grant system was still in operation, Robert Dawson recommended prospective settlers rent or purchase land from private individuals rather than take up a block of the available Crown Land at no cost.\textsuperscript{33}

The idea of venturing upon small-scale farming on leased or freehold land might not have been extraordinary for many free immigrants disembarking at colonial ports in the 1830-1850s. During that period of time, around 85,000 assisted and 31,000 unassisted immigrants arrived in New South Wales. The occupations of around 18,000 adult males were recorded and nearly 11,500 of them were listed as farmers, farm labourers, ploughmen and gardeners; thus persons possessing some agricultural skills.\textsuperscript{34} Many of those brought to the colony their small savings, not sufficient to take up extensive stock-farming in the interior, but probably enough to commence leasing or even purchasing a small plot of land to grow cash crops. From those immigrants’ own stories, it also appears that even a newcomer with very small means had a clear prospect of establishing himself as a crop-farmer in the colony during these decades.

The members of the 1845 Committee on Immigration considered the evidence of Caroline Chisholm who submitted ‘a number of statements, furnished by immigrants

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{31} Cunningham, \textit{Two Years}, p. 130.
\item\textsuperscript{32} 1828 Census and Householders Returns.
\item\textsuperscript{33} Dawson, \textit{The Present State}, p. 380.
\item\textsuperscript{34} RB Madgwick, \textit{Immigration into Eastern Australia, 1788-1851}, Sydney University Press, Sydney, 1969, pp. 223, 242-243.
\end{enumerate}
\end{footnotesize}
in various parts of the Colony, relative to the improvements of their circumstances, caused by their immigrating to New South Wales’. The statements were all anonymous without specifying names or places and some were written by farmers. One immigrant, the author of extract 73, gave evidence that he came to the colony in 1839 with £30. He managed to find employment as an overseer on the second day after landing. His employment on the station, however, was not very long, as just three months later he took up crop-farming on a leased allotment of ten acres with £40 capital. Despite such a small capital and a significant annual rent fee of £10 he was so successful in his farming pursuits that he purchased the same allotment for £70 and had in his possession three horses, two carts and a dray, ten goats, numerous poultry, and ‘a tolerable house’ at the time of recording his story. Extract 60 revealed that the author came to the colony penniless in 1814. Having worked for wages over a few years he purchased sixty acres of his own land for £40. At the time of writing his statement he owned 600 acres of his own land, almost half of which was rented out. He cultivated thirty acres and employed two farm labourers. The total sum of his property amounted to £1500.

Another anonymous immigrant in extract 49 mentioned that he arrived in the colony in 1839 with less than £4 in his pocket. Having worked over four years, he was able to save around £100 to take up his own farm. He was assisted by four members of his own family and one hired labourer. All his personal and real wealth totalled £300. The author of extract 79 also arrived in the colony in 1821 impoverished. He was in service for a few years and too saved £100 to enter farming. By the time of writing his evidence he possessed 190 acres of fertile land, half was put under the

35 NSW. VP of LC, 1845, Report from the Select Committee on Immigration with Appendix and Minutes of Evidence, pp. 641-644.
36 Ibid., p. 641.
37 Ibid., p. 642.
38 NSW. VP of LC, 1845, Report from the Select committee on Immigration with Appendix and Minutes of Evidence, p. 643.
plough. He employed from four to six men and his property was valued at £2,000.\textsuperscript{39} The author of extract 47 came to the colony in 1838 possessing just £3. He found employment the same day he disembarked. After a while he saved some money (the sum was not specified) to lease thirty five acres of land to commence farming with the help of his two sons. His personal estate included two horses and thirty head of cattle. He assessed his possessions at a sum of around £70.\textsuperscript{40}

The premise that chances for a small holder to settle on the new land were high before the mid-nineteenth century can be supported by other evidence. John Jamison, a large colonial land owner, reported to the Committee on Immigration in 1835:

\begin{quote}
I have also to remark, that an industrious sober Emigrant Labourer, even with a wife and young family, may if he be able to maintain them for the first year, rent a small farm, the quick and profitable return from which will enable them to pay his rent and support them with increasing comfort annually. I have many tenants of the above description all thriving.\textsuperscript{41}
\end{quote}

Ten years later, answering the questions of another Committee on Immigration, Robert Graham, a Sydney merchant who had lived at Moreton Bay for a long time, stated that a small settler coming from England with a moderate capital of £200-300 was likely to prosper on a farm of 150-200 acres if he was assisted with the labour of his family. The paramount conditions of success were ‘the price of land, the distance from market and the convenience of … carriage’.\textsuperscript{42} Phillip Holland, a Port Phillip squatter, too responded to the members of the Committee that a crop-farmer on 150-200 acres relying on the labour of his family would be successful in his

\begin{flushright}
\textsuperscript{39} NSW. VP of LC, 1845, \textit{Report from the Select committee on Immigration with Appendix and Minutes of Evidence}, p. 643. \\
\textsuperscript{40} Ibid., p. 644. \\
\textsuperscript{41} Ibid., p. 644. \\
\textsuperscript{42} NSW. VP of LC, 1845, \textit{Minutes of Evidence Taken before the Committee on Immigration}, Evidence of John Jamison, p. 305.
\end{flushright}

\begin{flushright}
\textsuperscript{42} NSW. VP of LC, 1845, \textit{Report from the Select Committee on Immigration with Appendix and Minutes of Evidence}, Evidence of Robert Graham, p. 619.
\end{flushright}
agricultural undertakings, since very little monetary expenses were required from the producer to maintain this relatively small farm.\textsuperscript{43}

The small producers developing their operations or establishing themselves on the land in New South Wales might not have been anxious about competition with large landlords. In 1841 the assignment system was abolished in New South Wales and the proprietors of the large estates lost their traditional pool of cheap convict labour. This fact eventually made large-scale commercial land cultivation a loss-making enterprise owing to the high cost of free labour.\textsuperscript{44} The adoption of labour-saving machinery might have offered some prospects for the development of large farming estates, yet their owners seemed to have found it more financially rewarding to subdivide their land into small allotments to be eagerly taken by newcomers.\textsuperscript{45} As a correspondent to a country colonial newspaper admitted in the later 1840s:

\begin{quote}
[T]he large growers of wheat and maize – although a certain amount of wheat and maize must be raised, and will continue to be raised profitably – yet these may be considered as having long ago ceased to be great in their vocation. The great \textit{landholders}, agriculturally speaking, have necessarily become \textit{landlords} in the ordinary sense of the word, and the raising of agricultural produce has generally devolved on the labour of industrious tenants.\textsuperscript{46}
\end{quote}

The contemporary official statistics regrettably do not contain any data as to the number of farms and the size of land they encompassed or cropped. A rough approximation of the scale of the average crop-farming establishment may be obtained when the figures on the number of land-cultivators are matched with the statistics on cropped acreage for corresponding years. (See Table 1.1)

\begin{table}[h]
\caption{Crop-farming establishment statistics}
\begin{tabular}{|c|c|c|}
\hline
Year & Number of Farms & Acreage Cropped \\
\hline
1845 & 500 & 100,000 acres \\
1846 & 600 & 120,000 acres \\
1847 & 700 & 140,000 acres \\
\hline
\end{tabular}
\end{table}

\textsuperscript{43} NSW. VP of LC, 1845, \textit{Report from the Select Committee on Immigration with Appendix and Minutes of Evidence}, Evidence of Phillip Holland, p. 630.

\textsuperscript{44} NSW. VP of LC, 1844, vol. 2, \textit{Minutes of Evidence Taken before Select Committee on the Extension of the Franchise}, Evidence of Richard Windeyer, p. 629.

\textsuperscript{45} Jeans, \textit{Historical Geography}, p. 125; Atkinson, \textit{Camden}, p. 68.

\textsuperscript{46} \textit{Maitland Mercury and Hunter River General Advertiser}, 1 August 1849, p. 2.
Table 1.1 Number of persons engaged in crop-farming and cultivated acreage in the settled counties of New South Wales in 1846 and 1851 (excluding Port Phillip district)\textsuperscript{47}

<table>
<thead>
<tr>
<th>Census, 1846</th>
<th>Census, 1851</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of land cultivators\textsuperscript{48}</td>
<td>Cultivated acreage</td>
</tr>
<tr>
<td>11879</td>
<td>125000</td>
</tr>
</tbody>
</table>


The figures of the table suggest the predominance of small-scale producers in the colonial crop-farming industry in the late 1840s. Although the vague occupational category of land-cultivators included different sub-groups: farmers themselves, adult members of their families and hired farm labourers, an average cropping household was unlikely to keep under the plough more than a few dozens of acres. It may also be seen that the number of colonial residents engaged in cropping and the total area under the plough did not change significantly over the second half of the 1840s. The expansion of arable agriculture in the settled counties seems to have come close to its physical limit by the time of the gold-rush.

\textsuperscript{47} The 1841 Census unfortunately did not enumerate land-cultivators under separate category.

\textsuperscript{48} Land-cultivators refer to those who were enumerated under occupational category ‘agriculture’. The persons engaged in horticulture and livestock farming were listed in other categories in the Censuses.
The topography of New South Wales constrained prospective agricultural areas to relatively small pockets of flat lands along the coast. The intensive development of crop-farming on inland Argyle and Bathurst fertile lands, not too distant from Sydney, was still impeded by the mountain range making overland transportation costly. In 1850 two-thirds of the total colonial cultivated acreage (excluding the Port Phillip district) was centred around Sydney and the Hunter Valley, while the proportion of Argyle and Bathurst counties did not exceed one-tenth. All vast hinterland pastoral districts accounted for just one-fifteenth of the total colonial tillage.49

Whilst the moderate growth of cultivation in these remote territories reflected the development of subsistence cultivation on hundreds of squatters’ runs, thousands of small producers were growing cash crops in the settled counties of New South Wales in the 1840s. A Sydney Chronicle contributor wrote in 1847:

It is a prevailing notion, especially in newly settled colonies, that agricultural pursuits cannot be profitably followed except upon a large scale. This, however, is a fallacy which … has been proved so even by the progress of agriculture in this Colony. The banks of the Hunter and of the Hawkesbury are thickly studded with small farms, which amply recompense their owners for the labour they have bestowed, and maintain them in a position of industrious independence.50

Twenty years earlier, during Bigge’s time, that person would have offered a different description of the principal agricultural districts. He would have noticed large farming estates which employed cheap labour of convicts and small primitive farmsteads of emancipists. Yet, once the pool of cheap labour disappeared, large cropping ceased to be a viable commercial enterprise. Small-scale farming much less dependent on high-cost hired labour not only remained but expanded. Some small crop-producers were grantees or descendants of grantees who had obtained their holdings in fee-simple before 1831, but many more, who came to the colony later, were able to purchase their farms or obtained them under lease. Evidence presented by Caroline Chisholm and respondents to Royal Committees suggests that modest savings

49 Returns of the Colony of New South Wales, 1851, p. 642.
brought into the colony or capital raised locally by working for relatively high wages could provide sufficient financial resources to get on the land and commence farming at a small scale. In the 1820s – 1840s the commercial operations of small cultivators were, however, greatly restricted to the few coastal agricultural areas with direct access to the outlets for crop commodities.

Driven by the Domestic Market: Advances of Small Crop-Farming

The tempo of putting land under the plough in New South Wales greatly accelerated when the boundaries of the colony moved beyond the Cumberland plain. In 1821 the colonists farmed 31,000 acres; thirty years later the next generation of agriculturalists cultivated approximately six times that extent.\(^51\) That upsurge in the cultivated acreage however, has not assured modern historians and economists that domestic farmers were capable of growing sufficient quantities of crops to feed the colony’s population. Viewing the state of agriculture in the settled counties Dennis Jeans concluded that ‘cultivation did not keep pace with mouths to feed’ in 1831-1850.\(^52\) Furthermore, Edgars Dunsdorfs’ *Australian Wheat-Growing Industry* became the authority for some subsequent historians who have labelled an increase in wheat acreage, the most important staple crop-commodity, as ‘insufficient’ in 1825-1855.\(^53\) These academic comments on general ‘insufficiency’ of colonial crop-farming cannot be questioned in terms of proportional changes between tilled acreage and population at that time (See Figure1.5).


\(^{52}\) Jeans, *Historical Geography*, p. 123.

Figure 1.5 Indexes of growth of crop-acreage, wheat-acreage and population in New South Wales in 1834-1850 (including the Port Phillip district)


Figure 1.5 demonstrates that the total tillage increased two and a half times, the acreage sown with wheat doubled, whereas the population quadrupled in 1834-1850. Yet, these obvious discrepancies in the rates of growth cannot simply be equated because they differed greatly in their character. The booming colonial population was chiefly a result of outside influences: large-scale immigration. The physical arrival of an immigrant who must immediately be fed was an instant event and it could not produce the same instant increase of cultivated acreage. Bringing land under the plough was not an event, but a process, which in its nature took some time to carry out. There is a natural time lag between population growth and the extension of cropped acreage, and this lag could be partially extended by bad seasons, such as occurred in the late 1830s.
The data of Figure 1.5 indicates, however, that farmers did respond to the increase of population even though this response did not progress in a straight line with multiplying numbers of residents in the colony. Furthermore, the extent of tilled land taken by itself cannot be decisive evidence to assess the degree of efficiency of local agriculturalists. Quantities of actual crop-commodities produced were a much more crucial factor for the colony’s consumers than cultivated acreage in the countryside.

A rough estimation of how many colonial residents might have been sustained by domestically produced and imported agricultural commodities can offer a more reliable indication of the scope of colonial crop-farming. Wheat which was the principal domestically grown crop and the vital agricultural commodity for the colonists’ diet can be taken for such an analysis. Average annual wheat consumption was believed to have stood at around eight bushels of grain per person, while the flour allowance of a hired labourer did not generally exceed ten or twelve pounds per week or 600 pounds a year.\textsuperscript{54} Employing these figures and ignoring the reservations for seeds and natural losses, Figure 1.6 projects the numbers of people who could have been supported by domestically produced and imported wheat.

\textsuperscript{54} King, \textit{First Fifty Years}, p. 415; Coghlan, \textit{Labour and Industry in Australia}, vol. 1, p. 203; NSW, VP of LC, 1847, vol. 1, \textit{The Committee on Immigration}, p. 11.
Figure 1.6 Numbers of New South Wales’ residents who may have been sustained by domestically grown and imported wheat\(^{55}\) and the real population of New South Wales in 1828-1850 (including Port Phillip)

![Graph showing numbers of people sustained by domestic produce, imports, and real population over time.](image)


Even though Figure 1.6 greatly simplifies the trends in wheat imports and local produce, it makes apparent the steady attempts of New South Wales’ farmers to catch up with growing inner demand for grain the late 1820s-1840s. Prior to the mid 1830s colonial farmers were able to increase their wheat production in line with boosting domestic consumption and the quantities of wheat shipped into the colony were rather moderate. The late 1830s-early 1840s were marked by a constant significant wheat deficit, which was met by imported grain and flour. Nonetheless, in the following years wheat imports declined steadily whilst domestic wheat production, despite annual fluctuations, grew.

\(^{55}\) Including imported flour
This pattern of domestic wheat production suggests the increased economic efficiency of colonial farmers in the decade preceding the gold discovery. Contemporaries also acknowledged this tendency. In 1848 the Sydney Morning Herald, analysing the development of agriculture, compared the statistics on the progress of colonial crop-farming in the two five-year periods of 1838-1842 and 1843-1847 and concluded that ‘the result of the whole comparison shows that our agricultural operations have rather more than kept pace with the population’. The phenomenon of growing wheat output appears even more staggering against the deteriorating grain prices (See Figure 1.7).

Figure 1.7 Average annual wheat and maize prices in New South Wales in 1820-1850


56 Sydney Morning Herald, 22 July 1848, p. 2.
The grain prices of 1820s-mid1830s, though low in some years, generally averaged around 8 shillings a bushel for wheat and around 5 shillings for maize, but then started gradually descending. The starting point of this trend was October 1835 when, in anticipation of the poor harvest, the Legislative Council adopted a bill ‘to relieve importers from the payment for a certain time’ of duties and rates on wheat and other grain imported into the colony. The bill stimulated wheat imports. In 1836 New South Wales received as much wheat as for the previous five years. Similar bills were adopted later in October 1838 and then in June 1840. This time the list of items which were exempted from duties included flour, pulses and even meat.

The massive importation of breadstuffs provoked a range of farmers’ petitions to the Legislative Council of the colony. The petitioners complained that low-cost imported grain flooding the domestic market brought local price down. They warned that if government protective measures were not taken grain farming would soon be abandoned by colonial cultivators as it was running at a loss. The threat, however, was never implemented despite the official rejection of the protection policy.

Why did crop-growers continue expanding their wheat production despite declining prices? One reason is that the reduction in prices was not uniform throughout the colony. The regional variations derived from the high cost of overland transportation which to a greater extent minimised the access of cheap imported grain and flour to inland markets and consequently induced local grain-growers to expand their wheat acreage. In this context, it is noteworthy that all petitions to the Legislative Council in the later 1830s were sent by farmers residing in coastal districts where the impacts of cheap grain import were felt most.

The main explanation for a continuously growing grain output, however, derives from the character of colonial arable agriculture dominated by thousands of small-scale

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57 NSW. VP of LC, Session 1835, p. 264.
58 Ibid., Session 1838, pp. 143, 145; ibid., Session 1840, pp. 3, 14.
59 Ibid., Session 1841, pp. 23; 35-36, 38; ibid., Session 1843, pp. 187, 209.
60 Jeans, *Historical Geography*, p. 125.
producers. The latter enjoyed minimal monetary expenditures on labour since the hands of family members might be a sufficient work force to keep under the plough a thirty-forty acre allotment. James Malcolm, ‘a squatter and settler’ who had been living in the Port Phillip district for nearly nine years, in his responses to the 1845 Immigration Committee suggested that a remunerative wheat price for a small cultivator who did not employ labour might be as low as four shillings a bushel, whereas for a larger producer hiring farm workers the price must have been at least a shilling higher’. According to another source, the expenditures of the cost of wheat production averaged £3 15s an acre with the employment of labour. Given the wheat price of 4 shillings a bushel and an average yield of 25 bushels an acre, large-scale wheat farming indeed was a poorly paying venture while small grain growers received moderate profits. It is not surprising therefore that even though the small crop-producers of coastal counties were exposed to cheap imports they continued growing surpluses of wheat. According to Michael Robertson who analysed the domestic shipment of wheat in 1850, almost a fifth of all the metropolis requirements in this cereal were met by grain grown in the Hunter and other agricultural districts scattered over the coastal areas of New South Wales.

At the same time, the further development of domestic markets and the limited pool of agricultural lands in the coastal counties encouraged many local cultivators to look for alternative, more lucrative commodities, than the conventional wheat and maize. Figure 1.8 supports this view demonstrating that hay-making was rapidly growing in importance in New South Wales throughout 1847-1850. During this period the area sown with crops for hay expanded by around 30,000 acres, while the wheat acreage grew only by one-third of that extent.

61 NSW. VP of LC. 1845, Report from the Select Committee on Immigration with Appendix and Minutes of Evidence, Evidence of James Malcolm p. 617.
62 Sydney Herald, 21 May 1841, p. 2.
This dramatic growth of hay production was spurred by an increasing number of horses in the colony. In 1850 in the settled counties along the agricultural statistics recorded more than 30,000 horses. Unlike other draught animals such as bullocks that could be grazed on natural pastures, horses needed to be provided with a more sophisticated diet composed of oats, hay and chaff. On average, a horse may require around two tons of hay per year, which consequently indicates enormous market requirements for this commodity in the settled counties, stimulating local farmers to increase its production. The shifting priorities of Cumberland crop-growers to hay making were particularly notable. In 1838 sown grasses which were typically oats or wheat for hay comprised one-fifth of 27,000 acres tilled the in

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64 Returns of the Colony of New South Wales, 1850, p. 945.
region.\textsuperscript{66} By 1850 the cultivated acreage slightly increased to 31,000 acres, half of which was now tilled to produce hay.\textsuperscript{67}

Apart from growing forage crops, New South Wales farmers were intensively developing other types of agricultural activities. Edward Beever, for example, noticed that although in the early 1840s large amounts of butter and cheese were regularly shipped into the colony, by the end of the decade the New South Wales farmers managed to produce moderate quantities of these two commodities for export.\textsuperscript{68}

The evidence revealed by the \textit{Maitland Mercury} may shed some light on the economic significance of production of different commodities for crop-farmers in New South Wales. The newspaper calculated that in 1846, the total cost of crops produced in the colony amounted to around £637,000. Domestic farmers were likely to have received £284,000 for their wheat (harvest of 1.4 million bushels at 4 shillings per bushel), £87,000 for maize (870,000 bushels at 2 shillings per bushel), £33,000 for oats (216,000 bushels at 3 shillings per bushel), £73,000 for potatoes (18,320 tons at £4 per ton), £128,000 for hay (43,000 tons at £3 per ton), £3,000 for tobacco (2,000 cwt. at twenty 5 shillings per cwt.). In addition to gross returns from crop-farming, small agriculturalists were believed to have received around £150,000 from their ‘dairies, fruit and kitchen gardens’. It can be seen that wheat might account for only a third of an aggregated income of crop-growers. As the 1846 Census enumerated 14,895 colonial residents engaged in agriculture (crop-farming) and horticulture, the evidence seems to be that on average every person working on land as a farmer or a farm labourer might produce commodities valued at £50.\textsuperscript{69}

Even though this sum is to a great extent a theoretical assumption, it demonstrates the significant capacity of remunerative prices in the domestic markets to stimulate

\textsuperscript{66} Returns of the Colony of New South Wales, 1838, p. 334.
\textsuperscript{67} Ibid., 1851, pp. 642-644.
\textsuperscript{68} EA Beever, ‘The Pre-Gold Boom in Australia 1843-51’, \textit{Australian Economic History Review}, vol. 19, no. 1, March 1979, p. 11.
\textsuperscript{69} \textit{Maitland Mercury and Hunter River General Advertiser}, 30 October 1847, p. 2.
local farmers to expand their operations. Despite all remarks on poor returns from commercial land-cultivation, cropping still paid relatively well in that period provided producers could adapt to local demands. Assuming that half of those engaged in agriculture and horticulture were not farmers, but hired farm hands with an annual wage of £21, an average gross return per colonial farmer might fluctuate around £80 a year. Certainly, some deductions on hired labour, land, implements, etc, need to be made, yet it is highly unlikely that the remainder could be generally below £30-35 - an annual wage of a highly skilled labourer in Sydney in 1847.

The sustainability of small-scale farming in New South Wales can further be illustrated by Thomas Cadell’s responses to the 1844 Committee on the Franchise. Cadell, who had been residing at the Hawkesbury for around eleven years, reported to the Committee that it was very rare for small local farmers to give up their pursuits as unprofitable. He knew just ‘one or two instances, but they were principally Scotchmen, or persons who were unacquainted with the Colony.’ Many farming families had already been cultivating land for two generations, possessing farms originally taken up under the grant system in Governor Macquarie’s day.

There were many changes between two generations of farmers who grew crops in the colony in the 1820s and the 1840s. James Atkinson in his *Account of the State of Agriculture & Grazing in New South Wales* published in the mid 1820s, could not restrain himself from sharp remarks on the fortunes of small cultivators. The latter mostly came from an ex-convict background and thus did not enjoy a significant personal wealth prior to taking up land grants. In addition to the lack of capital the majority of these settlers had little practical agricultural experience and skills. Crops were therefore sown broadcast and cultivated with a hoe. Plant rotation and manure were virtually unknown; a small plot of land was constantly sown with wheat or

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71 Ibid.

72 NSW. VP of LC, 1844, vol. 2 *Minutes of Evidence Taken before Select Committee on the Extension of the Franchise*, Evidence of Thomas Cadell, p. 627.
maize for several years. Once yields from that patch dropped considerably, owing to the inevitable soil exhaustion, farmers preferred to abandon its cultivation and clear a fresh allotment to repeat the process of constant cropping on a new place. Unable to acquire draught animals and basic farming implements, operating instead with a primitive hoe, these ex-convict smallholders were judged to be ‘extremely slothful and negligent’, exhibiting ‘nothing but a sense of confusion, filth, and poverty’. 73

It has to be remembered, however, that even though in many ways Atkinson’s vivid account of colonial agriculture ‘being rude and miserable in the extreme’ revealed actual conditions of small farming in New South Wales, his conclusions also reflected the condescending attitude of an experienced contemporary British farmer to the pioneering, cumbersome attempts of under-capitalised novice agriculturalists to settle themselves on land in completely unknown environmental and physical settings. 74 As the *Sydney Gazette* reported in 1829:

> The lazy, slovenly practice of hoe-husbandry which so long prevailed amongst our settlers, could not but disgust any person just arrived from the well-tilled farms of England, and create an impression highly unfavourable to the taste and habits of our growers. 75

Nevertheless, despite their undoubtedly backward farming methods, there is clear evidence suggesting that many farmers endeavoured to seek more advanced approaches to land cultivation. In 1829, from the long-established Hawkesbury grain-growing region it was reported that ‘a considerable portion of wheat in this district has been ploughed’. 76 The same year, the *Sydney Gazette* observed that:

> Agricultural labour is improving year after year; the hoe progressively gives way to the plough, and deep ploughing of old worn out shallow cultivated tracts

74 See Raby, *Making Rural Australia*, Chapter 3 Judging the Judges (pp. 61-75) where he explores the attitude of British agricultural experts to farming practices developed in New South Wales in the 1820s
75 *Sydney Gazette and New South Wales Advertiser*, 3 September 1829, p. 2.
76 Ibid.
brings up new soil, renovates the ground, and must greatly increase the produce of the crops.\textsuperscript{77}

On some fields owned by ‘opulent proprietors’ there was already in use a local invention: a heavy roller pulled by two horses. This piece of farming equipment resulted in an evident improvement of farming practice: ‘the wheat spreads out more equably, the soil is brought closer to the roots, and the earthy clods, which from long exposure to the air are like as much fallow ground, are brought to bear on the crops’.\textsuperscript{78} Even Atkinson, despite all his sharp remarks on the state of colonial agriculture, had to admit the settlers’ sporadic utilisation of large pulverising harrows, grubbers, drills, threshing and cleaning machines for grains, and other more complicated agricultural machinery.\textsuperscript{79}

Alexander Harris’ \textit{Settlers and Convicts}, presumably written in the late 1830s, contained a description of colonial farmers strikingly different to the general tone of Atkinson’s \textit{Account}. Harris visited the long-established agricultural district near the little township of Richmond at the Hawkesbury River where he ‘felt at once that [he] was in the land of the husbandman’ owing to thorough methods of ploughing, ‘abundance of grain’ and flourishing fruit and vegetable gardening.\textsuperscript{80} A few years later, John Hood remarked about the same locality:

\begin{quote}
In the levels around Richmond, I saw the first real agriculture I have met with in the colony. Ploughs with two horses, instead of half a score of bullocks, and ridges manured for wheat as in Old England; the rich, deep black soil (the result I doubt not, of the inundation of the Hawkesbury which encircles the greater part of it) reminded me of the best land to be seen at home.\textsuperscript{81}
\end{quote}

\begin{thebibliography}{9}
\bibitem{77} \textit{Sydney Gazette and New South Wales Advertiser}, 13 October 1829, p. 2.
\bibitem{78} Ibid., 3 September 1829, p. 2.
\bibitem{79} Atkinson, \textit{An Account of the State}, pp. 37, 42.
\bibitem{80} A Harris, \textit{Settlers and Convicts; or, Recollection of Sixteen Years’ Labour in the Australian Backwoods by an Emigrant Mechanic}, First published in 1847, Melbourne University Press, Melbourne, 1953, pp. 65-66.
\bibitem{81} Cited by Dunsdorfs, \textit{Wheat-Growing Industry}, p. 75.
\end{thebibliography}
The farming techniques seemed to have gradually advanced in other regions as well. The *Sydney Morning Herald* in its analysis of ten years of agricultural progress of 1837-1848, admitted that ‘the increased productiveness … is attributable to improved methods of cultivation’.\(^{82}\)

The statistics on wheat yields in the settled counties of New South Wales in 1835-1849 compiled by Dunsdorfs support the view that the productivity of the soils was gradually improving. In 1835-1839, the five year average yield of thirteen bushels an acre was recorded, in the following five years the figure increased to fourteen bushels, and then over the period of 1845-1849 further to fifteen bushels.\(^ {83}\) Even though the rising trends in wheat yields might have partially reflected the fact of putting under the plough new fresh fertile land across the settled counties, as Edgars Dunsdorfs suggested, the growing yields in the long-established Cumberland and Hunter Valley agricultural districts is a clear sign of application of improved farming methods by local cultivators.\(^ {84}\)

To some extent, the spread of new technologies and plants among farming population was promoted by regional agricultural and horticultural societies. The latter commenced growing rapidly in New South Wales in the 1840s and at the close of the decade there were at least ten organisations of this kind, most of which were based in the leading Cumberland and Hunter Valley agricultural regions. The membership of agricultural societies largely consisted of practising farmers, who unlike their predecessors in the 1820s were apparently greatly concerned with improving productivity of their operations.\(^ {85}\)

The farming methods employed by small producers changed, indeed. A hoe, the principle farming instrument of farmers in the early 1820s, was replaced by a plough

\(^{82}\) *Sydney Morning Herald*, 22 July 1848, p. 2.


\(^{85}\) Raby, *Making Rural Australia*, p, 129.
over the following two decades. What was even more remarkable is that a large number of these small agriculturalists seem to have become much more prosperous in the later decades. They were able to operate efficiently and make sustainable profits from the land even though they had encountered great challenges: the indifference of the government to their interests, deteriorating grain prices and weather calamities of the late 1830s. Two important factors contributed to the economic success of small crop producers: the constantly growing and diversifying demand of domestic markets and the scale of their farming establishment. While the colonial population was booming, large quantities and greater varieties of crops were required in New South Wales. The local farmers could therefore count on production of new, potentially more remunerative types of commodities, than the traditional wheat and maize. This especially applied for densely populated coastal counties, which were exposed to cheap grain imports. On the other hand, the small scale of farming operations enabled producers to keep the monetary cost of crop-production low by saving on hired labour, and thus receiving moderate profits even under deteriorated market prices.

Grain-Producers of South Australia

By the middle of the nineteenth century, despite the evident technological and economic advances they had made, New South Wales farmers did not grow enough grain to feed the local population. In contrast, their South Australian counterparts achieved spectacular economic success in wheat production over a relatively short period of time. The new British colony was officially proclaimed in 1834. It was projected that South Australia would very soon become a flourishing agricultural area, the demonstration of the practical implementation of Wakefield's ideas on planned colonisation quite opposite to New South Wales with its uncontrolled spread of settlement. The first years of South Australia’s history, however, were marked by large-scale land speculations. By 1840 around 300,000 acres of local soils had been already deposed of, but only around 2,500 acres were cultivated, a tiny acreage to
sustain nearly 15,000 local residents. Nonetheless, in 1842 or 1843 South Australian farmers were thought to have already produced surpluses of wheat to be shipped outside. Over the latter half of the 1840s, the total wheat production doubled, reaching almost 670,000 bushels in 1850, one-fifth of which were exported.

There are a few explanations for the dramatic expansion of South Australian grain-growing. The rapid development of a local farming community was one of them. The economic crisis in the early 1840 put an end to land speculation and many colonists who possessed some wealth were induced to settle on the land and took up crop-farming. Some unemployed also moved to the rural areas around Adelaide in the hope of making a living by selling their labour. After the crisis which lasted only a few years, the cost of hired labour increased so dramatically that a large number of wage-earners became able to accumulate in a very-short run sufficient capital to commence farming on their own. As a contemporary testified in 1847: ‘many labourers have raised themselves to the condition of small farmers, and the facilities for doing this are so great, that almost every prudent, industrious man may accomplish it’. Furthermore, the discovery of the vast deposits of copper in the mid 1840s, allowed recent agricultural settlers to secure a substantial supplementary earnings to their farming undertakings by carting ore from the mines to the port in the dry months.

The local environmental and physical settings also provided considerable benefits to South Australian cultivators. Vast flat plains surrounding Port Adelaide were treeless, which freed South Australian producers from the mammoth task of clearing

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86 South Australian Register, 19 June 1847, p. 1.
89 South Australian Register, 19 June 1847, p. 1.
90 Ibid., p. 2.
the ground, saving enormously on capital, labour and time to prepare land for cultivation.\(^{91}\) In addition to relatively small expenditures on clearing land, the fertile red-brown virgin local soils and comparatively reliable rainfall ensured wheat yields as high as thirty or even fifty bushels per acre.\(^{92}\) William Harcus, commenting on this advantage, remarked in the 1870s: 'There are farms in South Australia which have been annually cropped with wheat for twenty-five years, and yet last harvest they produced as abundantly as ever'.\(^{93}\)

Moreover, unlike the settled counties around Sydney with their scarcity of good agricultural lands within easy reach of markets, there was substantial room for the quantitative expansion of commercial crop-farming in South Australia. The new colony was unique in the way of location of its fertile soils 'within sight of the sea'.\(^{94}\) This natural advantage eased the shipping of bulky agricultural surpluses from the colony and widened the commercial prospects for local cultivators.

Apart from these environmental and geographical gains, some of South Australian farmers took advantage of agricultural labour-saving machinery. As early as the 1840s, the local wheat fields became experimental places for testing new harvesting machines designed to reduce the acute shortage of farm labour. John Ridley was one of the first successful inventors in the colony. In 1843 he constructed a simple mechanical harvester which stripped the ears of grain from standing wheat. A concurrent invention was a mechanical reaper cutting the stalks.\(^{95}\)

There is a disagreement among scholars as to the extent of the utilisation of harvesting machinery in South Australia before the gold discovery. Some argue that

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strippers and reapers were instantly adopted by most farmers and about half of the acreage of South Australian wheat was mechanically harvested by 1850. Another view is that ‘the invention benefited only a few contractors, since most grain producers did not have much incentive to apply costly machinery for their small allotments and consequently only a few farmers who cultivated areas large enough to justify the use of the machine’. The second opinion perhaps is closer to the truth because South Australian farming, like New South Wales’ farming, was predominantly small-scale. In 1843 there were around 1100 farms in the former colony. Two-thirds of them had a wheat acreage not exceeding fifteen acres which could be relatively easily harvested by hand. Nonetheless, the effect of spreading machinery was noticeable in the late 1840s. Douglas Pike’s summing table on the progress of South Australian farming suggests that, on average, one local cultivator planted fourteen - sixteen acres with wheat in 1845-1847. In 1851 this area had increased to nineteen acres.

The local environment suited to grain-growing and new harvesting machinery aided South Australians to grow wheat at a low cost. A local farmer boasted to his Port Phillip acquaintances that wheat ‘at half-a-crown [two shillings and a half] paid him very well.’ The farmer was renting a 300-acre farm in the vicinity of the Adelaide port. The land was ‘rich and not difficult to work’; instead of using a plough to cultivate soil he relied on a ‘tormentor, the nature of which the farmer will understand sufficiently from its name’ pulled by a team of ten bullocks. The ‘tormentor’ was seemingly a simple farming implement resembling a colossal harrow to break up the earth’s surface. With such a device he was able to till eight acres a day. To operate his farm (except at harvesting period) he needed to be assisted by his brother and two men ‘with little occasional help’. He harvested his crop with a machine, ‘an

97 Pike, Paradise of Dissent, p. 329.
99 Pike, Paradise of Dissent, p. 329.
100 Perth Gazette and Western Australia Journal, 5 July 1845, p. 4
Adelaide invention’ by which a pair of horses reaped and threshed wheat at one operation. Once the comb of the machine was filled with grain, the latter was unloaded on a sheet on the field for winnowing. These harvesting operations cost him 7s 6d per acre, half of which had to be paid to the owner of the machine. With yields of twenty five bushels an acre, he managed to grow wheat just at 1s 6d per bushel. 101

A more detailed list of expenditures furnished by another South Australian farmer Bagot is presented in Table 1.2. According to Bagot’s calculation, the production cost of a bushel of wheat only slightly exceeded one shilling which consequently made wheat-farming a highly profitable undertaking even under deteriorating grain prices in the 1840s. Wheat did pay well for local farmers. In late 1850 – early 1851, a reporter of South Australian Register went around local agricultural districts and observed many instances of thriving small cultivators.102 Two decades later, William Harcus admitted that many smallholders, who had commenced with eighty acre allotments before the gold rush, were able to enlarge considerably their farms in the 1850s-1860s.103

101 Perth Gazette and Western Australia Journal, 5 July 1845, p. 4.
102 South Australian Register, 10 March 1851, p. 3; 3 April 1851, p. 3; 16 April 1851, p. 3; 25 April 1851, p. 4; 29 April 1851, p. 3; 5 May 1851, p. 3; 7 May 1851, p. 3; 8 May 1851, p. 3; 21 July 1851, p. 3.
103 Harcus, South Australia, p. 61.
Table 1.2 Returns from wheat-growing on a rented farm in South Australia in the late 1840s

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent 80 acres @ 4s per acre</td>
<td>£16</td>
</tr>
<tr>
<td>Ploughing 40 acres @ 7s per acre</td>
<td>£14</td>
</tr>
<tr>
<td>Seed for 40 acres @ 1s 6d a bushel</td>
<td>£4/10-</td>
</tr>
<tr>
<td>Sowing and harrowing 40 acres @ 1s 6d</td>
<td>£3</td>
</tr>
<tr>
<td>Hiring a harvesting machine @ 2s 6d per acre</td>
<td>£5</td>
</tr>
<tr>
<td>Hiring two men to operate a harvesting machine for nine days, @ 2s 6d each</td>
<td>£2/5-</td>
</tr>
<tr>
<td>Hiring three men for winnowing and carting for 12 days @ 2s 6d each</td>
<td>£4/10-</td>
</tr>
<tr>
<td>Hiring a winnowing machine</td>
<td>£1</td>
</tr>
<tr>
<td>Overall expenses</td>
<td>£50/5-</td>
</tr>
<tr>
<td>Harvest 843 bushels @ 3s per bushel</td>
<td>£126/10-</td>
</tr>
<tr>
<td>Profit</td>
<td>£76/5-</td>
</tr>
</tbody>
</table>

Sources: Sydney Morning Herald, 3 December 1846, p. 2; Colonial Times (Hobart), 29 January 1847, p. 4.

The favourable natural settings and machinery therefore enabled South Australian farmers to reduce dramatically the cost of their grain production. However important this factor might have been for cultivators, it would have immediately lost all its significance had they not enjoyed commercial outlets for their surpluses. The booming population of the colony provided the chief market for South Australian grain-growers who farmed land just within a forty-mile circle around Adelaide in the 1840s. Douglas Pike, exploring the early history of local agriculture, admitted: ‘The spectacular increase in the number of farmers and the area cultivated after 1845 were not due to exports so much as to the rising population of the colony’. Pike is definitely right; the internal consumption as it is demonstrated by Figure 1.9 was a key determinant of South Australian grain advances.

104 Pike, Paradise of Dissent, p. 228.
Even though the figures on South Australian wheat consumption might be incomplete as they disregard seed reserves, natural losses during transportation and storage of wheat, etc., it can be seen that the dominant proportion of domestically produced wheat was absorbed by the local market. Export was relatively insignificant. Moreover, at that time South Australian wheat was not sold overseas but fulfilled the grain deficiency elsewhere in the Australian continent, particularly in the colony of New South Wales.

As a result, the domestic, internal market stimulated the development of farming and promoted grain-growing farms with their low cost of production to spring up in South Australia. Had local colonial farmers not possessed commercial outlets for their produce, they would never have attempted to design harvesting machines or employ ‘tormentors’ or expand their cultivated acreage. Their main concern might have been

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105 The annual average wheat consumption is calculated as eight bushels per person.
just tiny agricultural operations for personal needs drawing upon their own manual labour. Yet the possibility to dispose of agricultural surpluses on local markets stimulated more and more newcomers to venture upon crop-farming on fertile and abundant South Australian lands and then to seek pioneering approaches to reduce the cost of their produce to maximize their profits. In other words, the South Australian agriculturalists were developing new farming methods to meet the needs of domestic consumers, but their striving was eventually building up a social, economic and technological potential of Australian grain-growing industry to enter the global market in the future.

Conclusion

In the second quarter of the nineteenth century white settlement advanced rapidly in Southeastern Australia. On the eve of the Gold Rush, the combined population of New South Wales and South Australia exceeded 300,000 people, more than fifteen times larger than numbers of colonists at the time of Bigge's inspection. Not only did the settler society grow numerically, it expanded its presence in the continent. While in the late 1810s the settled area was limited to just a few districts in the immediate neighbourhood of Sydney, thirty years later the lengthy coastal line of Southeastern Australia was dotted with infant townships whose residents were largely engaged in trade and administration, and further inland hundreds of pastoral stations were scattered over the vast plains. The dramatic growth of settlement generated an enormous demand for crops and consequently stimulated many thousands of European newcomers to commence planting land. Although inland cultivation practiced largely on pastoral stations had a subsistence character owing to a virtual absence of markets, coastal townships which provided the relatively large commercial outlets for crops or, at least, the possibility to ship off surpluses were surrounded by numerous cropping farms whose occupiers were making a living from selling their produce.
An overwhelming proportion of these cropping farms could fall under the category of small family-operated enterprises, largely self-reliant in labour. Large cropping estates did not have many prospects in the Australian colonies at that time because of high cost of hired farm hands. A number of estates, however, operated in New South Wales until the 1840s when a large pool of cheap convict labour was accessible. Once the assignment system ceased to exist, however, the low market prices of the 1840s made large-scale cropping not remunerative and most landed estates in the vicinity of markets were subdivided into smaller farms.

There were a number of factors contributing to the sustainability of small farming in the Australian colonies. The process of taking up farming on small holdings seems not to have created an insurmountable financial barrier to settlers, given the fact that many of those did not purchase land but leased it from private proprietors. This was even a typical feature for the newly proclaimed colony of South Australia, where a bulk of agricultural lands around Adelaide had already been alienated from the Crown by 1840. Even if the newcomer might not have possessed sufficient capital to enter a farming occupation, that person had good chances to save the needed sum in a very-short run by selling his labour. Furthermore, small farming afforded the opportunity for settlers to earn off-farm income during the breaks in their agricultural operations. The cartage of ore by South Australian cultivators is a typical example.

The small farming unit which generally did not employ specialised machinery could be more responsive to the rapidly changing situations on the markets: the shift to growing non-wheat commodities was a remarkable example in Cumberland county. Finally, small cropping establishments which were largely independent of hiring expensive labour could secure moderate profits even in the years of descending market prices. Regardless of the small scale of their farming establishments many cultivators were eager to seek and apply new, more productive approaches to husbandry. This fact was especially noticeable in South Australia, where the larger holdings, suitable physical settings and orientation to grain production motivated settlers to employ harvesting machinery.
The evidence presented by this chapter indicates that many European immigrants had a realistic prospect of becoming small successful crop-producers in New South Wales and South Australia. The following chapter shifts the focus of the thesis to Port Phillip to evaluate the argument of the sustainability and efficiency of small-scale cropping in Australian settings in the 1830s-1840s by exploring in detail the emergence of a regional farming community.
Chapter 2

Establishing Themselves:

Genesis of a Farming Community in Port Phillip

Similar to many other pastoral regions of New South Wales, the distant southern terrain soon known as the Port Phillip district was first settled by stock farmers seeking fresh grazing lands for their multiplying flocks of sheep and cattle. Until 1851, the year of proclamation of the separate colony of Victoria and the gold discovery, Port Phillip arable agriculture was, to a great extent, overshadowed by more financially attractive stock farming. Nonetheless a migrant coming ashore in either Melbourne, or Geelong or Warrnambool in the late 1840s could not fail to notice numerous small cropping farmsteads surrounding these young coastal townships even though land cultivation had virtually been an unknown activity just fifteen years ago.

Chapter two recounts the development of a fledging community of Port Phillip land cultivators in the 1830s-1840s, aiming to evaluate the difficulties and achievements of European newcomers who entered or tried to enter a crop-farming occupation in the district. According to Lynnette Peel, the leading academic authority on the early rural history of Victoria, the completely unknown local climate and soils put severe constraints on agricultural settlement. Those migrants who nevertheless managed to establish themselves as Port Phillip cultivators would also inevitably encounter low crop prices and a small local market, which by and large made growing cash-crops an unattractive enterprise in the district in the 1840s.¹ Peel’s assertions are reappraised here by examining new statistical and narrative evidence.

¹ Peel, *Rural Industry*, pp. 38-44.
The chapter is structured into four sections. The first section views the pioneering attempts of land-cultivators in the Port Phillip coastal areas in the mid 1830s-early 1840s. The second section explores the character of the Port Phillip farming community and its further growth by scrutinizing contemporary statistics. The following section discusses the difficulties and prospects of novice cultivators in their process of adjustment to new economic and environmental realities through individual stories of immigrants who took up crop-farming in the 1840s. The fourth section explores the subsistence crop-farming undertakings developed by holders of large pastoral estates in the interior of the Port Phillip region.

The chapter advances the argument that recently settled smallholders who produced an overwhelming proportion of tradeable crop-commodities in Port Phillip had rather high chances of success in the new environment. A block of fresh land could be obtained under a clearing lease, which did not impose large monetary expenditures. The high degree of self-sufficiency in labour enjoyed by many small producers further reduced their capital spending especially when cash-crops were grown on cleared land. Furthermore, the bare essentials of local agriculture might provide the novice farmer with a sufficient amount of knowledge and skills to launch farming operations on a few acre plot of land.

On the other hand, hundreds of small agricultural settlers were driven by the opportunities provided by the domestic market. Peel is absolutely right in her verdict that the Port Phillip market was small. It was indeed, even in comparison with the county of Cumberland, let alone to the markets of European countries. But did that relatively small size of the domestic market handicap the operations of pioneering Port Phillip cultivators? In the period of 1841-1851, the district grew from a small settlement of 12,000 people to a new colony with 77,000 residents. Over the decade the population increased at an astonishing average annual rate growth of 50 per cent, one of the highest rates in the current world. That surge of population ultimately meant soaring demands for agricultural products, and thus tremendous scope for the expansion of small agricultural settlement. The chapter argues that the mounting needs for crop-commodities in Port Phillip ultimately secured the rapid
establishment of a local community of small moderately wealthy crop-producers on the eve of the gold rush, laying the critical foundation for the later decades.

First steps: Land-cultivators in the mid 1830s-early 1840s

While the roots of land-cultivation practices developed by the native inhabitants of Victoria are concealed from historians in the dim and distant past, agricultural operations of white settlers are easy to date. The members of the Henty family are believed to have been the first Europeans who took up crop-farming in the soon-to-be-proclaimed colony. These pioneering agriculturalists, however, were not novice farmers in the Antipodes. Prior to disembarking at Portland Bay in 1834, the family had already possessed a few year first-hand experience of Australian agriculture gained at Swan River and Van Diemen’s Land.²

Although wool-production was the key and long-standing objective of the Hentys, the commercial importance of this staple was outweighed by the practical significance of crop-farming during the initial stage of their settlement. The Thistle, the ship they sailed from Van Diemen’s Land to Portland Bay, carried on board a plough and a pair of harrows and six working bullocks, yet no sheep. The necessity to farm land was an obvious matter for pioneers. The sea voyage to obtain fresh surpluses from the island could last a month in those days, so the inhabitants of a small settlement needed to achieve a near self-sufficiency in crop commodities in a very short-run. Just a fortnight after going ashore on the beach at Portland Bay, on 9 December, the

Hentys attempted to plough land, which perhaps was the first trial of European agriculture in the future colony.³

Despite all challenges of settlement, crop-growing operations progressed briskly at Portland Bay, partially because of good local lands but partially because the members of the family were qualified farmers. Edward Henty put down in his journal that ground for wheat was prepared in August 1835, and then eight months later his new entry described the first harvest.⁴ By the beginning of 1839, the settlers had cultivated a seven acre paddock of potatoes, their staple and had some patches of land occupied with cereals and vegetables.⁵

While the Hentys were busy with settling themselves on the land at Portland Bay, in May 1835 the Port Phillip Association which was formed in Van Diemen’s Land transferred their operation to the mainland near the Yarra River. A year later the first local Census already enumerated 244 settlers.⁶ Although the geographical proximity of the new settlement to Van Diemen’s Land would greatly simplify the task of the shipping supplies from the island, some newcomers also commenced planting crops upon landing at the Yarra River. John Pascoe Fawkner, for instance, was later to recall that ‘the first plough was put into the earth, and five acres of wheat sown and a garden commenced’ as early as September 1835.⁷

An abstract of the returns of Stock and Cultivation at Port Phillip, which supplemented the 1836 Census, documented forty-three local households which had been established between May 1835 and September 1836. Only sixteen of them did not practice any form of arable agriculture. Twenty-three newcomers

⁵ Ibid., p. 246.
⁶ SLV, MSS 5773, Census of the Year 1836.
⁷ J Bonwick, _Discovery and Settlement of Port Phillip: Being a History of the Colony now called Victoria ..._, Published for the author, by George Robertson, Melbourne, 1857, p. 58.
commenced farming a few acres of land occupied with vegetables, fruit trees and cereals. Four settlers, John Batman, Charles Wedge, David Stead, and E.L. Ferguson, however, cropped rather significant areas ranging from fourteen to twenty acres. These four settlers readily combined cultivation with stock-farming; nearly 40 per cent of all Port Phillip’s sheep flock belonged to them. The crop-growing interests of these presumably the wealthiest settlers stemmed from the practical necessity to feed their labour: sixty-four people were living on those four farms, the dominant proportion of residents were adult males.⁸

According to official statistics, Port Phillip cultivators managed to bring under the plough around a hundred acres of land by 1838.⁹ Although this figure was likely to have been incomplete, the extent of cultivated acreage fell far behind the requirements of local population which already risen to 3,500 people that year.¹⁰ In a situation where newcomers were rapidly pouring into the district and where local commercial crop-farming virtually did not exist, the import of foodstuffs became an essential matter. In 1838 the total value of food and forage commodities shipped into Port Phillip amounted to £11,000.¹¹ Flour was the most valuable item in this list; it comprised nearly nine-tenths of the total sum. Moreover, the imported flour was a paramount commodity in terms of its consumption value. The received quantity of flour, considering an average annual consumption of around 600 pounds per person, may have been sufficient to sustain nearly 3,000 people or nearly all the contemporary Port Phillip population.¹²

With the steady flow of newcomers the white population continued booming and the 1841 Census enumerated 12,000 inhabitants in Port Phillip. Although extensive

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⁸ SLV, MSS 5773, Typescript 13940, Abstract of the Returns of Stock and Cultivation at Port Phillip, to accompany the Census Return of 1836; SLV, MSS 5773, Census of the Year 1836.
⁹ Victoria. Colonial Secretary’s Office. Port Phillip Statistics, Miscellaneous (MSS), 1838, [Microfilm].
¹⁰ Ibid.
¹¹ Ibid.
stock farming on vast interior lands was the ultimate aim of many, the majority, nonetheless, preferred to settle in or around Melbourne. The same Census revealed that the city dwellers comprised 38 percent of the Port Phillip population and the nearby residents of the county of Bourke composed a further 28 per cent; the rest resided in other regions.\textsuperscript{13}

Regrettably the 1841 Census collectors did not employ clear criteria to specify the occupations of rural residents in the district. The Port Phillip population engaged in different forms of agriculture might be listed under three overlapping occupational categories. The first category comprised land proprietors, merchants, bankers and professionals. The second category incorporated shepherds and others involved in sheep farming. Gardeners, stockmen, and persons employed in agriculture made up the third category. While those who worked on squatters runs were most likely to be included under the second category, some landed proprietors recorded in the schedules of the first category might also have been engaged either in stock or crop-farming. Further, many representatives from the third category were either hired farm-labourers or tenant farmers. Yet even with these weaknesses, the Census figures presented by Table 2.1 may shed some light on the early genesis of the Port Phillip farming society.

\textsuperscript{13} \textit{Geelong Advertiser}, 17 July 1841, p. 2.
Table 2.1 Port Phillip residents who might be engaged in agricultural pursuits in 1841

<table>
<thead>
<tr>
<th>Locality</th>
<th>Land proprietors, merchants, bankers and professional persons</th>
<th>Shepherds and other in the care of sheep</th>
<th>Gardeners, stockmen, and persons employed in agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Category 1</td>
<td>Category 2</td>
<td>Category 3</td>
</tr>
<tr>
<td>Counties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bourke</td>
<td>391</td>
<td>384</td>
<td>795</td>
</tr>
<tr>
<td>Grant</td>
<td>36</td>
<td>264</td>
<td>45</td>
</tr>
<tr>
<td>Normanby</td>
<td>7</td>
<td>195</td>
<td>46</td>
</tr>
<tr>
<td>Commissioners’ districts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Port</td>
<td>39</td>
<td>327</td>
<td>496</td>
</tr>
<tr>
<td>Portland Bay</td>
<td>2</td>
<td>544</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>475</td>
<td>1714</td>
<td>1487</td>
</tr>
</tbody>
</table>


It can be seen that persons employed in sheep-farming were dispersed relatively evenly over the territory of Port Phillip. At the same time the local residents from the third – very general – category, which likely embraced a large proportion of land-cultivators, were mainly concentrated in the metropolitan Bourke county where a prospective market for crop-produce might be accessible. The large number of persons listed in the third category further suggests that many immigrants definitely preferred to take up crop-farming in the vicinity of Melbourne rather than work on pastoral runs in the Port Phillip hinterland.

The remunerative prices for crop-commodities in the Port Phillip district probably induced the former type of newcomer to attempt to grow cash crops in the vicinity of
Melbourne. Population growth, undeveloped Port Phillip arable agriculture, poor harvests in the neighbouring colonies and irregular shipment of foodstuffs to the district, caused domestic crop prices inflated in the early 1840s. Flour, for instance, generally fluctuated around £20 – 40 per ton, hay and potatoes £10-15 per ton on Melbourne markets in 1840-42.\footnote{Port Phillip Herald, Corn Market, 1840; Geelong Advertiser, Melbourne Price Current, 1841-42.}

The commercial reviews published in Port Phillip newspapers of 1840-41 did not contain quotations on local wheat prices yet regularly informing their readership about those in Sydney, Adelaide, and Hobart. The virtual absence of citation of wheat prices in the district suggests that a very little of this grain was actually being sold on the Port Phillip market. The first small wind mill was likely to have been established at Brighton in 1839 and only two years later the first two steam mills were put into operation in Melbourne, which might have provided local farmers with some outlets for their wheat.\footnote{A Mackay, ‘The First Flour Mills of Port Phillip’, Victorian Historical Journal, vol. 16, no.4, November 1937, pp. 117-120.}

The relative initial commercial unimportance of wheat for agriculturalists did not signify however that the latter did not have scope for the development of their farming operations. As early as March 1840, Port Phillip farmers already produced substantial quantities of hay for the domestic market; local newspapers cited prices of domestic hay separately from that shipped into the district.\footnote{Port Phillip Herald, 27 March 1840, p. 2.} Potatoes might also be extensively grown by local farmers due to high profitability of this product. It was thought that farming a plot of land of two and a half acres with potatoes and assuming an average market price of this crop at £8 a ton, a producer was likely to receive around £90 of net profit.\footnote{Ibid., 21 June 1842, p. 2.} Even more important for the contemporary farmer, potatoes and many other vegetables and forage crops did not require any additional technological processing to be sent to numerous prospective consumers in rapidly growing Melbourne, contrary to wheat which would be mainly purchased by millers.
As may be expected, the 1842 agricultural statistics showed that nearly 70 per cent of the whole tilled acreage in the district was occupied with forage crops and potatoes and just the remainder was devoted to wheat.\textsuperscript{18} The available outlets for the former two cash crops and remunerative market prices were powerful incentives for established and establishing Port Phillip farmers to expand their operations. The same year local agriculturalists sowed around 8,000 acres with their crops. 3,000 acres of this was tilled in the county of Bourke which was around thirty times more than it was recorded four years earlier.\textsuperscript{19}

The key type of an agricultural producer behind these brisk advances of Port Phillip cropping industry was the small landholder who commonly leased a private allotment. The emergence of tenant crop-farming was predetermined by general economic settings in the district and the character of distribution of a crown domain. In the late 1830s-early 1840s the transformation of Melbourne from a tiny pastoral settlement into an urban administrative and trading centre spurred a corresponding increase in the commercial value of lands adjacent to the city. Anticipating a further growth in land prices, local squatters and speculators commenced investing heavily in lands surrounding the growing township.

The method of distribution of Crown Lands assisted wealthy investors to amass large land holdings in their private positions. Crown Land auctions held in Melbourne in 1840 mostly offered blocks of a few hundred acres each in the Bourke and Grant counties. That year 105 such lots encompassing nearly 70,000 acres in total were acquired. Smaller lots which would be most appropriate to the needs of intending cultivators with limited capital were less available. Only the land sale which took place in June 1840 proposed thirty two lots of 15 to 100 acres and twenty three of 100-200 acres, around 4,500 acres in total. The combined effect of a limited number of small lots, the growing commercial attractiveness of crop-farming and the speculative activities of land sharks pushed auction prices up to £30 per acre for

\textsuperscript{18} Port Phillip Statistics, Miscellaneous (MSS), 1842.
\textsuperscript{19} Ibid.
choicest lands. All small allotments were sold and the minimal price paid for them exceeded £ 5 per acre.\textsuperscript{20}

Overall, by 1841 around 122,000 acres of country lands had been already alienated from the Crown in the metropolitan county of Bourke and a further 38,000 acres in the neighbouring county of Grant.\textsuperscript{21} Commenting on this rapid alienation of land near Melbourne John Hood who visited Port Phillip in 1841 remarked that most of first-rate agricultural land around the town had already become private property.\textsuperscript{22} If an under-capitalised immigrant who had just arrived had considered an option to venture into crop-farming in Port Phillip in the early 1840s, he would quickly have discovered that the bulk of lands appropriate for commercial cultivation were in private hands. At the same time, the prospects of purchasing Crown Land might be limited due to excessive prices and inadequate number of small lots at auctions. In these circumstances, obtaining leasehold of a small farm was the most viable option for the indigent newcomer. Historian Margaret Kiddle also suggested that the economic crisis of the early 1840s may have contributed to an increase in the number of tenant farmers ‘because of the numbers of old and new immigrants [were] forced by the depression into that status’.\textsuperscript{23}

The household returns filled out manually by the Census collectors may reveal some quantitative details on the structure of the Port Phillip farming community developed in the first years of white settlement. Figure 2.1 presents the data on sixty eight farming households from the county of Bourke. The household is classified as farming if at least one of its residents was listed under the occupational category of gardeners, stockmen, and persons employed in agriculture. Depending on the number of such residents, the farmsteads are broken down into the four groups. It should also be stressed that the number employed on farmsteads does not actually

\begin{itemize}
  \item \textsuperscript{20} PROV, VPRS 11862, unit 2, pp. 11-19.
  \item \textsuperscript{21} Archer, \textit{Statistical Register}, p. 371.
  \item \textsuperscript{22} J Hood, \textit{Australia and the East: Being a Journal Narrative of a Voyage to New South Wales…}, John Murray, London, 1843, pp. 81-82.
  \item \textsuperscript{23} Kiddle, \textit{Men of Yesterday}, p. 141.
\end{itemize}
represent hired labourers alone as it might include the adult members of farming families and their children whom the Census collectors commonly listed under the general occupational category of stockmen and agriculturalists. In addition to the breakdown of farmsteads by number of employed, Figure 2.1 divides them into two sets within each group. The first set comprises all farmsteads either leased or freehold. The second one relates only to farmsteads where a land proprietor was listed.

Figure 2.1 Farming households by numbers of employed in Bourke county (household returns from the 1841 Census)

Source: SLV. New South Wales. Census 1841, Householders' Returns, County of Bourke, [Microfilm].

It is immediately apparent from the figure that an overwhelming proportion of cropping farms were family enterprises in the Bourke county. Nearly two-thirds of all farmsteads selected for the sample utilised a labour force of five or fewer people and around a quarter was operated by six to ten people. The farming households employing the larger pool of labour were atypical in the metropolitan county. Apart
from the large number of small-scale farmers, the figure indicates that the leasehold was the most common type of land tenure. In the first two groups, six out of ten farms were likely to be land leased from private proprietors.

The reason why large land-owners preferred to lease their land rather than attempt farming themselves was simple. Most fertile grounds around Melbourne were heavily timbered and, therefore, required substantial additional capital to prepare land for cultivation. One early settler wrote in his diary, for instance, that it took ten days for three adult men assisted with a team of six bullocks to prepare for cropping just an acre and a half on the bank of the Plenty River.24 Another contemporary remarked about the productive soils of the Merri Creek which could be ‘cleared only at a great expense from the whinstone rocks and massive gum-trees that spread over its surface’.25 Furthermore, large-scale cultivation would have inevitably imposed heavy monetary burdens from high wages, which coupled with the uncertain weather patterns, encouraged large landowners to subdivide their estates into small farms for lease so as to enjoy a relatively moderate but secure income.

On the other hand, the determination of many immigrants to take on leased farms or even attempt to purchase their own to establish themselves on new land as crop-producers, was remarkable in the late 1830-early 1840s. Having initially developed in a purely subsistence form, in the early 1840s arable agriculture in the metropolitan region was undoubtedly taking the shape of a business enterprise. A booming district population set up a domestic market for crop-produce which was not dispersed but mainly centred in Melbourne; an extremely important factor for the intending crop-producer in the age of undeveloped overland transportation. Prices on crop-commodities of the early 1840s were high and many items of agricultural produce such as hay or potatoes could be sent directly from farms to numerous consumers.

24 Peel, Rural Industry, pp. 40-42.
25 W Westgarth, Australia Felix, or A Historical and Descriptive Account of the Settlement of Port Phillip, New South Wales ..., Oliver & Boyd, Edinburgh, 1848, p. 269.
Many immigrants undoubtedly felt that land-cultivation was worth a try at Port Phillip. At that time some of them were coming from Europe with no local agricultural experience, but a large number arrived from Van Diemen’s Land and other parts of New South Wales possessing basic knowledge and skills of Australian farming which certainly minimised the challenges of their transition and eventually contributed to the rapid development of farming.

**Small-scale farming in the coastal regions in the 1840s**

When the Port Phillip economy was about to sink into the depression of the early 1840s, just a few years had elapsed since ‘the first plough was put into the earth’.

However short this period was, on the eve of the crisis the small farming community of Port Phillip had already developed into a distinctive group of the local society. The absence of contemporary statistical returns handicaps any attempt to arrive even at an approximation of people who might be obtaining or attempting to obtain an income from crop-farming at that time, yet the 1841 Census figure of nearly 1,500 Port Phillip stockmen and cultivators induces us to think that the number of local crop-producers with labourers assisting them might be counted as many hundreds.

Lynnette Peel also observed the rapid development of farming society in the counties of Bourke and Grant at the initial stage of the settlement. She argued that agricultural settlers represented two distinctively different categories of producers. While cash crops were grown by small farmers, wool production was the key commercial objective for owners and licensees of large estates who preferred to purchase crop-commodities rather than plant them.

Peel’s argument on the division between different types of commercial producers, small-scale crop-farming and large-scale sheep-farming is convincing; the 1841

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26 Bonwick, *Discovery and Settlement*, p. 58.

Census does indicate this separation at least in the Bourke county. Yet she further argues that ‘after the depression small farming lost its allure’ due to deteriorating wheat prices and limited outlets for ‘small market produce’. Peel’s statement on the slow development of crop-farming in the 1840s, however, is at odds with a well-known fact that the district became virtually self-sufficient in wheat, the main crop-staple, before the gold discovery.\(^{28}\) If commercial small-scale crop-farming was originally separated from large-scale sheep farming, as Peel has credibly demonstrated, it can be deduced that Port Phillip wheat-growers were mostly small agriculturalists. As the production of wheat progressed rapidly after the depression, it may be assumed that small producers, in fact, continued expanding their operations. Arable agriculture did not, it seems, lose its ‘allure’ in the years preceding the gold discovery. The upward trend in the extension of acreages of various crops also supports this view. Between 1844 and 1850 the total amount of land under the plough increased fourfold in the district. The area occupied with key grains – wheat and oats – grew proportionately and the acreage of potatoes was nearly doubled.\(^{29}\)

Why, then, did farmers rapidly expand their operations, especially wheat-growing production, if prices on their produce were deteriorating? It can certainly be suggested that the development of the milling industry contributed to the spread of grain acreage. By 1851 there were in operation at least fifteen large steam and water mills concentrated in the main coastal agricultural areas around Melbourne, Geelong, Port Fairy and Warrnambool.\(^{30}\) The emerging network of mills could definitely provide farmers with much-needed outlets for their grain produce, yet it would hardly have stimulated land-cultivators to grow more wheat if this commodity had not returned worthwhile profits.


\(^{29}\) Archer, *Statistical Register*, p. 364.

Wheat-growing obviously remained profitable for small land-cultivators even though prices dropped to as low as 3 shillings and sixpence a bushel in the latter half of the 1840s. This statement, however, contradicts the evidence of James Malcolm, a Port Phillip district landowner, who stated to members of the Select Committee on Immigration in 1845 that a paying wheat price for a small farmer who did not employ labour was fixed at around 4 shillings a bushel, a shilling less than for a large cultivator who had to rely on hired hands.\(^{31}\) Peel did not question these figures and considering low wheat prices ultimately concluded than there were ‘economic difficulties’ for Port Philip farmers in the years of 1845-1850.\(^{32}\)

It has to be stressed, however, that Malcolm’s statement was a fairly arbitrary estimate; it was a personal opinion that was not based on any detailed calculations. A small Port Phillip farmer as well as his New South Wales and South Australian counterparts, utilising mostly unpaid labour of their families and having minimal expenditures on employing workers was likely to procure some profits even though grain prices were frequently below Malcolm’s approximation. The convincing evidence supporting this argument is the rapidly increasing number of small cultivators in the Port Phillip district in the late 1840s. (See Table 2.2)

\(^{31}\) NSW. VP of LC. 1845, *Report from the Select Committee on Immigration with Appendix and Minutes of Evidence*, Evidence of James Malcolm p. 617.

\(^{32}\) Peel, *Rural Industry*, p. 44
Table 2.2 Number of persons engaged in crop-farming in the settled counties of Port Phillip in 1846 and 1851

<table>
<thead>
<tr>
<th></th>
<th>Census 1846 (Counties of Bourke, Grant and Normanby)</th>
<th>Census 1851 (Melbourne and Police Districts of Bourke, Grant, Portland, Belfast and Alberton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of land</td>
<td>Cultivated acreage</td>
<td>Acreage per cultivator</td>
</tr>
<tr>
<td>cultivators</td>
<td>1352</td>
<td>18491</td>
</tr>
</tbody>
</table>


Unfortunately, the methods of classifying the colonial population were altered after the 1841 Census and for this reason the figures of Table 2 are drawn from the last two population returns taken before the gold rush. The table covers the coastal regions of Bourke, Grant, Normanby, Alberton and Belfast which comprised the settled part of Port Phillip. The statistics on the vast inland Commissioners’ districts marked by subsistence land-cultivation are omitted. It is apparent from the table that the number of Port Phillip residents engaged in land-cultivation as a farmer, a member of farmer’s family, or a hired farm labourer, almost trebled over the latter half of the 1840s.

Regrettably, the Colonial Censuses of 1846 and 1851 did not introduce a further subdivision of land-cultivators into farmers and their labourers which would have assisted to specify the number of farming households and the area of land they occupied and tilled. This information can partially be extracted from the *Port Phillip Directory* of 1847 where the names of local inhabitants were listed with their place of residence and occupation. According to this source, there were 373 farmers and
agriculturalists residing in Bourke county and eight of those in Grant county. Few farmers were recorded in the Western Port and Western districts and at Port Fairy.\(^{33}\) The small numbers of farmers living outside the county of Bourke suggests that the list of Port Phillip inhabitants especially for the county of Grant is incomplete as the compiler of the *Directory* might well have experienced technical difficulties gathering comprehensive information beyond the rural districts around Melbourne.

At the same time, it is likely that the *Directory’s* figures on Bourke farmers and agriculturalists generally corresponded to the genuine number of farmsteads in the metropolitan county. The *Directory* was published in January 1847, but its information was collected in the preceding year; the *Directory’s* figures can therefore be matched with the data of the Census of 1846 and the official agricultural statistics for this year in order to obtain a rough idea of the size of farming households in the metropolitan county. The Census enumerated 983 Bourke residents, who were engaged in land-cultivation, which may suggest that in 1846, on average, one local farmstead was operated by just three people: the farmer himself and two helpers who might be members of his own family or hired labourers. In 1846 the agricultural statistics recorded around 15,000 acres cultivated in Bourke county. One farmstead therefore cultivated on average around 40 acres of land.\(^{34}\)

There are other sources of evidence to validate these rough calculations. The Argus advertisements of the late 1840s on selling or leasing crop-farms indicate that the area kept under the plough fell in the range between 30 and 100 acres.\(^{35}\) It should be stressed, however, that the area of cultivated acreage was rarely stated and the advertisements commonly cited the total size of landholding alone. These figures varied greatly yet roughly two-thirds of all farms occupied blocks of land under 200


\(^{34}\) Returns of the Colony of New South Wales, 1846, p. 482.

\(^{35}\) *Melbourne Argus*, 14 July 1846, p. 3; 25 December 1846, p. 4; 19 February 1847, p. 3; 6 April 1847, p. 3; 27 August 1847 p. 3; 9 November 1847, p. 3; 30 November 1847, p. 3; 21 December 1847, p. 3; 11 February 1848, p. 3; 4 April 1848, p. 3.
acres. This estimate concurs with the evidence of John Carfrae, a Port Phillip settler, who reported to the Royal Commission on the Extension of the Franchise in 1844 that ‘there are a great many small-farms [in the district]… generally from one hundred and fifty to two hundred acres’.  

As the figures of Table 2.2 show, the total number of Port Phillip cultivators which included farmers and their labourers nearly trebled over the period of 1846-51. The average cropped area per cultivator even declined slightly which supports the view that small-scale farms were springing up in the district at the time. Drawing upon the average ratio of three cultivators per one farm at Bourke in 1846, it can be suggested that before the Gold Rush there might have been around 1,000 farming households in Port Phillip.

The novice agriculturalists occupying these households could get to the land in different ways. Small blocks of lands could be readily accessible under lease or acquired in fee-simple from large land proprietors. Unfortunately, statistics are not available on the transfer of freehold land in Port Phillip since there was no ongoing relationship between the Crown and the purchaser once a block of land became private property.

Alternatively an allotment could be acquired at Crown Land auctions. The reports of Crown Land sales by public auction shed some light on the pattern of distribution of the Crown domain to potential cultivators. The reports contained information on type of distributed allotments (town, suburban or country), their size, upset and sale prices, and names of their purchasers. Suburban allotments proposed in the Bourke, Grant and Normanby counties might be of immediate interest to cultivators. The lots generally comprised an area of a few dozens of acres. This was a sufficient block of

36 NSW. VP of LC, 1844, vol. 2, Minutes of Evidence Taken before Select Committee on the Extension of the Franchise, Evidence of John Carfrae, pp. 625-626.

virgin land for small settlers to commence farming operations while the closeness to urban settlement opened an opportunity to dispose of surpluses. Figure 2.2 presents the breakdown on the number of purchases of suburban lots exceeding ten acres by individuals in Bourke county in 1847.

Figure 2.2 Purchases of suburban lots in Bourke county in 1847-1848.

Source: PROV, VPRS 11862, unit 2, pp. 41-59.

It can be seen that the predominant proportion of purchasers of suburban lands surrounding Melbourne aimed at procuring only one lot in 1847-1848. This fact suggests that the amalgamation of these small blocks into large private holdings was a rare occurrence in this region at that time. The auction prices remained high throughout the 1840s: the average cost of suburban lots generally fluctuated around £5 per acre which might somewhat discourage acquisition of these lands for speculative purposes after the depression when many of property owners were ruined.

Intending cultivators might be similarly reluctant to obtain a few expensive lots at a time. Unlike South Australian settlers, many Port Phillip novice crop-producers had to deal with a laborious task of clearing ground in the vicinity of Melbourne. Figure 2.4 also reveals that a number of suburban lots sold at Crown Land auctions were not significant in 1847-1848 against the total number of farming holdings. This
indicates that the expansion of small scale crop-farming chiefly progressed on a private domain which had been rapidly formed by the early 1840s.

Virtually all small cropping farms operated within a short distance from prospective marketplaces in the coastal regions in the 1840s. The *Argus* advertisements mentioned above always underlined the close proximity of farms to Melbourne or Geelong, which were rarely removed more than ten miles from the chief Port Phillip markets. But sometimes even this relatively close access to prospective consumers might impose challenges on a farmer. A recent settler on the Merri Creek in the vicinity of Melbourne complained in September 1849 that because of rains the bridge collapsed and local ‘growers of vegetables have had their supplies cut off altogether from the market’ for nearly two weeks.\(^{38}\) The geographical closeness to and accessibility of prospective commercial outlets for their produce was the paramount factor for contemporary land-cultivators which is illustrated by the pattern of distribution of tilled area in the district before the gold rush.

Maps 3 and 4 indicate that cultivation at Port Philip, similar to other settled counties of New South Wales and South Australia, was mainly centred in the regions where population was concentrated or from where the shipping of surpluses was possible. The counties of Bourke and Grant hosted more than two-thirds of the 77,000 Port Phillip residents, and metropolitan farmers were cropping the equivalent proportion of the district acreage to meet the needs of the growing urban population. Another important coastal agricultural region rapidly emerged in the Belfast district, comprising Port Fairy and Warrnambool settlements west to Grant county. Although the local population comprised only 5 per cent of Port Phillip’s, the farmers of these two agricultural clusters cultivated nearly 12 per cent of the total acreage supplying the metropolitan markets with their produce, much similar to their Hunter River counterparts who grew crops for Sydney market. It was estimated that just in 1847

\(^{38}\) *Argus*, 1849, 13 September, p. 4.
around 60,000 to 70,000 bushels of grain were likely to be shipped from Warrnambool alone making this area the granary of Port Phillip.\footnote{\textit{Melbourne Argus}, 24 September 1847, p. 2.}

The establishment of these two townships had been presided over by John Russell’s 1841 Sale of Land Regulation which permitted individuals to apply for a special grant of 5,000 acres to be purchased at a rate of £1 per acre. The block of land could be selected for survey at any part of the Port Phillip district provided the selection was remote, at least five miles from the nearest town. Two special surveys were taken in the western part of the district. James Atkinson chose a cluster of fertile land around Port Fairy and William Rutledge took up a patch of similar productive, though heavily timbered, rich volcanic soils near the future town of Warmambool which once cleared might yield around fifty bushels an acre. The purchased land was subdivided into farms of 50-100 acres offering a long tenure. A rent fee was initially paid in kind as ‘a moderate equivalent in produce per acre.’ Prospective settlers were also assisted with credits, implements and seed-grain.\footnote{Kiddle, Men of Yesterday, pp. 142-43, JW Powling, \textit{Port Fairy, the First Fifty Years, 1837-1887}, Heinemann, Melbourne, 1980, pp. 62-63.}

As at Bourke or Grant, the newly-established costal agricultural clusters in the western part of Port Phillip were very closely located to outlets for produce. In the latter half of the 1850s James Bonwick travelling throughout the Western district discovered a thriving farming community around Warrnambool. The fields, however, were cropped just within a ten mile circle drawn around the urban settlement and more distant lands were covered with dense scrub.\footnote{Bonwick, \textit{Discovery and settlement}, pp. 56, 79.}
Map 3 Distribution of population in the Port Phillip district in 1851 (number of inhabitants)

Source: Census of Victoria for the year 1851
Map 4 Distribution of cultivated acreage in the Port Phillip district in 1851 (acres)

Source: Returns of the Colony of New South Wales, 1851, p. 644.
The proximity to market determined the location of cropping farmsteads at Port Phillip. A dominant proportion of farmers grew cash crops in the vicinity of Melbourne but some cultivated their allotments around the infant coastal towns in the soon-to-be established Western district. George Russell, a large local landholder, in 1850 in a private letter gave a perfectly concise characterisation of these Port Phillip crop-growers: ‘The greater portion of the land is cultivated by the better class of labouring immigrants, who have acquired a little capital & rent small farms; such people employ few labourers, the greater part of the labour being performed by their own families. Few or no capitalists engaged in agricultural pursuits.’

Whilst some members of this ‘better class of labouring immigrants’ might have tried to procure expensive suburban lots through Crown auctions, many more would have preferred to obtain a small allotment under lease or even purchase it from private proprietors since a large pool of well located virgin agricultural lands had already been alienated in the early 1840s. Coastal townships which grew rapidly offered secure outlets for crops. Despite deteriorating prices of crop-commodities they continued paying small producers who were able to save greatly on hiring labour.

**Uneasy way to prosperity: the fortunes of small cultivators**

The general progress made by crop-farmers in the 1840s is relatively easy to be quantified, even though this objective is complicated by imperfect contemporary statistical evidence. A much more difficult task is to appraise the troubles and rewards of individuals in their social and economic transition from the status of a recent migrant to a small crop-producer in Port Phillip. The destinies of at least a thousand farmers who had established themselves on their own or leased land before the gold rush were inevitably shaped by the possession of initial capital, basic

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agricultural experience, the ability to learn quickly about new environments, and just sheer good chance or lack thereof which inevitably makes generalisation difficult.

Peel’s analysis of the diary left by William Greig, a small producer cropping his own land in the vicinity of Melbourne in October 1840 – February 1841, revealed a number of challenges inevitably to be faced by novice Port Phillip farmers. Two difficulties were crucial. The first was concerned with the problem of ‘proper management’ of a farmstead owing to the absence of any practical experience within the local physical setting. Then there was the question of the capital needed not only to acquire land, implements, animals etc., but to prepare the ground for cultivation and survive the initial period of settlement of several months before receiving any stable income from farming. Greig failed to settle himself on land mainly because of these two reasons. His first harvest of potatoes despite his ‘expectation for a good crop’ was extremely poor as it was sown too late to avoid the summer heat. Greig’s irrational financial and practical decisions further greatly deteriorated his position. This young man of twenty-four, who had never farmed land in his motherland, arrived in Port Phillip with a moderate capital. The status symbol of independent landownership perhaps tempted him to purchase a farm on terms in hope of obtaining further monetary assistance from England. The outcome of that unwise action might have been well predicted in advance. In five months, when the first payment for land was due, Greig had not received any finances from England, his returns from cultivation were small and consequently he was compelled to quit his farm.

It can only be speculated whether Greig would have succeeded if he had leased his farm, but it is certain that in such a situation he might have had more chances to survive the initial period. The financial burdens of rent would have been less onerous for him than down payments for a purchased allotment. John Carfrae, a Port Phillip

43 Peel, Rural Industry, pp. 40-42.
44 Greig seems to have never returned to farming. He died at Praham in 1869, leaving a personal wealth of around £250. At the time of his death his occupation was recorded as a fancy goods dealer. (PROV, Probate and Administration Records, File 7/693).
settler, for instance, giving evidence to the Select Committee on the Extension of the Franchise in 1844, stressed that most small tenants took up their land under clearing leases. The rent fee was chiefly paid in kind by improvements of land and grain and only in some cases in cash, since as Carfrae explained: ‘those who have had to pay a money rental alone, have generally, in many cases, been unable to go on with their leases’.\textsuperscript{45} Clearing leases, according to another witness from Port Phillip, Lachlan Macalister, ‘are always taken on new ground’ and the rent-fee in money had to be paid in a few years after taking up a lease.\textsuperscript{46} The Clyde Company that was letting out part of its land near Geelong also accepted ‘useful improvements were taken as payment of rent’ from tenants during the initial period of their settlement.\textsuperscript{47}

Many more immigrants had better chances to settle on Port Phillip land than did Greig, however. The James Wentworth Davis’ farm accounts covering the time frame of 25 April 1845 – 5 July 1852 documented one of the possible ways of settlement in Port Phillip when a newcomer possessed a relatively moderate capital supplemented with knowledge and skills of Australian farming.\textsuperscript{48} Davis initially migrated to Van Diemen’s Land where in 1837 he commenced leasing a farm of 430 acres at £100 per annum near Hobart producing crops, dairy commodities and poultry. He continued as a tenant until 1845 when he decided to start on his own on the mainland.\textsuperscript{49} In April that year he purchased a farm at Port Alberton in the east part of the Port Phillip district. Land, the main item of expense, cost him £250. The total outlays on building materials, shipping possessions from the island, hiring occasional labour, and purchasing basic foodstuffs amounted to £100. He did not acquire any farming implements or cattle, seemingly having brought them in from Van Diemen’s Land. Remarkably, even at a very initial stage of his settlement on the

\textsuperscript{45} NSW. VP of LC, 1844, vol. 2, Minutes of Evidence Taken before Select Committee on the Extension of the Franchise, Evidence of John Carfrae, pp. 625-626.
\textsuperscript{46} Ibid., Evidence of Lachlan Macalister, p. 632.
\textsuperscript{47} George Russel to J. and A. Dennistoun, Clyde Company Papers, vol. 4, p. 372.
\textsuperscript{48} SLV, MSS 11582, Farm account of James Wentworth Davis.
\textsuperscript{49} EEF. Pullman, They Came from the Mall. Being an Account of the Lives of James Wentworth and Sophia Letitia Davis, s.n, Cheltenham, Vic., 1982, pp. 90-91.
new place, Davis was able to obtain some returns from agriculture. In September – December, 1845 he was actively selling his butter partially to local merchants but partially to consumers in Hobart. The yields of butter production totalled around £40. The settler also obtained a half of this sum for selling six of his steers, yet this time his actions were not dictated by receiving profits but rather procuring some cash ‘for payment of Bill due’.  

Davis’ financial records indicate that the settler was striving to diversify his produce. Apart from sending butter to Van Diemen’s Land, in 1847 he commenced actively selling poultry, pork and cheese. Furthermore, the entries of his accounts point out the increasing importance of land cultivation, developed initially to procure forage crops. In April 1847 he sold twenty five bushels of oats and in June, the next year he purchased small amounts of oats and wheat for seed. The 1849 entries document several occasions of selling oats and potatoes.

Although Davis’ financial papers are difficult to interpret in a way of clarifying the genuine items of expenditures and proceeds as well as their sums, the lengthy coverage of his accounts can suggest that in the long-run he was successful in his farming operations. He was not a wealthy person however; except for £250 spent in April 1845 when he purchased his farm, none of his daily returns or outlays exceeded £25 in 1845-1851, and they generally fluctuated around a few pounds or even shillings. Yet by producing different types of agricultural commodities and having commercial outlets to dispose of them, he was definitely able to operate his farm efficiently over the years. Furthermore, some local agricultural experience which Davis had acquired in Van Diemen’s Land assisted him to succeed at Port Alberton. The possession of similar skills and knowledge seems to have been a common feature of many settlers arriving from New South Wales and Van Diemen’s Land in the first years of Port Phillip history.

50 Farm account of James Wentworth Davis
51 Ibid.
52 Ibid.
A large number of those who were arriving directly from Britain and hence unfamiliar with the Australian environment enjoyed at least basic farming experience. As has been pointed out earlier, Madgwick’s investigation of the backgrounds of European immigrants to New South Wales, whose callings were recorded in 1830-1850, demonstrated that most of them had had farming occupations in their motherland.\(^{53}\) The sample of occupations of immigrants to Port Phillip also suggest than a significant proportion of newcomers shared a rural background. In July 1841, the ship *George Fyfe* carrying immigrants from Britain arrived at Melbourne. Thirty-six married newcomers disembarked and almost two-thirds of them were agricultural labourers, ploughmen and gardeners. The share of such agriculturalists among fifty-two single male was even larger: nearly three-quarters of them represented people from rural backgrounds.\(^{54}\)

Even if a newcomer might not have any agricultural experience his chances to settle and prosper on the land as a crop-farmer in Port Phillip were still high. John Dunmore Lang, in his 1847 account of Port Phillip revealed the process of settlement of John McMillan, a country man from the Western Highlands in Scotland. McMillan ‘having an increasing family, and no means of providing for their subsistence’ in his native place was compelled to move to a small town of Greenock to work as a porter. Having been there ‘in this precarious situation’ for seven years, in 1840 he was able to obtain a free passage to Port Phillip.\(^{55}\) Once ashore in Melbourne with his wife, nine sons and a daughter, without any savings, he found employment as a stonemason’s labourer. More mature members of his family also started working for wages adding money to the ‘common purse’. The pioneering trial of local agriculture for the McMillans was dairying. At first one milch cow was purchased which was looked after by the youngsters who grazed the animal on Crown lands nearby but with time the number of cattle increased to such an extent

\(^{54}\) *Port Phillip Herald*, 27 July 1841, p. 2.  
\(^{55}\) JD Lang, *Phillipsland, or, The Country hitherto Designated Port Phillip.*, s.n., Edinburg,1847, pp. 86-86.
that the McMillans commenced leasing a small squatting station to obtain sufficient grazing space for their flock.\textsuperscript{56}

Meanwhile, they purchased an allotment of forty-two acres at Brighton, six miles from Melbourne to establish their own farm. With a copious pool of working hands, the land though heavily timbered was cleared without employing labour. The soil was fertile and the first wheat yields exceeded thirty bushels an acre. In 1845 when Lang visited the McMillan’s farmstead they harvested around 700-800 bushels of wheat and 70 tons of oaten hay and the head of the family mentioned that the total value of their assets might exceed £1000.\textsuperscript{57} Lang assured that an outstanding success of the McMillans’ family was not an atypical case:

There are many families and individuals throughout the province who have done quite as well as McMillan from similar beginnings, and in short a period; nay, some have done considerably better. And as to any supposed advantages which McMillan enjoyed from the period was the most unfavourable for commencing farming in Australia.\textsuperscript{58}

Although Lang’s narrating of the farming achievements of the McMillan family might have been made ‘with slightly rose-colored spectacles’,\textsuperscript{59} it sounds remarkably similar to Caroline Chisholm’s statements revealed to the 1845 Committee on Immigration which demonstrated a clear possibility of a newcomer with very small or even no capital successfully settling himself and his family on the new land. Would John MacMillan have become a successful agriculturalist possessing at least a quarter of his Port Phillip personal wealth, if he had continued his work as a porter on the streets of Greenock? His chances of success would have been virtually zero but at Port Phillip he, as well as many other of his fellow not-well-to-do European immigrants faced a clear opportunity to achieve a certain personal wealth if not

\textsuperscript{56} Lang, \textit{Phillipsland}, pp. 87-88.
\textsuperscript{57} Ibid., p. 89.
\textsuperscript{58} Ibid., p. 90.
\textsuperscript{59} Bate, \textit{History of Brighton}, p.111. Despite Bate’s remark the economic success of the family in Victoria was outstanding. A member of the family, Archibald McMillan, a farmer, died in Brighton in 1863 possessing assets valued at £60,000. PROV, Probate and Administration Records, 4/533.
prosperity taking on crop-farming with cautiousness, arduous labour, small capital and basic local agricultural knowledge and skills.

The supplementary indirect evidence also suggests that many crop-farmers were doing well before the gold rush. The description of some farmsteads offered for auction present a picture of rural well-being, even though overstressed for marketing purposes. A farmstead up for sale on the Merri Creek in February 1847 comprised 640 acres of land, 110 of which were cultivated. There were erected a ‘very comfortable residence; besides three huts, barns, stables, stockyards, diary, and every requisite for carrying on farming operation on an extensive scale’. 60 A farm on Darebin Creek offered for sale in July 1849, with ‘the soil of the richest description,’ promised ‘the Small Farmer the great advantage of having his produce converted into Flour without delay’ because of close proximity to flour mills. The farm occupied an area of 200 acres, ninety of them were under plough. There was ‘a substantial six-room veranda cottage, large barn and stock yard’. 61 Around two months later, another farm of 200 acres was advertised on Darebin Creek. Forty-five acres were cleared and ready for cultivation. In addition to fertile land, a prospective buyer would receive fourteen working bullocks, bows, yokes, two fine large cows, a horse, two carts, two ploughs, and a pair of harrows. 62

The growing use of the monetary rent-fee for leased farmland, which was replacing the initial practice of a clearing lease and rent in kind, also implicitly supports a premise of stable financial returns from cropping. The conditions of leases of land imposed by the Clyde Company on small tenant farmers demanded a payment of 10 shillings an acre of improved farm near Geelong in the late 1840s. 63 In December 1849 at Warrnambool, a leasehold farm of eighty five acres was offered for a long-term lease of fourteen years. The land was said to have been extremely productive,

60 Melbourne Argus, 26 February 1847, p. 3.
61 Argus, 4 July 1849, p 3.
62 Ibid., 27 August 1849, p.3.
63 Leases of Land, Clyde Company Papers, vol. 4, p. 515.
yielding sixty bushels of wheat an acre, yet the rent-fee was extremely high - £65 for the first year and then £75 for all subsequent ones.\(^6^4\) It can only be hypothesized what the possible margin was between annual rent fees and proceeds from cultivation to be received by a tenant, but the difference had to be significant enough to induce a newcomer to take on a leased allotment.

The amount of rent-fee can further indicate the minimal proceeds from crop-farming if a producer worked on his own land. With a rent of 10 shillings an acre of ground ready for plough, cropping of a forty acre area, which was an average tilled acreage per Port Phillip farmstead, might yield a farmer at least £20 a year, which was an annual average wage of a shepherd before the gold rush.\(^6^5\) The probate records, though not totally reliable and completely comprehensive in their scope, can cast additional light on the process of the financial positions of Port Phillip farmers.

Figure 2.3 Wealth of farmers who died in the Port Phillip district in 1847-1851. Frequency distribution.

[Bar chart showing the distribution of wealth in pounds among farmers.]

Sources: PROV, Probate and Administration Records.\(^6^6\)

\(^6^4\) Argus, 21 December 1849, p.3.
\(^6^5\) George Russel to F. And A. Dennistoun, Clyde Company Papers, vol. 4, p. 465.
By virtue of their recent settlement and young age, the instances of death among Port Phillip farmers were rare, so the data might be used as a very rough indication only of the real wealth of local farming society. Figure 2.3 suggests that undercapitalised crop-producers with assets not exceeding £100 in their total value comprised the largest category in the community of local cultivators.

Eden Hollier, late of Brighton who died in May 1851, could be a typical representative of that category of agriculturalists.\(^{67}\) Eight acres of freehold cultivated land with humble bark hut comprised his real estate, estimated at £24. His personal property which included a pair of bullocks, a dray, and household furniture was further assessed at £20. As Hollier had incurred some debts in his life, his wife could inherit a property not exceeding £30. Like many farmers, Hollier had children (even though he did not specify their name or their number in his testament) to assist in his agrarian pursuits. The possession of bullocks and dray also suggest that he might have well combined cropping land with carting pursuits.

The figure also indicates that some farmers were much wealthier than Eden Hollier, possessing real and personal properties exceeding a hundred pounds. Some of them even had assets valued at more than a thousand pounds. John Edward Cade, a Plenty River farmer, who died in October, 1848 was perhaps a representative of the wealthiest, certainly thriving category of Port Phillip cultivators, similar to John McMillan. The detailed inventory of Cade’s possessions listed a farm (its size was not specified), various farming implements including a seed drill and a roller, crop-commodities, draught animals, dairy utensils and even such luxury domestic items as a barometer and a French bed. The total value of Cade’s possessions totalled nearly £1,500, yet up to half of this sum had to be paid for his liabilities, the exact amount of which is difficult to specify from his probate papers.\(^{68}\)

\(^{67}\) PROV, Probate and Administration Records, File 11/772

\(^{68}\) PROV, Probate and Administration Records, File A/217.
Was Cade’s fortune made in his agrarian pursuits? Perhaps they were, as definitely were John Macmillan’s and James Wentworth Davis’. Eden Hollier appears to have been less successful in farming undertakings, while William Greig was completely unsuccessful. Their stories are so different that it seems impossible to establish any clear pattern or causality in the process of entering Port Phillip farming. Contrasting the development of the Brighton agricultural community in the 1840s and McMillan’s story, historian Weston Bate, argued, however, that the local rural population ‘was passing along the same road, from rough poverty to simple comfort. And as newcomers arrived, then and for many years afterwards, the movement was repeated’. While accepting the general credibility of Bate’s argument, it can be suggested that this ‘road to simple comfort’, was not the same for all recent migrants attempting to take up land-cultivation in Port Phillip, as is clearly demonstrated by Greig’s failure. On the other hand, without any doubt, a newcomer who was about to venture into small scale farming had a good chance to succeed in this new occupation in the district through arduous labour, readiness to procure local agricultural experience, and ability to respond efficiently to demands of the market. Far from being an unattractive enterprise with insurmountable problems, small scale cropping in Port Phillip offered a good prospect for numerous migrants to make a secure living from land.

Subsistence crop-farming of pastoral estates

Although the lands beyond the close neighbourhood of coastal towns were the realm of pastoral industry, this fact did not mean that crop-growing was an unknown type of agricultural enterprise. Travellers, taking an overland trip from Melbourne to the Murray River would occasionally see tiny cropped paddocks near pastoral stations on their route. Like their fellow squatters north of the Murray, many Port Phillip pastoralists actively practiced cultivation to grow basic crops for their personal needs.

69 Bate, A History of Brighton, p. 112.
In March 1842 a manager of one pastoral station which belonged to the Clyde Company in the western part of Port Phillip, reported his annual expenses of running this establishment. Apart from a vast flock of 10,000 sheep looked after by eighteen employees, the station had a thirty-five acre allotment occupied with cereals and vegetables. The manager was pleased to inform his patrons that the wheat harvest from that small acreage was sufficient to obtain eight tons of flour ‘besides potatoes, oats, maize, and tobacco’. As the station workers needed to pay for their rations, their repayments for flour reached nearly £200.\(^{70}\) Acknowledging the considerable financial advantages of subsistence cropping, George Russel in his letter to William Cross, in August, 1843 wrote:

> In the list of items of expenditures the most expensive article (except labour) used to be flour. I purchased three tons beginning of the year, and will have as much wheat with this as will supply the Estab [Establishment] until next crop is ready. Should I be at all fortunate with regard to crops I shall not require to purchase any more flour after this year.\(^ {71}\)

In regions more distant from the coast, pastoral farmers might have even greater incentives to develop cultivation. One of the earliest attempts of Europeans to farm land in the central Victoria region was dated to as early as 1838, or just two years after Major Mitchell’s expedition. Captain Charles Hutton brought in his sheep, made the head station near soon-to-be Sandhurst and sowed some land with wheat. The first harvest was a complete failure, yet the following crop yielded some grain on a twenty acre paddock. As one visitor admitted, it ‘must be a great saving, to grow wheat on their [Hutton’s] establishment’.\(^ {72}\) In 1839 David Coghill, who had came overland from New South Wales ploughed some land for wheat at the Smeaton Hill

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\(^{71}\) George Russel to F. And A. Dennistoun, p. 342.

near modern Ballarat. Two years later, another newcomer, Capitan Hapburn even erected a small water-mill for corn on a nearby creek.\textsuperscript{73}

Similar farming endeavours were made by squatters who started grazing sheep in north-west Victoria. In his reminiscences, Samuel Carter, whose father was one of the first pioneers in the Wimmera, mentioned farming land in 1842. Domestic wheat growing appears to have been the main source of flour for this family. Carter recalled ‘one occasion [when] the last flour was gone before the wheat crop was ripe, and matters looked serious. We walked round the crop paddock, found a little patch that was almost ripe, cut it, made it into flour, and baked the same night’.\textsuperscript{74} Another pioneer, Alfred Joyce who founded with his brother a ‘small run’ of about 10,000 acres near Tarrengower on the Loddon River in 1844, too described planting crops once they settled. The squatters fenced in six acres of the best land and sowed it to wheat, expecting to get a supply of flour sufficient for a year. In addition, a couple of acres were reserved for hay and potatoes.\textsuperscript{75} So good was the first wheat harvest that it was decided to hire ‘an experienced hand … at the rate of 10 shillings per acre’.\textsuperscript{76} According to Joyce, ‘a domestic cultivation was the practice on all stations at any distance from Melbourne’.\textsuperscript{77}

Surviving fragmentary reports of Port Phillip pastoral licensees contain some statistical evidence to prove Joyce’s comment. In 1845, the occupiers of thirty-three runs which were scattered over the Murray Pastoral district in the North-East part of Port Phillip forwarded their returns to the colonial authorities. These documents listed 400 acres tilled on twenty-four stations which housed 275 people. The following year, the managers of forty-five local stations sent the relevant information.

\textsuperscript{73} WB Withers, \textit{The History of Ballarat: from the First Pastoral Settlement to the Present Time}, F.W. Niven & Co., Ballarat, Vic. 1887, p. 4-5.
\textsuperscript{75} CF James (ed.), \textit{A Homestead History: being the Reminiscences and Letters of Alfred Joyce of Plaistow and Norwood}, Oxford University Press, Melbourne, 1969, p. 49.
\textsuperscript{76} Ibid., pp. 57-58.
\textsuperscript{77} Ibid.
This time thirty-five stations were reported to have had under tillage 530 acres to sustain their 325 employees. In some cases, where the numbers of employed were significant, land-cultivation was practiced at rather a large scale. The returns from the Devil's River station, for instance, listed sixty-four people employed and a cultivated area of forty-five acres.\textsuperscript{78}

The findings of historian June Senyard, who studied the early development of the pastoral industry in Central Wimmera, suggest that subsistence cropping was not an uncommon phenomenon even on these semi-dry plains in the late 1840s. Senyard broke down the stations of local squatters into four categories: advanced, intermediate, limited and backward. All four advanced stations had gardens or orchards with a variety of fruit trees as well as small patches of land to grow vegetables and the lessees of two stations produced forage crops.\textsuperscript{79} The practice of land cultivation was also recorded on seven of the seventeen intermediate stations.\textsuperscript{80} Senyard did not reveal any evidence of crop-growing activities on more than thirty stations of the limited and backward categories, seemingly due to insignificance or absence of land cultivation in this case.

Subsistence crop-farming was gradually spreading over the interior in line with the growth of local population. As Table 2.3 shows around 11,000 acres were cultivated in the pastoral districts of Port Phillip by the beginning of the 1850s.

\textsuperscript{78} PROV, VPRS 77, unit, 2, Murray 2.


\textsuperscript{80} Ibid., pp. 73, 88, 92, 93, 95.
Table 2.3 Acreage of major crops in the pastoral districts of Port Phillip in 1850

<table>
<thead>
<tr>
<th>Pastoral districts</th>
<th>Wheat (acres)</th>
<th>Barley (acres)</th>
<th>Oats (acres)</th>
<th>Potatoes (acres)</th>
<th>Crops for hay (acres)</th>
<th>Total (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Port</td>
<td>3000</td>
<td>300</td>
<td>500</td>
<td>300</td>
<td>1000</td>
<td>5100</td>
</tr>
<tr>
<td>Gippsland</td>
<td>250</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>180</td>
<td>480</td>
</tr>
<tr>
<td>Murray</td>
<td>610</td>
<td>50</td>
<td>120</td>
<td>20</td>
<td>490</td>
<td>1290</td>
</tr>
<tr>
<td>Portland Bay</td>
<td>200</td>
<td>560</td>
<td>200</td>
<td></td>
<td>2750</td>
<td>3710</td>
</tr>
<tr>
<td>Wimmera</td>
<td>70</td>
<td>30</td>
<td>5</td>
<td></td>
<td>270</td>
<td>375</td>
</tr>
</tbody>
</table>

Source: Returns of the Colony of New South Wales, 1851, p. 644.

In 1851 most of Port Phillip hinterland population resided in the Western Port and the Portland Bay Pastoral districts (see Map3). The former district, perhaps, was self-sufficient in agricultural commodities, wheat in particular. In 1850 the land cultivators of the Western Port district harvested around 60,000 bushels of wheat, which given average consumption of this grain of eight bushels per person may have been sufficient to sustain all 6,000 local residents. Although the total cultivated acreage in Portland Bay was relatively large, only an insignificant fraction of it was occupied with wheat. This partially resulted from the fact that the 1850 statistics on rapidly developing Port Fairy and Warrnambool agricultural areas were not included into the Portland Bay district’s returns but listed separately under the heading of the Belfast district.

It may also be suggested that, in the late 1840s, declining flour prices and relative proximity to the coastal ports where supplies could be purchased encouraged many Portland Bay pastoralists to abandon wheat production and purchase flour and breadstuffs on local markets. The thinly populated Murray, but especially Wimmera and Gippsland pastoral districts, had correspondingly relatively insignificant tillage.

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81 Census of Victoria for the year 1851; Returns of the Colony of New South Wales, 1851, p. 644.
Apart from quantifying the spread of cultivation, Table 2.3 also provides some evidence on production preferences of inland crop-producers. It can be seen that a significant proportion of tillage in the pastoral districts was occupied not with wheat or potatoes, but with forage crops to feed domestic animals. The mounting needs in hay and oats determined this practice. Over the 1840s the numbers of horses and horned cattle soared nine fold and seven fold, to 21,000 and 379,000 head, respectively.  

Despite some progress made by inland crop-growers, the scope of their operations was limited. The Order-in-Council of 1847, the content of which has been outlined in the previous chapter, prohibited pastoral licensees to cultivate Crown Land unless for the supply of their families, which made commercial land-cultivation possible only on freehold land. The agricultural colonization of the Port Phillip district’s interior commenced in the early 1840s. By that time, the price of Crown Land had been already raised to £1 per acre which greatly exceeded the current production capacity of land in the barely populated inland areas suitable only for livestock farming. No wonder that in the 1840s only around 5,000 acres of land was purchased outside the Bourke, Grant, and Normanby counties. As one contemporary admitted a few years later ‘men refused to buy on such terms, and the only alternative was to allow them to graze upon it on a temporary tenure. This has led to large growth of wool, but to nothing more’.

The current land legislation was not, however, the main obstacle for the development of commercial crop-growing in inner Port Phillip. Local commercial outlets for crop-commodities had always been the key prerequisites for the emergence of any developed crop-farming cluster in Australia since Governor Phillip’s times. These did not exist in the further-off regions of the Port Phillip district. The sparse population of a few thousand inhabitants was scattered over tens of

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82 Archer, *Statistical Register*, p. 368.
thousands of square miles, not forming any significant permanent settlement. As a result, there were no economic incentives for those engaged in subsistence arable agriculture even to attempt to grow crops commercially. Nobody would want to buy their produce in substantial quantities in the immediate vicinity, and any efforts to transport bulky crop produce over long distance from the hinterland to prospective consumers in coastal townships must have been handicapped by the enormous cost of cartage.

There was, however, an important benefit, though not material, from subsistence inland cultivation. Hundreds of pastoral runs where crop-farming was practiced provided their employees with an opportunity to learn the basics of Australian arable agriculture. The elementary experience of local crop-farming was opening a clear prospect for numerous station labourers to attempt to farm land on their own in settled areas.

**Conclusion**

In the Port Phillip district arable agriculture was introduced almost concurrently with the arrival of the first European settlers in the mid 1830s. To save on purchasing supplies many pastoral pioneers were willing to put under the plough small plots of land to grow crops for their personal consumption. Nonetheless, just in a few years rapidly progressing Melbourne settlement offered some outlets for crop-produce, which consequently provided local agriculturalists with the opportunity to turn land cultivation into a money-making venture. The capacity of district markets expanded tremendously in a very short run, as the number of Port Phillip residents increased more than six times over the 1840s.

The available data make it clear that that the 1840s was a decade of crop-farming growth in Port Phillip that resembles the experience of New South Wales and South Australia over the same period. Small farms growing cash-crops emerged in the
neighbourhood of a few coastal townships. In the hinterland regions the occupiers of pastoral stations tilled the land to feed their labourers and animals.

Market-oriented small farming advanced rapidly in the district. By 1851 in the coastal counties of Port Phillip there were already established at least a thousand cropping farmsteads which were able to make this newly settled region virtually self-sufficient in main foodstuffs. The causes of the rapid formation of a community of small crop-growers in Port Phillip did not differ fundamentally from those operating across Southeastern Australia. The development of large cropping farms was seriously handicapped by the shortage of cheap hired labour and a troublesome and expensive process of preparing local timbered land for cultivation.

By contrast, the establishment of a simple small farming unit which did not assume heavy financial burdens was within the means of a large number of immigrants. More than half of Port Phillip crop-producers were tenants who paid rent-fees by improvements to the land or in-kind over a first few years of settlement, thus having little monetary expenditures to access land resources. The cost of erecting a plain dwelling in the district was just around £10-£15.\textsuperscript{85} Furthermore, the small scale of agricultural establishments did not impose the necessity to purchase expensive machinery and tools and offered the cultivator and the members of his family the flexibility to combine agricultural pursuits with other occupations to earn a supplementary income. An average local farmstead kept under the plough around forty acres of land, an acreage worked largely by members of one family, generally not employing farm labour.

On the other hand, plain farming activities on small allotments did not require sophisticated local agricultural experience, a paramount matter for European newcomers. Moreover, as an expanding domestic market demanded a variety of products, agricultural settlers could well start their commercial operations on a few

\textsuperscript{85} NSW. VP of LC, 1847, vol. 2, \textit{Committee on Immigration}. Appendix B. Paper ... showing the cost of erecting Labourers’ Dwellings.
acre plot of cleared land with vegetables or hay, the commodities which might need less developed farming skills, but then move to grain-growing once a large areas of land were ready for the plough. It would be wrong, however, to argue that Port Phillip crop-producers were able to generate large profits from their small farms at the time of deteriorating market prices. The sample of probate records of farmers who died in 1847-1851 indicates that an overwhelming majority of cultivators possessed personal wealth of just around £100, a two year annual wage of a skilled Port Phillip labourer, such as a bricklayer or a carpenter.86

Nevertheless, on the eve of the gold rush the young farming community was rapidly gaining shape in Port Phillip. More than three thousand of the district’s residents engaged in cropping, whether as farmers, as members of their families or as hired labourers. All were able to gain practical farming experience and knowledge of local conditions for the use of a new generation of agriculturalists.

The discovery of gold in 1851 broadened tremendously the commercial horizons for colonial cultivators yet presented much greater challenges to them. Chapter three examines how local cultivators responded to the economic and social turmoil of the gold decade, while the following chapter assesses the structural changes in the farming community and the financial positions of crop-producers in the 1850s.

Chapter 3

Golden Horizons: Impediments and Opportunities of the 1850s

On 1 July 1851 the official regulations on the new separate colony of Victoria finally came into force, opening a new page in the history of local settlement. The legal transformation of the Port Phillip district into a self-governing colony with its own Legislative Council and then Parliament did not affect land legislation in the 1850s. Yet even though the Crown Lands continued to be distributed through public auctions, the new decade expanded tremendously the local horizons of agricultural development. By coincidence, just weeks after the official proclamation of Victoria, rich surface gold deposits were discovered in its central regions. Gold immediately lured a massive influx of newcomers, ushered in enormous wealth, and stimulated the rapid progress of colonial industries serving the expanding population.

Crop-growing also advanced rapidly; the evidence provided by Geoffrey Serle indicates that over the 1850s the number of farmers quadrupled with a corresponding seven-fold increase in cultivated acreage.¹ Paradoxically, this impressive quantitative expansion has not induced historians to consider land-cultivation as a sufficiently rewarding occupation during the golden decade. On the contrary, the academic literature highlights the economic difficulties of crop-growers in the early 1850s, when due to the outflow of farmhands to goldfields, only ‘the few dairy-farmers and vegetable-growers prospered exceedingly, but in two years the total acreage under cultivation in the colony declined by forty per cent’.² According to historians, the end of the decade was also dire for crop-producers. The latter, especially those farming land in the coastal counties, are thought to have

¹ Serle, Golden Age, p. 232.
experienced crucial difficulties caused by falling market prices, high labour cost, poor communication, declining yields, and uncertain weather.\(^3\)

This chapter looks into the economic settings brought in with the gold rush and general growth of crop-farming in the 1850s drawing evidence from new statistical and narrative sources. The aim of this analysis is to re-evaluate the magnitude of challenges and prospects encountered by colonial crop-producers and their responses to the rapidly changing economic environment during the golden decade. The content of the chapter is broken down into three sections. The first section analyses the immediate impact of the gold rush on Victoria’s farmers. The second recounts the economic position of cultivators who commenced producing cash-crops in the vicinity of the goldfields in central Victoria. The third section re-assesses the problems of agriculturalists in the late 1850s.

The chapter contends that the scale of farmers’ difficulties in the early and late 1850s have been exaggerated by previous academic literature. Despite the great temptation of easy profits from gold mining in the first years after the discovery of gold, a large number of colonial cultivators continued their farming operations, as growing cash-crop suddenly became an extremely remunerative money-making enterprise owing to soaring market prices. At the close of the decade, apart from Grant county, there is no convincing evidence suggesting the serious economic difficulties of crop-farmers. Quite the opposite, numerous sources describe them as rather prosperous and a thriving category of the colonial population. The chapter argues that the gold rush promoted enormously the formation of a large class of successful colonial cultivators by setting up highly favourable economic conditions for small-scale farming.

‘Golden Shock’

The first gold discoveries which were made in Victoria in July-August 1851 unexpectedly plunged the colony into a state of social and economic chaos which continued over the following few years. Thousands of local inhabitants abandoned their usual occupations and joined the army of gold seekers flocking to the diggings in central Victoria. The mass exodus of population to the goldfields brought an acute labour shortage to all branches of the colonial economy and consequently an economic slump. The multiplying prices of necessities, the sudden massive influx of new immigrants, and the social disorder caused by lucky diggers further affected the economic and social situation in the colony.

It is hardly surprising, that against the background of gold turmoil, the deep short-term crisis experienced by domestic crop-farming looks to be natural to many scholars. Indeed, the contemporary agricultural statistics, which have been broadly utilised by several generations of historians, form an immediate impression of 1851-1853 as difficult times for crop producers. The published official data shows that in 1851, on the eve of the rush, the colony’s farmers cultivated 57,000 acres of land. The following year the extent of tilled land plummeted to 37,000, and in 1853 dropped further down to 35,000 acres. The reverse movement in cultivated acreage and consequently agricultural output occurred only in 1854 when the first waves of the gold fever were over in Victoria.

The shortage of farm hands and the inflated cost of hired labour have been universally viewed as the major causes of the downturn in cropping. It has also been presumed by some historians that a sharp decline in the number of small cultivators who deserted their farms to venture into gold mining or to start carting goods to the

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5 Archer, *Statistical Notes*, p. 54
diggings resulted in a proportionate decrease of tillage in the colony in the early 1850s.\(^6\)

However profound the immediate negative impact of the gold rush on colonial cultivators was, there are sound reasons to believe that the disruption in farming operations occurred to a much lesser degree in 1851-1853 than generally presented by academic literature. Previous historians have been well justified in commenting on the rapid growth in labour costs once gold was discovered. In January 1851 reapers, for instance, were paid 12 – 13 shillings per acre of harvested crop.\(^7\) A year later, the cost of their labour doubled, apart from the inclusion of the mandatory ration. Nonetheless the new wages of farm workers, as a contemporary testified, ‘although high are by no means as high as was anticipated, and cannot be called exorbitant when all other prices are duly considered’.\(^8\) This remark actually remains a plain rule: the figures on the increasing cost of agricultural labour have to be regarded not in their absolute rates but assessed against the general growth of the cost of living in the colony where inflating prices on basic crop-commodities would offer a generous financial compensation to the local producer.

Moreover, troubles with procuring hired workers and the increased cost of their labour, moreover, would not impose intolerable burdens on a majority of Victoria’s crop-producers by virtue of the small size of their establishments. As has been shown in chapter two, an average Port Phillip farmstead had under the plough around forty acres. Three people were a sufficient workforce to maintain all agricultural operations on such a small-scale farm. One of the commissions held by Victoria’s Parliament in the late 1850s similarly noticed that to crop an area of fifty acres a farmer needed to be assisted by just one or two permanent labourers.\(^9\) The latter might certainly be wage workers or, alternatively, unpaid family members, thus

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\(^7\) \textit{Argus}, 13 January 1851, p. 2.
\(^8\) Ibid., 28 January 1852, p. 2.
making the producer by and large independent of hiring labour, except, perhaps, the harvesting months. Moreover, even though farm labour was hard to obtain during the gold-rush boom, it would not be too hard for a small cultivator to get sufficient labour as he needed a maximum of two pairs of working hands.

The argument that a large number of small farmers were tantalized by gold has been drawn from the vivid accounts of contemporaries describing the mass departure of colonial residents to the mining areas in the first months of the gold rush. Some land-cultivators definitely preferred to try their luck on the goldfields rather than continuing farming, but the verdict that the former represented the majority of farmers is rather an assumption; no reliable statistics on the movements of population are available at the time. Besides, the fact of getting income away from the farm either by gold-mining or by other pursuits did not mean that the land cultivator completely abandoned his agricultural undertakings. In December 1851, in the midst of the initial gold havoc, a contemporary surprisingly admitted that ‘many men from the diggings are (to their credit be it said) engaging to complete the hay harvest and reap wheat’.\textsuperscript{10} Likewise, the land-cultivators who utilised their draught animals and drays to transport goods to the diggings managed, though poorly, to carry on crop-farming on small allotments.\textsuperscript{11} Combining small-scale farming operation with other non-farming pursuits was not an unusual practice in Australian agriculture, however. As has been demonstrated in chapter one, many South Australian farmers were keen to obtain supplementary income by carting copper ore from the mines to the port in the late 1840s.

Furthermore, the credibility of early colonial agricultural statistics indicating the slump in cultivated area in Victoria in 1851-53 can be questioned. The published figures of the first \textit{Statistics of the Colony of Victoria} were the sum total of data recorded in hand-written \textit{Blue Books of Statistics} for corresponding years. The latter

\textsuperscript{10} Argus, 22 December 1851, p. 2.

\textsuperscript{11} Victoria. Register-General’s Office. \textit{Agricultural and Live Stock Statistics of the Colony of Victoria}, 1859, \textit{Agricultural reports}, John Ellkington, Collector of Statistics of Agriculture, Grant, Grenville, and Polwarth, p. lxii; \textit{The Argus}, 1 April 1863, pp. 4-5
source is more comprehensive since it broke down collected information by the administrative units into which the colony was divided. The 1851 *Blue Book* listed around 8,000 acres of land farmed in the Wimmera Pastoral district and more than 100,000 bushels of wheat was produced there. However, in previous years, the local tillage in this very sparsely populated region did not exceed a few hundred acres.\textsuperscript{12} The figures are similar in 1852-1854.\textsuperscript{13} It is evident that the official agricultural statistics for Wimmera in 1851 are erroneous; the possible product of a clerk’s ordinary inaccuracy in that year. Excluding the Wimmera’s cropped acreage the total extent of tilled land in Victoria in 1851 was around 50,000 acres, much the same as in the preceding year.\textsuperscript{14}

In addition to this obvious discrepancy in regional figures for 1851, the agricultural statistics of the early 1850s might simply be incomplete since their collection was likely to have been partially impaired in the first years of gold chaos. The impressive twofold rise of cultivated acreage which suddenly occurred in 1855 could reflect, to some extent, the collection of more comprehensive data owing to the appointment of regional collectors of agricultural statistics that year.\textsuperscript{15} Contemporaries were also aware of plausible deficiencies in early official statistics. Analysing the figures on wheat imports and domestic production, a journalist of the *Argus* calculated that in 1855 the colony’s population required 61,000 tons of flour. Having subtracted the imported flour, the difference of 12,000 tons was assumed to have been met by the colony’s own produce while the official returns listed only 5683 tons produced locally.\textsuperscript{16} The same sceptical attitude to the quality of colonial statistics was adopted by the *Warrnambool Examiner*. In 1855 the newspaper informed its readers that ‘the quantity of land in cultivation in this district this year is most astonishing’, but ‘the

\textsuperscript{12} Returns of the Colony of New South Wales, 1848, p. 612; ibid., 1849, p. 668; ibid., 1850, p. 710.

\textsuperscript{13} SLV, Victoria. Chief Secretary’s Department. Victoria Blue Book, 1851, [Microfilm], pp. 295-296; ibid, 1852, pp. 413-414; ibid., 1853, pp. 594-595.

\textsuperscript{14} Victoria. Colonial Secretary’s Office. *Statistics of the Port Phillip District, (Now the colony of Victoria) for the year 1850*, p. 7.

\textsuperscript{15} Peel, *Rural Industry*, p. 59.

\textsuperscript{16} *Argus*, 8 January, 1856, p. 5.
official reports of the land in cultivation give but a poor idea of what is actually grown in the locality'.

The Censuses of 1851 and 1854, which are presumably more trustworthy sources of information than official figures on tilled acreage and agricultural produce in remote counties did not indicate the slump of crop-farming operations. Before the gold discovery, the Census, taken in March 1851, listed around 4,000 Port Phillip residents who were engaged in land cultivation. According to the next Census, taken three years later, the total number of farmers and farm labourers rose to 7,000 people. This is hardly a sign of serious problems experienced by crop-farming.

Lastly, many farmers themselves did not consider the period immediately following the gold discovery as a time of a crisis or a depression. The entries in James Wentworth Davis’ farming accounts indicate that the farmer did not experience any challenges with obtaining labour. From May 1851 to April 1852, Davis intermittently employed the same farm labourer, William Dowling, who seems not to have had any inclinations to go to the diggings.

In September 1852 the members of the Select Committee on the Present System of Immigration questioned Alexander Duncan, a farmer of the parish of Bulleen, county of Bourke, about the current state of agriculture. When directly asked how ‘he managed to get through the work on the farm’ during the turmoil caused by gold discovery, Duncan laconically responded: ‘Pretty well’. The farmer did not experience any shortage of skilled farm labour, and acknowledged that he generally found ‘very good men’. Although none of his workers stayed longer than six months on their way to the diggings, the constant influx of migrants of diverse occupational backgrounds provided a constant pool of ‘fine new workers’ to be hired on a short-term contract. Besides, under a mutual agreement some of his farm labourers were

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17 *Warrnambool Examiner and Western District Advertiser*, 25 December 1855, p. 2.


19 Farm account of James Wentworth Davis.
going to the diggings but then coming back to the farm. Duncan did not anticipate any challenges in getting labour in the future either, should current immigration to the colony continue.\footnote{Victoria. Vote and Proceedings of the Legislative Council (thereafter VP of LC), 1852-53, vol. 2, Select Committee on the Present System of Immigration, Evidence of Alexander Duncan, p. 35.} When the members of the Committee tried to obtain a general assessment of the state of Victoria’s agriculture, posing the question of what proportion of land was currently cultivated in the colony in comparison with the previous year, the farmer cautiously held back from making any attempts at generalisation. He stated that: ‘For ourselves, however, we have quite as much as last year, and we have put in all the land we have.’ The disruption of farming operations certainly took place in many cases, however. Duncan mentioned four tenant farmers who temporarily returned from the goldfields to harvest their crops in anticipation of new mining pursuits.\footnote{Ibid., p. 36.}

The evidence therefore suggests that tilled acreage did shrink in the colony in 1851-1853 which inevitably led to a corresponding decrease in the quantities of domestically grown crops. Yet the scale of this downturn has been greatly overestimated in academic literature, claiming that Victoria’s farmers almost halved the extent of their tillage in the first two years after the gold discovery. In the worst possible situation, the area under plough reduced only by one-third if the pre-gold tillage is adjusted to exclude the suspect 1851 Wimmera agricultural statistics.

Even though the area sown to various crops reduced in the early 1850s, this fact does not bear out the idea that crop-producers faced financial hardships at that time. In the rapidly transformed economic settings farmers could temporarily ‘apply their work for something more profitable’ than cropping. When a member of the 1852 Committee on Immigration asked Duncan to specify whether the lack of labour or ‘disinclination to continue’ farming operations had induced some land-cultivators to abandon their farms, the former received a laconic response: ‘For neither’. As Duncan further explained: ‘they [cultivators] would get work for their bullocks that would pay them more in one trip to the Diggings, than they could earn by a year’s
work on the land'. However, with deteriorating proceeds from carting ‘they can fall back upon the farm, and put in a crop of wheat or anything else that may be in season.’

Those cultivators who nevertheless preferred to carry on crop-farming instead of carting or gold-mining in the very short-run efficiently adjusted to new demands of the domestic market and a rapidly increased cost of labour. The pre-gold rush harvest was poor and wheat prices which had been generally below 4 shillings a bushel in the 1840s, nearly tripled in June-October of 1851. The agricultural producer perhaps accepted a mounting cost of hired labour in the harvesting period of November-December in the vain hope that the remaining high market grain prices would offset the excessive monetary expenditures on paying increased wages. Those small agriculturalists who temporarily returned from the diggings to reap their crops might share similar anticipations of high proceeds from selling their grain.

The harvest of 1851 was abundant. Even if the Wimmera’s doubtful wheat produce of 100,000 bushels is subtracted, it yielded more grain than in the preceding year. Nonetheless, the bumper harvest did not bring many financial benefits to crop-producers. At the beginning of 1852 the major influx of overseas gold-seekers was yet to come to the colony and the domestic market was still limited. Moreover, in the first year of the gold discovery ‘the stocks and the want of mill-power (or, rather, of labour to work the mills)’ reduced outlets for grain. With excesses of wheat in the colony, the price dropped to 6-7 shillings per bushel in the autumn of 1852. The natural reaction of the farmers followed: many reduced dramatically their wheat production that year.

The reduction of colonial wheat acreage did not ultimately mean gloomy prospects for Victoria’s crop-producers in the early 1850s. Their disinclination to grow wheat

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22 Evidence of Alexander Duncan, p. 36.
23 Archer, Statistical Register, pp. 404-406.
24 Argus, 1 April 1863, pp. 4-5.
25 Archer, Statistical Register, p. 405.
bore much resemblance to the experiences of Cumberland farmers who made a rational decision in the 1840s to shrink their wheat acreage in order to produce more hay commodities for the rapidly expanding lucrative Sydney forage market. Figure 3.1 illustrates that over the period 1851-1854 the area sown for hay in Victoria more than doubled while local wheat acreage reduced more than threefold.

Figure 3.1 Acreage of major crops in Victoria in 1850-1855 (years ending 31 March)

Source: *Agricultural and Live Stock Statistics*, 1865, Table 1, Summary of the Agriculture and Live Stock in the Colony of Victoria.

There were a few important reasons that stimulated colonial farmers to increase their hay production once gold was discovered. Hay making required less labour input compared with growing cereals; not an unimportant incentive for those who needed to employ expensive farm hands, and who were compelled ‘to convert everything into hay, cutting down wheat, oats, barley - no matter what - for the sake of turning his crops to the speediest possible account and by the readiest means’.

The scarcity and high cost of labour were not, however, the key reasons for farmers to cut back on wheat production, given the small size of their farms. The driving

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26 *Argus*, 13 December 1855, p. 6.
motive for the majority was the increased profitability of non-grain commodities, while that of wheat did not change significantly in the early 1850s. To illustrate this fact Figure 3.2 compares the indexes of wheat, hay and vegetables prices and the index of wages of farm-workers in the early 1850s.

Figure 3.2 Index of wages of farm workers and indexes of wheat, hay and vegetables prices in 1849-1856

Source: Port Phillip Statistics, Miscellaneous (MSS), 1837-1859.

As it may be expected, in 1849-1851 the indexes of crop prices and wages remained relatively constant, only hay prices grew, possibly due to the drought of 1850. With the gold discovery, the cost of farm labour doubled in 1852 and then in the following year trebled before levelling off. The changes in wheat prices followed a much similar pattern, which may consequently suggest that the profitability of grain-growing did not change significantly in the first half of the 1850s. On the other hand, in 1851-1854, the market prices of vegetables grew ten-fold and that of hay fourteen-fold which naturally made their commercial production much more attractive than growing cash grains. Admitting this fact, the Argus, in its Hints to Cultivators in

27 Married couples without children with rations
28 Potatoes, carrots and cabbages
August 1854, stressed that ‘from a comparison of prices, green crops are more profitable than wheat in the neighbourhood of Melbourne’.²⁹

The explanation for these considerable discrepancies in the rates of growth between hay, vegetables and wheat market prices is provided by Rodney Maddock and Ian McLean’s paper on the rapid transformation of Australian economy in the 1850s. The researchers grouped crop-produce into two large categories. The first comprised import competing tradeables whose prices were exogenously determined by international markets. The second included non-tradeables which faced little import competition and whose prices were endogenously fixed on the domestic market. Wheat and flour especially could be shipped into Victoria in large quantities which consequently constrained the rise of their prices in the colony much above the average level of global prices. On the other hand, hay, vegetable, fruits and other bulky or perishable agricultural products were largely global non-tradeables, whose costs were greatly independent of external influences. The rise of prices of this category of agricultural commodities was only restrained by consumers’ ability to pay for them in Victoria.³⁰

Over the short period of 1851-1854 the number of colonial residents trebled and reached nearly 240,000 people.³¹ In these circumstances, the demand for agricultural produce increased tremendously within the small colonial economy. While grains and flour imports could largely fulfil the local needs in these commodities, the global non-tradeables could be chiefly supplied by domestic producers who benefited enormously in this situation.

Figure 3.2 suggests three phases in the development of colonial crop-industry in the years immediately following the gold discovery. In 1851-1852 many small farmers,

²⁹ Argus, 18 August 1854, p. 5.
³¹ Census of Victoria for the year 1851; Census of Victoria, 1854.
indeed, might prefer gold-mining or carting to their traditional occupation as prices on non-tradeables were not sufficiently high to induce them to pay full attention to cropping. Once the first large waves of overseas immigrants reached the colony in 1852, the prices on non-tradeables went up rapidly, which stimulated crop-producers to return back to the land and commence growing highly valued hay and vegetables. From 1856 onward with the decline in the prices of these commodities, wheat again gained its commercial importance for domestic farmers.

This three stage transformation of colonial crop-farming over a very short period was not a unique phenomenon, however. Across the Pacific, in California, the 1849 gold discovery originally brought local crop-cultivation to 'a near standstill'. By 1853 arable agriculture was back on track as selling crops for mining population secured a more sustainable income for farmers than uncertain profits from gold-seeking. The prime target for Californian farmers at that time was vegetables which yielded them 'fantastic' returns. From the mid 1850s wheat production commenced expanding at such a rate that by the early 1860s California became a net exporter of this grain.32

Beyond doubt, in Victoria, as well California, the prospective gains of the gold discovery much outweighed the losses for local agriculturalists. After a short-lived downturn in crop-farming activities caused by the initial impact of gold discovery, the arable agriculture boomed in both regions. In Victoria in 1851-1855 the tilled area in the colony more than doubled expanding to 120,000 acres.33 Soaring consumption of agricultural commodities with lucrative prices urged many farmers to ignore the temptations of easy profits from gold-mining or carting. Even those who preferred the latter two occupations seem to have kept intermittent links with their farming community, considering crop-growing to be a valuable pursuit. This was indeed the case. In 1850 the total value of foodstuffs imported to the Port Phillip district

33 Statistics of the Colony of Victoria, 1855, p. 32.
amassed to around £15,000, over the four years this figure increased 133 fold, great scope for further advances of local farmers.\textsuperscript{34}

\section*{Beginnings of Commercial Cultivation in Central Victoria}

Prior to 1851 the production of crops in the interior regions of Port Phillip would have seemed worthless as a commercial enterprise. A small number of sheep farmers and their labourers on hundreds of pastoral stations scattered over the pastoral districts certainly needed to be fed, but this offered scope for developing only subsistence crop-farming. The absence of any significant local outlets for crops determined the economic unimportance of arable agriculture.

The gold discovery brought a sudden change. At first Australasians but very soon newcomers from overseas were flocking to the diggings, thus rapidly transforming the whole pattern of settlement in central Victoria. The dispersal of inland population so typical for the pre-gold rush Port Phillip district was almost instantly superseded by the concentration of people in mining areas within Grenville, Ripon and Talbot counties and the Loddon district, which jointly embraced the major goldfields of the colony: Ballarat, Avoca, Maryborough, Sandhurst (Bendigo) and Castlemaine.

The distribution of population within the Loddon pastoral district where the Bendigo and Avoca goldfields were located can serve as the illustration of this new settlement pattern. The district which appeared on the colony's map in 1853 encompassed the immense territory of 6,000 square miles in the northern part of Victoria between the Great Dividing Range and the Murray River. It was thought that on the eve of the Gold Rush that region had been a domicile for just around 200 inhabitants.\textsuperscript{35} Once the precious metal was found population numbers grew


\textsuperscript{35} \textit{Census of Victoria, 1861}, Inhabitants and houses
exponentially almost overnight and the 1854 Census enumerated 27,000 residents, 98 per cent of whom had settled in seven specified mining areas.

The emergence of those densely populated digging areas opened completely new economic opportunities for prospective and current inland cultivators. Those obtained markets for a broad range of agricultural commodities and thus an opportunity to develop crop-farming as a profit-making enterprise near mining settlements. The same Census of 1854 already listed forty five Loddon ‘yeomen and farmers’ whose chief income was the land cultivation, twenty gardeners and eighty three farm labourers, all of whom resided in the goldfields areas. There were only two farmers with two labourers in the other territories of the district.\(^{36}\)

Table 3.1 indicates that agricultural settlement advanced at a staggering pace in the central Victoria gold-fields region in the 1850s. In 1854 every fourth colonial resident lived there but not more than four out of one hundred of Victoria’s male farmers tilled local lands. Seven years later that hinterland region still hosted a quarter of colonial inhabitants yet now it, too, accommodated the equivalent proportion of Victoria’s male farming population that ploughed nearly 30 per cent of all tilled lands in the colony.

\(^{36}\) Census of Victoria, 1854, Part V Occupation of people
Table 3.1 Population, cultivated acreage and the number of male farmers in Greenville, Ripon, Talbot counties and the Loddon district in 1854 and 1861

<table>
<thead>
<tr>
<th>Goldfield counties and the Loddon district</th>
<th>Inhabitants</th>
<th>Cultivated acreage*</th>
<th>Male farmers</th>
<th>Inhabitants</th>
<th>Cultivated acreage</th>
<th>Male farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (000)</td>
<td>Per cent of colonial (%)</td>
<td>Acres (000)</td>
<td>Per cent of colonial (%)</td>
<td>Number</td>
<td>Per cent of colonial (%)</td>
</tr>
<tr>
<td>Greenville</td>
<td>8.6</td>
<td>3.6</td>
<td>0.8</td>
<td>0.7</td>
<td>20</td>
<td>0.7</td>
</tr>
<tr>
<td>Ripon</td>
<td>1.3</td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Talbot</td>
<td>16.2</td>
<td>6.8</td>
<td>3.1</td>
<td>2.7</td>
<td>31</td>
<td>1.1</td>
</tr>
<tr>
<td>The Loddon district</td>
<td>27.1</td>
<td>11.4</td>
<td>2.1**</td>
<td>1.8</td>
<td>47</td>
<td>1.7</td>
</tr>
<tr>
<td>Total for the three counties and Loddon district</td>
<td>52.2</td>
<td>23.3</td>
<td>6.5</td>
<td>5.6</td>
<td>99</td>
<td>3.5</td>
</tr>
</tbody>
</table>

*In March 1856

**Avoca and Bendigo districts

Sources: Census of Victoria, 1854. Part V Occupations of the people; Census of Victoria, 1861. Part II Occupations of the people; Statistics of the colony of Victoria, 1855, p. 32; Agricultural and Live Stock Statistics, 1861, p. 3.
The gold rush even spurred the progress of commercial crop-farming in some localities of the enormous Wimmera pastoral district stretching north-west from the Dividing Range. Before the gold discovery there were only two thousand white residents in that region. With the development of gold-mining at Avoca, Pleasant Creek and St. Arnaud the population started growing rapidly, and the Census of 1861 recorded a more than twelve-fold increase in the number of the district's inhabitants, the majority of whom settled on the south-eastern edge of the vast Wimmera plains adjacent to goldfields. In response to emerging markets, clusters of crop-commercial farming developed in those areas. In 1859, the local collector of agricultural statistics observed the rapid spread of crop-farms near Avoca and Glenpatrick, where farmers ‘from their nearness to gold-fields ... possess every facility for disposal of their produce’. In other places, however, most settlers continued to cultivate small allotments of Crown Land for their own consumption as they had done before the gold rush.\textsuperscript{37}

The initial stage of agricultural progress in central Victoria was slow, however. Henry Brown who visited Sandhurst at the end of 1853 did not notice any attempts to farm land in the vicinity of local diggings, complaining that miners were compelled to purchase all necessities delivered from coastal regions at exorbitant prices.\textsuperscript{38} The \textit{Blue Books of Statistics} of 1853 similarly indicated very moderate successes of goldfield agriculturalists: although slightly more than a thousand acres of land were already tilled at Kyneton, just 280 and 40 acres were brought under plough at Sundhurst and at Ballarat, respectively.\textsuperscript{39}

The data of Table 3.2 drawn from official statistics contours some trends in the early development of central Victoria's crop-farming. Prior to 1855 and with the exception of 1853, the regional agricultural statistics continued to be grouped by pastoral inland districts and coastal counties. The Western Port district stretching inland from

\textsuperscript{37} Agricultural and Lives Stock Statistics, 1859, Agricultural Reports, Hentry Hayter, pp., liii-liv.
\textsuperscript{38} H Brown, \textit{Victoria as I found it, during five years of adventure...} T. Cautley Newby, London, 1862, p. 159.
\textsuperscript{39} Victoria Blue Book, 1853 pp. 594-595.
Bourke county to the Murray River embraced nearly all goldfields in the colony at that period.

Table 3.2 Acreage of major crops in the Western Port district in 1851-1854

<table>
<thead>
<tr>
<th>Year</th>
<th>Wheat (acres)</th>
<th>Barley (acres)</th>
<th>Oats (acres)</th>
<th>Potatoes (acres)</th>
<th>Crops for hay (acres)</th>
<th>Total (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>3000</td>
<td>300</td>
<td>500</td>
<td>300</td>
<td>1000</td>
<td>5100</td>
</tr>
<tr>
<td>1851</td>
<td>321</td>
<td>30</td>
<td>201</td>
<td>28</td>
<td>754</td>
<td>1334</td>
</tr>
<tr>
<td>1852</td>
<td>165</td>
<td></td>
<td>891</td>
<td></td>
<td></td>
<td>891</td>
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<tr>
<td>1854</td>
<td>1062</td>
<td>898</td>
<td></td>
<td>2282</td>
<td></td>
<td>4857</td>
</tr>
</tbody>
</table>

Source: Returns of the Colony of New South Wales, 1851, p. 644; Victoria Blue Book, 1851, pp. 295-296; ibid, 1852, pp. 413-414; ibid., 1854, pp. 712-713.

The validity of figures presented in the table should not be overestimated yet it is apparent that, after the discovery of gold crop acreage plummeted in the Western Port district. Squatters, the main local crop-growers, were severely affected by labour outflow to the nearby diggings. The shortage of manpower might have induced them to suspend temporarily cultivation and to revert to grazing which was far less labour demanding. The regional figures on the tilled acreage, however, grew significantly in 1854, making this year a turning point in local agricultural settlement.

The data of Table 3.2 also suggest that farmers of coastal and hinterland regions shared similar economic interests in production of the forage crops in the first half of the 1850s. The content of advertisements on selling seeds, agricultural implements and tools published in regional newspapers confirms the initial commercial unimportance of grain-growing in goldfields areas. One of the earliest advertisements targeting current and prospective agriculturalists appeared in the *Bendigo Advertiser* in October 1854. The short note announced putting up for sale in Sandhurst a broad range of garden seeds: peas, cabbages, onions, cucumbers but none of any grain seeds.40 The following year, the newspaper published a number of

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40 *Bendigo Advertiser*, 6 October 1854, p.1.
commercials advertising ploughs of different types, scythes, pitchforks, hay bundlers, garden hoes, and other farming tools, yet no implements to harvest or reap or thresh grain mechanically.  

Central Victoria’s land cultivators initially favoured hay making for a number of sound practical reasons which in some ways overlapped with similar incentives of their fellow farmers in the coastal regions. The accessibility to vast lucrative outlets for hay was one of those reasons. The gold rush contributed not only to a rapid increase of population in some interior localities, but also to a growing number of horses widely employed in overland transportation. Changes in mining technologies further increased demand for horse power. As most shallow gold had been exhausted in central Victoria by 1853, miners were compelled to utilise horse-operated puddling machines to treat greater volumes of alluvial gold. In the mid 1850s, at the Bendigo goldfields alone there were around two thousand new mining machines operated by five thousand horses. Although by the later 1850s steam engines had partially replaced horses, the 1859 gold-mining statistics still recorded 6,300 puddling machines worked by horses in the Ballarat, Sandhurst, Marybourough, Castlemaine and Ararat mining districts.

As has been pointed out in the first chapter, on average, one horse annually required around two tons of hay, in addition to ninety bushels of oats, which suggests a high need for fodder in goldfields areas. In this context it is worth mentioning the conclusion of the Commission on the Internal Communication of 1854: every person on the diggings annually required on average sixteen hundredweights of goods (around 800 kilograms). Oats and hay for draught animals and flour for gold diggers’ personal consumption were the most demanded.

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41 Bendigo Advertiser, 25 April 1855, p.3; 2 May 1855, p. 3; 9 May 1855, p.3; 30 May 1855, p.4; 30 June 1855, p.4; 18 July, p. 4; 20 November 1855, p. 1 (Supplement to Bendigo Advertiser); 8 December 1855, p.4; 18 December 1855, p.4.
42 Serle, Golden Age, p. 219.
44 Kennedy, Hauling the load, p. 25.
commodities, composing the equivalent proportions of five hundredweights (around 250 kilograms).  

While the capacity of the fodder market in digging areas was significant, little unprocessed wheat was initially needed in these regions. The network of mills which might have absorbed surpluses of wheat was yet to be created here. In 1855 in central Victoria, there were only two mills, a steam one in Kyneton, and another horse operated one in the Loddon district.

Furthermore, growing crops for hay was a rather simple farming operation, which did not require a thorough agricultural experience, costly farming implements and large labour input: all paramount matters for many novice cultivators. Although harvesting, carting and stacking of hay crops generally demanded hiring additional labour, the relevant expenditures in the central Victoria region might be less significant than the coastal counties. As the gold rush was proceeding, the number of impoverished gold-seekers ‘glad to accept temporary employment (as a break in their mining pursuits)’ increased which provided central Victoria agriculturalists with a large pool of relatively inexpensive casual labour. It is difficult to estimate an approximated number of diggers who might seek short-term employment on the nearest farms. Yet the figures of the 1861 Census on around 35,000 employed in small-scale alluvial gold mining in the central Victoria region and 3,000 local male farmers, likely to have corresponded to the number of cropping households, suggest that casual employment of diggers on cropping farms was uncommon practice near the goldfields.

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46 *Statistics of the Colony of Victoria*, 1855, p. 48.


49 *Census of Victoria, 1861*. Occupations of the People
The better supply of labour near in the diggings was further reflected in the varying cost of farm hands across the colony. At the end of 1859, during harvesting time, at Sandhurst mowers received 7 shillings an acre, whereas an agriculturalist farming land in the neighbourhood of Melbourne had to pay for mowers’ labour at a rate of 10 shillings an acre. The costs of general farm labourers and ploughmen in both regions also differed significantly, and fluctuated between 20 – 25 and 25 – 30 shillings a day, respectively. 50

The higher prices on agricultural produce continued the list of potential advantages to the Central Victorian goldfields farmers. To demonstrate this fact Table 3.3 offers the comparison of crop and flour prices in some colonial regions in 1856.

Table 3.3 Prices of regional markets in Victoria in April 1856

<table>
<thead>
<tr>
<th>Place</th>
<th>Wheat, per bushel</th>
<th>Flour, per ton</th>
<th>Hay, per ton</th>
<th>Oats, colonial per bushel</th>
<th>Potatoes, per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne</td>
<td>6s 3d - 6s 6d</td>
<td>£16</td>
<td>£13 - £15</td>
<td>8s 9d to 9s 6d</td>
<td>£8</td>
</tr>
<tr>
<td>Geelong</td>
<td>6s - 6s 6d</td>
<td>£17</td>
<td>£8 - £9</td>
<td>7s 6d to 8s</td>
<td>£8</td>
</tr>
<tr>
<td>Kyneton</td>
<td>9s - 9s 6d</td>
<td>£27</td>
<td>£10 - £12</td>
<td>10s</td>
<td>£14/10-</td>
</tr>
<tr>
<td>Castlemaine</td>
<td>£28</td>
<td>£17</td>
<td></td>
<td></td>
<td>£21</td>
</tr>
<tr>
<td>Sandhurst</td>
<td>£27</td>
<td>£18 - £20</td>
<td></td>
<td>12s to 12s 3d</td>
<td>£16</td>
</tr>
<tr>
<td>Ballarat</td>
<td>8s 6d</td>
<td>£20</td>
<td>£13 - £16</td>
<td>10s to 10s 6d</td>
<td>£12</td>
</tr>
<tr>
<td>Warrnambool</td>
<td>5s - 6s</td>
<td>£17</td>
<td>£8</td>
<td>5s 6d to 6s</td>
<td>£6</td>
</tr>
<tr>
<td>Hamilton</td>
<td>6s - 6s 6d</td>
<td>£20</td>
<td>£8 - £10</td>
<td>8s</td>
<td>£8</td>
</tr>
</tbody>
</table>

Source: Agricultural and Live Stock Statistics, 1857, Agricultural Reports, C. G. Levey, p. 54

The figures of the table indicate that the prices tended to grow in direct proportion to the increasing distance from the metropolis. The more remote from the coast was the crop-producer, the larger might be their proceeds from cultivation. Such a substantial difference in regional prices was a natural result of high cost cartage over

50 Argus, 24 November 1859, p. 2; Bendigo Advertiser, 22 August 1859, p. 2; 28 November 1859, p. 2; 7 December 1859, p. 2.
rugged Central Victoria terrain. In 1854 the members of a Royal Commission estimated that the total annual cost of delivering surpluses from the coast to the diggings amounted to three million pounds.\footnote{Victoria. VP of LC, 1854-55, vol. 1, \textit{Internal communication of the colony. Report of the commissioners}, pp. i, 26, 33.}

With road improvements, the exorbitant freight charges of the first gold rush years reduced considerably and became more uniform throughout a year. Nevertheless, the sheer length of a distance between the goldfields and the metropolis still made the interior consumer bear significant haulage expenses. In the second half of the 1850s the transportation of goods between Bendigo and Melbourne averaged £10 a ton, while shipping the same weight from Melbourne to London could cost only a quarter of this sum.\footnote{Bendigo Advertiser, 26 September 1854, p.3; 10 May 1858, p. 2; Archer, \textit{Statistical Notes}, p. 59.}

The goldfields' farmer therefore had a large-scale outlet for his commodities at hand. He was partially protected by distance from potential competitors before the cheaper rates of railways challenged his economic supremacy in the region.\footnote{Serle, \textit{Golden Age}, p. 233.} Commenting on this natural advantage of the inland crop-producer, one of the witnesses to the Commission on Internal Communication envisaged in 1854 that ‘in two years time, the whole of the hay and oats as well as a large proportion of the flour required on the Diggings will be produced in their immediate neighbourhood’.\footnote{Victoria. VP of LC, 1854-55, vol. 1, \textit{Internal communication of the colony.} p. 27.}

These predictions were well confirmed in the report by a collector of agricultural statistics in central Victoria, G. C. Levey, who in September 1857 observed that:

\begin{quote}
One of the great causes of the increase of the quantity of land brought under cultivation in the gold districts has been the high prices obtained by farmers. And until the quantity grown exceeds the demands of population in the neighbourhood, prices will, near the gold fields, be beyond those ruling in town by the ratio of the cost of carriage. As the latter has not averaged less than £10 per ton, and most produce, particularly hay and garden staff is bulky, the farmers have been able to get, on the average, £11 to 20 more
\end{quote}
for their hay and potatoes, 4s a bushel more for oats, and 5s more for wheat and barley, than husbandmen near Melbourne.\textsuperscript{55}

The immediate prospects of central Victoria’s land-cultivators were excellent on the eve of selection. Their economic position was invulnerable owing to little or no competition with external producers which came together with extensive markets at hand, copious sources of labour, and the possibilities to start farming crops demanding moderate agricultural experience and capital. Prices, as a local collector of agricultural statistics admitted in 1859, ‘although lower than they were several years ago, are, considering the diminished rates of labour, and the reduction which has taken place in the cost of almost every article of consumption, still amply remunerative to the farmer’.\textsuperscript{56}

There were certainly many exceptions to this optimistic picture of prosperity among newly settled farmers in the Central Victorian goldfields region as by its nature settling on unknown land was not an easy task. Nonetheless, an exceptionally favourable economic environment greatly minimised the challenges of agricultural settlement in goldfields areas where thousands of crop-producers were establishing themselves on the land, on or just a very short distance from the edge of the great Wimmera and Northern plains.

**State of Crop-Farming in the Immediate Aftermath of Gold**

The high crop-prices brought in with the gold rush did not dominate the colonial market in the long-run. The rapid agricultural settlement in the second half of the 1850s led to a corresponding increase in the quantities of domestically grown crop-commodities. With more supply market prices dropped. This, however, challenged the economic positions of a large number of farmers, some of whom started

\textsuperscript{55} Agricultural and Live Stock Statistics, 1857, Agricultural Reports, C. G. Levey, p. 52.

\textsuperscript{56} Ibid., 1859. Agricultural reports. Henry Hayer, p. li. (the description related to Ripon county)
lamenting about the necessity to impose a custom duty on imported agricultural produce.\(^{57}\)

The farmers’ voices recorded in the papers of the Select Committee upon Tariff which was called in February 1860 might indeed create a belief of the depressed state of Victoria’s agriculture. Seven farmers, Stephen Egan, Henry Stevenson, J. C. Cochrane, Peter McCracken, John Wilson, John Dick and William Montgomery, all cropping land in the neighbourhood of Melbourne, were interrogated and all of them spoke with one voice about an excessive rate of farm labour, falling prices, and unremunerative cropping. A universal remedy from all these nuisances was demanded: a protective duty on the importation of agricultural commodities.\(^{58}\)

The grumbles of some crop-producers about deteriorating businesses were in unison with some comments of the collectors of agricultural statistics who pointed out decreasing yields in some localities due to overcropping, backward husbandry methods employed by farmers, and abnormalities of the hot weather in 1858-59.\(^{59}\) The latter year was so unfortunate for farmers near Geelong that the local collector emotionally put down in his report: ‘another such season would deprive them of home altogether!’\(^{60}\)

Considering the difficulties experienced by farmers in the late 1850s, Powell and Peel, the leading experts in the early history of colonial agriculture, reached conclusions similar to the farmers’ complaints. As has been mentioned above, Powell argued that at the close of the decade ‘farming was at very low ebb,’ while Peel stressed that due to financial hardships of the later 1850s and early 1860s, farmers of the metropolitan counties of Bourke and Grant were ‘left disillusioned and depressed’.\(^{61}\) The contemporary land-cultivator therefore emerges as a gloomy and

\(^{57}\) Peel, *Rural Industry*, p. 98; Powell, *Public Lands*, p. 73

\(^{58}\) *Victoria. VP of LA, 1859-60*, vol. 2, *Select Committee upon Tariff*, pp. 58-79


\(^{60}\) Ibid., 1859, John Ellkington, p. lxiii.

straggling person living on the edge of poverty and destitution. Powell and Peel did not look beyond the complaints of the few local farmers and the critical remarks of some collectors of agricultural statistics for contradicting evidence.

The overwhelming proportion of the colony's farmers was in fact neither disillusioned nor depressed. John Ellkington, the collector of agricultural statistics in Grant county, the domain of small-scale extensive tenant farming, whose sharp remarks have been commonly cited by researchers to underline the misery of crop-producers, was obliged to admit:

> Whatever may have been the circumstances that have stood in the way of a farmer making progress, whether from insufficiency of means to prosecute his labour in the field, or inadequacy of prices in exchange for his produce, it is pleasing to learn with what endurance the bulk of this class straggle on in spite of adverse times and even seasons.\(^\text{62}\)

This remarkable perseverance of farmers in dealing with economic and environmental setbacks was admitted in a number of other collectors' reports.\(^\text{63}\)

Apart from the county of Grant, different sources of evidence do not indicate the stagnation of crop-farming operations in the late 1850s. In the adjacent county of Bourke, in 1857 the statistician was pleased to observe:

> [T]he improved manner in which the farms are managed, both with regard to agriculture and stock, deserves especial notice. Attention to drainage, the use of guano and other manures, and thorough method display in the finish of the farm work and implements, together with the comfortable appearance the dwellings and offices are gradually taking form very pleasing characteristics of progress. The dairy stock is also greatly increased and improved.\(^\text{64}\)

Four years later, a reporter of the *Victorian Farmers’ Journal and Gardeners’ Chronicles* at the end of 1860 – beginning of 1861 visited a number of farms in the

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\(^{64}\) Ibid., 1857, W. Farange, p. 46.
vicinity of Melbourne.\textsuperscript{65} No signs of depression among crop-growers were observed. On the contrary, the reporter was many times impressed with crops looking well, the systems of crop-rotation adopted, application of manure, and various technical innovations.

In almost identical words to his colleague from Bourke county, the collector of agricultural statistics from the counties of Villiers and Heytesbury, comprising the second most important coastal agricultural region, wrote in 1859:

\begin{quote}
[T]he important manner in which the farms are managed, both with regard to agriculture and stock, deserves especial notice. Attention to machinery, and other economy in the management of the farm, together with the substantial buildings and neatly laid out gardens, form a very pleasant aspect of progress.\textsuperscript{66}
\end{quote}

In December 1859 the Villiers and Heytesbury Agricultural Association, in its address to the inquiry of the Philosophical Institute of Victoria as to the state of local agriculture, replied that crops grown ‘at very large extent, with comparatively little or no trouble in cultivation’ and that the district ‘has not been subject to a general failure of crops during 17 years’.\textsuperscript{67} At the beginning of 1860, the Association held a competition among local cultivators for the best approaches to growing crops and managing farmsteads. Eleven different prizes went to crop-producers and the judges of the competitions emphasised that ‘the majority of farms and crops shown were highly commendable’.\textsuperscript{68}

The results of Geoff Raby’s study of innovations in early Australian agriculture also do not suggest a crisis in the farming community. Throughout the 1850s Victoria’s crop-producers revealed a strong tendency towards the adoption of new farming


\textsuperscript{66} Agricultural and Live Stock Statistics, 1859, Agricultural reports; John Hyland, p. lvi.

\textsuperscript{67} Warrnambool Examiner, 27 December 1859, p. 2.

\textsuperscript{68} Ibid., 21 February 1860, p. 2.
equipment. The inclination of agriculturalists to apply more advanced ploughs, harvesting machines, threshers and winnowers did not cease or weaken at the end of the decade. \textsuperscript{69} Even if backward approaches to land cultivation might well have dominated on Victoria’s farmsteads, which was partially reflected in low yields, this fact does not mean that the colonial cropping industry overall was economically inefficient in the late 1850s. Despite all farmers’ woes and complaints of unremunerativeness of market prices, the total area under the plough, as well as domestic grain output, was on a steady increase at that time. (See Figures 3.3 and 3.4)

Figure 3.3 Acreage of major crops in Victoria in 1856-1861

![Acreage of major crops in Victoria in 1856-1861](image)

Source: \textit{Agricultural and Live Stock Statistics}, 1865, Table 1, Summary of the Agriculture and Live Stock in the Colony of Victoria.

\textsuperscript{69} Raby, \textit{Making Rural Australia}, p. 86.
Figure 3.4 Per capita wheat production and imports in Victoria in the 1850s


It can be seen that the amount of land under the plough continued expanding rapidly in the late 1850s but this time the key aim of the farmer was not to produce hay crops but rather grains. Despite public demand to restrict the access of cheap imports to the colonial market, most farmers seem to have withstood competition effectively. Figure 3.4 demonstrates that domestic wheat production per head was increasing in the colony, except 1858-1859 when the harvest was poor due to unfavourable weather conditions, whereas the grain import declined.

Perhaps, the financial matters were not as bad as they were revealed by the farmers to members of the Select Committee of 1860. The universal complaints about an exorbitant cost of labour and unremunerative prices can greatly lessen their validity when they are considered within a broader chronological framework. Figure 3.5 presents the comparison of the aggregate indexes of prices on key crop-commodities and wages of farm labour to assess the general pattern of proportional changes between the cost of agricultural produce and that of labour.
Figure 3.5 Indexes of wheat, oats, and hay prices and wages of rural labour\textsuperscript{70} in 1850-1861

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3.5.png}
\caption{Indexes of wheat, oats, and hay prices and wages of rural labour in 1850-1861.}
\end{figure}


It can be seen that after the sharp rise in 1853-1855 the market crop prices gradually descended but so in line did the cost of farm labour. Statistically speaking, the expenses of a farmer of hiring a labourer in 1860 exceeded the pre-gold rush level by one-third while the prices on key farming produce were almost twice as high as in the 1850.

Lastly, the premise that colonial farming experienced a crisis in the later 1850s-early 1860s can be questioned by evidence on occupations of persons declared to be insolvent. In the period of July – December 1860 there were 224 instances when local residents failed to meet their debts and liabilities.\textsuperscript{71} The background of insolvents represented a broad range of occupations: storekeepers, publicans,

\textsuperscript{70} General farm labourers, ploughmen, reapers, mowers and threshers

artisans, miners, artists yet a very few farmers appeared in those sad notices. Among all persons named to be farmers, two were out of business and thus strictly speaking were not crop-producers at the time of their insolvency; one combined farming with storekeeping and the key cause of his financial ruin was ‘falling off in business of a storekeeper’; one was likely to be a squatter overpaying for improvement of his station; one was declared to be insolvent because of imprisonment, and only three persons seems to have permanently received a living from cropping land but one of them had considerable excess in the value of his assets over liabilities, a rare phenomenon among insolvents. It is certain that had colonial farming been ‘at a very low ebb’ or ‘on the whole was in trouble’ before the Selection Acts, as Powell, Peel and Serle have argued, the number of insolvencies among crop-producers whose ranks comprised many thousands would not have been limited by just three persons in the latter half of 1860.

Why then did farmers complain of the depressed state of their businesses and demand state protection while continuing to expand efficiently their operations? One possible explanation derived from a natural decline of farmers’ profits in the late 1850s. The exceptional proceedings from agriculture in the mid 1850 enjoyed by crop-growers ‘without effort or skill’, urged many of them to ‘cry out for the state protection’ once they faced more challenging economic conditions.72

Another reason for farmers to grumble was ultimately related to the nature of agricultural pursuits. Crop-farming by its nature is rather a risky commercial venture being subject to uncertain weather patterns and market prices, which made returns from farming operations fluctuate considerably from year to year. The unpredictable proceeds from cultivation which in the long run yielded sufficient surpluses but in some years resulted in deficits might induce a sense of uncertainly among producers, tempting them to overstress their genuine difficulties.

The complaints of farmers from the Melbourne agricultural region in the late 1850s resemble the tone of the petitions submitted by Cumberland and Hunter Valley crop-

72 Argus, 20 October 1860, p. 6.
producers to the government of New South Wales two decades earlier. In the late 1830s-early 1840s farmers similarly demanded the imposition of tariffs on imported corn once their wheat market deteriorated and despite their loud public claims on unsatisfactory returns few actually ceased their operations. In this context, it is interesting to mention the evidence of J. C. Cochrane, a large tenant farmer cropping land on two farms in the vicinity of Melbourne, who in February 1860 claimed to the Commission of Tariff that farming did not pay completely under current circumstances and a protective duty must be introduced to save colonial agriculture.\(^{73}\) Six months later a *Victorian Farmers’ Journal and Gardeners’ Chronicle* reporter paid a visit to Cochrane’s farming establishments and was impressed with the variety of excellent crops and vegetables on well-manured land.\(^{74}\) Perhaps, the farmer’s economic position was somewhat better than presented by him to the members of the Parliamentary Commission.

It may also be suggested that rumours of depressed agriculture partially reflected the gradually changing production priorities of crop-farmers in the counties of Bourke and Grant in the late 1850s. In May-July 1856, the pages of the *Argus* were a forum for a vigorous open debate between C. J. Dennys, a Geelong farmer, and R. Savage, an agricultural expert.\(^{75}\) The former argued that wheat growing in the vicinity of the metropolitan area incurred extra expenditures on high rents which amounted to £2 per acre and expensive hired manual labour, the total cost of which might peak at £12 per acre. Based upon these estimations, Dennys claimed that even in the case of good harvest of twenty five bushels per acre and high wheat prices of 10 shillings per bushel, he faced a deficit when planting his thirty seven acres with wheat. He speculated that profit might only be obtained if the yields had exceeded thirty bushels per acre. Dennys confirmed a widespread opinion that harvesting machinery, so beneficial for South Australian farmers, was of limited assistance to grain-producers in the neighbourhood of Melbourne. The relatively

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\(^{74}\) *Victorian Farmers’ Journal*, 4 August 1860, p. 16.

\(^{75}\) *Argus*, 2 May 1856, p. 6; 22 May, p. 5; 30 May, p. 10; 14 June, p. 5; 2 July, p. 6; 24 July, p. 4; 29 July, p. 6.
high humidity and the hilly terrain of coastal Victoria resulted in uneven process of ripening wheat even on small allotments, and thus hindered local crop-producers from wide adoption of harvesting machines. In addition to the physical setting preventing the use of machinery, Dennys complained of its unreliability and expensiveness. Savage, on the contrary, insisted that the wheat could be grown at the cost of £5 per acre. He presumed that the grain-producer might enjoy lower rent at 10 shillings an acre and utilise harvesting machinery. An Argus columnist summarising that public discussion admitted that probably both opponents were to a great extent right, since the production of wheat had to be varied considerably between coastal regions with high expenses on land and hinterland area where land cost less but the environment suited the adaptation of harvesting machines.

While grain prices were relatively high on the domestic market, the coastal land-cultivator would still have received satisfactory returns when planting wheat on his small holding. Yet once wheat prices diminished, farmers could find more viable commercial alternatives in producing bulky non-tradeable globally forage crops, perishable vegetables and fruits or dairying products on their small plots of expensive land in the immediate proximity to Melbourne, a typical example of 'instant cities' characterised by extremely fast growth of population. Peel’s graph on gross returns per acre (average yield multiplied by price range) from oaten hay and wheat in Plenty Division (Bourke county) perfectly illustrated these new opportunities for agriculturalists. Her data suggested that from the late 1850s to the mid 1860s the returns per acre generally declined for both commodities, but proceeds from oaten hay per unit of land considerably exceeded these from wheat-growing.

From the early 1850s, in coastal agricultural areas, especially around Melbourne, there was a clear trend, though not quantified by contemporary agricultural statistics,

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77 Peel, *Rural Industry*, p. 102.
towards the development of market-gardening, dairying, poultry-keeping which could provide a farmer with more substantial income utilising small holdings than planting land with wheat. Drawing on this evidence, Weston Bate’s account of Brighton’s history stated that because of the adoption of more intensive forms of agriculture, an economically viable size of a farm reduced from sixty to seventy acres to four or five and ‘even an acre or two was farmed with success by the end of the fifties’. Donald Garden similarly commented on the rise of small-scale vegetable and fruit growing at Heidelberg.

Figure 3.6 outlines the change in production preferences of Bourke and Grant cultivators by providing data on acreages of the main local crops in 1856 and 1860. It can be seen that total tilled area more than doubled over that period. Wheat acreage increased in line with this general agricultural expansion yet the area occupied with vegetables, grasses, legumes and other non-cereals, shown in the figure under the heading of other crops, more than quadrupled in 1856-1860. Wheat it seems was about to lose its top priority for the farming population of Bourke and Grant in the early 1860s.

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79 Bate, History of Brighton, p. 160-161.
80 Garden, Heidelberg, pp. 78-79.
The decline of wheat-growing was reflected in modified production preferences of wealthy farmers who must have been most adaptable to changes. The detailed inventory of possessions of John Edward Cade, a Plenty River farmer, who died in October, 1848 amounted to £1,500. Wheat production seemingly held a prominent place on Cade’s farmstead; the inventory listed twenty bags of wheat grain, but just fifteen bushels of oats and a ton and half of hay. Twelve years later, another well-off farmer, Wade [the source does not specify his first name] who had 250 acres under the plough and who was declared by the Council of the Board of Agriculture as ‘the gentleman best entitled to the Argus Gold Cup for 1859, in having used machinery to the greatest extent and best advantage on his farm’ did not grow much grain. Hay-

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81 PROV, Probate and Administration Records, File A/217
crops and potatoes occupied the largest proportion of tilled land, whereas only twenty three acres were planted with wheat.\textsuperscript{82}

While non-wheat crops grew in their commercial importance for cultivators around Melbourne, farmers of the Central Victorian goldfields region became increasingly concerned with wheat-production in the late 1850s. To illustrate this tendency Figure 3.7 provide data on the acreage of main crops in the leading hinterland agricultural county of Talbot.

Figure 3.7 Acreage of major crops in the county of Talbot in 1856 and 1860


The crop farming of Talbot county, the geographical centre of Victorian goldfields, was predominantly oriented to the production of forage crops in the mid 1850s and

\textsuperscript{82} \textit{Argus}, 24 March, 1860, p. 5.
wheat comprised just around one-tenth of local tilled acreage. Over the period of 1856-1860, the extent of land under the plough increased approximately fourteen times, but the area occupied with wheat expanded at even a higher rate and around a quarter of cropped acreage was sown to this grain at the close of the decade. As the *Kyneton Observer* commented on this trend:

> After the discovery of the gold fields, the farmers, from their position here, on the highway to the great auriferous region of Mount Alexander, found the raising of cereals for horse-feed very remunerative, and for years scarcely any crops except oats were sown. With the fall in the price of grain, and the reduction in the rates of carriage, there came a change, and then wheat, and even green crops, obtained more extensively. 83

To a greater extent, the expansion of wheat production in the Central Victorian goldfields region was the farmers’ response to the construction of the first local mills. In 1854, it was already admitted that ‘if mills were established, wheat cultivation would be highly profitable in the neighbourhood of the mining townships of the interior’. 84 In 1861, there were sixteen steam and two water mills in operation in the three goldfields counties of Grenville, Ripon and Talbot in central Victoria offering some outlets for locally grown wheat grain. 85

Farmers in the Central Victorian goldfields region undoubtedly did not experience any crisis before selection. So enormous and protected by distance was their gold market, that local crop-growers did not express any complaints about deteriorating businesses at the time. The positions of their counterparts cropping land in coastal agricultural regions were certainly challenged in the late 1850s. Declining prices on crop-commodities, laissez-faire official attitudes to protection, costly labour, poor harvests of 1858-1859 and to some extent poor cropping techniques provoked the public rumours about the depressed state of colonial agriculture. Nonetheless, in 1860 the *Argus* commented: ‘Surely the state of agriculture in Victoria is not quite so bad as to render it needful to abandon the farmers, or even the oldest of the farms

83 *Warrnambool Examiner*, 11 May 1860, p. 4, reprint from *Kyneton Observer*.
84 *Argus*, 18 August 1854, p.5.
near the seaport towns, to their fate, failing the adoption of such an unsatisfactory remedy'. The large farming community in coastal counties did not experience crucial setbacks in the late 1850s. Indeed acreage continued expanding, produce grew, costs of labour declined and the insolvencies among farmers were atypical instances.

**Conclusion**

The gold discovery opened a new stage in the history of the farming community in Victoria by creating an extremely favourable economic environment for activities of colonial land-cultivators. The Port Phillip small landholder on the eve of 1851 could not have even dreamt of chances to dispose of his modest yields at skyrocketing prices for nearly a decade. Had gold not been found in the colony the farming operations of that person would have been restricted to the few coastal townships, but with the movement of population to the mining areas of central Victoria, the farmer could take a ‘golden’ opportunity to transfer his operations further inland, close to the diggings. In the latter case, he would benefit enormously from access to an even more lucrative gold market than those of coastal areas. Certainly, he might have been tempted to try his luck on the goldfields or in carting supplies there, but it is unlikely that these alternative pursuits would occupy his attention for a long time because of the high and secure returns from cropping. Not only did these incentives encourage established crop-producers to return to their farms but they stimulated thousands of the gold-rush newcomers to get on the land and try to produce cash-crops for Victoria’s booming and lucrative markets.

The challenges of the late 1850s, when crop-prices declined and the harvests of 1858-1859 were poor undoubtedly affected the members of the farming society in the colony. These problems, however, did not disrupt but just temporarily slowed down the extremely rapid rate of farming expansion. Moreover, those farming land in

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86 *Argus*, 11 April 1860, p. 4.
central Victoria near the diggings still enjoyed natural protection from competition owing to the high cost of cartage while having secure large-scale outlets for crops at their hand. The farmers of coastal counties were much more exposed to competition with overseas producers. Nevertheless, the perishable or too bulky nature of many agricultural commodities which were not import competing global non-tradeables offered enormous scope for the activities of cultivators farming land in the proximity of rapidly growing metropolitan markets.

Partially because of competition with imported grain but partially because of higher returns per unit of land from alternative agricultural activities and expansiveness of land resources, the cultivators from the long established agricultural areas of the counties of Bourke and Grant commenced relying more on production of non-cereal commodities. As early as 1856 an agricultural expert commented on this trend:

Cultivation is already spreading throughout the interior, and ultimately we must look there for our supplies, while lands near the principal cities (Geelong and Melbourne) may be devoted to purposes more profitable and more useful than the growth of grain. The discussion on this subject is but the prelude to the great revolution in the agriculture of Victoria... Farmers near Melbourne are beginning to anticipate the time when they will not be able to compete with grain-growing with the extension of cultivation in the interior, and dairy farming, root crops, artificial grasses, a combine system of husbandry and pastoral farming, are the subjects now occupying attention.87

Colonial crop-farming was therefore becoming a more complex and diverse economic institution in the late 1850s, reflecting local conditions and needs. Drawn by the development of local markets it moved far beyond the outskirts of Port Phillip coastal townships towards interior lands, which promised to become Victoria’s granary in the near future. The dramatic increase in the quantities of domestically produced crops, and the territorial spread of commercial cultivation across the colony in the 1850s, was intrinsically linked with changes within the farming community. The following chapter explores the types and the financial standings of crop-producers during the golden decade.

87 Argus, 23 June 1856, p. 5.
Chapter 4

Growing Community: Farmers of the Golden Decade

When gold was found in Victoria, the local crop-growers comprised two distinctive categories of agricultural producers. Around a thousand small landholders grew cash-crops on the outskirts of a few coastal townships where most of 75,000 colonial residents lived in 1851. An overwhelming majority of these cultivators were recent and under-capitalised settlers who were able to make a modest living from cropping by intensive exploitation of unpaid family labour. In the thinly populated hinterland pastoral districts, several hundred large landholders represented another category of local crop-producers. Although wool production was their primary commercial objective, the difficulties with obtaining cheap supplies in the remote regions stimulated many of them to put under the plough small paddocks of land and to grow crops for personal consumption.

With the extremely favourable economic conditions of the 1850s the number of land cultivators soared in Victoria. The 1861 Census recorded 13,000 farmers who cropped land in the traditional coastal and newly established hinterland agricultural districts.¹ The primary task of Chapter four is to investigate the qualitative and quantitative changes experienced by this rapidly enlarged farming society. In a broader context, Chapter four follows up the discussion initiated by the previous chapter about the progress of colonial farmers in the 1850s. This time, however, the approach to this subject is different. Chapter three primarily quantified trends in crop production, acreages, prices, and imports in order to deduce the general economic settings in which land cultivators operated and their positions. This chapter attempts to provide a direct insight into the economic activities of crop-producers by drawing evidence from narrative accounts and official agricultural statistics. It is subdivided into three sections. The first section describes the novice farmers who commenced

¹ Census of Victoria, 1861, Occupations of the People.
cropping lands for monetary profits in the 1850s. The second section examines the structure of the greatly expanded farming community. The third section assesses the financial positions of crop-producers on the eve of the selection acts of the 1860s.

The academic opinions of colonial agriculture as ‘in trouble’ and ‘at low ebb’ in the late 1850s-early 1860s are once more put into question, yet now they are largely evaluated from the perspectives of contemporary farmers viewed as producers of crop-communities. The chapter illustrates that a predominant proportion of colonial land-cultivators were doing fairly well at the turn of the 1850s; growing cash crops on average yielded more than sufficient earnings to make a living. Furthermore, the gold rush stimulated the establishment of small-scale cropping farmsteads occupying areas less than 200 acres. Thousands of newcomers were able to enter a farming occupation due to a number of factors: a moderate initial capital to start small farming could be quickly accumulated on goldfields or by working for high wages; land could be purchased at Crown Land auctions or, alternatively, acquired or obtained under lease from a private person; and initial local agricultural experience might be acquired through casual or temporary employment on existing crop-farms. Moreover, the remaining moderate monetary input in crop-production on small farms which were generally self-sufficient in labour coupled with the high market prices of the 1850s turned small-scale farming into an extremely remunerative enterprise. Some large landholders also commenced growing crops for the market but their operations were largely restricted by the high cost of the labour force and by undeveloped communications. Commercial crop-farming was viable only in the immediate vicinity of markets.

The chapter argues that during the gold rush the farming community in Victoria underwent crucial changes. The ranks of crop-producers swelled, but small landholders preserved their dominance in colonial arable agriculture. On the other hand, in stark contrast to the small pre-gold period cultivators, in the late 1850s – early 1860s the domestic crop-producers enjoyed much more significant personal wealth. In consequence, there was far more scope for the expansion of their farming operations in the future.
New Cultivators

Prior to the gold rush the commercial utilisation of agricultural lands in the sparsely populated central Victoria region was limited to extensive livestock farming. Once gold was found many local pastoralists, who were fortunate enough to lease their stations in the near vicinity of goldfields, suddenly discovered that growing cash-crops might be a financially viable activity along with their traditional sheep and cattle raising. Although market oriented cultivation on Crown Lands was forbidden under the 1847 Order-in-Council regulations, the law granted the tenants a privilege to acquire a 640 acre block of land at a fixed rate of £1 per acre, thus offering them an opportunity to transform their original pastoral establishment into a multifunctional farming estate generating part of its monetary income from marketable crops.²

The previous chapter has shown that vegetables and hay especially were highly remunerative types of agricultural crop produce in the first years of the gold rush. The lessee of the Robertson station located fifteen miles away from the Bendigo goldfields was one of the first among local squatters who realised the commercial potential of a large-scale haymaking business. Taking advantage of his exclusive pre-emptive right he acquired an allotment of freehold land and sowed part of it with oats in 1853. Having harvested around 100 tons of oaten hay, the newly established crop-farmer, though possibly still considering himself as a typical pastoralist, carted his yield to the diggings. There he was able to sell his first crop produce at £60 per ton, receiving net profits of a few thousand pounds in just one year.³ In the same manner, the owner of the Newington run located at the southern fringe of Wimmera plains, commenced growing ‘immense quantities of hay’ to satisfy ‘the wants of [the] immense population of diggers and trades people’ at the Pleasant Creek’.⁴ In some cases, hay was in such a demand on the diggings that squatters did not even need to deliver their bulky produce to consumers. In 1853 in Ballarat one man grumbled

² Clark, (Ed), Select Documents in Australian History, pp. 254 -255.
³ Howitt, Land, labour and gold, v. 2, pp. 128-129.
⁴ Stawell Times and Wimmera Advertiser, 21 May 1888, p.2.
that he bought a stack of hay from a station at £60 per ton, and ‘had to truss and cart it in to the bargain, and this was hay of a self-sown crop and about half of it silver grass’.  

The potentially high returns from this sort of minimal cultivation in some booming hinterland gold regions tempted many local pastoral tenants to commence growing cash crops even before the official alienation of their land. So extensive did this practice become in the early 1850s that the editor of the *Argus* labelled it as ‘the contraband plough’ and the colonial government was compelled to issue official warnings to the pastoral occupiers of Crown Lands in April 1854 and again in January the following year.  

Pastoralists were reminded that commercial cultivation of public domain was an ‘unlawful’ pursuit under the 1847 Order-in-Council. 

Alfred Joyce’s experiences, recounted in his letters to England, illustrate a pattern of how crop-agriculture grew in economic importance on some pastoral stations in the neighbourhood of mining areas over the 1850s. Joyce possessed a run near the Maryborough diggings. The discovery of gold here was originally associated with economic nuisances such as the loss of labour and higher prices of necessities. Nevertheless, in March 1852, just a few months after the gold rush started, Joyce confessed that: ‘The diggings, however, have been no loss to us … but rather a source of profit’. At that time he and his brother were actively selling wheat as forage to gold-seekers for their horses and expected ‘to make considerable profit from the hay selling at diggings for £ 25 per ton’. In the following years, the production of forage crops remained the key commercial aim of the expanding farming estate. In

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5 Withers, *History of Ballarat*, p. 54.
6 *Victoria Government Gazette*, 2 May 1854, p. 1082, 30 January 1855, p. 265; *Argus*, 1 February 1855, p. 4, 3 February 1855, p. 4, 5 February 1855, p. 5.
7 *Homestead History*, pp. 128-129.
8 *Homestead History*, p. 130.
1856 more than four-fifths of 120 acres of his cultivated land were still devoted to oats and hay.\(^9\)

By the close of 1857 Joyce expected to plough around 200 acres. That year his proceeds from a fifty acre allotment alone sown with oats amounted to £1000. He threshed all his corn by horse power and planned to purchase ‘machinery for mowing and reaping this next season’s crops, as on account of the large quantity it will be almost impossible to get men enough to reap it by hand’.\(^10\) In the early 1860s the extent of land under tillage further increased to 500 acres, and forage crops were far surpassed in their commercial importance by wheat, which occupied nearly two-thirds of the cultivated area. To work his land, Joyce had to keep nearly twenty horses and employ one farm overseer and five or six ploughmen in the ploughing season. During spring and summer months, despite the utilisation of farming machinery, an extensive pool of hired labour, comprising of fifteen to twenty workers, was required to harvest crops. To save on wages, Joyce even planned to acquire a Smith’s steam cultivator, ‘the only steam cultivator in the colony’ for his farming operations. He did not abandon, however, his previous pastoral pursuit, still having a flock of more than 10,000 sheep.\(^11\)

Joyce’s continued commitment to stock farming had a rational basis. Across the colony the returns from livestock farming inflated in the 1850s. The total value of wool exported from the colony in 1852-1859 amounted to £12,000,000 or almost three times as much as the relevant figure for 1836-1851.\(^12\) In addition to their traditional sheep farming, Victoria’s squatters benefited enormously from horse breeding and stock fattening as the market for these products too expanded with the gold discovery. While the total returns from animal husbandry were mounting, the number of large stock producers did not increase significantly over the 1850s. In

\(^9\) Homestead History, pp. 156-157, 163, 171-172.
\(^10\) Ibid., p. 178.
\(^11\) Ibid., pp. 186-187.
\(^12\) Agricultural and Live Stock Statistics, 1859, p. x-xl.
1846 897 persons held pastoral licenses from the Crown, by 1859 only 154 new licensees were added up to this figure. Unless the runs were divided it would be hard for the numbers of squatters to increase as the extent of land was fixed.

The combined effect of growing personal wealth of pastoral tenants and the insecurity of Crown Land tenures produced an expected result: large-scale acquisition of agricultural lands. By the beginning of 1861, over a million and a half acres had been already transferred to the private possession of squatters in the seventeen pastoral districts of the colony. The Warrnambool and Portland pastoral districts comprised a third of the total extent, which clearly indicates the frantic attempts of the western Victoria’s squatters to get hold of the local land compared with the similar efforts of their counterparts in other regions.

The official assessment of stock which was conducted by authorities for taxation purposes early in 1861 listed 664 newly purchased pastoral stations. The proprietors of 448 of them were already engaged in land cultivation having under the plough nearly 27,000 acres in total. This cropped acreage was distributed unevenly across the colony. The stations of the Ararat, Gisborne and Castlemaine pastoral districts, covering most of Victoria’s goldfields and thus close enough to crop markets, accounted for nearly two-thirds of the total extent.

The proprietors of 369 stations who cultivated areas not exceeding fifty acres most likely grew crops for their own needs. On the other hand, the owners of twenty five stations farming allotments ranging between fifty and a hundred acres might gain a supplementary monetary income from selling their crop produce. Undoubtedly land-cultivation was one of the key commercial objectives for proprietors of fifty four stations, farming large areas exceeding a hundred acres. The latter stations, like Joyce’s establishment, were predominantly situated close to townships; almost half

13 Agricultural and Live Stock Statistics, 1859, p. x-xi.
15 Ibid.
of them were located within the Gisborne and Castlemaine pastoral districts in the immediate proximity to goldfields.\textsuperscript{16}

Even though Victoria's pastoralists dramatically expanded their crop-farming operations in the 1850s, they in fact played a minor role as producers of crop-commodities in the colony. The 27,000 acres put under the plough on squatters' stations made up less than 10 per cent of the total crop acreage in the colony in 1861.\textsuperscript{17} The development of arable agriculture was propelled by smaller landholders who accessed land in the 1850s and devoted themselves to growing marketable crops.

The auctioning of Crown Lands in the inland regions opened the way for the activities of those agricultural settlers outside of the traditional coastal crop-farming regions. This opening up lands in the hinterland gold areas where fresh arable land was most required started in 1853. That year, however, only a trivial extent of land was offered for sale with lots generally not exceeding forty acres.\textsuperscript{18} This fact gave an anonymous contributor to a Castlemaine newspaper a reason to grumble. In May 1854, he wrote that:

\begin{quote}
A few country lots have lately been advertised near Castlemainee, Bendigo, Ballarat, and in other localities, but this supply is as a drop of water in the ocean of the demand, and has more the appearance of public mockery than anything else.\textsuperscript{19}
\end{quote}

With the decline of alluvial gold mining, the demand for agricultural lands mounted. An anonymous contributor to a Ballarat newspaper reported in September 1856:

\begin{quote}
The desire to possess a home has of late become a perfect mania. Time was, when the gold-fields were in their heyday, and but few felt inclined to
\end{quote}

\begin{itemize}
\item \textsuperscript{16} \textit{Victoria Government Gazette}, 31 May 1861, pp. 1048-1067.
\item \textsuperscript{17} \textit{Agricultural and Live Stock Statistics}, 1861, p. 3.
\item \textsuperscript{18} \textit{Victoria Government Gazette}, 4 July 1853, p. 937; 7 December, p. 1833-1834; 21 December, p. 1972.
\item \textsuperscript{19} \textit{Mount Alexander Mail} (Castlemaine), 27 May 1854, p.2.
\end{itemize}
invest their savings in a farm … but those days have passed … men begin to consider whether their comfort and their interest as well, might not be better promoted by turning agriculturalists. The successful miner … wishes to invest the proceeds of his gold claim, and the unsuccessful one wishes for a good claim that he may follow a similar course.  

Even though demand for land to be put under the plough were burgeoning in the Central Victorian goldfields region, local *bona-fide* settlers still enjoyed better prospects of getting Crown Land in their possession than their counterparts in the vicinity of Melbourne. To illustrate this fact, Table 4.1 compares the data on the results of Crown Land auctions in the selected regions of Victoria in late 1857 and early 1858.

Table 4.1 Outcome of Crown Land auctions in selected localities of Victoria in the period between October 1857 and July 1858 (Country lots and suburban lots exceeding ten acres)

<table>
<thead>
<tr>
<th>Locality</th>
<th>Acres sold (acres)</th>
<th>No offer (acres)</th>
<th>Proportion of unsold land (%)</th>
<th>Average price sold per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melbourne (lands offered within Bourke county)</td>
<td>16247</td>
<td>1207</td>
<td>7</td>
<td>£3/4-</td>
</tr>
<tr>
<td>Castlemaine (Talbot county)</td>
<td>9896</td>
<td>2536</td>
<td>20</td>
<td>£2/2-</td>
</tr>
<tr>
<td>Sandhurst (Loddon district)</td>
<td>2957</td>
<td>11330</td>
<td>80</td>
<td>£1/11-</td>
</tr>
<tr>
<td>Kyneton (Dalhousie county)</td>
<td>2902</td>
<td>573</td>
<td>15</td>
<td>£1/8-</td>
</tr>
<tr>
<td>Hamilton and Portland</td>
<td>2659</td>
<td>215</td>
<td>7</td>
<td>£1/8-</td>
</tr>
</tbody>
</table>

Source: PROV, VPRS, 11862, Unit 29, pp. 37-199.

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20 *Miner and Weekly Star* (Ballarat), 5 September 1856, p. 76.
More than nine-tenths of all lands auctioned in Melbourne were sold, and the average price paid per acre much exceeded £3. The equivalent proportion of country land was disposed of in Hamilton and Portland, townships of western Victoria but the average price was half of Melbourne’s. The results of auctions were different in Castlemaine, Kyneton, and especially Sandhurst, where a large part of the acreage offered for sale was ignored by public and the average prices for local land were much lower than in the metropolitan county. These differences in regional prices might have resulted from different qualities of soils, yet the former also reflected an imbalance between the supplies of and demand for available Crown Lands. It can be suggested, in spite of the point of view of the contributor to the Castlemaine newspaper, the bulk of agricultural lands suddenly available in the central Victoria region in the second half of the 1850s could generally satisfy public demands, reducing competition at auctions and keeping land prices rather low. As a result, in the gold hinterland regions *bona-fide* agricultural settlers with limited means seem to have had higher chances to get a small block of Crown Land in their private possession and wealthier ones could secure larger allotments in comparison with the well established agricultural county of Bourke.

The fragmentary reports on Crown Land sales published in colonial periodicals at that time support this suggestion. In August, 1856 the *Bendigo Advertiser*, reported that a large audience of 150-200 persons attended a local Crown Land auction. The country lots were much sought after and a columnist informed that ‘with one or two exceptions, jobbers held back – a lot here and there fell into their hands; but the vast majority were secured by *bona fide* purchasers’. Thirty-five country lots of 25 to 245 acres in size were eventually sold with prices falling in a range between £1 and £5 an acre.21 The auction of country lands held in Melbourne in May 1858 offered forty-three lots, mostly from 100 to 150 acres. ‘The attendance was very numerous’, competition high and all available land, excluding two withdrawn lots, was sold at prices generally between £2 and £3 an acre. The lands of two sites were on display:

[21 *Bendigo Advertiser*, 21 August 1856, p. 2.]
at Havelock, twenty nine miles north-west Melbourne and at Truganina between ten and sixteen miles from the city on or near the Geelong-Melbourne road. Nineteen persons purchased nearly 6,000 acres. Fourteen of them acquired just one lot and one person obtained two lots, most likely for themselves. Five persons bought twenty five lots in total, encompassing more than half of the whole auctioned area. It may be speculated that this land was bought as an investment but not for personal agricultural settlement.\textsuperscript{22}

This evidence on the results of Crown Land auctions should not be over-generalised, but even so it is apparent that the level of accessibility to the public domain for genuine settlers varied considerably across the colony in the late 1850s. The financial barrier was lower in the recently opened up hinterland central Victoria region, but higher in the metropolitan county where a bulk of appropriate lands had been already alienated before the gold rush and where the close presence to the large trading centre already fostered competition at Crown Land auctions. A large number of agricultural settlers in Bourke and Grant counties preferred to purchase private land, or, to obtain it under lease, as had actually taken place in the 1840s.

This public drive for agricultural settlement, favourable economic conditions and accessibility to land resources, either Crown or private, conditioned an upsurge in the number of cropping farmsteads across the colony in the latter half of the 1850s. (See Table 4.2)

\textsuperscript{22} Argus, 14 May 1858, p. 3.
Table 4.2 Number of farming households in Victoria and its selected regions in 1856 and 1860

<table>
<thead>
<tr>
<th></th>
<th>1856</th>
<th>1860</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria, overall</td>
<td>4326</td>
<td>13170</td>
</tr>
<tr>
<td>Selected regions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bourke and Grant counties</td>
<td>2543</td>
<td>5840</td>
</tr>
<tr>
<td>Normanby and Villiers counties</td>
<td>390</td>
<td>1352</td>
</tr>
<tr>
<td>Talbot county</td>
<td>162</td>
<td>1280</td>
</tr>
<tr>
<td>Loddon district</td>
<td>147</td>
<td>847</td>
</tr>
</tbody>
</table>

Sources: *Statistics of the Colony of Victoria*, 1855, p. 32; *Agricultural and Live Stock Statistics*, 1860, p. 2.

The figures stated in the table have to be clarified. Contemporary collectors of agricultural statistics did not employ the category of ‘the farm’. Instead, in 1855-1858 they operated with the terms of ‘the occupier’ or ‘the holder’ of cropped land, which afterwards were superseded with the rather vague expression of ‘the cropped holding’. Naturally, the question arises to what extent the categories of ‘the holder’, ‘the occupier’ and ‘the holding’ corresponded to an actual farming household.23 The collectors of statistics in their reports linked a holding to a distinct farm.24 The Censuses of 1854, 1857 and 1861 also implicitly suggest the very close similarity between the numbers of farmers and that of holdings recorded for corresponding years in the *Agricultural Statistics*. According to the 1854 Census, for instance, there were 3,000 male farmers who presumably represented distinct crop-farming households and 4,000 holdings in the following year (regrettably, the agricultural

23 Powell, *Public Lands*, p.186
statistics of 1854 did not list the number of holdings). The 1857 Census enumerated 8,000 male farmers while the *Agricultural Statistics* for the same year recorded 7,500 holdings. The 1861 Census listed 13,000 male farmers; the equivalent figure of holdings was presented by the *Agricultural Statistics* of that year. Certainly it can be supposed that part of the farms may have encompassed two or more separate holdings. Yet the logistical problems of managing a few separate allotments during harvest times suggest that it was not in fact a widespread practice.

The figures of Table 4.2 may, therefore, correspond to the numbers of farming households. This evidence indicates that the establishment of farms progressed at a staggering pace in the colony; over the short period of 1855-1860 the number of farming households tripled in Victoria. Unsurprisingly, the growth was more intensive in the goldfields regions because of the extremely favourable economic environment here. In Talbot county the number of farms increased nearly eightfold, and in the Loddon district sixfold. In the metropolitan region of Bourke and Grant the number of farmsteads doubled, and in the Western district, where arable agriculture was mostly concentrated near coastal townships, the number tripled, which demonstrates once more the weakness of the argument as to the depression of crop-farming in long-established agricultural areas in the late 1850s.

Map 5 indicates that by 1860, the counties of Bourke and Grant with their large attractive metropolitan market hosted nearly half of all cropping farms in the colony. The county of Villiers comprising areas of Warrnambool and Port Fairy remained another important coastal agricultural region. It can be seen, however, that the centre of cropping industry in the colony had started moving northwards away from the coast. The goldfields county of Talbot had already gained third place in the number of local farmsteads after Bourke and Grant, by 1860. In the Loddon district and Dalhousie county, both adjacent to Talbot, new crop-farms were also being established rapidly owing to closeness to new markets.

The contemporary agricultural statistics provide some evidence to determine the pattern of the establishment of new farmsteads in the colony, but regrettably they do
not reveal any details on the backgrounds of settlers taking up crop-farming during the gold decade. Prior to the gold discovery, in the Port Phillip district there were slightly more than a thousand cropping farms; over the 1850s this figure increased thirteen times. The obvious question is: who were those more than ten thousand settlers who commenced farming land during the gold rush? An overwhelming proportion of them composed newcomers to Australia, but how did they manage to procure basic skills and knowledge on local system of agriculture?

The story of the Sainsburys, a poor immigrant family of two adults, two sons and ‘some young daughters’, may illustrate one possible route of entry into an agricultural occupation in Victoria. When this family arrived in the colony, all members, excluding the mother, worked as farm hands for a year which enabled the Sainsburys to gain some local agricultural experience. The following year, the head of the family became the tenant of his former employer and commenced renting an allotment of eleven acres, at £ 90 pounds per annum. Relying on the labour of family members alone, the land was cleared and farmed chiefly with vegetables. The returns of just one year appeared to have yielded a sufficient capital for the family to buy forty three acres of agricultural land on the bank of the Loddon, near Castlemaine, which cost £2 per acre. To farm the newly purchased land, the head of the family then wrote to his brother’s family asking them to migrate to Victoria.25

25 Argus, 21 November 1855, p. 5.
Map 5 Number of occupiers of cropped allotments (farming households) in Victoria in March 1860

There must have been numerous Sainsburys during the gold decade. The contemporary colonial society dominated by migrants seems to have been an extremely fluid conglomeration of people who erratically changed their occupations and places of living. Various sources of evidence indicate that it was a fairly common practice to seek some supplementary income by casual employment on farms in the 1850s. Alexander Duncan testified in 1852 to the members of Select Committee on Immigration that his employees never stayed longer than six months on their way to the diggings. Likewise, a Scottish migrant, also called Alexander Duncan (similarity in names is a sheer coincidence) who arrived in the colony in 1856, wrote in a letter to his parents that he easily found employment on a day after coming ashore. He was engaged for twelve months at £1 per week but ‘the Engagement is rather to (sic) long … any one is better to engage for 6 months at the first till he se (sic) the run of the country’. In the goldfields counties, Levey, a local agricultural statistician, spoke of local farmers benefiting from occasional hiring of representatives of mining population.

These facts suggest that across the colony thousands of recent immigrants had either a short-term or long-term engagement in the crop-farming industry. Apart from earning an income, farm work provided the employee with an understanding of the essentials of colonial farming. But this experience certainly did not mean that all farm labourers, permanent or casual, would intend to settle on the land. They were rather offered an opportunity to learn by experience how to farm land in these unknown and weird Australian soils and climate. Yet once agricultural fundamentals were learnt and once capital was procured either from mining or any other occupations, a person might try to take up a crop-farming career on his or her own near the prospective commercial outlets for crop-produce, thus becoming a new member of the rapidly growing colonial community of land cultivators.

27 SLV, MSS 12358, Duncan Alexander, letter to his parents in Scotland from Tower Hill, Victoria,
The character of membership of this community was captured by a Ballarat columnist in March 1859:

[B]ecause of profitability, the enterprise of farmers has been extending itself in this quarter of the colony. The richness of the soil and extent of lands fit for tillage within a day’s journey of Ballarat market, are year by year attracting the industrious and thrifty to our neighbourhood. The farm labourers and station servants from other localities, the hard-worked and poorly remunerated farmer from the Geelong districts, the fortunate miner, and the steady plodding bullock-driver – for these are men of this class possessing no small shares of such qualities – ... are seekers after farms, and settlers among us.  

There are no serious grounds to doubt that the farming society developed near Ballarat would differ significantly from the similar young communities of crop-producers which emerged in the vicinity of Castlemaine, Sandhurst or Avoca. Moreover, considering the impressive two- or three-fold rise in a number of farmsteads in the traditional coastal agricultural regions of Melbourne, Geelong and Warrnambool in 1855-1860, it may be assumed that most local producers were recent migrants representing diverse occupational backgrounds.

High crop-prices and expanding colonial markets of the gold rush assisted these newcomers to take up farming in Victoria. By the early 1860s more than ten thousand new farmsteads emerged, located chiefly in the two large agricultural regions: one covered the metropolitan counties of Bourke and Grant, another encompassed the densely populated hinterland county of Talbot with adjacent areas. The closeness to prospective crop markets determined the choices of agricultural settlers. Even stock farmers were economically induced to switch from subsistence to market-oriented arable agriculture if prospective outlets for crops were in the close vicinity of their runs. Large estates combining stock and crop farming were especially common for the Central Victoria goldfields region. Nonetheless, the main producers of crop-commodities were new settlers who managed to establish themselves on the land in the 1850s. The distribution of Crown Lands through auctions did not hinder agricultural expansion: multiplying numbers of

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new cropping farms suggest that monetary proceeds from cultivation far exceeded
the costs of land and initial settlement.

Structure of Farming Community

During the period of the 1850s the large numbers of novice farmers swelled the
ranks of the crop-growers in Victoria diversifying regionally and economically the
class of colonial agriculturalists. The organisation of the rapidly expanding farming
society can be assessed drawing upon contemporary agricultural statistics, the
collection of which improved greatly with the appointment of regional statisticians in
the late 1850s. The annual figures on crop-acreage and produce became more
accurate and, no less important, more elaborate, grouping agricultural data by
different types of cropped landholdings. As argued above, the cropped holding
generally corresponded to the distinct farming household and the same person was
unlikely to manage two or more farmsteads simultaneously. Drawing upon these two
premises, the numerical data on cropped holdings may replicate a crude
approximation of the economic structure of the farming community which was
formed during the gold rush decade. Agricultural statistics for the year ending March,
1860 are the most appropriate source of evidence for this task.

To define the key types of crop-producers Figure 4.1 presents a breakdown of the
number of colonial farmsteads by the extent of land they occupied. The figure omits
the farms occupying areas under five acres; these small plots, by virtue of their size,
were most likely to be utilised for subsistence farming.
The holders of farms less than fifty acres composed the largest category of colonial agriculturalists. With their fellow farmers occupying slightly more extensive holdings (under 100 acres), these small-scale producers operated nearly two-thirds of all farmsteads in the colony. The larger farms of 100-200 acres were also fairly common in Victoria, accommodating around one-fifth of colonial land-cultivators. A very trivial number of cultivators worked on farms of 350-500 acres, yet many more utilised large holdings exceeding 500 acres. The latter category of agriculturalists mostly consisted of pastoralists who acquired their estates in fee-simple, but it also incorporated the holders of 375 large agricultural establishments, unconnected with pastoral runs.\textsuperscript{30}

\textsuperscript{30} Agricultural and Live stock Statistics, 1860, p. 23.
Figures 4.2 - 4.5 reveal that producers on the smallest holdings under fifty acres were numerically dominant in the farming communities of all selected agricultural regions. The largest proportion was recorded in the metropolitan counties of Bourke and Grant, where every second local crop-producer utilised a landholding not exceeding fifty acres. The significant numbers of the farmsteads of 100 - 200 acres were, however, documented in the goldfields county of Talbot, the Loddon district and the Western district counties of Normanby and Villiers. Every fourth or fifth local agriculturalist worked on farms of this size. The availability of fresh agricultural lands in the Western district and central Victoria, and the relative cheapness of land in comparison with the metropolitan region, enabled local producers to establish generally larger farming units. Finally, in the Western district the presence of the largest holdings was considerable even in their absolute figures. Here one farmer out of ten enjoyed a landholding of more than 500 acres, which reflected the spread of large pastoral estates in the region.
Figures 4.2 – 4.5 Number of cropping farmsteads of different sizes in the selected counties and the Loddon district in March 1860

The statistics on the numbers of farming households by amount of land they occupied indicate that in the late 1850s in Victoria there were still two different types of crop-producers, much as had been the structure of the farming community in the old Port Phillip days. Small and middle-scale landholders on farms not exceeding 200 acres made up the overwhelming proportion of colonial cultivators; the agriculturalists utilizing much larger areas exceeding 500 acres represented another much less extensive group.

It is hardly surprising that the largest holdings, mostly representing squatters’ estates, encompassed the predominant share of freehold (occupied) land in the colony in March 1860. As Figure 4.6 illustrates, the total area occupied by the thousand largest farms more than doubled the whole acreage enclosed by around eleven thousand smaller farmsteads of 5 to 350 acres.

Figure 4.6 Amount of land in occupation embraced by farmsteads of different sizes in March 1860

Figures 4.7 - 4.10 show that the economic positions of large land proprietors were strong across the colony, yet the total extent of alienated lands varied considerably from region to region. A million acres had become a private property in the counties of Bourke and Grant, which was the natural result of the lengthy process of auctioning local Crown Land continuing since the late 1830s. The private domain in another long-established coastal region represented by Normanby and Villiers counties comprised a third of Bourke and Grant’s extent. 250,000 acres were privately owned in the recently settled county of Talbot and only half of this acreage in the Loddon district.

The concentration of land in large holdings had already been noticeable in Port Phillip and this process only accelerated as the gold rush enabled a large number of colonial residents to amass considerable personal wealth. Furthermore, there were a very few worthwhile outlets for spare capital in the recently settled colony; purchase of Crown Lands as a long-term investment was one of them.
Figures 4.7 – 4.10 Amount of land in occupation embraced by farmsteads of different sizes in the selected counties and the Loddon district in March 1860

Figure 4.7 Bourke and Grant counties

Figure 4.8 Normanby and Villiers counties

Figure 4.9 Talbot county

Figure 4.10 Loddon district

The growth of large landholdings, though not resulting in the widespread establishment of cropping estates in the 1850s, produced another result: the further spread of tenant farming. In 1860 around ten thousand crop-growers who utilised holdings exceeding five acres specified to regional collectors of agricultural statistics a type of their land tenure: freehold or leased. The relevant data presented by Figure 4.11 demonstrate that every fourth cropping farm in the colony was held on a temporary lease from a private person. As in the 1840s the occupier of the leased private land was most likely to be a small or middle scale producer: four-fifths of all tenants farmed allotments not exceeding 200 acres.

Figure 4.11 Numbers of farmsteads unconnected with runs held in freehold and under lease in Victoria in March 1860

Figures 4.12 – 4.15 Numbers of holdings unconnected with runs held in freehold and under lease in the selected counties and the Loddon district in March 1860

Figure 4.12 Bourke and Grant counties

Figure 4.13 Normanby and Villiers counties

Figure 4.14 Talbot county

Figure 4.15 Loddon district

Predictably enough, Figures 4.14 and 4.15 demonstrate that tenant farming was rather uncommon in central Victoria, where local agricultural settlers enjoyed rather high chances to purchase an appropriate allotment through Crown Land auctions. Nine out of ten cultivators in Talbot county and the Loddon district were landowners who most likely acquired land directly from the Crown. In stark contrast, in the coastal counties, where large acreages of good agricultural lands in the immediate vicinity of urban settlements had been purchased well before the gold discovery, many new settlers were compelled to take private land under lease. According to Figures 4.12 and 4.13, every third cultivator in the two counties around Melbourne and the Western district rented land for his/her farm.

Under the existing conditions of the 1850s when the horizons for commercial farming expanded tremendously in many places of the colony leasehold ultimately contributed to the high mobility of the farming population. Most of the few thousand small crop producers who leased farms were virtually on the move, ready to shift their operation anywhere where commercial prospects might appear more attractive. The small scale of their farming establishment, generally consisting of few agricultural implements and domestic animals, simplified the relocation. The process of the resettlement of the Sainsburys who leased a small farm for just one year near Melbourne but then moved to the Loddon River was repeated by many hundreds of novice farmers in Victoria in the 1850s.31 A collector of agricultural statistics from the western part of Victoria testified that he ‘met many farmers in East Ripon possessing fine farms of their own, who began a few years ago as tenants’. 32 His colleague from Grant county reported that:

\[
\text{[S]cores of men, living but a few years since within a radius of ten miles from Geelong, have left the locality, and are now pursuing a pioneer sort of life in the newly settled districts of the interior, their places have become filled up by}
\]

31 Argus, 21 November 1854, p. 5.
others, and as the lands became alienated from the Crown a different class of men succeeded them.\footnote{33} Some of these Geelong farmers were able to re-establish themselves on the land in the vicinity of Ballart where market was much more lucrative.\footnote{34}

Another powerful incentive for many well-to-do tenants to consider moving farms was the irresistible attraction of land ownership. In 1852 Alexander Duncan in his responses to the Royal Commission testified that many tenant farmers who were successful in gold seeking would prefer to purchase land and devote all their time to crop-farming.\footnote{35} The same year, it was reported by the \textit{Portland Guardian}, that many local tenant farmers who had been fortunate at the diggings, were ‘ambitious to become proprietors’.\footnote{36} In the absence of statistical evidence it is impossible to determine whether these resettling farmers always moved on to the larger holdings, but it can be surmised that there was a possible increase in the extent of their farmland.

Figure 4.16 illustrates that small agriculturalists occupying farms under 100 acres and crop-growers on middle-size holdings of 100-350 acres, were the main producers of crop-commodities in the colony. Four-fifths of the colony’s cultivated acreage was tilled on small and middle farms. It can also be seen that crop-cultivation was also intensively carried on by the largest landholders. The farms exceeding 500 acres accounted for 15 per cent of crop-acreage in Victoria. This fact may confirm the earlier suggestion that by 1860 many large landholders were developing systems of mixed farming, relying on both livestock and crop-growing.

\footnote{34} Miner and Weekly Star, 11 March 1859, p.1.  
\footnote{36} Cited by Kiddle, Men of Yesterday, p. 226.
Figure 4.16 Amount of land in cultivation by farmsteads of different sizes in Victoria in March 1860


Figures 4.17 – 4.20 show that the small- and middle-scale farms of 5 – 200 acres prevailed in the distribution of cultivated acreage in the metropolitan counties of Bourke and Grant and the goldfields region of Talbot and Loddon, where they encompassed around 60-70 per cent of local tillage. The fact of concentration of cropped acreage on farms under 200 acres in the metropolitan region and central Victoria may indicate that the holdings of these relatively small sizes could be an economically viable area of land to sustain the contemporary crop-producer in regions where the market was within easy reach from his or her establishment and where prices on many types of his prospective produce tended to be high.
Figures 4.17 – 4.20 Amount of land in cultivation by farmsteads of different sizes in the selected counties and the Loddon district in March 1860

Figure 4.17 Bourke and Grant counties

Figure 4.18 Normanby and Villiers counties

Figure 4.19 Talbot county

Figure 4.20 Loddon district

On the other hand, in sparsely populated localities where the commercial outlets for crop produce were unreliable and prices were generally lower than near goldfields or Melbourne, small-scale farming had rather limited scope for development. In the Western district slightly more than a half of local farmsteads occupied an area under 100 acres, yet their share in the distribution of local tilled acreage did not exceed a quarter. It may be suggested that arable agriculture on such small holdings had mainly a subsistence character across the district unless practiced near coastal townships. Most crop-commodities were grown on middle-scale farms of 100-350 acres, embracing nearly two-thirds of local cultivated tillage. Unlike other colonial regions where the estates occupying more than 500 acres were important producers of crop-commodities, the largest landholders of the Western district gave their preferences to livestock-farming, accounting for less than one-tenth of local tillage. The absence of attractive large-scale outlets for crops preserved the economic dominance of subsistence cultivation on pastoral stations in this region.

The average figures of crop-acreage per farm can give some indications on the technological advances of colonial crop-producers. Figure 4.21 demonstrates that farms which occupied more than a hundred acres did not differ considerably in the average extent of tilled land which fell in a range between fifty and seventy acres. The figures, however, varied across the colony (See Figures 4.22 – 4.25).
Figure 4.21 Average crop-acreage on farmsteads of different sizes in Victoria in March 1860

Source: Calculated from Figures 4.1 and 4.16.
Figure 4.22 – 4.25 Average crop-acreage on farmsteads of different sizes in the selected counties and the Loddon district in March 1860

Source: Calculated from Figures 4.2 - 4.5 and 4.17-4.20.
The average tillage per farm was smaller in the Western district where it fluctuated between forty and sixty acres. It is remarkable that the largest farmsteads of the district ploughed allotments not exceeding twenty five acres. In stark contrast, similar estates in Talbot cropped four times larger areas. Joyce’s scale of crop-farming operations, tilling a few hundred acres of land near Maryborough, was not atypical for large agriculturalists in central Victoria.

Likewise in the metropolitan region, an average landholder occupying an allotment of more than 350 acres had under the plough around seventy acres. Here Wade’s model agricultural establishment with 250 acres tilled land, as visited by an *Agrus* reporter in 1859, was not an uncommon phenomenon. Mechanization assisted these large farmers by enabling them to reduce their expenditures on labour. Raby’s analysis of farm-sale notices published in Victoria’s newspapers in 1857 showed that 16 per cent of coastal farmsteads advertised for sale had new reaping machines. Two years later the collector of agricultural statistics in Ripon county encompassing Ararat goldfields also observed the rapid adaptation of horse-operating threshing equipment. He even noted ‘seven steam threshing machines … the property of some of the wealthiest farmers, by whom they are let out on hire when not required for their owners’ use.’ Even so the financial burdens of paying wages were enormous. In 1857 to crop a 300 acres allotment and maintain his 8,000 sheep flock Joyce needed to employ twenty two farm hands whose wages amounted to £2,000.

In a situation in which agricultural labour was costly and the market for bulky crop-commodities was by and large too distant, arable agriculture was never very attractive to most large landholders. On the other hand, the excessive cost of hired labour could hardly constrain the further expansion of small- and middle-scale farms

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37 *Argus*, 24 March 1860, p. 5.
40 *Homestead History*, p. 181.
which could be operated by one family. In the mid 1850s a contemporary admitted: ‘[the] purchasing and cultivating of small pieces of land by families without the employment of labour, is becoming a feature of the rural economy of this colony’.  

The colonial censuses also documented the remaining economic supremacy of small crop-producers over the 1850s. The ratio of male farmers to male farmer labourers was constantly very low: 1 to 1.5 in 1854, 1 to 1.75 in 1857 and 1 to 1.4 in 1861. Normally, a crop-producer therefore utilised labour of one or two permanent farm workers, a sufficient workforce to have under the plough an area of fifty acres. The fragmentary farm accounts of James Davis, who inherited the farming establishment from his father James Wentworth Davis, also confirm that expenditures on hiring labour were not significant on a small-scale farmstead. The entries of Davis-junior, which might however be incomplete indicate that over 1858-1860, apart from very few instances of employing labourers on a daily basis, the farmer only twice spent large sums on the wages of his labourers: in July 1859, he was charged £18 for erecting a fence and then next month, he paid a ploughman 30 shillings a week.

It is not surprising that small crop-farming, already able to advance rapidly in much less advantageous economic conditions in the 1840s, burgeoned with the gold opportunities of the following decade. Small agricultural settlers had good access to the land. In the well established coastal agricultural new farmers could largely acquire private land or obtain it under lease while in the recently opened up central Victoria areas the purchase of Crown Lands at auctions might be the most viable option. As in the preceding period the great benefit for small producers was their self-sufficiency in labour, a paramount factor under rising wages of farm hands in the 1850s. The new decade, however, revealed a new important advantage of small producers.

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41 *Argus*, 13 December 1855, p. 6.
42 *Census of Victoria, 1861*, Occupations of the People.
44 SVL, MSS 11582, Farm account of James Wentworth Davis.
farming: the capacity to resettle quickly on new territories where conditions might appear more favourable to cultivators.

Most squatters, the colonial landlords, did not develop large-scale advanced crop-farming because of the high cost of hired labour or the better profitability of wool production or because of their remoteness from crop-markets. Even though a number of large cropping estates were established in the vicinity of the two largest colonial markets - the metropolitan region and the goldfields - they were just isolated islands in a large sea of small farmsteads.

‘Does farming pay in Victoria?’

In 1857, James Bonwick, an inspector of denominational schools in Victoria, touring throughout the Western district, could not restrain himself from a few cutting remarks on the virtues of Warrnambool rural society:

The condition of morals is regulated by the price of wheat. In the good times there was a reckless of expenditures and a wildness of dissipation here quite equal to the Melbourne days ... Farmers rode to town upon fine horses and their wives and daughters followed them in equal style. With wheat at 25s. a bushel, and oats, potatoes, etc., at equal high rates, what could be done with the money unless turkeys were eaten at home, and any amount of bottles lost their corks.\footnote{Bonwick, \textit{Discovery and Settlement}, pp. 55-56.}

Bonwick’s moral disapproval of farmers’ riches echoed the dramatic changes in the financial positions of colonial crop-producers in the 1850s. Once gold was discovered the moderately remunerative small-scale farming in a very short run transformed into an extremely profitable commercial enterprise. As the previous chapters have demonstrated, the small farmer by virtue of the size of his establishment could plant cash crops with a relatively small monetary input. The producer certainly needed some finances to obtain land, either under lease or in fee-
simple, as well as to purchase basic agricultural implements and draught animals yet he was largely self-sufficient in labour power, making use of his own and family members' unpaid hands.

In May 1854, Elizabeth Walter, the wife of a Geelong farmer who had a freehold sixty nine acres allotment, wrote to her sister in Devon, England:

The times are very good in this colony for all sorts of industrious people. wheat is woth one pound per Bushel 60 Lb. Barley 10/- and strange as it is Oats is 15/- per bushel 40 lb. potatoes 6d. per pound hay is woth £25 per ton. We shell make this year at least £ 1500 of hay. Labour horses are woth £ 150 each a pare of Oxen £ 50 and a good cow £ 15. Masons and carpenters 30/- per day, Labour men from 15/- to £ 1 per day, Ducks are £ 1 cupple, fowls 10/- per cupple, eggs 6d each, butter 5/- 1lb. Money is very plenty I can assure you we have more of it than shoud of we had lived in England our days.\(^46\)

Elizabeth’s husband occupied just 70 acres, yet his proceeds from just growing crops for hay amounted to an astonishing sum of £1,500. These were profits for a small ordinary cultivator which must have seemed inconceivable to any knowledgeable nineteenth century European agriculturalist. They do not appear to have been exceptional in Victoria in the mid 1850s. At Eltham, a farmer on a tiny four acre plot made £600 in one year. His fellow land-cultivator from Campbellfield enjoyed a staggering income of £12,000 during the first four years of the Gold Rush, utilizing less than 200 acres of land ‘by ordinary process of colonial farming’.\(^47\) In 1854 the Argus emphasized that ‘even under all disadvantages, judicious farming, with moderate capital, is extremely profitable, and a very many cultivators near Melbourne, paying high rents, have made fortunes in the last few years’.\(^48\)


\(^{47}\) *Argus*, 13 December 1855, p.5.

\(^{48}\) Ibid., 18 August 1854, p. 5.
The potential returns from cultivation in the vicinity of Melbourne might be roughly comparable with that from gold mining pursuits. Richard Fairland, a small cultivator and storekeeper at Moorabbin in his letter to his uncle in June 1855, stressed ‘we can do better by cultivating our land 2 acres which we find will give us sufficient employment’ instead of going to the diggings. He was able to sell his potato harvest for £150 but ‘at the proper season … could have sold the produce for £500’.

Undoubtedly, the financial burdens of agricultural settlement were heavy as well in the 1850s. The family of an intending cultivator consisting of a married couple, two sons and two daughters was believed to have needed to possess around £1,500 to clear and cultivate a one hundred acres allotment, fifteen - twenty miles from Melbourne. To purchase the land, the family would have needed to spend a third of their initial capital. Slightly less would be absorbed by essential agricultural implements (a plough, a harrow and other farming tools), seeds, draught animals (two horses) and a dray with harness, four cows, pigs and poultry. Approximately £200 was expected to be spent on building materials in order to erect a temporary two or three room hut and basic household items: utensils, furniture and clothing. The remainder of the capital would be required to purchase foodstuffs and forage crops initially needed to sustain the settlers and their animals and to pay for ‘contingencies’ such as newspapers and doctor’s bills. It is noteworthy that in the letter miscellaneous outlays, totalling a surprisingly precise sum of £181, incorporated spending on hired labour which was projected to be minimal. Assuming that in two or three years, a sixty acres block was cultivated with hay, wheat and vegetables and the number of domestic animals available for sale increased, the annual net profit of that farming family might have reached around £1,700, exceeding the initial costs of settlement.

49 *Argus*, 1 April 1863, pp. 4-5.
50 SLV, MSS 11607, Richard Fairland, Letters Written to his Uncle in 1855 and 1862.
51 *Argus*, 18 August 1854, p. 5.
The capital of £1,500 needed to take up crop-farming was definitely a very considerable amount of money even against the soaring colonial wages of the golden decade. It would take a quarter of a century for Alexander Duncan’s best farm labourers who were paid £65 per annum to save that sum. Even Elizabeth Walter’s much higher estimations of labour wages at £1 a day, suggest that it might have taken at least five years to a worker to accumulate an impressive £1,500.

Where then did agricultural settlers manage to get such a significant capital from? It needs to be stressed that a real cost of settlement could be in fact much less than that theoretically estimated. Prospective agriculturalists might have found cheaper land to purchase or acquired a smaller allotment or obtained a holding under lease. As shown in this chapter, the cost of Crown Lands appropriate for growing cash-crops generally did not exceed £2 an acre in the hinterland regions far less than than stated in the hypothetical estimation. Furthermore, agricultural settlers and their families were likely to have cut down expenditures on ‘contingencies’ and some domestic items. They might have also purchased fewer domestic animals or less building materials for their temporary shelter. These possible savings in the settler’s initial expenses reduced the amount of required capital. In 1859, in the Western district, two brothers who were about to take under lease a 300 acre un-cleared allotment at 15 shillings an acre needed just around £500 to commence growing cereal crops. The estimations of The Victorian Farmers’ Journal and Gardeners’ Chronicles made in 1860, also suggested that to commence farming on a 100 acres leased farm an agricultural settler might spend approximately £500 - 600 on the annual rent, clearing the land, fencing, building a house, purchasing implements and animals, and surviving the initial period of settlement.

Such minimal capital for agricultural settlement might well be procured by working for wages. As in the 1840s, in the following decade a hired worker had a real

53 Kiddle, Men of Yesterday, pp.226-227.
opportunity to make substantial savings, owing to the high cost of labour. In December 1856, a recent migrant, Alexander Duncan, in a letter to his parents to Scotland, emphasised that: ‘this is a better country for the working man than the home country I will never come home and work to the farmers as I have down a man has a chance here if he is stady and be haves himself’. The example of the Sainsburys, who accumulated minimal capital to settle themselves on their own land just in two years in their capacity as wage earners and tenants, was not atypical at the time.

The colonial residents who were actively taking up farming in the 1850s, however, were not necessary all wage-earners. A considerable proportion of agricultural settlers may have obtained their capital on goldfields. In March 1853 the total sum of all deposits kept at the four colonial banks amounted to five million pounds. It was thought that money mostly belonged to small depositors, primarily successful diggers as ‘substantial yields of gold mining have been divided among the large number of individuals, and those persons are most of them – small farmer, runaway sailor, an expiree, carpenter etc.’ The average sum of a deposit was reckoned to have ranged from £500 to £1000. This capital was not a fortune for the booming colonial society, yet it was definitely a sufficient sum for a prospective agricultural settler to launch into small-scale crop-farming. The decision of such depositors to attempt to farm land or at least purchase a holding was further stimulated by rather limited investment options in the colony. As manufacturing was embryonic, the purchase of land either for cultivation or a long-term investment was a convenient outlay for idle personal capital.

55 SLV, MSS 12358, Duncan Alexander, Letter to his Parents in Scotland from Tower Hill, Victoria (original spelling preserved).

56 The head of the family deceased at Sandon near Castlemaine in 1888, having left an allotment of 180 acres and personal belonging worth almost a thousand pounds. (PROV, Probate and Administration Records, File 37/462)

57 Argus, 24 March 1853, p. 6.
While more and more recent migrants were turning into colonial agriculturalists, the market was becoming better supplied with crop-commodities and the prices naturally dropped by 1860. It has been already admitted that the declining prices and high cost of farm labour resulted in a public impression that farming did not pay under current circumstances on the eve of selection. To support her argument of the ‘disillusioned and depressed’ small agriculturalist farming land in the metropolitan long-established agricultural region, Peel estimated the expenditures and proceeds of a hypothetical small rented farm on Barrabool Hills for 1859-1860. She assumed that the farmstead occupied area of thirty acres, of which one-third was planted with wheat. According to her calculation, the crop-producer would have obtained around £ 45 net return. (See Table 4.3)

Table 4.3 Returns from wheat-growing on a tenant farm near Melbourne in the late 1850s

<table>
<thead>
<tr>
<th>Wheat yield per acre</th>
<th>18.4 bushels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minus seed</td>
<td>1.4 bushels</td>
</tr>
<tr>
<td>Gross return at 8s 6d per bushel</td>
<td>144s 6d per acre</td>
</tr>
<tr>
<td>Cost: reaping</td>
<td>20s</td>
</tr>
<tr>
<td>Threshing</td>
<td>12s</td>
</tr>
<tr>
<td>Rent</td>
<td>22s</td>
</tr>
<tr>
<td>Net returns</td>
<td>91s per acres</td>
</tr>
<tr>
<td>Net returns for 10 acres</td>
<td>£ 45.10s</td>
</tr>
</tbody>
</table>

Source: Peel, *Rural Industry*, p. 98

Peel believed that the proceeds of selling wheat crops ‘could well represent almost the entire farm income on a farm such as this’. The returns from the cow, poultry, pigs and vegetables would provide ‘little more than the requirements of the farm household’. Peel’s estimations, however, can be challenged. First of all, it is highly implausible that a lessee planting ten acres under wheat would come to a decision

58 Peel, *Rural Industry*, p. 98.
to hire someone to reap and thresh his corn. The cultivator alone, without any assistance, could have harvested his tiny plot in not more than ten days.\textsuperscript{59} By saving on hiring farm hands his net returns therefore must have increased to around £ 60. It should be remembered, however, that the farmer’s expenditures must have included not only the rent but the depreciation of his basic assets: farming implements, draught animals, a cart or a dray, harness, and the like. It is difficult to estimate how much would be the total annual outlays of the farmer, yet they would have certainly absorbed most of his returns from wheat planting.\textsuperscript{60}

Is Peel therefore right in her assumption of inadequate returns from the crop-farming in the central counties? I think she is too pessimistic. Her imaginary land-cultivator was very probably intelligent enough person to grasp the idea that it was more valuable to farm his small allotment with oats for hay rather than wheat for grain. Peel herself acknowledges that gross returns per acre from oaten hay were constantly higher than wheat in the 1850-1860.\textsuperscript{61} In addition to making hay his staple commodity, the farmer definitely might have got supplementary earnings from selling other types of agricultural produce: vegetables, potatoes, poultry, eggs, dairy products, etc. Finally, he might have tried to obtain an additional off-farm casual income by selling his labour. Certainly, that person would still hardly be considered as prosperous or wealthy.

But how typical was this cultivator his fellow farmers in Bourke and Grant? In 1860, the collectors of statistics of these two counties enumerated 4,196 local cropping farms; only 9 per cent of them in fact fell within Peel's criteria: the farming household occupying a leased allotment from five to fifty acres. A quarter of the total number of actual local farms comprised similar small households, yet these were on freehold

\textsuperscript{59} Pike, *Paradise of Dissent*, p. 329.

\textsuperscript{60} The total cost of two mares, a dray, a plough, a harrow and essential farming tools to launch cultivation amounted to £ 270 (*The Argus*, 18 August, 1854, p. 5) Assuming the depreciation of 10 per cent, the farmer might have need annually around £30.

\textsuperscript{61} Peel, *Rural Industry*, p. 102.
land; the implication is for much higher actual average returns of farmers than was assumed by Peel.62

The editor of the Victorian Farmers’ Journal made a contemporary assessment of profitability in farming in a series of articles entitled: Does farming pay in Victoria? Numerous farms were inspected in the neighbourhood of Melbourne, where land-culturators were ready to provide their estimation on the cost of production of various crops. In May, 1861 a journal reporter paid a visit to Bartin’s farmstead located near the Duck Ponds station on the Geelong – Melbourne railway line, halfway between Melbourne and Bacchus March.63 Bartin rented a farm (the total area was not specified) of which 150 acres was sown to wheat in 1859. According to the farmer’s calculation, his monetary expenditures on wages, rations, and forage for ploughing totalled 8 shillings per acre, sowing with seeds 15 shillings, and harvesting – 9 shillings. With depreciation of stock and equipment valued at 6s 8d per acre and rent at £1 per acre, the total cost of wheat production on that rather large establishment amounted to around £2 18s an acre. Yields averaging twenty bushels an acre and market price of wheat at 6 shillings a bushel, secured gross returns at around £6 an acre, which left more than a satisfactory profit margin for the farmer.

To a great extent, these significant proceeds from wheat-growing were conditioned by mechanical methods of harvesting grain. Bartin employed a South Australian-made stripping machine, and a winnowing machine, which enabled him to reap, clean and bag his wheat in the field, covering between seven to eight acres a day. The reporter stressed that should the farmer rely on manual labour alone to harvest his crop, the cost of harvesting would have increased to nearly £2 4s an acre, thus making a large-scale wheat-production a poorly rewarded enterprise.

In October 1861, the reporter went to the Heidelberg agricultural area and provided his calculation for growing potatoes on local lands. Expenses per acre for ploughing and harrowing were estimated at £1 10s, drilling – 15s, hoeing – £3, cost of seeds and planting - £2 15s, manuring with guano - £1 10s, digging - £3 12s, carting to Melbourne - £6 (the rate of 20s per ton). The total production cost equalled around £19 an acre. Yields of potatoes were generally 6 tons per acre and market price of this crop fluctuated around £4 per ton, which left a cultivator a net profit of roughly £5 per acre.

The same month, the *Farmers’ Journal* published a report of a visit to the farming area around Tullamarine. As hay was the staple for local farmers, the *Journal* assessed the cost of production of this commodity. The per acre expenses related mainly to ploughing, planting, seeds, mowing, and stacking were assessed at £2 4s along with the rent of £1. The average cost of hay at £4 a ton and yields of a ton and a half per acre would bring the cultivator a net profit of slightly less than £3 per acre.

Probate records provide further evidence supporting the argument that crop-farming was quite remunerative in Victoria on the eve of selection, and paid well even in the long-established agricultural region around Melbourne and Geelong. (See Figures 4.26 and 4.27)

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64 *Victorian Farmers’ Journal*, 12 October 1861, p. 1265.

65 Ibid., 19 October 1861, pp. 1296-1297.
Figure 4.26 Wealth of farmers who died in the colony of Victoria in 1859-1860. Frequency distribution.

Sources: PROV, Probate and Administration Records.\(^{66}\)

Figure 4.27 Wealth of farmers who died in the counties of Bourke and Grant in 1859-1860. Frequency distribution.

Sources: PROV, Probate and Administration Records.\(^{67}\)

The figures indicate that the colonial farmer of the late 1850s differed greatly from his predecessor who had farmed the land ten years earlier (see Figure 2.3). The under-capitalised small settler of the Port Phillip days had given way to the agricultural producer who - even in the traditional agricultural counties of Grant and Bourke, where the cries for protection were once quite shrill - enjoyed a much higher degree of financial security. According to Figure 4.26, in the late 1850s roughly 30 per cent of colonial farmers were likely to enjoy the property ranging between £250 and £500. The equivalent proportion was even better-off possessing assets valued at £500 – £1000.

It has to be pointed out that amounts of wealth stated in probate records were roughly estimated by legatees who tended to diminish the value of their inherited property in order to try to reduce their duties. Isabella Baker, the widow of George Baker, a farmer, late of Willington near Donnybrook who died in November, 1860 declared that the whole property of her husband did not exceed £80. Yet, George himself in his last will and testament, made a month before his death, listed a deposit of £50 on the Bank of Australasia, an allotment of land (size was not specified) with a hut, four cows, two mares, forty foals, a yearling, a horse dray with harness which must have valued much more than the sum officially declared by the widow. Likewise, in their official letter to the Supreme Court on the validity of the will of Robert Hillard, a farmer of the county of Bourke, deceased in December 1860, two legatees claimed that the sum of all possessions they were aiming to inherit was below £100. Nevertheless, Hillard’s last will which was written in June of the same year bequeathed around £650 in cash to his children.

Just before the selection decade of the 1860s, crop-farming remained a remunerative occupation in Victoria. There must have been many exceptions to this statement, owing to the sheer size of the ever expanding army of cultivators, whose ranks included many thousands of individuals managing the cropping farms in the colony. Yet the convincing evidence suggests that majority of them had rather sound financial positions. Some might well invest their savings earned in other capacities into crop-farming, but some, especially those who practiced farming during the boom of the early-mid 1850s, might have a clear chance to make steady profits by growing cash-crops. The gold rush therefore accelerated dramatically the process of accumulation of capital by farming population which had already commenced in the Port Phillip period.

68 PROV, Probate and Administration Records, File 3/467.
69 Ibid., File 3/499.
Conclusion

It is hard to find in the history of Victoria another decade which would equal the 1850s in the number of pivotal events and magnitude of social and economic changes. The intensity of this historical dynamism, on the one hand, and academic commentary on the depressing state of Victoria’s agriculture in the late 1850s, on the other, somewhat overshadow the process of dramatic transformation experienced by the society of colonial land cultivators in the period between the gold discovery of 1851 and the Land Acts of the 1860s.

The staggering numeric and, to a lesser extent, territorial expansion of the farming community are easy to notice. While on the eve of the gold rush, there were around a thousand cropping farmsteads, located predominantly on the outskirts of some young coastal townships, at the close of the decade, this figure was, at least, ten times larger. The agricultural settlement also spread out far beyond the immediate vicinity of seaside settlements. Prior to the rush the sole cultivators in the Port Phillip hinterland were squatters engaged in subsistence cropping; now the soaring markets of mining areas in central Victoria stimulated the establishment of many hundreds of local farms producing tradeable crops.

Despite the extensive growth in the ranks of colonial cultivators, the nature of local farming society did not change significantly over the 1850s. Even though squatters who had pastoral stations in the close proximity to booming urban settlements developed the systems of large-scale mixed arable and livestock agriculture, small landholders still composed an overwhelming majority of crop-producers in the colony. Roughly fourth-fifths of around twelve thousand cropping farmsteads occupied an area of land falling in the range between five and two hundred acres. As in the pre-gold rush period the viability of small farming was determined by limited expenditures on high-cost hired labour and the moderate cost of agricultural settlement which was affordable to large number of colonial residents. The auctioning method of distribution of Crown Lands preserved in the 1850s also did not block public access to land resources. Leasehold or purchase of private lands
seems not to have imposed serious monetary burdens on settlers in the coastal counties where a large acreage had been already alienated from the Crown before the gold rush. Moreover, in the booming central Victoria region where the bulk of the public domain was opened up, novice farmers could obtain an allotment directly from the Crown at rather low prices.

There was, however, a crucial change in the financial position of small landholders. They became considerably wealthier over the 1850s. There was a great margin between the inflated purchase prices of crops and the low cost of their production on small farms during the gold boom. It enabled thousands of cultivators generate in a very short-run substantial personal capital. Furthermore, a large number of colonial residents who established themselves on the land on the 1850s drew on the significant savings they had made on the goldfields or by other pursuits. Farmers were better-off now than the Port Phillip settlers of the 1840s.

The 1850s also revealed a new feature of the colonial farming community: high mobility of its members. This moving-on resulted from a combination of factors: the spread of leasehold or short-term occupation of private land, increased personal wealth of cultivators, and expanded commercial opportunities in the goldfields hinterland regions where fresh lands could be more accessible. The gold 1850s therefore laid a foundation for further agricultural colonisation in the colony: they created a large farming class, provided its members with wealth, and encouraged the mobility of rural population.

The 1860s opened further prospects to colonial agriculturalists. Until then, the government legally restricted activities of cultivators by opening up relatively limited quantities of lands distributed through auctions. The Land Acts of the new decade offered current and intending crop-producers an enormous pool of low-priced uncultivated land across Victoria. The following chapter analyses how the changed legislation influenced colonial land-cultivators in the 1860s.
Chapter 5
Guiding Agricultural Settlement:
The Land Acts of 1860, 1862 and 1865

Prolific gold yields so generously feeding the colonial society and economy in the 1850s could not last long. Whilst shallow rich gold deposits were gradually being worked out, more and more Victorians initially engaged in mining and associated occupations began seeking alternative sources of income. This social quest for new opportunities nourished fierce public campaigns demanding land reforms in the colony. As a political response, in 1860, 1862 and 1865 the members of the Victorian Parliament voted for new legislation designed to assist smallholders to settle themselves on the land and become independent agricultural producers. Rather than acquiring Crown Lands only through auctions, intending settlers now had an opportunity to take up allotments within agricultural areas defined by the government and to purchase their selections at a uniform price of £1 per acre.

There is remarkable unanimity of academic opinions on the Land Acts of 1860, 1862 and 1865 which have become synonymous with corruption and evasion. Historians have emphasised that it was mainly squatters and speculators who took advantage of the legislation since numerous legal loopholes allowed them to get hold of large areas of cheap fertile land. *Bona-fide* smallholders gained little from the changed methods of land distribution largely because of this widespread violation of the law.¹ Joseph Powell noted, however, that the 1865 Land Act worked more efficiently in terms of promoting genuine agricultural settlement than the earlier legislation. He largely attributed this fact to the personal qualities of its chief administrator James Grant and the ‘autocratic control assumed by the Minister over every aspect of the

operation of the land legislation”.  

Grant was explicitly presented as an omnipotent executive, possessing an ultimate power ‘to place thousands of miners, labourers and tradesmen on smallholdings’.  

This strong emphasis on Grant’s autocracy and on the unlawful activities of pastoralists, land sharks and mediators essentially hides from view the small settlers themselves. I contend that those often made their own rational choices when approaching the newly opened land resources.

The objects of this chapter are the content and provision of the 1860, 1862 and 1865 Land Acts. Unlike the works of the previous historians exploring mainly the social and political significance of the new legislation, the chapter evaluates the Acts through the prism of economic interests and incentives of prospective settlers who considered earning a monetary income from cropping available Crown Lands. The central aim of this enquiry is to assess the impact of the first three Land Acts on the formation of farming society in Victoria in the 1860s. The chapter is subdivided into three sections reflecting the main pieces of land legislation. The first section deals with the working of the 1860 and 1862 Land Acts. The following section scrutinises the results of the selection campaign initiated by the Land Act of 1865. The last section considers the effects of section 42 of the latter law on farming population in the colony.

The chapter argues that *bona-fide* settlers aiming at growing cash-crops lacked motivation to select lands under the 1860 and 1862 Land Acts owing chiefly to the isolation of proclaimed agricultural areas from local markets. The provisions of the selection under the 1865 Land Act were much more appraised by prospective and current cultivators. This time some opened-up areas were closer to commercial outlets for crops, and the provisional three year leasehold of selected allotment at the rate of 2 shillings an acre reduced considerably the financial barrier to access land resources. The poor harvest in the coastal counties in 1864 and the high domestic wheat prices further encouraged settlers to select lands in hinterland

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2 Powell, Public Lands, p. 119.

3 Ibid., p. 126.
regions and then to commence growing tradeable crop-commodities, grain especially. On the basis of my rough estimation, there were around two thousands of such *bona-fide* selectors, a large proportion of whom were not agricultural novices but experienced farmers who just resettled on larger allotments of fresh land.

The real settlement boom was triggered by section 42 of the 1865 Land Act, however. The section replicating the key notions of the Bourke’s briefly-operating occupation licence scheme of 1861 met the genuine interests of a great number of low and middle class colonial residents who sought agricultural lands. It allowed agricultural settlers to lease blocks of Crown Lands under 160 acres with a rental a few times lower than the rent for similar private lands. Furthermore, section 42 leaseholders were given the right to choose the location of their allotment, thus getting farmland sufficiently close to markets and urban settlements. By 1870 around 16,000 people took advantage of the regulations under section 42. A third of those were likely to be already practicing crop-growers who were able to enlarge the size of their farms; the remainder were new settlers who commenced developing either commercial or subsistence cultivation on their leaseholdings.

Colonial farming society benefited from the Land Act of 1865 in two ways. On the one hand, the legislation aided thousands of already established farmers to gain more land either under selection clauses or under section 42. On the other, it enabled novice agricultural settlers to get to the land with relative ease. The final result of the new legislation was the striking growth of colonial farming community in the second half of the 1860s. This ultimately expanded the social pool of qualified agricultural settlers who would advance the large-scale colonisation of Wimmera and Northern plains in the following decades.
Uneager Settlers: Working of the Nicholson and Duffy Land Acts

The selection era in the history of Victoria’s agriculture began with the first Land Act which came into effect in November 1860.\(^4\) The new law, often cited by the name of the colony’s current premier and chief secretary, William Nicholson, subdivided all public domain in the colony into two categories: ‘Special’ and ‘Country’ (Clause 13). Areas adjoining townships, private holdings, river frontages and railways fell into the category of ‘Special’ lands which continued to be allocated through auctions as in the preceding period. ‘Country’ lands with some minor exceptions comprised the remaining larger part of the public domain. The designated lands of this category within the officially proclaimed agricultural areas were made available for selection (Clause 14). Each area was partitioned into the blocks of 80-640 acres which were further halved into two equal parts, called subdivisions. Settlers could select any block in an agricultural area, but were required to purchase one of their subdivisions immediately. In a situation of two or more applicants, a subdivision was to be sold at a public auction. Once declared the title-holder of a subdivision, the selector was able either to acquire another part or lease it for an annual rent-fee of a shilling an acre (Clause 26).

Nearly 1.4 million acres of ‘Country’ lands were offered for prospective selectors by the end of 1860. The agricultural areas of the Western district encompassed approximately two-thirds of that acreage. Large areas were also opened up north of the Dividing Range in the Loddon and Murray districts, 250,000 and 200,000 acres respectively.\(^5\) Despite an ample supply of fresh agricultural lands and radical changes in the method of land distribution targeting the establishment of new farming units, the Nicholson Act did not spark a great interest among potential settlers: just around 100,000 acres of land or roughly one-thirteenth of the total available acreage was selected in the first five months of working of the new law.

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\(^4\) An Act for Regulating the Sale of the Crown Lands, and for other Purposes. 24 Vic., no. 114, 18 September 1860.

Moreover, nearly 95 per cent of all selected lands was taken up in western Victoria, which indicates a very limited impact of new land policy on the agricultural colonisation outside of this region.\(^6\)

Such results of the Nicholson Act are unsurprising since the colonial policy-makers failed to secure in the selection clauses a key condition of commercial domestic crop-production: the close proximity of the producer to the market. As the previous chapters have shown the cartage of crop-produce over long distances was an extremely costly and troublesome venture and thus not economically viable for Australian crop-farmers in the mid nineteenth century. An agricultural expert of the mid 1860s believed that maximum distance between the grain-grower and the mill must not exceed twenty miles in central Victoria.\(^7\) The calculations of historical geographer and economic historian, Godfrey James Linge, who analysed the movement of wheat in Victoria in the pre-railroad period, verified this figure suggesting that most of the colonial grain harvest was not transported more than twenty-thirty miles from the field.\(^8\) The distance between the crop-producer and the consumer was even smaller in the remote hinterland regions due to the frequently inadequate state of country roads.\(^9\) In 1869, for instance, the *Australasian* matched the progress of the Bendigo district crop-farming to the metropolitan region, yet emphasised that ‘the cultivated land, however, does not extend much beyond the creeks and blind gullies around Sandhurst’.\(^10\)

Most agricultural areas opened up by the Nicholson Act were remote. They were usually between thirty and fifty miles from the nearest large-scale commercial outlets for crops. No wonder that many genuine settlers who intended to develop crop-farming in the inland counties and districts turned a blind eye to the opportunities

\(^6\) *Victorian Farmers’ Journal*, 30 March 1861, p. 376.

\(^7\) *Argus*, 10 April 1866, p. 5.


\(^10\) *Australasian*, 11 September 1869, p. 344.
provided by the selection. On the other hand, the Nicholson Act caused some agitation in the rural community of western Victoria, where the exceptional productivity of land and uncertainty with Crown Land leases stimulated the local stock-producers to take advantage of the new legislation to get land in fee-simple. Auctions to be held in the event of the competition of applicants for choicest allotments, however, increased the cost of land and consequently deterred squatters and speculators from large-scale acquisition of lands in agricultural areas.\footnote{Age. 22 September 1862, p. 7.}

The Crown lands in the vicinity of the diggings certainly attracted a large number of prospective crop-farmers, yet as a contemporary remarked ‘none of those allotments open to selection are at all near any of the principal goldfields, owing to the extent of land sold or reserve around each’.\footnote{Argus, 22 February 1861, p. 4.} As an expected result, an Argus special reporter who went around farming districts in the colony in the mid 1860s managed to discover only one noticeable cluster of a \textit{bona-fide} agricultural settlement promoted by the selection clauses of the Nicholson Act. It was located in the north-east Victoria region near the diggings in the neighbourhood of Yackandandah, Stanley, and Beechworth which ‘provided a ready market for farming produce’ of selectors.\footnote{The Operation of the Land Act, p. 48.}

The applications of selectors provide some quantitative data to measure the degree of interests of different social classes to the Nicholson Act. Under the existing regulations, individuals who intended take up an allotment needed to disclose their occupation in the application form. Regrettably only very small collections of these documents are preserved. Among regional agencies that received and processed applications of selectors, the records of Ballarat and Geelong land offices are most comprehensive.\footnote{Even so the lists of Ballarat and Geelong applications are far incomplete.} Figures 5.1 and 5.2 reveal the backgrounds of selectors who launched their applications through these two offices. The social backgrounds are classified under six key categories. The first category consists chiefly of farmers and small numbers of farm labourers and yeomen. The second represents persons of
trading and artisan businesses. The third category covers selectors who decided not to disclose their occupations stating their callings in rather a vague way, commonly either as gentlemen or ladies, who may broadly correspond to the persons of independent means. Clerks, lawyers, and other professionals make up the fourth category. The fifth category encompasses selectors engaged in livestock farming: squatters, overseers, and general station hands. The last, sixth category, includes selectors who regardless of the legal regulations left the occupation entry blank in their application forms.

Figure 5.1 Sample of occupations of selectors under the Nicholson Act at the Geelong land office

Source: PROV, VPRS 853, units 1-3, bundles 331-333, 370
Figure 5.2 Sample of occupations of selectors under the Nicholson Act at the Ballarat land office

![Bar chart showing occupations of selectors]

Source: PROV, VPRS 853, units 1-3, bundles 275-278

On average, nearly every second prospective selector listed his or her occupation in a very general way either as a gentleman or a lady. They were not the type of an agricultural settler targeted by Victorian legislators. It may be speculated that the large number of these selectors actually acquired land for investment purposes rather than personal settlement. The social status of a gentleman or a lady would explicitly imply a certain personal wealth enjoyed within urban social settings but not permanent engagement in rural pursuits in Victorian countryside. In contrast, only one out of seven selectors belonged to the first category which incorporated persons making a living from cropping and who most likely intended to use a selected land for cultivation. It is also apparent from the figures that at Geelong the proportion of graziers among applicants roughly equalled that of crop-growers, whereas no squatter or station labourer applied for a selection at Ballarat. This disproportion may mean the stronger economic positions of pastoralists in the western part of the colony and higher demand for lands suitable for pastoral industry in this region compared with central Victoria.

It has to be stressed that the data of the figures is limited in scope and must not be overgeneralised. Even so it is obvious that crop-producers as well as the
labouring-classes, the main expected beneficiaries of the new land policy, played a minor part in the selection campaign initiated by the Nicholson legislation. The activities of other types of selectors, however, did not affect greatly the process of land alienation in the colony. Prior to the first Land Act, in the 1855-1860 the private domain expanded at a rather stable annual rate of around half a million acre.\textsuperscript{15} During the operation of the Nicholson Act in 1860-62, around 800,000 acres passed to private hands but only half was acquired through selection; the rest was purchased at Crown auctions.\textsuperscript{16}

The next Land Act was passed by the colonial Parliament in June 1862. Brought into operation three months later, it did not introduce many novelties from the viewpoint of prospective settlers seeking an appropriate place for their cropping farms. The new law, conventionally associated with Gavan Duffy, the Minister of the Lands Department at that time, cancelled the division of Crown Lands into ‘Country’ and ‘Special’ but preserved the key principle of the Nicholson legislation: selection within the boundaries of agricultural areas defined by the government.\textsuperscript{17} The maximum area of selection of 640 acres remained unchanged. If two or more persons happened to apply for the same allotment, a lottery had to be arranged to determine priority (Causes 15 and 19). Those who were successful in drawing lots were required to purchase selected land at the rate of £1 per every acre. Selectors could either pay for the whole allotment and therefore acquire their title for land immediately or, alternatively, purchase only half of it (officially called a moiety) and lease another part at annual rent-fee of 2s 6d an acre. These payments were computed as annual instalments towards the purchase of rented moiety; hence at the end of an eight years’ period, a selector would become the owner of the whole allotment (Clauses 20-22).

\textsuperscript{15} Victoria. VP of LA, 1866, 2\textsuperscript{nd} session, vol. 2, Report of the Proceedings Taken under the Provision of the Land Act 1862 and the Amending Land Act 1865, Appendix I.

\textsuperscript{16} Ibid., pp. 2-3.

\textsuperscript{17} An Act to Consolidate and Amend the Laws relating to the Sales and Occupation of the Crown Lands. 25 Vic., no. 145, 18 June 1862.
Excluding land withdrawn and disregarding unavailable statistics compiled by the Portland Land Office, around 2.6 million acres were made available for prospective selectors in September 1862. The agricultural areas of the Hamilton, Ararat, Camperdown, Belfast and Warrnambool Land Offices in western Victoria comprised a half of that total acreage. Large quantities of land of around 800,000 acres were again opened up north of the Dividing Rand at Inglewood, Benalla, Sandhurst, Beechworth, Dunolly and Echuca. The remainder of gazetted agricultural areas was scattered over the metropolitan counties, central Victoria, and Gippsland.\footnote{18}{Victoria. VP of LA, 1862/63, vol., 3, \textit{Progress Report of Proceedings taken under the Land Act 1862}, p. 7.}

The enormous pool of land instantly available for selection and the system of lotteries enabled land sharks to fish out the choicest allotments at cost much below that dictated by the market. Contributors of some country periodicals spared no words to describe the land swindle that occurred in September 1862.\footnote{19}{\textit{Warrnambool Examiner}, 12 September 1862, p. 2; \textit{Hamilton Spectator}, 12 September 1862, p.2; \textit{Portland Guardian and Normanby General Advertiser}, 7 October 1862, p. 3; \textit{Ballarat Star}, 13 September 1862, p.2; \textit{Talbot Leader and North-Western Chronicle}, 12 September 1862, p. 2; \textit{Ararat and Pleasant Creek Advertiser}, 16 September 1862, p. 2; \textit{Inglewood Advertiser}, 16 September 1862, p.2.} The pattern of evasions, however, varied considerably across the colony. The enormous extent of lands opened up north of the Divining Range attracted only 165 selectors in the above mentioned six Land Offices. Just 14,000 acres were purchased and less than 2,000 acres of that relatively small acreage were acquired through lotteries. There was no great competition there between applicants.\footnote{20}{Victoria. VP of LA, 1862/63, vol., 3, \textit{Progress Report of Proceedings taken under the Land Act 1862}, p. 7.} As a contemporary commented on the initial results of Sandhurst selection campaign ‘little more than a sixtieth part has been taken up, although this was the loudest of the districts in clamouring for cheap land’.\footnote{21}{\textit{Argus}, 6 October 1862, p. 4.} In a similar way from Beechworth it was reported that ‘very little, if any land selected … owing to the protest of the Mining Board, and the
consequent withdrawal of some of the areas, as well as the distance of the land office from the land which can be selected'.

Contrary to the northern parts of the colony, some townships of central but especially western Victoria were plunged into a social turmoil once the local Land Offices began receiving applications for allotments in agricultural areas. Yet, as under the previous Land Act, a very trivial proportion of those who did plan to cultivate their selection for monetary profits applied for land in western Victoria. The prime cause of this disinclination did not change: most of opened-up lands could hardly be utilized for commercial crop production due to largely inaccessible markets. The government, for instance, offered nearly half a million acres of fertile lands at the Hamilton Land office, roughly one-sixth of the whole acreage available for selection in the colony. Yet, this region was virtually isolated from any large-scale outlets for crops. There was no direct road from Hamilton to Melbourne until the mid 1860s and no railway until late 1870s; the greater proportion of potential crop-harvest could not have been marketed. In contrast, the rich productive land of western Victoria, when utilised for the purpose of sheep farming might yield annual returns of 5 – 6 shillings per acre. The local stock farmers had therefore a great inducement to select as much land as their finances allowed. The former could just use a leased moiety as sheep pasture and reap sufficient profits to make regular payments towards the purchase of this land and enjoy ‘a handsome sum besides’.

The short-term public agitation marked by evasions and speculations also took place at some Land Offices of central Victoria. Nonetheless, the proximity to lucrative goldfields markets increased the number of bona-fide applicants who needed land for their own cropping establishments. Statistics on social backgrounds of selectors revealed by the first progress report on the working of the Duffy legislation support

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22 Constitution and Ovens Mining Intelligencer, 18 September 1862.
23 Warrnambool Examiner, 16 September 1862, p.2.
26 Ballarat Star, 13 September 1862, p.2; Talbot Leader, 12 September 1862, p.2.
this view. The proportion of selectors with farming occupations in the in the Hamilton Office made up 30 per cent and in adjoining the Warrnambool and Camperdown offices 20 per cent, whereas in the Maryborough Land office this category of selectors composed 80 per cent.\textsuperscript{27} It may be hypothesised that the share of bona-fide agricultural settlers among selectors who were familiar with farming pursuits was, to some extent, larger than that of squatters, merchants, clerks, gentlemen, ladies, and representatives of other non-farming occupations. Contributors of some country newspapers also observed the success of bona-fide settlement at Maryborough, where opened-up lands were handily located to ‘important markets’.\textsuperscript{28} In the autumn of 1863, the local Evansdorf agricultural area presented a scene ‘of considerable bustle and energy’ as numerous selectors were busily engaged in fencing their allotments, building homesteads and preparing land for cultivation. 2,000 acres were estimated to be already tilled by settlers that season.\textsuperscript{29}

Nonetheless, the successful working of the Duffy legislation at Maryborough was more an exception of the common failure of the legislation to promote agricultural settlement than the rule. Under the growing social pressure generated by numerous abuses the government simply closed down for selection 125 areas in February 1863, which affected all categories of selectors: small bona-fide settlers, squatters and speculators.\textsuperscript{30} The 1863 \textit{Report of Proceedings under the Land Act}, prepared by R. Heales, the President of the Board of Land and Works, emphasized that the largest part of 260,000 acres alienated from the Crown that year was sold at public auctions, while only some of ‘the choicest’ lands were selected. Heales, also remarked in his report that the Board ‘failed to discover a mode, by means of regulations under the law, and with a proper regard to the interests of the property of

\textsuperscript{28} \textit{Maryborough and Dunolly Advertiser}, 15 September 1862, p.2.
\textsuperscript{29} \textit{Talbot Leader}, 7 April 1863, p.2.
\textsuperscript{30} \textit{Victoria Government Gazette}, 3 February 1863, p. 286.
the State, by which they could be opened for selection without courting that evasion of the law'.

The unlawful activities of squatters and speculators and the considerable distance between the proclaimed agricultural areas and the market created serious barriers to the establishment of new cropping farms on the Crown lands offered for selection. There was, however, a third challenge encountered on many small agricultural settlers: the significant monetary cost of opened up land. The imposed price of £1 per acre of either a subdivision under the Nicholson Act or a moiety under the Duffy Act to be paid instantly did not exceed significantly the average cost of ‘Country’ land auctioned in the hinterland colonial regions in the late 1850s. (See Table 4.1) The new legislation therefore reduced to only a limited degree the immediate capital requirements to access land resources. This must have fostered a sceptical attitude of prospective genuine smallholders to selection.

In stark contrast to this minor interest to the provisions of selection, clause 68 of the Nicholson Act which offered a seven year lease of Crown Land for ‘public advantage or convenience’ generated a large number of requests from current and intending agriculturalists. Initially this clause permitted the occupation of land only for non-agricultural purposes but, in May and then in August 1861 the Board of Land and Works headed by J.H. Brooke, issued new interpretations which introduced the pioneering concept of residence and cultivation licenses, often generally referred as the occupation licences.

There were two types of occupation licences, one related to gold-mining areas and another applied to all other ‘Country’ lands. The licence of the first type, commonly called the goldfield licence, gave a successful applicant the right to occupy a plot of Crown Land distant not more than seven and a half miles from any ‘gold-working’. The country lands located outside of this limit could be held under the second type of

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the licence, termed as an agricultural licence. The area of leasehold land under the
goldfield licence was not to exceed twenty acres, while that of the agricultural one
could range between 40 and 160 acres. The law stipulated that if an area applied for
was not surveyed an intending lessee needed to pay for its official inspection.\footnote{\textit{Licenses for agricultural occupation and residence.}, pp. 2-3.}

A goldfield licence holder was charged an annual rent-fee which included two kinds
of payment: £10 for the first two acres, and then 5 shillings an acre for the remaining
eighteen acres. A licensee therefore had to pay overall £14 10s yearly for a small
allotment of twenty acres; a high rate of around 14 shillings per acre per annum. The
licences for ‘Country’ Lands imposed an annual rent at 2s 6d per acre, equal to the
rent for a leased moiety under the Duffy Act not counting towards purchase.\footnote{Ibid.}

From the perspectives of small agricultural settlers as well as already practicing
crop-producers, the new regulations on occupation licences opened an attractive
and realistic prospect of getting on the fresh farmland. While most opened-up
agricultural areas with their rigid boundaries were by and large too distant from the
hinterland settlement and markets to induce bona-fide agricultural colonisation, the
occupation licence offered cultivators the right to choose, or at least apply for,
virtually any plot of ‘Country’ land close to the sites of their interest. In January 1862,
the Ballarat district surveyor’s returns on occupation licences listed 349 approved
applicants, nine-tenths of whom preferred to select land out of surveyed areas.
Similar dispatch mailed from the Castlemaine Office contained the surnames of 275
lessees; only 5 per cent of those chose their allotments on previously surveyed
land.\footnote{PROV, VPRS 1264, Unit 1.}

Furthermore, the rent for agricultural licence most appropriate for commercial crop-
farming by the virtue of their size was relatively cheap. In the contrast to a tenant
farmer on private land who might be charged an annual rental of up to 20 shillings
acre in the early 1860s, a leaseholder of agricultural licence had to pay only one-

seventh of that maximum.\textsuperscript{36} The unsecure tenure and relatively small area of leasehold land could hardly lure squatters and speculators, but it did offer sufficient scope for the activities of genuine crop-producers. In the mid 1860s, a few years after the cancellation of the occupation licence system, an \textit{Argus} reporter touring throughout the agricultural regions in Victoria testified that ‘wherever you discover a thriving farmer in the western district, be sure he made his selection under the occupation-licence system, and has proved that that he really meant to farm by residing on his land and cultivating it’.\textsuperscript{37}

The social pool of the applicants for the agricultural licences was large. Unlike the selection clauses which largely attracted well-to-do applicants, the representatives of farming and working-class population were numerous among licence-holders. In September 1861 the official report of the Board of Land and Works acknowledged that although ‘the regulations of 23\textsuperscript{rd} May [goldfields] do not require applicant to specify their callings, but the majority of applicants for licenses under the Regulations of 28\textsuperscript{th} August [country land] have described themselves as farmers or labourers’. The occupations of some lessees were also listed in the \textit{Memoranda Relative to Residence and Cultivation Licenses} presented to the Parliament three months later. Overall 384 persons who were granted licences disclosed their occupation. Miners comprised just 6 per cent of successful applicants; the proportion of squatters and their associates was twice as large. The representatives of miscellaneous professions of bankers, publicans, brewers, officials, tradesmen, storekeepers, and the like comprised a third of occupiers. The rest of the licences, about half, were held by farmers, dairymen, and labourers.\textsuperscript{38}

By September 1861, the Board of Land and Works had already issued 347 gold licences which by their nature were taken out in the densely populated mining


\textsuperscript{37} \textit{The Operation of the Land Act}, p. 3.

\textsuperscript{38} Victoria. VP of LA, 1861/62, vol., 1, \textit{Memoranda relative to Residence and Cultivation licenses}, p. 4.
areas.\(^{39}\) By the end of that year, 826 agricultural licenses encompassing 98,000 acres were issued. Roughly one-third of the total number of licences was taken up in the Western district (Camperdown, Hamilton, Portland and Warrnambool) and a quarter was selected at Benalla, Beechworth, Kilmore and Kyneton areas. The rest was relatively evenly spread throughout the settled part of the colony. \(^{40}\)

Public demand for cheap and conveniently located agricultural lands was enormous. The returns of the Ballarat district surveyor emphasise that, apart from current licensees, there were around 140 applicants recommended for approval and about 100 persons whose applications were being processed.\(^{41}\) Throughout the colony it was thought that from 5,000 to 7,000 genuine settlers were ready to take advantage of the provisions under clause 68.\(^{42}\) Despite that great demand for occupation licences, the Board of Land and Works very soon suspended issuing them. In December 1861, the Supreme Court declared the practice of occupation licences to be illegal as a result of a suit for trespass launched by a pastoral licensee against a man who had taken up the licence on his station.\(^{43}\)

Even though the larger part of the holders of the agricultural licences continued to occupy and cultivate Crown lands in the following years, taken as a whole the general impact of the first two Land Acts on the development of farming community was not significant.\(^{44}\) The selection clauses of the Nicholson and Duffy Acts which made available for agricultural colonisation millions of acres did not generate the desired interest among settlers who endeavouring to establish themselves on the land in the capacity of crop-producers. The proclaimed agricultural areas were by and large remote from the markets, the competition with land sharks for best allotments was tough and the cost of land, especially for distant areas, might appear

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\(^{39}\) *Memoranda relative to Residence and Cultivation licenses*, pp.3-12.

\(^{40}\) *Age*, 14 September 1866, p. 3.

\(^{41}\) PROV, VPRS 1264, Unit 1.

\(^{42}\) *Age*, 26 September 1861, p. 6.

\(^{43}\) *Argus*, 13 December 1861, p. 6; *Ballarat Star*, 9 December 1861, p. 2.

\(^{44}\) *The Operation of the Land Act*, pp. 5, 8, 33,
excessive. To the disappointment of many contemporaries, ‘the army of settlers which has been impatiently waiting for so many years to march on to the lands and cultivate them has vanished into the air’\textsuperscript{45} which implied that ‘the cry for throwing open the lands, therefore, was a false cry – a cry originating with a few political speculators, and which never was the echo of the real wants of the people’.\textsuperscript{46}

Nonetheless, the short operation of clause 68 indicated the great potential of agricultural settlement in Victoria as a large number of colonial residents did seek opportunities to get on the land and take up crop-farming. The approach to unlock this potential was also indicated by the clause: free-selection not restricted by the officially established agricultural areas and moderate initial capital requirements to access the land.

**Selection under the Amending Land Act**

Just months after the Duffy Land Act came into practice the mounting public embarrassment with its results motivated the members of the Colonial Parliament to promulgate new legal rules to guide agricultural colonisation. Long-term parliamentary debates ended up in March 1865, when the Amending Land Act generally referred to the name of James McPherson Grant, a current president of the Board of Land and Works, was finally passed.\textsuperscript{47} Although the 1862 Land Act was ferociously criticised, its revised version did not alter the core idea of selection: lands for settlement could only be taken in numerous officially defined agricultural areas (Sections 9-12). Not including land soon withdrawn, the extent of the public domain proclaimed open for selection in 1865 totalled slightly more than three million acres. As under the previous legislation, the western Victoria region along with the

\textsuperscript{45} *Argus*, 13 November 1862, p.5.
\textsuperscript{46} Ibid., 2 April 1863, p.4.
\textsuperscript{47} An Act to Amended ‘The Land Act, 1862’. 23 Vic., no. 237, 23 March 1865.
Loddon and Murray districts accounted roughly for four-fifths of opened-up acreage in the colony. ⁴⁸

The upper limit of the selection of 640 acres as well as the procedure of taking up land also remained unchanged (Section 12). Following the regulations of the Duffy Act, the new legislation allowed already established land proprietors to participate in selection. Freeholders could be officially issued a certificate which authorised them to obtain a block of land not exceeding 320 acres in proportion to what they had purchased previously. Selectors under certificates had a privilege to repay the cost of their land over eight years at the rate of 2s 6d per annum (Sections 6-7). One of the important novelties of the 1865 Land Act was the method of transferring selected land into private possession. In order to minimize the risk of Crown lands falling into the hands of speculators and large landowners, the Amending Act stipulated that that the occupation of lands had to be originally granted under a three year lease, with an annual rent of 2 shillings per acre (Sections 12-13). Leaseholders could not assign or sublet their allotments and were expected to make improvements to the land. Provided these requirements were met, selectors were entitled to purchase their allotment at £1 per acre once three years elapsed (Section 14).

Another legal innovation which could influence the actions of bona-fide selectors was the dramatically reduced financial obligations to access land resources. Selection under the first two Acts inevitably incurred instant and large expenses to acquire half of a selected area, either a subdivision or a moiety. As the minimal size of a selection was fixed at 40 acres and a uniform cost of land was established at £1 per every acre, the successful applicant was compelled to spend £20 just to select the smallest possible block of 40 acres. In stark contrast, under the Amending Act the same sum was sufficient to pay an annual rent fee to commence leasing a large 200 acre allotment.

The reduced monetary cost to get on the land ultimately expanded the social pool of prospective *bona-fide* selectors by incorporating a large number of colonial residents receiving relatively moderate income: small farmers, self-employed workers and wage labourers. Moreover, some agricultural areas opened up by the Amending Land Act happened to be in relative proximity to urban settlements. *Bona-fide* selectors there could hope to get a monetary income from cultivation. In the central gold-fields districts, for instance, the new law unlocked lands near Ballarat, Beaufort, Castlemaine, Kyneton and Ararat. In the metropolitan area, small acreages were offered near Melbourne, Bacchus March, Ballan, Geelong and Kilmore. Across the Range agricultural areas were gazetted in seventeen localities, largely near the booming inland mining towns – Avoca, Stawell, Tarnagulla, Inglewood, Sandhurst, Beechworth, and others.49

The weather calamities of the mid 1860s further influenced the decision of genuine settlers to select a block of cheap fresh land in a hinterland agricultural area and to commence growing marketable crops, wheat in particular. Contrary to Powell's opinion that 'heavy rains over most of the settled area of Victoria in 1863-1864 led to a disastrous wheat crop when rust attacked in almost every region,'50 Table 5.1 illustrates that the atrocious weather conditions which indeed caused many coastal farmers financial distress, did not impose severe setbacks for their hinterland counterparts. To make this more evident, the table arranges the main agricultural countries and districts by the average 1864 wheat yields from the lowest to the highest supplemented by statistics on average yields for 1860-1864.


Table 5.1 Wheat yields in the main agricultural counties and districts of Victoria in 1860-1864

<table>
<thead>
<tr>
<th>County/District</th>
<th>Average yields in 1864 (bushels an acre)</th>
<th>Mean average for 1860-1864 (bushels an acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant</td>
<td>1.8</td>
<td>13.2</td>
</tr>
<tr>
<td>Bourke</td>
<td>3.9</td>
<td>15.7</td>
</tr>
<tr>
<td>Villiers</td>
<td>6.5</td>
<td>19.7</td>
</tr>
<tr>
<td>Dalhousie</td>
<td>9.6</td>
<td>18.3</td>
</tr>
<tr>
<td>Grenville</td>
<td>10.6</td>
<td>18.1</td>
</tr>
<tr>
<td>Normanby</td>
<td>12.1</td>
<td>17.6</td>
</tr>
<tr>
<td>Wimmera</td>
<td>13.8</td>
<td>20.9</td>
</tr>
<tr>
<td>Talbot</td>
<td>14.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Loddon</td>
<td>15.4</td>
<td>18.0</td>
</tr>
<tr>
<td>Ripon</td>
<td>16.5</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Source: *Ballarat Star*, 26 May 1864, p.2.

The figures in the table show that grain-growers of the interior regions enjoyed much higher and more stable wheat yields in the early 1860s than their fellow farmers in the coastal counties, chiefly, Grant and Bourke. Commenting on this natural advantage of hinterland farmers, *the Ararat and Pleasant Creek Advertiser*, informed its readers in January 1864 that:

> We are happy to state that the crops in Ararat district, this year are surprisingly heavy, there is none of the drawbacks observable among them, in the shape of rust or caterpillars, which are committing such serious ravages elsewhere. Some of the local farmers inform that us that the grain crops are more than double, and in some instances even treble, what they were this time last year; the oat crop is remarkably prolific, and wheat, which is seldom grown here as profitable as surrounding districts, cannot be surpassed for luxuriance and bearing.\(^5\)

Likewise, a contributor of *Farmers’ Journal* reporting on the results of the Kyneton grain and produce show held in March 1864, notified that a despite poor harvest

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\(^5\) *Ararat and Pleasant Creek Advertiser*, 19 January 1864, p. 2.
‘exhibits of wheat were numerous and the quality highly satisfactory’.\textsuperscript{52} Revising the figures of colonial wheat harvest of 1864, the \textit{Argus} gloomily remarked that it was ‘the worst which has been experienced in the nine years during which agricultural statistics have been collected’. Nevertheless, it was acknowledged that yields at Talbot were much higher than in the coastal counties and ‘Rodney, the Loddon and the Wimmera are by comparison extremely favourable in their acreage returns’.\textsuperscript{53}

The poor grain harvests in the coastal counties, which then produced a considerable part of tradeable wheat in the colony, pushed prices up. While in 1862-1863 the average cost of wheat on the Melbourne market fluctuated around 5 shillings a bushel, in 1864 it doubled and then in the following year dropped slightly and levelled off at around 7 shillings a bushel.\textsuperscript{54}

In a situation when colonial grain prices increased and when yields remained high in the dry hinterland regions, which were largely not affected by the rust, many settlers arrived at a logical decision to try to grow cereals on the cheap selected allotments, so readily available in the autumn of 1865. The same year it was reported from the Ararat district that:

\begin{quote}
[A] great quantity of new land has been obtained, and has been ploughed up ready for next season, and as rust and smut are almost unknown, wheat growing will became general with our farmers; the produce could be very cheaply sent on to the Ararat flour mill by the carriers, who, during several months of the year, pass downwards empty.\textsuperscript{55}
\end{quote}

Three years later, the Ararat newspaper highlighted the great improvement of regional agriculture brought about by the Amending Land Act. Since the beginning of its operation, ‘a surprisingly large extent of land’ had been put under the plough, mostly devoted to wheat.\textsuperscript{56} In April 1868 from Avoca, located north-eastwards of

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{52} \textit{Farmers’ Journal and Gardeners’ Chronicle}, 18 March 1864, p. 186.
\item\textsuperscript{53} \textit{Argus}, 26 May 1864, p. 4.
\item\textsuperscript{54} \textit{Statistics of the Colony of Victoria}, 1870, Interchange, p. 152.
\item\textsuperscript{55} \textit{Age}, 30 November 1866, p. 7.
\item\textsuperscript{56} \textit{Ararat and Pleasant Creek Advertiser}, 14 January 1868, p. 3.
\end{enumerate}
\end{footnotesize}
Ararat just on the edge of the immense Wimmera plains, it was informed, that the plough ‘had turned up some thousand acres’ selected in three agricultural areas opened-up on the banks of the local river. Wheat growing was stressed to have occupied ‘all attention’ amongst selectors owing to the ‘great stimulus’ of high prices.\textsuperscript{57}

Special reporters assigned by the editors of the \textit{Argus} and \textit{Age} to investigate the working of the Amending Land Act in 1866 also observed the establishment of new cropping farmsteads on selected allotments in some inland districts. In the Low Loddon area near Inglewood and Maryborough, the \textit{Age} reporter discovered a number of \textit{bona-fide} selectors and testified that ‘the earnestness with which they have entered upon improvements of newly selected land is pretty good proof of the profitable character of their farming operation’.\textsuperscript{58} In Bacchus Marsh he also viewed a ‘very satisfactory progress’ made by local selectors. A few thousand acres were already taken up and prepared to be put under the plough.\textsuperscript{59} His colleague from the \textit{Argus} who travelled more extensively was able to locate numerous newly established cropping farms in the vicinity of Ararat and Beaufort in central Victoria and the Goulbourn valley and the Oxley and Emu plains in the north-west part of the colony.\textsuperscript{60}

A significant number of the \textit{bona-fide} settlers came from the middle and lower classes of society: diggers successful in mining, wage-earners who had saved capital, and tradesmen. Both reporters, however, stressed that many genuine selectors were not novices in colonial agriculture but experienced cultivators who moved to new fresh lands. The \textit{Argus} investigator noted that most \textit{bona-fide} selectors in the Ararat district were farmers who had been engaged in cropping either as tenants or proprietors of their own land. The latter preferred to rent out their

\textsuperscript{57} \textit{Avoca Mail}, 25 April 1868, p. 2.
\textsuperscript{58} \textit{Age}, 20 September 1866, [pp. 5-6]; 26 September 1866, [p.5]; 3 October 1866, [pp. 5-6].
\textsuperscript{59} Ibid., 22 August 1866, [pp. 5-6]; 23 August, [pp. 5-6].
\textsuperscript{60} \textit{The Operation of the Land Act}, pp. 4-5, 13-14, 40, 45.
old farms and settle themselves on selections. On the bank of the Hopkins River
and around Lake Bolac a number of those settlers came from the agricultural
districts around Ballarat and ‘had set vigorously to turn their land to account, and
ploughing, fencing, and cropping, were going on briskly’. In the Benalla area the
reporter observed local farmers taking advantage of the selection and enlarging the
extent of their holdings as opened up agricultural areas were in the immediate
vicinity of their farmsteads.

His Age colleague while travelling throughout the Lower Loddon, ‘well situated with
regard to markets, having, within a come-at-able distance, Maryborough Maldon and
Castlemaine, as well as Dunolly, Tarnagulla, Inglewood, and Bendigo’ classified the
majority of selectors as farmers who had been ‘engaged in this work for years’.
Viewing the progress of bona-fide selectors near Lake Cooper in the proximity to the
railway line between Sandhurst and Echuca, the Bendigo Advertiser reported that
most were farmers who had come from Lancefield and Kyneton. Even in
Melbourne, where the metropolitan land office was to receive applications for few
neighbouring agricultural areas the prospective selectors did not resemble city
residents. One early morning in May 1865 an Argus contributor, observed a crowd of
prospective selectors near the office: ‘The assemblage was peculiar, insomuch as it
was almost entirely composed of persons evidently from the country’.

These results of the Amending Land Act support the previously expressed view as to
the high-degree of mobility of the farming population in Victoria, a phenomenon
already apparent in the 1850s. A large number of cultivators seemed not to be
inclined to stay long on their farmland and looked for more attractive opportunities in
other regions. The farmers from Ballarat and Kyneton who moved to fresh selected

61 The Operation of the Land Act, pp. 4, 18.
62 Ibid., pp. 17, 18.
63 Ibid., p. 44.
64 Age, 20 September 1866, [pp. 5-6].
65 Bendigo Advertiser, 29 June 1866, p.2; 2 July 1866, p. 3.
66 Argus, May 23, 1865, p. 5.
allotments under the Amending Land Act must have cropped the land just for a few years in the places of their initial settlement. The former did not appear to have any serious difficulties of new resettlement, most likely securing larger holdings in agricultural areas.

The positive impact of the selection sections of the Amending Land Act on the spread of crop-farming across the colony, however, should not be overestimated. The *Argus* reporter testified in the conclusion of his investigation:

> I am fully convinced that, while there has been a good deal of genuine agricultural settlement, the total of its amount is much less than is generally supposed. Taking together all areas I have seen or heard of, I do not think that above a tenth part of the land offered really passed into the hands of men who can be regarded as *bona fide* settlers. ⁶⁷

The key reason for such a moderate success of the legislation remained: since the time of the Nicholson Act an overwhelming proportion of lands put on display for prospective selectors were not amenable to commercial crop-farming. In March 1867, the *Age* in its agricultural review informed its readers:

> There is not a more important question for farmers in the interior than that regarding the means of sending their produce to market. In many of the newly selected sites in the Western district, the insuperable difficulty has caused numbers to lay aside the plough and resort to sheep, which will carry themselves to market. The farmers are right in adopting this alternative, but this only tends to demonstrate more clearly the imperative need of greater facilities of communication. ⁶⁸

The *Argus* reporter shared similar concerns in his conclusion, stressing that if the selector was remote from markets he could not cultivate ‘at all at a profit’. As a flock of hundred sheep which could be grazed on an average selection did not yield sufficient returns to make a living, a small settler must have had ‘other sources of income or he [would] be unable to pay his way’. ⁶⁹ In ‘numerous instances’ the

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⁶⁸ *Age*, 1 March 1867, p.7.
⁶⁹ *The Operation of the Land Act*, p. 53.
investigator discovered cooperation between such settlers who put a common fence
‘round four or five allotments, thus getting 2000 or 3000 areas in paddock’. The
partners generally intended to cultivate not more than 100 acres for their own needs,
the rest was used as pastoral land.\textsuperscript{70}

The moderate impact of the selection campaign on the progress of cropping industry
is further confirmed by official statistical returns on the utilisation of selected
allotments. The relevant data are presented in Table 5.2.

The table contains the results of the inspections of agricultural areas opened up prior
to June 1866; a relatively short period had passed from the time of accessing land
by selectors and the official investigation. It can also be seen that the returns were
not complete and the statistical evidence on some regions was missing. Even so the
signs of trouble with selection were well apparent. Just less than a third of all
reported selectors were ‘improved’ which suggests that their occupiers either
endeavoured to settle themselves down on the new land or they just pretended to do
so for Crown Land Bailiffs. Grant himself admitted that 2969 selections under
certificate ‘made principally in the interest of capitalists ... and the consequent
success or otherwise of working of the Amending Land Act is confided to the
selections made under ordinary lease ... comprehended 1,581,577 acres, leased by
5,377 persons’.\textsuperscript{71}

\textsuperscript{70} The Operation of the Land Act, pp. 5,10.
\textsuperscript{71} Victoria. VP of LA, 1867, vol. 4, Report of Proceedings Taken under the Provisions of the Land Act 1862 and the Amending Act 1865 up to the 31\textsuperscript{st} December 1866, p. 670.
Table 5.2 Utilisation of land selected in the period from March 1865 to July 1866

<table>
<thead>
<tr>
<th>Regions</th>
<th>Number of selectors</th>
<th>Area selected (acres, 000)</th>
<th>Selections not reported</th>
<th>Improved selections</th>
<th>Livestock</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of selectors</td>
<td>Number of selectors</td>
<td></td>
<td>Horses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Area selected (acres,000)</td>
<td>Area selected (acres,000)</td>
<td>Number of residents</td>
<td>Area cultivated (acres,000)</td>
</tr>
<tr>
<td>Wimmera and Avoca</td>
<td>1014</td>
<td>225.8</td>
<td>157</td>
<td>38.2</td>
<td>373</td>
<td>0.7</td>
</tr>
<tr>
<td>Geelong and Colac</td>
<td>107</td>
<td>23.3</td>
<td>74</td>
<td>15.8</td>
<td>252</td>
<td>0.3</td>
</tr>
<tr>
<td>Benalla</td>
<td>889</td>
<td>188.6</td>
<td>320</td>
<td>64.8</td>
<td>806</td>
<td>4.4</td>
</tr>
<tr>
<td>Melbourne</td>
<td>263</td>
<td>63.4</td>
<td>139</td>
<td>34.2</td>
<td>432</td>
<td>0.8</td>
</tr>
<tr>
<td>Gippsland</td>
<td>405</td>
<td>105.1</td>
<td>239</td>
<td>59.5</td>
<td>599</td>
<td>1.8</td>
</tr>
<tr>
<td>Camperdown</td>
<td>1042</td>
<td>296.3</td>
<td>359</td>
<td>116.3</td>
<td>1384</td>
<td>2.6</td>
</tr>
<tr>
<td>Ararat and Hopkins River</td>
<td>785</td>
<td>256.1</td>
<td>100</td>
<td>36.5</td>
<td>290</td>
<td>103.9</td>
</tr>
<tr>
<td>Sandhurst and Loddon</td>
<td>947</td>
<td>218.9</td>
<td>314</td>
<td>59</td>
<td>153</td>
<td>42.2</td>
</tr>
<tr>
<td>Hamilton</td>
<td>1943</td>
<td>552.6</td>
<td>911</td>
<td>218.1</td>
<td>196</td>
<td>71</td>
</tr>
<tr>
<td>Kilmore</td>
<td>233</td>
<td>54</td>
<td>21</td>
<td>4.7</td>
<td>138</td>
<td>34.1</td>
</tr>
<tr>
<td>Portland and Belfast</td>
<td>460</td>
<td>111.9</td>
<td>244</td>
<td>62.3</td>
<td>34</td>
<td>8.7</td>
</tr>
<tr>
<td>Beechworth</td>
<td>258</td>
<td>44.9</td>
<td>258</td>
<td>44.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8346</td>
<td>2140.9</td>
<td>1848</td>
<td>425.5</td>
<td>2099</td>
<td>588.7</td>
</tr>
</tbody>
</table>

The official returns listed in the table further demonstrate that although more than two million acres were taken up by all selectors, less than one percent of that acreage was in fact cropped. It was clear that Grant’s vigorous large-scale selection campaign, even though it was better provisioned and administered than that of his predecessors, did not generate the proportional growth of crop-farming. In 1855-1860, without any visible assistance from the government, farmers annually managed to bring under the plough almost three times as many acres of land as had the government now encouraged selectors in 1865-1866.

The figures of Table 5.2 need to be interpreted with caution, however. It is uncertain what proportion of ‘improved’ selections can be attributed to the agents of squatters and speculators. On the other hand, the table explicitly indicates that many bona-fide selectors who took up land in the mid 1860s did not consider crop-farming as a valuable source of income, giving more preferences to livestock farming. This was particular the case for the Camperdown, Hamilton and Ararat and Hopkins River agricultural districts, where half of improved selections was recorded. Here on average, every selector cultivated around ten acres of land but grazed more than 130 sheep and 14 head of cattle.

The following annual reports on the working of the Amending Land Act did not reveal much information; quite possibly to conceal the confusion and embracement of the proponents of new land policy. The process of selecting land was in fact moving in a reverse direction at that time. In 1868 240,000 acres were taken up in agricultural areas, whilst 319,000 acres were declared forfeit for non-payment of rent and 38,000 acres for violation of conditions of lease. In the following year 335,000 acres were taken off the lessees, but only 303,000 acres were applied for. The final outcome of selection under lease launched by the regulations of the Amending Land Act is shown in Table 5.3.

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Table 5.3 Results of selection under the Amending Land Act in 1865-1869 (selection under lease)

<table>
<thead>
<tr>
<th>Number of selectors</th>
<th>Extent selected land (acres, 000)</th>
<th>Number of forfeitures</th>
<th>Extent forfeited land (acres, 000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11227</td>
<td>2905</td>
<td>5327</td>
<td>1406</td>
</tr>
</tbody>
</table>


By the time when the Amending Land Act ceased its operation, there were around 6000 selectors under lease who remained on the land. The number of actual selectors therefore had not changed much since June 1866 when Grant presented the initial progress report of selection. Unfortunately, it is impossible to ascertain the proportion of settlers who tried to make a living from growing cash-crops on selected allotments, but given the evidence by the *Age* and *Argus* reporters, it is unlikely to have much exceeded a tenth of the total number of all selectors in 1865-1869. The selection sections of the Amending Land Act might therefore have assisted in the establishment of just two thousand or so new cropping farmsteads, and a large number of these were not new in a strict sense; their holders had simply relocated from traditional agricultural districts to cheap larger blocks of lands in central and north-east Victoria.

**Triumph of the legislation: Section 42**

In September 1868, a *Ballarat Star* columnist gauged the recent progress of colonial agriculture. The journalist was rather sceptical as to a significant contribution of the selection campaign to the booming crop-industry in Victoria, since ‘speculation was the aim of many of the persons who rushed so eagerly to the land offices when the agricultural areas were first proclaimed open’. It was reckoned that the cultivated acreage expanded mainly in the two domains. There were more than seven million acres of freehold land offering ample scope for
development of crop-production on private allotments. There was, however, another no less important realm for the activities of colonial land-cultivators: Crown Lands leased under the provisions of the 42\textsuperscript{nd} section, which, according to the Ballarat journalist, ‘admitted to be a wonderful success’ of the Amending Land Act.\textsuperscript{74}

This section (often also called the clause) literally brought back to life the Brooke’s concept of occupation licences by re-establishing the system of leasing for farming purposes small blocks of Crown Lands near mining areas. At first, section 42 allowed leaseholders to occupy allotments not exceeding twenty acres within a ten mile distance from a goldfield. The licence was to be renewed annually and the rent-fee was fixed at £4 per annum for the maximum possible area of land. In February 1866, the upper limit of leasehold was extended to eighty acres.\textsuperscript{75} Two and a half years later, the new regulations increased the distance from goldfields within which a licence could be granted to thirty miles and enlarged the maximum area of occupied land to 160 acres. The annual rent-fee for these remote allotments was set up at 2 shillings an acre.\textsuperscript{76}

In March 1865, when passing the amended version of the Duffy Land Act, Grant and his supporters might have well envisaged the popularity of section 42, had they recalled the public recognition of Brooke’s occupation licences scheme. Yet the advocates of the updated land policy could have hardly imagined that the opportunities provided by that single section would very soon become more vital to many thousands of small agriculturalists than the whole bunch of elaborated regulations on selection. To illustrate this fact, Table 5.4 gives statistics on the changes in the ranks of ‘forty-seconders’ and the total areas of leasehold land over 1865-1868.

\textsuperscript{74} Ballarat Star, 3 September 1868, p.2.
\textsuperscript{76} Victoria Government gazette, 1 September 1868, p. 1625.
Table 5.4 Number of license-holders under section 42 of the Amending Land Act and area held under lease in 1865 - 1868

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of licence holders</th>
<th>Area occupied (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1865</td>
<td>1590</td>
<td>27717</td>
</tr>
<tr>
<td>1866</td>
<td>4389</td>
<td>175114</td>
</tr>
<tr>
<td>1867</td>
<td>4636</td>
<td>181060</td>
</tr>
<tr>
<td>1868</td>
<td>3990</td>
<td>158354</td>
</tr>
<tr>
<td>Total</td>
<td>14605</td>
<td>542245</td>
</tr>
</tbody>
</table>


By the end of 1868 around 14,500 colonial residents were granted more than half a million acres of land under the regulations of section 42. Some of these small leaseholders were likely to have discontinued their occupation of the Crown Lands, but the residual number was more than significant. In January 1870, when the final results on the working of section 42 were released the officials of the Lands Department reported on 16,436 lessees who occupied 653,795 acres of the public domain.77

The factors determining such a tremendous success of section 42, in many ways overlapped with those conditioning the popularity of Bourke’s licences. The method of obtaining land under section 42 met the interests of the broad ranks of intending and current small cultivators. The latter did not need to compete with numerous speculators and middlemen, since a block of Crown Land was obtained under insecure temporary tenure with the minimal chances of transferring it into freehold - the ultimate goal of pastoralists and land jobbers. Even allowing for instances of taking up leases for speculative purposes, the scale of these practices could hardly be comparable with evasions provoked by selection clauses.78

78 Settlement under 42nd Clause of the Amending Land Act, by Special Reporter of ‘the Argus’ Reprinted from ‘the Argus’ Newspaper, Stillwell and Knight, Melbourne, 1869, pp. 14, 17; The
The annual rent-fee of 2 shillings an acre proposed by section 42 was within the means of a very large number of colonial residents. In the late 1860s the annual rental of arable freehold land in the densely populated metropolitan and central Victoria regions averaged more than five times that amount. Even in the Wimmera district with its abundance of fresh lands the tenant farmer needed to pay at least 5 shillings an acre for cropping a private allotment.\textsuperscript{79} Not surprisingly it was thought that had the land occupied by ‘forty-seconders’ been offered for lease through auctions it would have ‘certainly fetched two or three times the amount … charged by the Government’.\textsuperscript{80} Furthermore, the applicants could propose their own extent of leasehold land, thus the section 42 allotments could be tailored to their means.

Like Brooke’s occupation licence scheme section 42 attracted many lower and middle class applicants. Keith Patterson, drawing on the brief note in the 1866 progress reports on the working of the Amending Land Act, suggested that the pool of licence-holders might include tenant farmers, farm labourers, miners, and then a miscellaneous group of merchants, dairymen and carriers.\textsuperscript{81}

The official dispatches of surveyors from the Maryborough mining district, which was located in the midst of the Central Victorian goldfields region, to the Lands Department listed the occupations of applicants who aimed to lease land under section 42. Overall, in the period March-April 1868 the Maryborough surveyors recorded the callings of 296 prospective leaseholders. The information drawn from this source may validate Patterson’s suggestions on the social backgrounds of ‘forty-seconders’. (Figure 5.3)

\textsuperscript{79} Statistics of the Colony of Victoria, 1868, Production, p. 15.
\textsuperscript{80} Settlement under 42nd Clause of the Amending Land Act, p. 14.
\textsuperscript{81} Patterson, ‘Farms and Goldfields’, p. 51.
As Figure 5.3 illustrates the representation from the tradesmen and professional classes was not large in the society of ‘forty-seconds’. Only one out of ten lessees might belong to these generally well-to-do categories of colonial population. On the other hand, a third of all applicants were either tenant farmers or those who cropped their own land, which indicates a great interest among the members of farming community in the provisions of section 42. A half of all intending licence holders were, however, labouring class persons and miners who apparently did not experience financial barrier to access farmland under the conditions of section 42.

What was also important for many licence-holders was that section 42 gave them the right to occupy lands located beyond the limits of proclaimed agricultural areas and thus these lands were potentially much closer to markets and urban settlement. In 1868, for instance, 5,600 people applied for licences. Two-thirds of all applicants needed land in the densely populated counties of Talbot, Grant and
Grenville, where little acreage was opened up for selection and in the southern part of the Loddon district covering Avoca and Sandhurst goldfields.\(^{82}\)

The bona-fides of ‘forty-seconders’ were obvious to contemporaries. In December 1866, the officers of the Lands Department investigated the utilisation of 5,000 leased allotments. Despite the very short operation of section 42 in all inspected thirty six regions, the official inquiry revealed a large number of licensees who were rapidly engaged in fencing, ploughing and building new homes.\(^{83}\) Likewise, the Argus reporter, who travelled around agricultural areas in the spring of the same year, though mainly concerned with examining selectors’ settlement, wrote that he ‘could not fail to note … that under this clause [42nd] an immense amount of land is being fenced in and improved. … since [the] area increased to 80 acres farms are being formed on all hands’.\(^{84}\)

Three years later, his colleague from the Argus was assigned to investigate in detail the working of section 42. The reporter who had visited the Castlemaine, Ballarat, Ararat and Talbot districts in January-February 1869 summarised his impressions in the flowing statement:

> I am compelled to acknowledge that in the districts I have visited more bona fide settlement has taken place under the clause than by any other means previously adopted, and the working of the scheme merits almost unqualified commendation. … the portions of the colony I have recently visited were all familiar to me from ten to fifteen years ago… the change which I now witness – prepared as I was to see a very great difference – certainly filled me with astonishment … the vast tracts of land … are now taken up, and the solitary shepherd and his sheep have been replaced by comfortable homesteads and waving fields of golden grain.\(^{85}\)

Some contemporaries as well as modern scholars believed that the forty-second section ‘had been the salvation of the Land Act of 1865’.\(^{86}\) From the perspective of the poor, anonymous licensee who occupied a twelve acre allotment near

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\(^{84}\) *The Operation of the Land Act*, p. 5.

\(^{85}\) *Settlement under 42nd Clause of the Amending Land Act*, p. 33.

\(^{86}\) Powell, *Public Lands*, pp. 126-127.
Tarrengower the section had been ‘the salvation of the country.’ The ‘forty-seconder’ testified to the Argus reporter:

I am now an independent man. Last year [1868] I cultivated an acre or so of potatoes and about half a dozen acres of wheat and this will give me enough bread and potatoes to keep my family until after the next harvest, and in the meantime I can take any work that offers, besides further improving the land. 87

That unnamed respondent spoke on the behalf of thousands of small-settlers who were rapidly developing a subsistence kind of crop-farming on small leaseholdings near goldfields.

There were, however, other distinctive types of lessees who benefited considerably from the forty-second section. My evidence is drawn from the observation of the Argus reporter during his trip at the beginning of the 1869, a sampling of the probate records of farmers who died in the late 1860s, and a further sampling of applications of ‘forty-seconders’ made in 1870 for transferring their leases into freehold, the privilege offered by the 1869 Land Act.

The first large group was comprised by leaseholders who required small plots of farmland for their personal, largely non-commercial needs, similar to the Tarrengower respondent. According to the Argus reporter, this type of ‘forty-seconder’ especially prevailed at the Castlemaine, Daylesford and Maryborough mining areas where a large number of ‘part-time’ novice cultivators was able to secure land nearby ‘the scene of their daily association’. The leased allotments were not large, generally under twenty acres and settlers, as the reporter observed, ‘when not engaged on the land ... do a little mining, carting, or other work as opportunity may offer’. 88

The Crown Bailiffs’ estimations, which were made in 1870, demonstrate that many of these license-holders, by combining cropping with alternative pursuits, were capable of turning their fresh plots of sometimes barren lands into a valuable farming unit within a very short time. John Cashier, a carrier, from the

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88 Ibid., pp. 3-4. 9, 18.
Dargo parish in Gippsland, applied for an eleven acre block of land in June 1866. Four years later, this cleared and fenced in block was valued at £66.89 John Chandler of the Parish Strathfieldsaye, a labourer, took up twenty acres in November 1866. By 1870 he erected a hut and put under plough fourteen acres of land, altogether assessed at £90.90 A carrier with same name, but from the Parish Monda, in Evelyn county applied for twenty acres in December 1866. Four years later, a Bailiff recorded around six acres cultivated land, a weatherboard house with a garden, all valued at £110.91

Even though these and many other half-time agriculturalists might chiefly practice cropping to feed their families and domestic animals, their plain farming activities eventually broadened the social limits of the farming community in Victoria in the later 1860s and early 1870s. Thousands of representatives of different occupations as well as members of their families were learning the fundamentals of colonial farming on small leaseholdings virtually next door to their homes.

The second type of lessees included persons who took up large areas of land exceeding twenty acres with an intention to start growing crops for market. The probate records of Joseph Anderson of Alexandra, a farmer who died in October 1869, reveal evidence on this type of ‘forty-seconders’. Anderson did not have any land except a leased eighty acre holding, part of which (the area was not specified) was cultivated. His assets were valued at just £70, the livestock was limited to one horse with a saddle and he seems not to have possessed many agricultural implements. His liabilities totalled £42, which included £22 of cash borrowed from a private person, £5 due to a government surveyor, and almost £12 outstanding rent-fee for his allotment.92

Another such licence-holder, Angus Henderson, a farmer who died in Dalhousie in 1869 enjoyed more considerable capital. Henderson’s probate records did not reveal any land in his private possession, apart from an eighty acre allotment

89 PROV, VPRS 627, Unit. 5, 70/470.
90 Ibid., 70/473
91 Ibid., 70/474.
obtained under section 42. Nevertheless, the scale of his agricultural operations was really impressive. At the time of his death, he possessed 800 sheep, forty one head of cattle, 1,500 bushels of grain, nine horses, a reaping machine, a horse dray, a wagon, a chaff-cutter, two pigs, and twenty fowls valued £1,000 in total.

The Bailiffs’ estimates also suggest the possession of a certain amount of wealth among persons who occupied larger leaseholdings. Matthew Ryan of the Parish Axedale, a labourer, applied for eighty acres in November 1866. In May 1870 his improvements were valued at £150 and included a house and twenty acres of cultivated land. James Byrne, a constable, residing in the Parish of Moolort, Talbot county obtained eighty acres in April 1866. Four years later, he had under the plough fifty acres, a solid fence, a dam, and a hut, all his improvements were valued £425 in total. James Ash, a labourer from Craigieburn, took up sixty four acres in March 1867. In three years, his improvements amounted to £270, comprising of a thirty acres cultivated allotment, fencing, a house, and a stock yard. The representatives of the two mentioned categories of the leaseholders commonly did not possess any agricultural land in fee-simple, but section 42 nonetheless opened to them a prospect to access the land resources in the vicinity of their homes.

Not only the landless were assisted by the liberal regulations of the section. The data of Amherst applications indicate that a significant proportion of intending licence-holders in fact needed Crown Land for expanding their farming operations. Around a third of all applicants had in their private possession allotments exceeding ten acres in area. The Argus reporter similarly took notice of a large proportion of practicing farmers among licence-holders in many places. At Castlemaine, for instance, a third of all leased holdings were observed to have

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93 He may have also rented an allotment of private land or have possessed own land. The size of his activities explicitly suggests that he was likely to utilise more than 80 acres. To produce 1500 bushels of grain, he might have needed to cultivate a 70 acres allotment.
94 PROV, Probate and Administration Records, Files 14/426 and 7/287
95 PROV, VPRS 627, Unit 1, 70/44.
96 Ibid., Unit. 5, 70/392.
97 Ibid., 70/402.
98 PROV, VPRS 1016, Unit 3.
belonged to ‘small farmers who had previously purchased land in the district, and who availed themselves of the opportunity afforded by the clause to enlarge their farms and extend the circle of their operations.’ The provision of the section allowed these small-cultivators to apply for blocks of Crown Land just adjoining to their farms, thus not even imposing a necessity to resettle on the new land.  

James Stuart, a farmer in the Parish Oxley, the Murray district, was one such licence-holder. He possessed just a forty three acre allotment and wanting more fresh land, he applied for sixteen acres, ‘200 yards’ from his property in December 1866. Unfortunately, six months later he died. At the time of his death, the cost of the freehold land was valued at £238 and personal estate (a plough, a dray, draught animals, 300 bushels of wheat and personal belongings) added another £112. Even though Stuart appeared to have had a liabilities of £121, his widow effectively continued farming operations and in May 1870, the improvements on that already cultivated sixteen acres patch of land was valued at £50. Two apparent conclusions can be made from the Stuart’s story. First, the crop farming was undoubtedly a profitable undertaking even on this small farm and, second, the facilities provided by section 42 contributed to the increasing wealth of farmers.

The figures for ‘improvements’ in Bailiffs’ reports confirm the latter assumption. Donald McKindly, a farmer of Spring Plains Parish, the country of Dalhousie had had in his possession sixty acres of land, before applying for eighty acres in March 1867. Three years later, the improvements of leased land totalled £188, the allotment was fenced in and twenty acres were cultivated. As a house was not stated in the evaluation list, the farmer presumably retained the place of his previous residence. Likewise, Richard Graze who enjoyed a 120 acres freehold farm in the Parish of Lillirie, Grenvillie county took up eighty acres of in March 1866. The 1870 Bailiff’s inspection recorded improvements made for £202 and fifty acres under crop. The note in the Bailiff’s report stated ‘non-resident but

99 Settlement under 42nd Clause of the Amending Land Act, pp. 5, 7, 10, 22-3, 27.
100 PROV, VPRS 627, Unit 5, 70/411; Ibid., Wills and Probates, File 13/424.
101 PROV, VPRS 627, Unit 5, 70/375.
bona fide’. Some permanent cultivators who took advantage of section 42 managed to combine their farming pursuits with other occupations. Edward Ellis, a publican from the Moolort parish, Talbot county possessed fifty four acres of agricultural land. Despite this fact, in May 1866, he applied for eighty acres to be taken under lease. Over the four following years, Ellis brought under plough half of his leased area, improvements which were assessed at £420.

In the absence of detailed statistics, it is impossible to establish exact numbers of lessees in each group. The random sample of Maryborough applications and the estimation of the Argus reporter, however, suggest that a third of all ‘forty-seconders’ might be already established land-cultivators. As in January 1870, the Lands Department listed 16,500 licence-holders, it can be suggested that the regulations of section 42 might enable around 5,000-6,000 current land-cultivators to expand the extent of their farmland whilst approximately 10,000 persons were able to establish themselves on the land in the capacity of either subsistence or market-oriented crop-producers. The ultimate result of section 42 was therefore twofold. It inflated the number of small-scale crop-producers in the colony by creating extremely favourable legal conditions for agricultural settlements of low and middle class colonial residents. On the other hand, it led to the establishment of larger farming units by aiding already practicing cultivators to gain more land.

**Conclusion**

Until the 1860s agricultural settlers in Victoria could get on the land by acquiring a holding either from a private landowner or directly from the Crown at public auctions. Alternatively, freehold could be obtained under a lease for a fixed term, commonly a few years. As the purchase of land even in the recently populated hinterland regions, let alone the metropolitan counties, incurred expenses much above £1 per acre, many prospective cultivators considered it more economically viable to become tenant farmers on private holdings rather than proprietors of their own land, especially around long-established coastal townships.

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102 PROV, Wills and Probates, 70/394.
103 Ibid., 70/397.
The new legislation of the 1860s presented many thousands of intending and existing colonial cultivators with new and realistic opportunities to access Crown lands. Millions of acres embraced within numerous defined areas were proclaimed open for selection and agricultural settlement by the Land Acts of 1860, 1862 and 1865. The selection campaigns launched under the first two Land Acts did not provoke much interest among genuine settlers who would need lands for producing cash-crops, since the opened up agricultural areas were by and large too distant from prospective markets. The monetary burden of purchasing instantly half of a selected block at a rate of £1 per acre could also appear excessive for small settlers.

The provisions of selection clauses under the 1865 Land Act were far more attractive for crop-producers. Even though the cost of selected land was not reduced, the provisional three year occupation of selection at the rate of just 2 shillings an acre lured many applicants from farming and working-class population. The poor harvests of 1864 in the coastal counties and the following high wheat prices too motivated settlers to take up cheap Crown land in the interior districts largely not affected by weather calamities. Overall, around two thousand bona-fide selectors might have established themselves on the new land, earning some monetary income from cropping. A large number of those, however, were not novices in colonial agriculture but experienced farmers who had originally cultivated land in other regions but who now moved to larger selected holdings. This confirms the previously expressed view of the high degree of mobility of the farming population, already apparent in the 1850s.

Even though the 1865 Land Act worked more effectively than the previous legislation, an overwhelming proportion of acreage made available for selection in 1865-1869 was unclaimed by cultivators since most opened up agricultural areas with their rigid boundaries were still remote from commercial outlets for crops. Despite the largely unsuccessful selection campaigns of the 1860s, the new legislation, however, had the tremendous positive impact on colonial farming society through the Brooke’s licence scheme under the 1860 Land Act but mostly through longer-operated section 42 of the 1865 Land Act. These regulations gave an opportunity to colonial residents to lease allotments of Crown Lands.
under 160 acres at the rental a few times less that the relevant rate of renting freehold land. What was even more important the official rules allowed the leaseholders to choose on their own the location of occupied allotments. Around 16,000 people were able to take advantage of section 42 by 1870. Very rough estimations suggest that a third of those were practicing farmers who gained more farmland to expand their operations, while the rest were chiefly labouring-class people settling on the land either as subsistence or market-oriented cultivators.

The new legislation therefore spurred the growth of the farming community in Victoria the 1860s. It assisted more than ten thousand novice settlers to enter crop-farming occupation while a few thousand current agriculturalists secured larger allotments. The following chapter examines the capacity of colonial farmers for learning and experimentation and the spread of new farming technologies and methods in Victoria’s countryside in the late 1850s – 1860s.
Chapter 6

Mastering the Art of Colonial Farming: Technological Advances of Land-Cultivators in the late 1850s – 1860s

It is more than evident that a great number of recent overseas migrants who took up crop-farming in Victoria in the 1850s-1860s lacked sound knowledge of domestic agriculture prior to settling on the land. The economic success of these people, therefore, depended greatly on their capability to learn the farming methods and techniques which were workable in the colony. Moreover, the profound differences between the odd physical and climatic environment in that very recently colonised Australian region and the customary seasons, soils and vegetation of the Old World demanded a fair degree of innovation and experimentation from the white newcomers.

Although the efforts of colonial farmers in the acquisition of new skills, knowledge and technologies in the 1860s have not been the subject of the previous detailed investigation, historians have generally agreed that these endeavours were largely unsuccessful. Joseph Powell acknowledged some assistance provided by the Board of Agriculture and agricultural societies to the farming population yet believed that „farmers were ill equipped for their experiences". This largely stemmed from „insufficient time, considering the novelty of farming to many” and the possible priority of stock-farming over crop-farming for agricultural societies.¹ However admitting that at that time the rural divisions around Melbourne were „by no means a technological backwater,” Lynnette Peel further highlighted the common reluctance of local farmers for a change due to their low level of literacy and mature age.²

The comments of Powell and Peel on the slow technological progress of colonial farmers and their limited practical experience were based on a few reports of

¹ Powell, Public Lands, p. 114.
² Peel, Rural Industry, pp. 86, 88, 103.
some collectors of agricultural statistics published in the late 1850s-early 1860s. This chapter largely draws on the new and more extensive types of evidence: the numerous materials of agricultural periodicals whose editors regularly assigned their correspondents to investigate farming practices in the rural districts and the official agricultural statistics on machinery and implements employed on cropping farms in the 1860s. In a broader perspective, the chapter follows the discussion on early technical and institutional creativity of Australian farmers prompted recently by Geoff Raby, who has traced the effective responses of domestic cultivators to environmental and economic challenges in the period of 1788-1860.³

This chapter measures the potential of Victoria’s crop-producers for learning and innovation in the late 1850s - 1860s and then assesses the actual spread of more advanced and more efficient farming practices during that timeframe. The ultimate aim of this inquiry is to suggest that large-scale agricultural colonisation of the last third of the nineteenth century was actually underwritten by the experiences and technologies acquired by farming population in Victoria by the late 1860s.

The chapter consists of three sections. Section one examines the literacy level and average age of the male farming population, qualities closely related to farmers” ability to learn and innovate. Section two investigates the institutional creativity of colonial farmers embodied in numerous agricultural societies and associations and the impact of these institutions on the spread of new technical information. The scale of adoption of farming innovations is explored by section three.

The chapter demonstrates that an overwhelming proportion of males, who managed cropping farmsteads in the colony in the 1860s, were mostly literate and relatively young individuals aged typically between twenty five and thirty years. The high literacy level and young age of farmers enhanced their ability to acquire new experience and, if regarded as necessary, to revise it. Furthermore,

³ Raby, Making Rural Australia.
through the network of nearly thirty country-based agricultural societies and associations thousands of members of the farming community could effectively share their knowledge and skills of local husbandry and collectively develop more efficient methods of local crop production. The main improvements were related to land management and farming machinery. Better land management by application of manure and simple crop-rotation became common practice among farmers around Melbourne who was able to minimise their problems with soil exhaustion by the late 1860s. The application of diverse farming machines, especially those designed for grain harvesting also extended across the colony. At the close of the decade, there were in operation around 3,500 mechanical reapers and strippers which assisted farmers to harvest their crops from nearly 200,000 acres.

The chapter contends that such a widespread adoption of new technologies of cereal production coupled with the accumulated experience of the colonial farming community might greatly contribute to the transformation of Victoria into a large exporter of grain commodities in the last third of the nineteenth century when the farmers’ potential would be applied to the enormous fresh land resources of the Wimmera and Northern plains.

**Scope for Novelty: Age and Education of Farmers**

Regrettably, statistical evidence by which the potential of the mid nineteenth century Victoria’s farmers for learning and innovation might have been measured is limited to the general data of colonial censuses on the age and education of male rural residents, a large number of whom were engaged in cropping. These materials have already been employed by Lynnette Peel for analysis of the development of farming society in the old Port Phillip region around Melbourne in the 1850s-1880s.

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4 The practice of managing a farm by a female seems to have been rather uncommon in the 1850s-1860s.
Peel cited the 1861 Census figures indicating that in the Barrabool and Berwick rural divisions near Melbourne most adult males were aged between twenty and forty years. Nonetheless, the historian claimed that individuals who managed local crop-farms were, in fact, much older as she believed the majority had already been on the land for more than a decade. Drawing on rural sociology findings Peel further insisted that with age farmers become more conservative and less open to new ideas. Predictably enough, she came to a conclusion that in agricultural areas around Melbourne and Geelong there was "a slower rate of change with greater resistance to change than otherwise might have been expected".

There are, however, some sound reasons to doubt the accuracy of Peel's assertion that long-established aging crop-producers operated most farms near Melbourne in the early 1860s. Some local agriculturalists who had commenced farming before or immediately after the discovery of gold might, indeed, have reached senior age by 1861, yet, according to the evidence drawn from colonial censuses, a much larger number were young recent settlers. The 1854 Census listed around 1,900 male farmers in the counties of Bourke and Grant around Melbourne and Geelong. Over the following seven years, by the time of a new census, approximately 3,700 new farmers successfully established themselves on the local land.

Although 80 per cent of residents in rural areas around Melbourne were literate in the in the third quarter of the nineteenth century, Peel, too, believed that this was an overestimation of "the literacy of those engaged in agriculture". She insisted that a large number were not cultivators, but government-employed people, professionals, and tradesmen, nearly all of whom by virtue of their occupations had to be educated. She further argued that "the relative literacy of the farmers was low" which consequently affected the ability of many "to alter their farming

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5 Peel, Rural Industry, pp. 84-85.
6 Ibid., p. 86.
7 Census of Victoria, 1854, Part V Occupation of People; Census of Victoria, 1861, Occupation of the People.
methods and adjust to the changing situations”.

The very high literacy level in the rural divisions around Melbourne, certainly, reflected the fact that a number of educated non-farming residents lived here, as Peel correctly pointed out. Yet these people composed a minority of population. Roughly two-thirds of local inhabitants were farmers or their labourers. Such a large proportion of farming population in the region with a high literacy may suggest that most local farmers must be able to read and write.

Did the members of farming communities outside the metropolitan region also enjoy the relatively young age and, at least, minimal literacy in the early 1860s? Regrettably available primary sources cannot provide direct answer to this question since neither age nor education of farmers were recorded at that time. The materials of the 1861 Census on the age and education of male rural residents may, however, partially address these two issues. The Figures 6.1-6.4 present adult male age breakdown for four selected rural divisions across the colony where the proportion of crop-farmers and their labours were large among local male population: The Keelbundoora parish of Bourke county hosted 653 adult males, 57 per cent of whom shared a farming background; the Yangery parish of Villiers county - 601 and 62 per cent, respectively; the Edgecombe parish (part of) of Dalhousie county - 211 and 81 per cent; the Wilmar, Baringhup East and Neereman parishes of the Loddon district - 164 and 57 per cent.

The figures suggest that the average age of colonial farmers was likely to fall in the range between 25 and 35 years. The very young age of colonial cultivators is especially notable for the Edgecombe parish where four-fifths of all local residents were engaged in farming. It can also be seen that the age breakdowns in the long-settled Keelbundora parish of Bourke county and the newly populated parishes of the Loddon district do not differ significantly, which may support the view that young recently arrived immigrants dominated even in the farming community of the metropolitan region.

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8 Peel, Rural Industry, pp.88, 164.
9 Ibid., p. 82.
Figures 6.1 – 6.4 Age of adult males in the selected parishes of Victoria in March 1861

Figure 6.1 Keelbundora parish (Bourke county)

Figure 6.2 Yangery parish (Villiers county)

Figure 6.3 Edgecombe parish (Dalhousie county)

Figure 6.4 Wilmar, Baringhup East and Neereman parishes (Loddon district)

Source: Census of Victoria, 1861, Age of the People.
Unfortunately, the 1861 Census does not yield any information on the education of colonial residents by parishes. The relevant data was grouped by larger administrative units: counties and electoral districts. The amalgamated figures for education of different age groups were available for the whole colony and also for townships and mining districts. The very rough approximation of the educational level of rural residents can be obtained by extracting data on urban and mining settlements from the total colony’s figures. The result of this calculation is presented by Figure 6.5.

Figure 6.5 Education of adult male rural residents by age in Victoria in March 1861

![Chart showing literacy levels by age and gender](source)

Source: *Census of Victoria, 1861, Education of the People.*

By their education level colonial residents were grouped under three large categories: completely illiterate, able to read only and able to read and write. Figure 6.5 indicates a very high level of literacy of men residing in rural areas, especially among young age groups. Only one out of ten countrymen aged less than forty years old was completely illiterate, while every four out of five were able read and write. It certainly may be assumed, as Peel did it, that the actual literacy level of farmers might somewhat differ from these average abstract figures on education of the all male rural residents. The argument that at least
minimal education was a common attribute of colonial cultivators in the 1860s can, however, be verified against other types evidence: circulation of periodicals for farmers and their probate papers.

Throughout the decade the editors of the Age continued publishing a special weekly paper for colonial residents engaged in land cultivation. During the first years it was called the Victorian Farmer’s Journal and Gardener’s Chronicle. In 1864-1868 the Journal was incorporated into the Weekly Age, and from 1868 into the Leader. The publishing of an agricultural periodical was a business venture making profits from farming subscribers who by virtue of reading newspapers must be literate. On the other hand, the readership of the paper was wide. As its contributor wrote from the remote agricultural Mangalore district in north-east in 1867: „The Leader and the Weekly Age are the only papers to be seen at the farmhouses in the area; the selectors know their true friends well“.

The diverse information on husbandry matters was also regularly published in general newspapers and journals in the mid nineteenth century. Some of country periodicals of the 1860s had even in their titles references to agriculture, thus highlighting the fact that part of their educated audience came from farming backgrounds.

The farmers” wills and testaments written in the late 1860s furnish further quantitative evidence to assess more precisely the literacy level of colonial crop-producers. Twenty-eight of such legal documents related to farmers who died in 1869 have been located. The wills of twenty four farmers had a signature of testators which consequently implies that these persons were literate.

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10 Leader, 30 November 1867, p. 10.

11 Creswick and Clunes Advertiser and County of Talbot Agricultural Journal. (1859-1870), Miner and Weekly Star and Agriculturist (Ballarat, 1856-1864), Kyneton Advertiser and Farmer’s Chronicle (1859-1861), Mansfield Independent Mining, Agricultural, Pastoral and Commercial Advertiser (1869-1872)

farmers put a cross under their will, acknowledging the inability to write and comprehend written texts.\textsuperscript{13} Given this ratio of twenty four literate to four illiterate farmers, the average literacy rate among representatives of farming community could average around 85 per cent, the same percentage is indicated by Figure 6.5. This level of literacy certainly was high for the nineteenth century crop-producer working land away from the urban centres of education.

The evidence on age and education of the male farming population indicates a large potential for learning and innovation by individuals who managed cropping farmsteads in the colony in the 1850s-1860s. Most of many thousands of recent male immigrants taking up farming were just around thirty years old. On the one hand, such a relatively young age of an average male domestic crop-grower did not imply his firm adherence to conventional farming practices of the Old World; on the other, it meant his openness to experimentation and innovation on the new land. Moreover, an overwhelming majority of these young agricultural settlers were literate, which enhanced their ability to learn and process new farming knowledge as well as offer them possibility of making use of an extensive pool of written technical information on colonial agriculture.

**Sharing Agricultural Knowledge: Farmers’ Organisations**

The first public institutions aiming to promote rural enterprise by spreading more advanced farming technologies and methods emerged in Victoria before its separation from New South Wales. The Australia Felix Pastoral and Agricultural Society operated briefly in the early 1850s. A few years later the Port Phillip Farmers” Society was created, the only one local organisation of this kind at the time of the proclamation of the new colony in 1851. At the close of that decade, however, Victoria was covered by a network of two Melbourne and nineteen

country-based agricultural societies and associations, most of which appeared in the late 1850s.\textsuperscript{14}

The reasons for this sudden burst of the institutional creativity among the farming population in the gold decade were suggested by Geoff Raby. He argued that the initial development of Australian agricultural societies was restrained by the weak position of colonial intellectual elite, whose representatives might have formed an active nucleus of these organisations. The colonial government was also reluctant to provide support to public independent institutions.\textsuperscript{15} After the gold discovery, however, the tremendous growth in the ranks of colonial agriculturalists generated an equivalent demand for farming technical information which would be effectively provided through associations of rural producers. Furthermore, the high earnings of gold-time farmers enabled them to invest much more heavily in their institutional innovations than cultivators commonly had done in the previous decade, whilst the increase in rural population density might minimise the administrative expenses of public organisations in the countryside.\textsuperscript{16}

Beyond doubt, a rapid increase in the number of colonial farmers, their improved financial standings and a new pattern of rural settlement were all essential preconditions for the boom experienced by agricultural societies in Victoria after the gold discovery. Yet, there was another, not least important agent of this process: the colonial government. Unlike the mother country where farmers' organisations were funded largely through fees of their subscribers and private donations\textsuperscript{17}, the members of the Victorian Parliament, influenced by fierce political campaigns for advancing agricultural settlement, rendered considerable financial assistance to these institutions. In 1855 the colonial legislators first put

\textsuperscript{14} First Annual Report Presented by the Council to the Board of Agriculture, John Ferres, Gov. Printer, Melbourne, 1859, p. 7.  
\textsuperscript{15} Raby, Making rural Australia, p. 120.  
\textsuperscript{16} Raby, Equipping an Agricultural Economy, p. 327.  
this policy into practice by voting for the allocation of a large £500 grant to the Port Phillip Farmers’ Society.  

Not only did the colonial Parliament assist domestic agricultural societies and associations financially, it legitimately endorsed partnerships between these public organisations and governmental agencies. In February 1859, „for better developing the agricultural resources of Victoria“, the local policy-makers passed an Act for the establishment of a Victorian Board of Agriculture“.

The new bureaucracy was run by a council consisting of colonial officials and delegates assigned by agricultural societies. The Board operated until 1872 when its functions were transferred to the newly created Department of Agriculture. The tasks of the Board mainly involved the management of the Experimental Farm, the collection of agricultural statistics, the provision of expert advice on farming matters, and, what was perhaps most important for agricultural societies, the distribution of government funding between them.

The extent of financial support provided by the government to farmers” organisations was considerable. Over the period of 1859-1869 the Board received and distributed the £55,000 of grants-in-aid, roughly a third of the total sum of the revenues raised by all agricultural societies over the same timeframe.

The pattern of subsidies, however, varied over the 1860s. The annual grants in aid of the late 1860s were much smaller than in the first years of the operation of the Board, suggesting the increased economic independence of agricultural societies by the close of the decade.

Tables 6.1 and 6.2 provide further evidence to contour the changes in the positions of agricultural societies over the 1860s by contrasting statistics on their own finances and government funding in 1859 and 1869. It is immediately

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18 Argus, 19 March 1855, p. 4.

19 An Act for the establishment of a Board of Agriculture, 22 Vic. no. 83.


21 Calculated by Annual Reports Presented by the Council to the Board of Agriculture of 1859-1869.
apparent from the tables that farmers’ organisations continued their numerical growth in the 1860s. Twenty-one operated in Victoria in 1859, over the following decade eight new societies were added to this number. By the late 1860s virtually every agricultural region in the colony had its own farmers’ society or association. The total amount of revenues generated by these organisations in 1869 also increased by around a quarter in comparison with the earlier period whilst government subsidies reduced, which supports the view of a generally higher level of self-sufficiency of societies at the end of the 1860s. On the other hand, the development of farmers’ organisations did not progress evenly across the colony. To illustrate this fact, the tables arrange the figures of their revenues in descending order.

It can be seen that in 1859 the long established Melbourne-based Port Phillip Farmers’ Society altogether with the Geelong and Western District Agricultural Society accounted for nearly a half of the total income of these institutions in the colony. Over the following decade, the pattern of the distribution of revenues changed dramatically. The share of Melbourne and Geelong societies plummeted while that of country ones, primarily operated in the central Victorian region swelled. This trend clearly indicates that by 1869 the centre of operations of agricultural societies moved away from the largest colonial centres, where the elite of agricultural intellectuals and theorists chiefly resided, to the countryside, close to practicing farmers who became increasingly concerned with obtaining new agricultural knowledge and skills.
Tables 6.1 and 6.2 Allocation of government grants and revenues of agricultural societies in 1859 and 1869

<table>
<thead>
<tr>
<th>Society Name</th>
<th>Revenue (£)</th>
<th>Grant in aid (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Phillip</td>
<td>1176</td>
<td>1008</td>
</tr>
<tr>
<td>Geelong and Western District</td>
<td>887</td>
<td>835</td>
</tr>
<tr>
<td>Kyneton</td>
<td>370</td>
<td>446</td>
</tr>
<tr>
<td>Victoria (Melbourne)</td>
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<td>436</td>
</tr>
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<td>Hamilton</td>
<td>301</td>
<td>362</td>
</tr>
<tr>
<td>Ballarat</td>
<td>257</td>
<td>309</td>
</tr>
<tr>
<td>Villiers &amp; Heytesbury</td>
<td>215</td>
<td>259</td>
</tr>
<tr>
<td>Newstead</td>
<td>212</td>
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<td>251</td>
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<tr>
<td>Kilmore</td>
<td>204</td>
<td>246</td>
</tr>
<tr>
<td>Ovens and Murray</td>
<td>204</td>
<td>246</td>
</tr>
<tr>
<td>Albury and Murray River</td>
<td>189</td>
<td>227</td>
</tr>
<tr>
<td>Carisbrook</td>
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<td>181</td>
</tr>
<tr>
<td>Gisborne</td>
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<td>148</td>
</tr>
<tr>
<td>Seymour</td>
<td>121</td>
<td>146</td>
</tr>
<tr>
<td>Bacchus March</td>
<td>106</td>
<td>127</td>
</tr>
<tr>
<td>Melton</td>
<td>109</td>
<td>131</td>
</tr>
<tr>
<td>Baringhup</td>
<td>97</td>
<td>118</td>
</tr>
<tr>
<td>Mornington</td>
<td>80</td>
<td>96</td>
</tr>
<tr>
<td>Burrambeet, Lake Learmonth</td>
<td>76</td>
<td>92</td>
</tr>
<tr>
<td>South Gippsland</td>
<td>67</td>
<td>81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5514</strong></td>
<td><strong>6000</strong></td>
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<table>
<thead>
<tr>
<th>Society Name</th>
<th>Revenue (£)</th>
<th>Grant in aid (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballarat</td>
<td>1170</td>
<td>560</td>
</tr>
<tr>
<td>Smeaton, Spring Hill, etc.</td>
<td>760</td>
<td>423</td>
</tr>
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<td>Geelong and Western District</td>
<td>449</td>
<td>301</td>
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<tr>
<td>Bendigo</td>
<td>400</td>
<td>268</td>
</tr>
<tr>
<td>Castlemaine</td>
<td>331</td>
<td>223</td>
</tr>
<tr>
<td>Kyneton</td>
<td>309</td>
<td>207</td>
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<tr>
<td>Glendaruel</td>
<td>297</td>
<td>199</td>
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<tr>
<td>Western District</td>
<td>293</td>
<td>196</td>
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<tr>
<td>Victoria (Melbourne)</td>
<td>273</td>
<td>184</td>
</tr>
<tr>
<td>Wimmera District</td>
<td>268</td>
<td>180</td>
</tr>
<tr>
<td>Glenlyon, Franklin, etc.</td>
<td>249</td>
<td>167</td>
</tr>
<tr>
<td>Ovens and Murray</td>
<td>263</td>
<td>176</td>
</tr>
<tr>
<td>Hamilton</td>
<td>188</td>
<td>126</td>
</tr>
<tr>
<td>Baringhup</td>
<td>174</td>
<td>117</td>
</tr>
<tr>
<td>Villiers &amp; Heytesbury</td>
<td>171</td>
<td>115</td>
</tr>
<tr>
<td>North Gippsland</td>
<td>160</td>
<td>107</td>
</tr>
<tr>
<td>Newstead</td>
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<td>107</td>
</tr>
<tr>
<td>Carisbrook</td>
<td>157</td>
<td>105</td>
</tr>
<tr>
<td>Chiltern, Barnawartha, etc.</td>
<td>149</td>
<td>100</td>
</tr>
<tr>
<td>Mansfield</td>
<td>141</td>
<td>94</td>
</tr>
<tr>
<td>Newbridge</td>
<td>134</td>
<td>89</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Society Name</th>
<th>Revenue (£)</th>
<th>Grant in aid (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wahgunyah</td>
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<td>90</td>
</tr>
<tr>
<td>Seymour</td>
<td>102</td>
<td>68</td>
</tr>
<tr>
<td>Mornington</td>
<td>101</td>
<td>68</td>
</tr>
<tr>
<td>Bacchus March, Ballan, etc.</td>
<td>98</td>
<td>66</td>
</tr>
<tr>
<td>Kilmore</td>
<td>79</td>
<td>53</td>
</tr>
<tr>
<td>Polwarth and South Grenville</td>
<td>61</td>
<td>41</td>
</tr>
<tr>
<td>Merino and Sandford</td>
<td>53</td>
<td>36</td>
</tr>
<tr>
<td>Melton</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7176</strong></td>
<td><strong>4500</strong></td>
</tr>
</tbody>
</table>

Sources: *First Annual Report Presented by the Council to the Board of Agriculture*, p. 7; *Eleventh Annual Report Presented by the Council to the Board of Agriculture*, Mason, Firth, & McCutcheon, Printers, Melbourne, 1870, p. 31
Regrettably, the minutes of early country agricultural societies which might have yielded direct insight into their functioning in the 1860s have not survived. Even as early as the 1880s Richard Osburne, narrating the chronicles of Warrnambool, complained that all archival records of the local Villiers and Heytesbury Agricultural Association had been lost which compelled him to use extensively local newspapers to obtain evidence on the working of this institution in the first years of its history.\textsuperscript{22} I have to use the information contained in the colonial periodicals in a similar way, supplemented by occasionally published societies' reports and regulations in order to analyse the structure and membership of the agricultural societies in the 1860s.

In general, colonial agricultural societies embodied features of not-for-profit voluntary independent organisations. Their stated objectives differed little and commonly included the improvement of livestock, the encouragement of production of agricultural produce, and the promotion of new farming implements and tools which were meant to be achieved mainly through holding various agricultural exhibitions and shows, ploughing matches and field trials of machinery.\textsuperscript{23} The revenues were mainly spent on awards for the winners of these public events. In 1869, for instance, colonial societies planned to allocate roughly two-thirds of their total budget for these purposes.\textsuperscript{24}

Any person who was able to pay a membership fee could join a local agricultural association or society, yet the amounts of charges varied considerably. The Western District Pastoral and Agricultural society (based in Skipton) imposed a significant £4 annual subscription fee which greatly restricted a pool of prospective members to well-off sheep and stock farmers. The operation of this


\textsuperscript{23} Rules and Regulation of the Western District Pastoral and Agricultural society, Printed by Heath and Cordell, Geelong, 1859 (?), p. 5; First Annual Report of the Committee of Management of the Ararat Agricultural Society for the Year ending April 1864, Printed by Banfield and Merfiled, Ararat, 1864, p. 7; Report of the Ballarat Agricultural Society for the Year ending on 1\textsuperscript{st} April, 1861 with the Rules of the Society, Evans Brothers, Printers, Ballarat, 1861, p. 5

\textsuperscript{24} Eleventh Annual report, p. 29.
society covered an extensive territory: its subscribers resided in Camperdown, Skipton, Mortlake, Geelong, Darlington, and some other places in the western part of the colony. Despite this large coverage the list of society’s members included only sixty-three persons among whom were such prominent pastoralists as Thomas Learmonth and Phillip Russell. In contrast, the Ararat Agricultural society which was established in 1863, by offering one pound annual subscription attracted a much wider membership. Within the first year of its operation, slightly more than a hundred local agriculturalists joined this institution. The large Ballarat Agricultural and Pastoral Society also limited its annual subscription to one pound which was within the means of growing rural population from nearby agricultural districts. In 1861 the list of the society’s members included around 150 names, over the following nine years the figure increased nearly fivefold.

The absence of any records as to the total membership of agricultural societies makes it difficult to assess their public recognition. A very rough approximation can be obtained by retrieving information from balance sheets of agricultural societies presented by Table 6.3. The last column of the table gives a percentage of subscribers” contribution in societies” total income. It can be seen that the relevant figures fall in the range between 30 and 75 per cent. Assuming that on average, at least, half of the total income of colonial agricultural societies was generated by payments of their members who had to pay one pound annual subscription fee and given the fact that in 1869, the combined income of all societies amounted to £7,100 (see Table 6.2), it may be speculated that around 3,500 colonial residents were active members of various agricultural societies and associations in the late 1860s. Given the fact that most organisations of this kind were established in the booming crop-producing districts, it may further be suggested that practicing land-cultivators comprised a considerable, if not the largest proportion, of their membership.

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25 Rules and Regulation of the Western District, p. 15.
27 Ibid., pp. 5, 13-14.
Table 6.3 Returns of selected agricultural societies in Victoria in the 1860s (excluding government grands)

<table>
<thead>
<tr>
<th>Society</th>
<th>Year of report</th>
<th>Subscriptions (£)</th>
<th>Other proceeds (£)</th>
<th>Proportion of subscriptions in total income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballarat</td>
<td>1860/61</td>
<td>209</td>
<td>510 (without balance of Burrumbeet Society)</td>
<td>29</td>
</tr>
<tr>
<td>Bacchus March</td>
<td>1862/63</td>
<td>125</td>
<td>37</td>
<td>77</td>
</tr>
<tr>
<td>Ararat</td>
<td>1863/64</td>
<td>118</td>
<td>51</td>
<td>70</td>
</tr>
<tr>
<td>Castlemaine</td>
<td>1863/64</td>
<td>158</td>
<td>107</td>
<td>60</td>
</tr>
<tr>
<td>Glenlyon</td>
<td>1867</td>
<td>44</td>
<td>27</td>
<td>62</td>
</tr>
<tr>
<td>Port Phillip Farmers&quot;</td>
<td>1867/68</td>
<td>464 (with donations)</td>
<td>528</td>
<td>47</td>
</tr>
<tr>
<td>Ballarat</td>
<td>1869/70</td>
<td>458 (with donations)</td>
<td>1020</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: Farmers' Journal, 14 February 1863, p. 105 (Bacchus March); Ibid., 12 February 1864, p. 105 (Castlemaine); Tenth Annual Report Presented by the Council to the Board of Agriculture, 1868/9, Mason, Firth & Co., Printers, Melbourne, 1869, p. 24 (Glenlyon); Argus, 4 June 1868, p. 2 (PPFS); First Annual Report of the Committee of Management of the Ararat Agricultural Society ... p. 5; Report of the Ballarat Agricultural Society for the Year ending on 1st April, 1861, p. 11; Report of the Ballarat Agricultural and Pastoral Society for the Year Ending on May 7, 1870, p. 17.

In addition to subscription payments, fees paid by non-members to enter exhibitions and shows held by societies comprised another important source of their revenues, recorded under the category of other proceeds. Table 6.3 illustrates that the overwhelming proportion of returns in the small societies (Bacchus March, Castlemaine, Glenlyon and Ararat) came from their members"
subscriptions, whereas the large ones generated their income mostly from arranging various public events for the farming population. These disproportions implicitly suggest that the exhibitions or ploughing matches of small regional societies mainly attracted their own subscribers, presumably local farmers. On the other hand, the similar activities of Melbourne and Ballarat-based societies pulled a much larger audience, most likely composed of non-members who farmed land in other districts. The exchange of farming information, therefore, occurred at two levels. With the help of numerous small agricultural societies rural producers might update their skills and experience readily applicable to particular local settings, while events held by larger societies might enable agriculturalists to learn and then try innovations developed in other regions.

The scale of activities of agricultural societies in the late 1860s is demonstrated by Table 6.4 which contains statistics on the types and numbers of entries (exhibits) in shows, ploughing matches and field trials held by these institutions.
Table 6.4 Number of exhibits organised by agricultural societies in Victoria in 1869

<table>
<thead>
<tr>
<th>Society name</th>
<th>Horses</th>
<th>Cattle</th>
<th>Sheep and Wool</th>
<th>Swine</th>
<th>Poultry and Dairy Produce</th>
<th>Implements and Machinery</th>
<th>Crops</th>
<th>Ploughing Matches</th>
<th>Trials of Implements and Machinery</th>
<th>Vineyard and Orchard Produce</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacchus March, Ballan, etc.</td>
<td>58</td>
<td>60</td>
<td>38</td>
<td>60</td>
<td>11</td>
<td>27</td>
<td>29</td>
<td>4</td>
<td></td>
<td>184</td>
<td></td>
</tr>
<tr>
<td>Ballarat</td>
<td>88</td>
<td>40</td>
<td>122</td>
<td>21</td>
<td>297</td>
<td>242</td>
<td>186</td>
<td>41</td>
<td>55</td>
<td>75</td>
<td>184</td>
</tr>
<tr>
<td>Carisbrook</td>
<td>63</td>
<td>42</td>
<td>40</td>
<td>27</td>
<td>42</td>
<td>33</td>
<td>43</td>
<td>16</td>
<td></td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Chiltern, Barnawartha, etc.</td>
<td>36</td>
<td>19</td>
<td>7</td>
<td>21</td>
<td>5</td>
<td>21</td>
<td>37</td>
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<td></td>
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</tr>
<tr>
<td>Geelong</td>
<td>85</td>
<td>56</td>
<td>36</td>
<td>16</td>
<td>119</td>
<td>75</td>
<td>259</td>
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<td>Glendaniel</td>
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<td>46</td>
<td>86</td>
<td>97</td>
<td>24</td>
<td></td>
<td></td>
<td>11</td>
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<tr>
<td>Glenlyon, Franklin, etc.</td>
<td>50</td>
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<td>26</td>
<td>68</td>
<td>20</td>
<td>59</td>
<td>23</td>
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<tr>
<td>Merino and Sandford</td>
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<td>4</td>
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<td>31</td>
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<td>Mornington</td>
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<td>19</td>
<td>18</td>
<td>27</td>
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<tr>
<td>Newstead</td>
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<td>24</td>
<td>4</td>
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<td>Newbridge</td>
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<td>10</td>
<td>18</td>
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<td>31</td>
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<tr>
<td>Ovens and Murray</td>
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<td>12</td>
<td>141</td>
<td>4</td>
<td>25</td>
<td></td>
<td>24</td>
<td></td>
<td></td>
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<tr>
<td>Seymour</td>
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<td>24</td>
<td>3</td>
<td>5</td>
<td>18</td>
<td>27</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Smeaton, Spring Hill, etc.</td>
<td>207</td>
<td>104</td>
<td>143</td>
<td>38</td>
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<td>233</td>
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<td>Victoria (Melbourne)</td>
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<td>41</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Villiers &amp; Heytesbury</td>
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<td>6</td>
<td>29</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wahgunyah</td>
<td>37</td>
<td>21</td>
<td>18</td>
<td>11</td>
<td>21</td>
<td></td>
<td>169</td>
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<tr>
<td>Western District</td>
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<td>8</td>
<td>32</td>
<td>42</td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1577</strong></td>
<td><strong>991</strong></td>
<td><strong>1154</strong></td>
<td><strong>329</strong></td>
<td><strong>1426</strong></td>
<td><strong>1009</strong></td>
<td><strong>1318</strong></td>
<td><strong>495</strong></td>
<td><strong>59</strong></td>
<td><strong>615</strong></td>
<td><strong>456</strong></td>
</tr>
</tbody>
</table>

The table presents data only on twenty two agricultural societies which submitted their returns to the Board of Agriculture in 1869 and therefore does not reflect the operations of all these organisations in Victoria. Nonetheless, a plain total number of nearly 10,000 different exhibits organised by twenty two societies evidences a high degree of ingenuity among representatives of farming society. There were around 2,000 exhibits on cattle and sheep, which apparently were chiefly displayed by stock-producers, while around 3500 entries on crops, orchards, implements, machinery, ploughing matches, and machinery trials were mostly related to land-cultivators. Certainly, this division between stock and crop farmers, to some extent, is an abstraction but even so it is evident that thousands of crop-producers took active part in public events run by agricultural societies in the 1860s.

Apart from active participants who exhibited their crops or entered ploughing matches there were many more keen observers of new types of farming produce, methods of husbandry and implements. Plentiful evidence furnished by colonial periodicals supports the view that numerous shows and other events held by agricultural societies across the colony commonly turned into large social gatherings of people sharing farming background. By and large, however, columnists did not trouble themselves to state even approximate numbers of participants, simply emphasising that an audience or a crowd of visitors was large and just in some rare instances more exact estimations were provided. The first ploughing match of the Smeaton, Spring Hill and Bullarook Agricultural Association which was arranged in 1859 attracted around 300 visitors. Two years later, the Association organised a grain show and it was reported that between 300 and 400 persons who were presumably non-members paid for admission. In 1866 the same Association run its annual ploughing match which was attended by 500 guests from Ballarat, Ascot, Creswick, Carisbrook, Glendaruel and other localities. 600 visitors were estimated to have been

29 Supplement to Creswick Advertiser, 24 June 1859, p. 2.
30 Creswick & Clunes Advertiser and County of Talbot Agricultural Journal, 12 April 1861, p.2.
31 Age, 29 July 1866, p.7.
presented in the 1868 Evansford and Springs ploughing match.\footnote{Leader, 1 August 1868, p. 6.} The 1863 one-day show of the Sandhurst Agricultural and Horticultural Society drew attention of 1,200 persons who were charged a shilling for admission. It was reckoned, however, that the audience would have been much larger if the weather had been more favourable that day.\footnote{Farmers’ Journal, 28 March 1863, p. 201.} The same year, the ploughing match of the small Indented Heads Agricultural Society became a matter of interest for around 150 locals and residents of nearby Barrabool, Connewarre and Moolap.\footnote{Ibid., 13 June 1863, p. 377.} The 1860 ploughing match of the Ballarat Agricultural society was attended by 400 visitors.\footnote{Creswick Advertiser, 8 June 1860, p.2.} Four years later, the \textit{Farmer’s Journal} described another ploughing match held by this society:

\begin{quote}
[B]etween six or seven hundred persons were present on the ground, the most, if not the whole, of whom were as may be supposed either farmers or in some way or other connected with the cultivation of the soil.\footnote{Farmers’ Journal, 10 June 1864, p. 378.}
\end{quote}

The large numbers of countrymen attended or personally participated in various events of agricultural societies bear out the strong interest of rural population to new approaches of crop-farming.

The process of learning and then adopting new farming techniques might be extremely rapid. In October 1863, the Ballarat Agricultural Society organised a presentation of eleven reaping machines. Three were purchased by local grain-growers who carried out the open field just slightly more than two months later in order to test their new machinery.\footnote{Ibid., 8 January 1864, p. 24.} A cultivator in the Upper Yarra region, who reaped „a very successful crop of the black-beared Russian wheat imported by
himself” was keen to exhibit the result of his labour to his fellow farmers at several shows in following years.\textsuperscript{38}

This drive for innovation and change was an attribute of the colonial farming community in the 1860s. The reporters of the \textit{Weekly Age} and the \textit{Leader} who were frequently assigned by their editors to agricultural districts in the second half of the decade repeatedly described various trials and experiments conducted on cropping farms. To demonstrate this widespread enthusiasm for learning and testing, the following examples are extracted from just a few 1865 spring issues of the \textit{Weekly Age}. Joseph Nicholson, a freeholder of a 200 acre allotment in the Keilor district, subdivided his land into smaller plots experimenting with plants and manures. His experience showed advantages of simple crop rotation, „even if it be but from one cereal to another: and the beneficial effect manure of the second year“.\textsuperscript{39} Justin Fox, a Plenty district farmer on 277 acres, tested the impact of guano on different types of crops. The trials revealed that even under unfavourable weather conditions the application of guano to potatoes was well justified because the additional proceeds from increased yields far exceeded expenditures on the fertiliser.\textsuperscript{40} Robert Farrington, a proprietor of a 140 acre farm in the Moonee Ponds district discovered that Peruvian guano for oat crops „though very stimulating in wet seasons, [was] totally inoperative in dry ones“.\textsuperscript{41} In the same locality, Thomas Peach who rented a farm of forty acres was reported to have found out that coney greys was the best variety of peas in a dry season.\textsuperscript{42}

As a \textit{Leader} contributor from Baringhup, in the county of Talbot remarked four years later „all farmers are more or less experimental, and no farmer can carry on an experiment for two years but his neighbour will see it if profitable“.\textsuperscript{43} The agricultural societies and associations by numerous and frequent shows,\textsuperscript{38} \textit{Leader}, 2 May 1868, p. 10.\textsuperscript{39} \textit{Weekly Age}, 1 September 1865, pp. 12-13 \textsuperscript{40} Ibid., 6 October 1865, pp. 12-13.\textsuperscript{41} Ibid., 24 November 1865, p. 12.\textsuperscript{42} Ibid.\textsuperscript{43} \textit{Leader}, 13 February 1869, p.7.
exhibitions, ploughing matches and other events holding across the colony were able to create a medium for farmers to share the results of their learning and experimentation. On the other hand, societies themselves spurred innovations and experimentation among colonial land-cultivators. Thousands of pounds annually awarded to winners of competitions acted as a great incentive for producers to grow and select better types of crops or develop new techniques of husbandry most suitable to local settings. With the considerable financial assistance of the colonial government, agricultural societies therefore created an elaborate network of centres which accelerated dramatically the spread of technical knowledge between the members of the domestic farming community.

**Putting knowledge into practice**

In December 1860 an *Argus* columnist laid out his vision of the immediate prospects for crop-farming in Victoria. Although the harvest was expected to be abundant and farmers seemed to have been doing fairly well in recent times the daily’s contributor was alarmed over declining prices, testifying that:

> The margin of profit on any or all of the standard crops is now so small, that men must have something more than a team of bullocks and a plough, even on land of their own, to insure them a decent subsistence and freedom from debt. They must have the means to till their farms well, and stock of some kind to economise the produce, and convert the least valuable portion of this into a saleable form, besides consuming the free grass attaching to each farm. 

These concerns were likely to reflect the general mood of colonial agriculturalists. By the late 1850s, the golden age of Victoria’s farming, when a small twenty acre allotment of good arable land might be „Tom Tiddler ground“ awarding annually its occupier with more that £1,000 „from one hay crop” had already passed into the history. 

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44 *Argus*, 12 December, 1860, p. 4.

45 Ibid., 1 April 1863, p. 4.
coupled with free-admission of cheap imported supplies to colonial markets had quickly brought the cost of crops down. In these circumstances land cultivators apparently needed more efficient utilisation of factors of production to increase the margin of their profit. One of the approaches to this problem involved the broader utilisation of farming machinery to reap their harvests from larger areas of land whilst keeping the requirements in additional labour force relatively moderate.

The task of minimising the labour input into crop production remained a vital necessity for colonial agriculturalists still affected by the high cost of farm hands in the 1860s. A man who grew up in a farming family and who therefore possessed some practical agricultural experience claimed his reluctance to invest a spare £1,000 capital into a fresh block of arable land regardless of its low price. He believed he would then have to „to turn his children and wife into [the] slavery of hard work” owing to unaffordable cost of hired labour. 46 In the mid decade it was reported from Grant county that local farmers were not as concerned with current low crop prices since the latter tended to fluctuate considerably throughout the year as „the price and quality of labour”.47 Their counterparts in the Central Victorian goldfields region encountering the similar problems had to employ a large number of Chinese during harvesting.48 The troubles for colonial cultivators in finding skilled labourers increased in the late 1860s when section 42 of the Amending Land Act came into operation removing „the greater and better part of harvest labour supply, for those who had saved a little money were nearly sure to be good steady workers”. 49 It was anticipated that the shortage of labour force would continue in the future, since male offspring of these forty-seconders were most likely to „turn free selectors, marry girls, and set for themselves, making homes of their own”.50

46 Argus, 2 June 1860, p. 6.
47 Leader, 23 February 1867, p. 8.
48 Age, 11 January 1866, p.7.
49 Leader, 10 October 1868, p. 6.
50 Australasian, 7 December 1867, p. 728.
The partial replacement of manual labour with machines for harvesting grains was the most common strategy among those of colonial cultivators who possessed some wealth and occupied sufficiently large areas of farmland. The process of adoption of harvesting machinery was especially rapid in the central Victoria region. In 1860 it was already admitted that „nearly every farmer” growing grain in a neighbourhood of Ballarat could „boast of being some sort of a reaping machine” virtually unknown just three years ago. The official agricultural statistics similarly indicate the quick spread of mechanical harvesting in the interior lands north of the colonial capital. Around 28,000 acres were reaped mechanically in the colony in 1860; nearly half of that acreage was comprised by the just settled central Victoria counties of Ripon, Talbot and Dalhousie. In the following years the practice of mechanical grain harvesting expanded tremendously in the hinterland counties and districts. (See Table 6.5)


52 Agricultural and Live Stock Statistics, 1861, p. 40.
In 1867, the last year when a separate comprehensive series of agricultural statistics was released, 160,000 acres of crops were harvested with machines in the colony. It can be seen that the cultivators of four central Victoria counties accounted for roughly two-thirds of the total extent, and their fellow farmers from the north-west and north-east regions contributed a quarter. On the other hand, the acreage reaped with machinery in the traditional grain growing coastal counties was relatively insignificant in the late 1860s.

A number of factors enabled cultivators in the newly settled regions of central and northern Victoria to make such an extensive use of mechanical harvesting in the new decade. As Chapter four has illustrated, the intensive distribution of fresh Crown Lands at relatively low prices in the hinterland counties and districts conditioned larger sizes of local farms than in the long-colonised rural divisions around Melbourne. (See Table 4.1 and Figures 4.2-4.5) This advantage assisted inland cultivators to sow with grain more substantial areas, which in turn offered
more scope for harvesting machines. The climate and topography of inner Victoria provided other benefits. The stripper, the most efficient type of harvesting implements, allowed three people to gather in crops from eight to nine acres a day. The reaper, another common harvesting device, only cut the corn which then had to be bound, stacked, carted and threshed; the stripper could remove the grain heads from the plants and thresh them in one single operation.\footnote{Leader, 13 January 1866, p. 10.} The utilisation of the latter machine, however, had to be confined to inland dry areas as the grain needed to be perfectly dry and ripe to be stripped. The frequently uneven terrain of wet coastal counties made it difficult to utilise harvesting machines on local fields in contrast to “fine level country” in many hinterland agricultural areas.\footnote{Age, 10 January 1861, p. 7; Argus, 2 September 1864, p. 4; Australasian, 22 September 1866, p. 793.} 

The potential economic advantages of simple harvesting machinery over the hand-operated sickle or scythe could appear a self-evident matter for educated colonial cultivators who through word of mouth and by reading colonial periodicals were well familiar with successful application of strippers and reapers in neighbouring South Australia. Moreover, the numerous shows and field trials of machinery held by regional agricultural societies presented Victoria’s farmers ample visual evidence as to the benefits (or lack thereof) of different types of machine appropriate for their localities. On the one hand, as Chapters three and four have shown, the gold discovery provided a large number of domestic farmers with finances to be invested heavily in expensive machines and implements. In the early 1860s, for instance, Ballarat farmers were reported to be able to spend annually on machines and implements “for the purpose of tillage between £8,000 and £10,000”.\footnote{Argus, 19 February 1861, p. 5.}

The intellectual and financial wealth of colonial crop-farmers were not applied to grain-growing industry alone. To demonstrate this fact Table 6.6 provides

\footnote{Leader, 13 January 1866, p. 10.}
\footnote{Age, 10 January 1861, p. 7; Argus, 2 September 1864, p. 4; Australasian, 22 September 1866, p. 793.}
\footnote{Argus, 19 February 1861, p. 5.}
statistics on the regional utilisation of some types of farming machines and implements in 1869.

Table 6.6 Agricultural machinery employed on farms in Victoria in March 1969

<table>
<thead>
<tr>
<th>Regions of the colony</th>
<th>Types of machinery and their numbers</th>
<th>Chaff cutters</th>
<th>Hay Rakes (horse-operated)</th>
<th>Mowing machines</th>
<th>Reaping machines</th>
<th>Stripers</th>
<th>Scarifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counties of Bourke and Grant</td>
<td>1991 68 115 471 5 85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western District</td>
<td></td>
<td>525 4 15 66 19 21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counties of Dundas, Follett, Hampden, Heytesbury, Normanby, Polwarth and Villiers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Victoria</td>
<td></td>
<td>2060 78 154 1746 107 93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counties of Dalhousie, Greenville, Ripon and Talbot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North-West</td>
<td></td>
<td>594 39 23 408 90 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County of Rodney, Districts of Loddon and Wimmera</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North-East</td>
<td></td>
<td>649 5 27 404 128 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counties of Anglesey and Evelyn, District of Murray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gippsland and Mornington</td>
<td>235 2 8 83 13 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total in the colony</td>
<td></td>
<td>6054 196 342 3178 362 229</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Statistics of the Colony of Victoria, 1868, Production, p. 20.

In the first months of 1869 more than 3000 reaping and nearly 400 stripping machines were in operation in the colony. Unsurprisingly, those were largely employed by farmers of central and northern Victoria. Not only did colonial cultivators extensively utilise machinery for grain production but they widely relied on technological innovations to grow non-cereal crops. This was especially the

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56 The total number in the source is erroneously calculated as 249.
case for long-established agricultural Bourke and Grant counties. Large numbers of chuff cutters, hay rakes and mowing machines used in these two counties indicate the steady efforts of local farmers to reduce the production cost of globally non-tradeable green crops demanded by consumers in the metropolitan area.

Regrettably, the absence of direct evidence on the profitability of non-wheat commodities in the 1860s hinders any attempts to evaluate the financial benefits to land cultivators who employed farming machinery different from strippers or reapers. Very general indications on the importance of technological innovations can be obtained by matching the figures of official agricultural statistics on the cost of all agricultural machines and tools employed on cropping farms and the number of farms themselves. The former type of data was first collected only in 1866 and therefore the time series cannot be extensive for the purposes of this work. Even so it clearly indicates that an average colonial farm was becoming more technically equipped in the late 1860s. (See Figure 6.6)

Figure 6.6 Cost of machinery and implements per farm in Victoria in March 1866 and March 1869.

In 1866-1869 the total cost agricultural machinery and implements in Victoria increased by more than a third from £700,000 to £1,150,000. This dramatic growth, to some extent, reflected the rise in the number of cropping farms from 20,000 to 29,000 over the same period. Yet, it can be seen that average figures on the cost of farming machinery and tools per cropping unit grew from £35 to nearly £40. The growth was notable in all colonial regions, except central and north-east Victoria where the value of farming implements per local farmstead much exceeded the average figures across the colony.

It can be suggested that the data presented by Figure 6.6 are highly likely to undervalue considerably the real cost of agricultural machinery and tools operated by an average colonial farmer who grew tradeable crops. The previous chapter has revealed that the successful working of section 42 of the Amending Land Act swelled the ranks of colonial cultivators. A few thousands of those who obtained land under this regulation and were listed in the official agricultural statistics (the latter covered all landholders cropping allotments exceeding one acre) were, however, not farmers in a strict sense. These forty-seconders earned a living in other industries, primarily mining or trade, and thus cultivated their tiny allotments chiefly for personal needs with a few plain farming tools and implements. The number of these „part-time” farmers was especially large in central Victoria where thousands of allotments less than twenty acres in area were taken near goldfields. As landholders engaged in subsistence farming were not separated in official agricultural statistics from those growing tradeable crops, it can be assumed the latter category of cultivators in fact purchased new farming equipment even more extensively than it is suggested by Figure 6.6.

Apart from the wide utilisation of agricultural machinery and implements, for which numbers and costs can be quantified, colonial crop-producers relied on other approaches to improve efficiency of their operations in the 1860s. Even though agricultural scientific research was in its embryonic state, the experimental selection of European crops by trial and error method was activity carried out across the colony. The Annual reports of the Board of Agriculture listed in total more than 10,000 crop entries at the shows held by agricultural
societies in the 1860s. Furthermore, the latter institutions were engaged in distribution of new varieties of plants received outside of Victoria. In 1861, for example, with help of the colonial Governor they obtained and circulated between their members the samples of wheat awarded prizes in the exhibitions in South Australia.\textsuperscript{57} These activities of agricultural societies eventually provided contemporary farmers with a much wider choice of crop varieties suitable to local settings than their predecessors had had in the Port Phillip period.

The more advanced methods of soil management also became a matter of concern for colonial cultivators, especially for those who farmed their own land over a long period in the metropolitan counties of Bourke and Grant.\textsuperscript{58} At the close of the 1850s the local collector of agricultural statistics already noted the application of farmyard manure and guano on some farms near Melbourne.\textsuperscript{59} The same facts were too observed by a \textit{Farmers’ Journal} reporter who visited a number of farms in the vicinity of the colonial capital a few years later.\textsuperscript{60} Although no official agricultural statistics for the utilisation of fertilisers is available, some relevant details are provided by \textit{Farmers’ Journal} advertisements on selling guano which were repeatedly published in the last months of 1860s. The commercials encouraged domestic agriculturalists to purchase Flat Island guano at £5 5s per ton stressing that it was „tried by above 3000 farmers and gardeners on various crops during the season“.\textsuperscript{61} However exaggerated this number might have been it supports the view that the practice of fertilising land had commenced gradually spreading in Victoria in the early 1860s.

By the close of the decade the application of fertilizers became common among farming freeholders in the rural divisions around Melbourne. Two key factors influenced this decision of crop-producers to manure their fields. A large extent of

\textsuperscript{57} \textit{Argus}, 9 May 1861, p. 5.
\textsuperscript{58} Peel, \textit{Rural Industry}, p. 99.
\textsuperscript{59} \textit{Agricultural and Live Stock Statistics}. 1857, Appendix. Agricultural reports. W Farange, p. 46.
\textsuperscript{60} \textit{Victorian Farmers’ Journal}, 15 September 1860, p. 1-2; ibid., 22 September, p. 1; ibid., 12 October 1861, p. 1265; ibid., 19 October, p. 1296-97; ibid., 9 November, p. 1393-94
\textsuperscript{61} Ibid., 20 October 1860, p. 31.
farmland had been put under the plough before the gold rush and then was cropped intensively and extensively, leading to soil exhaustion by the 1860s. Furthermore, the declining crop prices demanded that local cultivators pay more attention to manuring in order to obtain large volumes of crops per unit of land.\textsuperscript{62} From the Plenty River district, the Weekly Age reported the „numerous experiments“ of local cultivators with guanos, „in order not only to test their relative values, but also their effect as compared with that of farm yard and stable manure“.\textsuperscript{63} In Moonee Ponds and Pascoe Vale districts, in the mid 1860s it was „comparatively rare to meet with a crop that [had] not received substantial assistance from the manure cart.“ The largest part of manure came from the city stables.\textsuperscript{64} The same proximity to the large metropolis gave Moorabbin farmers „a great advantage“ of „getting return loads of manure“ after selling their produce on local markets.\textsuperscript{65} In the Keilor and Essendon districts, despite the reluctance of some producers „to take warning from the result of exhaustive cropping“, there were many farms, however small, producing „fair and excellent crops“ because of manuring land.\textsuperscript{66}

Even in the inland counties and districts where abundance of fresh land resources greatly lessened the need for maintaining the fertility of soils, the attempts of local farmers to use fertilisers became also apparent. The samples of bone dust and superphosphate of lime displayed at the 1863 Kyneton grain show were „highly esteemed by some of the leading farmers“ who made the extensive orders of „these most valuable, and, at the same time, economic fertilisers of the soil“ from the exhibitors.\textsuperscript{67} In 1866 an Age journalist reported from the same district about the operation of steam engine which crushed and steamed bones

\begin{itemize}
\item \textsuperscript{62} \textit{Weekly Age}, 24 November 1865, p. 12; Ibid., 6 October 1865, p. 12; \textit{Leader}, 16 October 1869, p. 6.
\item \textsuperscript{63} Ibid., 6 October 1865, p. 12.
\item \textsuperscript{64} Ibid., 24 November 1865, p. 12; Ibid., 1 December 1865, p. 12.
\item \textsuperscript{65} \textit{Agricultural and Live Stock Statistics}. 1867, Appendix. Agricultural reports, J Newlands, p. 91.
\item \textsuperscript{66} \textit{Weekly Age}, 10 November 1865, p. 12.
\item \textsuperscript{67} \textit{Farmers’ Journal}, 7 March 1863, p. 157.
\end{itemize}
and its produce was considered by local farmers to be cheaper than guano.\textsuperscript{68} Joseph Jenkins who left the extensive diary of his experience in Victoria’s countryside, though critical about colonial farming methods, mentioned the application of bone dust and farm yard manure in the Learmonth district near Ballarat in 1870.\textsuperscript{69}

Crop-rotation was an alternative and less expensive way to maintain fertility of the soil. The order of changing crops in a sequence was not sophisticated as the producer largely combined grain, green crops and potatoes. The most common solution was, however, to leave land idle for a few years after continuous cropping if the size of farm was sufficient enough for this purpose.\textsuperscript{70} Figure 6.7 indicates that the latter practice was gradually spreading in the 1860s.

**Figure 6.7 Proportion of fallow in the total cultivated acreage in Victoria in 1860-1869**

![Graph showing proportion of fallow in the total cultivated acreage in Victoria from 1860 to 1869.]

Source: *Statistics of the Colony of Victoria, 1869, Production*, p. 17.

\textsuperscript{68} *Age*, 26 July 1866, p. 8.

\textsuperscript{69} SLV, MS 13267. Jenkins, Joseph. Diary, 1869-1871, Monday the 14\textsuperscript{th} of November 1870;

\textsuperscript{70} *Farmers’ Journal*, 2 September 1862, p. 526; *Leader*, 20 February 1869, p. 6; Ibid., 27 February 1869, p. 7; Ibid., 14 November 1868, p. 6.
Although the enormous amount of virgin lands was brought under the plough in Victoria the 1860s, the proportion of fallow in the total tillage nearly doubled over the same timeframe. This growth indicates that domestic farmers became increasingly concerned with more efficient utilisation of land resources during the decade.

The updated husbandry methods adopted by a large number of farmers were also reflected in growing crop yields. The relevant statistical returns of long-established Bourke county furnish most appropriate piece of evidence. In contrast to cultivators of recently opened up hinterland regions yet not to face many troubles with soil exhaustion, the limited supply of fresh land in the county of Bourke motivated local farmers to pay much more attention to productivity of their land. Table 6.7 illustrates this gradual improvement by comparing the average five-year yields of key crops in the county in the 1860-1864 and 1865-1869.

Table 6.7 Five-year average yields of major crops in the county of Bourke in 1860-1864 and 1865-1869

<table>
<thead>
<tr>
<th>Period</th>
<th>Wheat (bushels an acre)</th>
<th>Oats (bushels an acre)</th>
<th>Barley (bushels an acre)</th>
<th>Potatoes (Tons an acre)</th>
<th>Hay (Tons an acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860-1864</td>
<td>14.18</td>
<td>20.9</td>
<td>19.38</td>
<td>2.42</td>
<td>1.18</td>
</tr>
<tr>
<td>1865-1869</td>
<td>15.87</td>
<td>21.65</td>
<td>20</td>
<td>2.33</td>
<td>1.22</td>
</tr>
<tr>
<td>Increase/Decrease of 1865-69 to 1860-65 (%)</td>
<td>+12 %</td>
<td>+ 4 %</td>
<td>+ 3 %</td>
<td>- 4 %</td>
<td>+ 3 %</td>
</tr>
</tbody>
</table>

Sources: Calculated from Agricultural and Livestock Statistics of Victoria. 1860-1867; Statistics of the Colony of Victoria, Production. 1867-1868.

The table contains data on five different crop-commodities. It reveals that only the potato yield declined slightly in the late 1860s, while that of grains and hay improved. The achievements of coastal crop-producers in maintaining fertility of their farmland, certainly, should not be overestimated. The period covered by the table is not extensive enough to make claims about the sustainable growth in yields in the coastal areas. Nonetheless the figures of the table provide sufficient
proof to argue that farmers in the rural divisions around Melbourne were able to minimise greatly, if not solve completely, their challenges with soil exhaustion in the 1860s.

In the hinterland counties and districts where a bulk of fresh land was opened up for agricultural settlement through selection and occupation licenses schemes the problems with land management was not urgent for crop-producers at that time. A much more important issue to them was the new labour saving machines and implements to manage their land. The adoption of those, especially designed for mechanical grain harvesting, was extremely rapid in the 1860s. Favourable climate and topography, larger sizes of farms, financial capital gained with the gold rush and special technical information actively supplied through the network of agricultural societies were most important factors attributed this process. Over the 1860s colonial land-cultivators therefore made a great technological progress. A large number of them were able to equip their farms with new machinery and implements optimising the use of manual labour and adopting more efficient approaches to land management.

Conclusion

In the late 1850s – 1860s many thousands of recently established colonial crop-producers were intensively gaining knowledge and skills of local husbandry, such an essential prerequisite of success and prosperity for their occupation. The high literacy level and predominantly young age of these people facilitated their learning. What was even more important, they did not limit their experiences to already verified domestic agricultural norms and standards but push themselves far beyond in an attempt to seek more advanced and more efficient farming implements, plants and soil management systems.

This search for expert knowledge on Australia agriculture was in fact a collective action which involved a large number of practicing farmers. With the considerable financial assistance of the government nearly every country township hosted its
own agricultural society or association serving as one of the key focal points for a local rural community in the 1860s. Every year these organisations held their own shows, exhibitions, ploughing matches, field trials of machinery and implements, and competitions of various kinds attracting thousands of active participants and keen observers sharing farming backgrounds. While recently established cultivators could enrich their experience by getting direct access to diverse first-hand technical information, their more experienced counterparts were able to receive substantial monetary as well as moral awards by displaying their skills and achievements in selecting plants and breeding livestock, managing farming tools, and working soils. Furthermore, with the help of societies, manufacturers and tradespersons could exhibit to large farming audiences the industrial products: new farming machines, implements, tools, and fertilisers which were actively tried and tested by colonial crop-producers.

The adoption of more productive approaches to colonial farming was rapid in the 1860s. Many farmers in the long-settled metropolitan county of Bourke, where fresh land resources were scarce, were able to diminish considerably their problems with declining yields and soils exhaustion through application of manure and simple crop-rotation. Yet, the real achievement of colonial farmers was related to the widespread employment of machinery. As the Ballarat Star commented on this fact in 1867:

Whatever may be the shortcomings of Victorian farming in the point of tillage, it cannot be denied that cultivators are anxious to avail themselves of machinery, under the impression that by such means high-priced labor may be economized. In the face of diminished yields and no by means enhanced market-rates for produce, our farming community has year by year gone on accumulating implements for facilitating or cheapening labor, which of course cannot be explained by the supposition that the population engaged in rural pursuits has so largely increased, and therefore must be attributed to a growing impression that a right sort of investment has been adopted, which sooner or later, will meet its reward.71

71 Ballarat Star, 20 November 1867, p. 2.
It would, indeed. At that particular time the strippers and reapers, designed to minimise labour input into cereal production, were utilised by thousands of colonial farmers to sustain domestic population. This large-scale technological breakthrough cheapened the cost of growing grain in Victoria, and consequently created a vital prerequisite for selling this type of globally tradeable agricultural produce on international markets in the near future by utilising the enormous fresh land resources of the Wimmera and Northern plains. The next and final chapter considers the types of crop-producers of the late 1860s and their economic potential for future growth.
Chapter 7

Nearing Economic Maturity:

Positions of Crop-Producers in the 1860s

At the beginning of the 1860s agricultural producers on less than 200 acre landholdings reaped most tradeable crops in Victoria. Despite their relatively small allotments a large number was able to make rather comfortable living from cultivation. Much of that success laid in the great gold boom of the 1850s which diversified and expanded domestic markets for high valued crop-produce. With the new decade the economic conditions of commercial arable agriculture deteriorated. The ease of gold tension coupled with the better supply of markets with agricultural commodities caused crop-prices to slump. The grain harvests of 1863 and 1864, extremely poor in coastal counties, brought further distress to thousands of Victoria’s farmers.

These challenges of farming occupation persuaded modern historians to think that most colonial cultivators, especially smallholders around Melbourne, were neither prosperous nor successful in their undertakings in the 1860s. Joseph Powell sketching the progress of colonial agriculture in 1860-1865 argued that some evident technological improvements were „financed only by the few prosperous owners“ and, in general, arable agriculture was „a precarious pursuit“ owing to weather uncertainties, „the cross of the farmers, new and old“. Lynnette Peel scrutinising the agricultural development in the Port Phillip region commented on „the exodus of

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1 Powell, Public Lands, pp. 109-117.
small farmers” in the first half of the 1860s because of “falling prices, pests, diseases, overcropping, technical disadvantages and adverse seasons”.2

These academic opinions are, however, at odds with the figures of official agricultural statistics indicating the dramatic growth in the ranks of colonial cultivators. In March 1860 there were 12,000 Victorians who occupied and tilled holdings exceeding five acres; over the next nine years their number more than doubled.3 What was more, the farming population boomed across the colony. Even in the long-established coastal counties Bourke and Grant around the colonial capital the number of farming landholders increased by a third and exceeded 7,000 people in 1869.4 It is apparent that had farming really been “a precarious pursuit” associated chiefly with troubles and misfortunes the number of cultivators would not have multiplied over the 1860s.

This chapter looks into the operations of farmers and their standings in the new decade. By contrast to previous works it offers a more in-depth analysis of not only the problems but also the prospects of cultivators in Victoria. Furthermore, it provides an insight into the structure of the colonial farming community and the economic positions of its members. The ultimate objective of this investigation is to gauge the economic potential of domestic crop-producers for further expansion. Apart from official agricultural reports and statistics which have been also utilised in earlier research, the chapter draws extensive evidence from new sources: agricultural periodicals and farmers” probate records. The chapter consists of three sections. The first section evaluates opportunities provided by growing inner markets and farmers” responses to them. The second section addresses the structural changes in the expanded farming society. The incomes and wealth of colonial cultivators are subjects for the third section.

2 Peel, Rural Industry, pp. 93, 135,
4 Ibid.
The chapter makes evident that the remarkable expansion of the colonial farming community did not change fundamentally its structure: in the late 1860s nearly two-thirds of crop-producers were small landholders occupying allotments less than one hundred acres. Cheap land opened up by the new legislation and moderate monetary requirements to settle on the land assisted many thousands of recent migrants to take up small farming. The process of agricultural settlement was further facilitated by expanding inner markets. Despite a decline in the cost of agricultural produce, old and new farmers on a fifty – one hundred acre holding still had good chances to make a living near coastal and hinterland urban centres. The cost of producing cash-crops on small farms remained low because of great self-sufficiency of small agriculturalists in labour.

The number of larger crop-producers also grew fast, however, in the new decade. In the late 1860s nearly ten thousands farmers occupied allotments from 100 to 500 acres. Many were able to enlarge their cultivated area by using simple labour-saving machines, thus increasing the quantities of crops produced at low cost. Years of bad harvests and declining prices affected the financial positions of land-cultivators to a small degree in the 1860s. At the close of the decade the majority of them still possessed property valued at around £500. The commercial success of farmers was largely conditioned by their capacity to take advantage of expanding domestic markets, shifting rapidly to production of most remunerative commodities.

The chapter argues that by the late 1860s the foundation of the future successful agricultural colonisation of the Wimmera and Northern plains had been laid down: there were more than twenty thousand colonial residents managing cropping farms in the coastal and central Victoria regions. A large number of those were wealthy, innovative and pragmatic individuals who would be capable of resettling on the vast lands across the Diving Range.
Responding to new opportunities: Farmers and domestic markets

Even though the lure of Victoria’s gold was greatly weakened by the early 1860s, that distant Australian colony still remained an attractive place for dozens of thousands of immigrants. Over the new decade, largely due to booming immigration, the number of colonial residents further rose by a quarter and reached nearly three-quarters of a million. Regional population, however, did not grow evenly across Victoria. To illustrate this fact, Table 7.1 compares evidence furnished by the 1861 and 1871 colonial Censuses.

Table 7.1 Population in Victoria in 1861 and 1871

<table>
<thead>
<tr>
<th>Regions of the colony</th>
<th>Census 1861</th>
<th>Census 1871</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan Counties of Bourke and Grant</td>
<td>232265</td>
<td>310606</td>
<td>78341</td>
</tr>
<tr>
<td>Western District Counties of Dundas, Follett, Hampden, Heytesbury, Normanby, Polwarth and Villiers</td>
<td>32607</td>
<td>53977</td>
<td>21370</td>
</tr>
<tr>
<td>Central Victoria Counties of Dalhousie, Greenville, Ripon and Talbot</td>
<td>126184</td>
<td>176872</td>
<td>50688</td>
</tr>
<tr>
<td>North-West County of Rodney, Districts of Loddon and Wimmera</td>
<td>95324</td>
<td>103744</td>
<td>8420</td>
</tr>
<tr>
<td>North-East Counties of Anglesey and Evelyn, District of Murray</td>
<td>37297</td>
<td>57634</td>
<td>20337</td>
</tr>
<tr>
<td>Gippsland and Mornington</td>
<td>10766</td>
<td>25701</td>
<td>14935</td>
</tr>
<tr>
<td>Total in the colony</td>
<td>534443</td>
<td>728534</td>
<td>194091</td>
</tr>
</tbody>
</table>

Source: Census of Victoria, 1871. Inhabitants and Houses

In absolute terms the increase of population was most significant in the counties of Bourke and Grant, where the colonial capital continued its rapid expansion. While the Census of 1861 enumerated around 140,000 residents in Melbourne and its
suburbs, the relevant figure recorded ten years later was larger by a third.\(^5\) It is further apparent from the table that these two counties might account for nearly a half of all crop-commodities consumed in the colony: roughly every second Victoria’s inhabitant resided in this long-settled coastal region in the 1860s.

The demographic boom was also remarkable in central Victoria. Over the 1860s Ballarat, the largest local urban centre more than doubled its population to nearly 50,000 people and became the colony’s second most populous city after Melbourne.\(^6\) Overall, the requirements for farm-produce in central Victoria were high, as every fourth colonial resident lived in the counties of Dalhousie, Greenville, Ripon and Talbot during the decade.

Around a hundred thousand lived in the north-west Victorian region in the 1860s. As in the preceding decade that vast terrain was populated very unevenly: most people lived in small mining districts adjoining the Dividing Range to the north. Table 7.1 further demonstrates the rapid progress of settlement in the Western District, North-East Victoria, Gippsland and Mornington. Even so these regions still accounted for a relatively small proportion of the total colonial population in 1871.

The colonial settlement pattern indicates that the metropolitan region provided the largest, and, moreover, rapidly expanding commercial outlet for crops in the colony. The Central Victorian goldfields region remained the second most important colonial market for agricultural produce in the 1860s. The places at which colonial cultivators were able to farm their lands for monetary profits, therefore, had not changed fundamentally after the 1850s: cash-crops were needed most in the long-settled coastal Port Phillip region encompassing Bourke and Grant and the newly populated hinterland goldfields counties and districts.


\(^6\) Within the limits of three municipalities – Ballarat City – 24,308, Ballarat East Borough – 16,397 and Sebastopol – 6,496 inhabitants, respectively. In 1861 the population of Ballarat was around 22,000 people: Ballarat City 9264 and Ballarat East 12840. (Census of Victoria, 1871, Inhabitants and houses, p.17)
Chapter four has illustrated that in the 1850s these two main colonial markets for crop-produce developed independently from each other because of backward overland transportation system. Although both grew extremely quickly they differed in commercial prospects for farmers. As the metropolitan market was exposed to cheap imports, the local prices on globally tradeable crops were relatively low, which naturally affected the economic positions of regional cultivators. The outlets of central Victoria’s farmers were largely protected from imported produce by the high cost of cartage. This factor maintained prices on both categories of crop-commodities: global tradeables and global non-tradeables rather high in the hinterland counties and districts, which brought substantial benefits to local agriculturalists. Their protection by distance could not last long, however. In 1859 a Ballarat newspaper already warned local farmers:

It cannot be hoped that such a run of prosperity will long continue unchecked; a change must come eventually, but whether it shall be early or later depends much upon the efforts which the farmers of this district put forward from time to time to maintain their position in the race of competition, which is certain to bear hard upon them.\(^7\)

The change brought about by the gradual expansion of a railway network linking central Victoria with the metropolitan region did come very soon. In April 1862, the Geelong-Ballarat line was officially opened. Six months later, the railways „unlocked“ Sandhurst connecting this town with Melbourne. A fifty-five miles” extension to Echuca across the Northern plains thereafter did not impose any serious engineering challenges. Just two years later, in September 1864 the single track railway was opened for goods traffic to Echuca.\(^8\)

Despite the worries of tough competition, the opening of inland railway lines did not trigger the mass-scale transportation of agricultural commodities to the gold-mining

\(^7\) *Miner and Weekly Star*, 11 March 1859, p.1.

areas. This fact is implicitly suggested by the movements of goods at the selected railway stations in central Victoria. (See Figures 7.1 – 7.4) The inward and outward movements of agricultural commodities by the listed stations would have undoubtedly been a much more valuable source of evidence to determine the impact of railways on inland farmers, yet similar statistics have not been located in the records of Railways Department for the period of the 1860s. The aggregated figures on total rail freight which incorporated crop-produce (livestock was listed separately) point out that at the Ballarat and Kyneton stations there was an upward tendency in both ingoing and outgoing coming traffics, while at Castlemaine and Sandhurst the amount of receiving goods declined but that of sending outwards increased.

It may be speculated that an inward large-scale transportation of agricultural commodities may have occurred in the years immediately followed the opening of inland railways but thereafter there was an obvious reverse movement in traffic of crop-produce, grain primarily, towards coastal areas. In July 1867 the delegation of Ballarat farmers to the Minister of Railways pleaded to reduce the freight charges as a „very large quantity of wheat in the district“ might be sent to Melbourne.⁹ Even though the request was unsuccessful, the *Ballarat Star*, noticed „an entirely new feature in the commercially history of locally grown wheat“ when at the end of that year due to „a great scarcity in Melbourne and Adelaide, considerably quantities of grain were sent from Ballarat by rail to the seaboard, as much as 6s 2d per bushels realised“.¹⁰

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⁹ *Argus*, 11 July 1867, pp.5-6.  
¹⁰ *Ballarat Star*, 11 January 1868, p.2.
Figures 7.1 – 7.4 Inward and outward traffic at the Ballarat, Kyneton, Castlemaine and Sandhurst railway stations in 1862-1870

There was other direct evidence suggesting that despite the large local requirements for crops and the very young age of agricultural settlement, the farmers in the central Victorian region and the areas neighbouring it to the north were able to produce considerable tradeable surpluses of grain. In March 1867, it was reported from Benalla about the need for railway connection with booming Melbourne, as „there [was] a large surplus of grain, and it would increase rapidly if a market could be opened up“. In January 1869 a large deputation from Sandhurst and the neighbouring districts was received by the Commissioner of Railways. The delegation asked for a reduction in the rates charged for transportation of wheat and flour which would assist local farmers to get into the metropolitan market so essential now because of „a considerable increase in the growth of cereals, owing to the operation of the 42nd section of the Land Act“.

The remarkable progress made by inland grain-producers in the latter half of the 1860s was conditioned by a few factors. As chapter five has illustrated the Amending Land Act opened up an access to cheap local land resources. The high grain prices which followed the rust of 1864 motivated agricultural settlers to devote all these efforts to cereal production, while, as chapter six has shown, the drier interior climate and relatively flat landscape offered scope for the intensive employment of harvesting machinery. Not least of these factors was the development of milling industry, which absorbed most marketable wheat in the colony, before the intensive constriction of railways. In 1867, in Talbot, Ripon, Dalhousie and Grenville counties and the Murray and Loddon districts there were in operation fifty seven mills which produced three-quarters of all colonial-made flour. Flour per unit of weight was a much more valuable commodity than bulky grain; which consequently might make it economically viable even to cart this product from mills located in inland counties and districts to the consumers in the rapidly growing metropolitan region.

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11 Leader, 9 March 1867, p. 9.
12 Age, 14 January 1869, p. 2.
13 Ballarat Star, 25 July 1862, p.2; Stawell Historical Society, Letters written by old residents of Glenorchy in 1944, Wm. Harvey; Age, 1866, November, 30, p. 7
The official agricultural statistics on the extent of land occupied with different crops too indicate the extremely rapid expansion of wheat-growing in central Victoria in the 1860s. As an illustration of this process, Figure 7.5 presents changes in the acreages of main crops in Talbot county, the leading hinterland agricultural producer.

Figure 7.5 Acreage of major crops in the county of Talbot in 1856 and 1860

Source: Agricultural and Live Stock Statistics. 1860, pp. 2-3; Statistics of the Colony of Victoria, 1868, Production, pp. 2-3.

The figure shows that the farmers of Talbot county expanded the area sown to wheat five-fold over the decade. By the end of the period wheat occupied more than half of all cultivated land, which made this commodity the main local agricultural staple. The grain production grew fast in the neighbouring territories as well. In the late 1860s the large recently populated region encompassing Talbot, Ripon, Grenville, and Dalhousie counties, and the southern parishes of the vast Loddon, Wimmera and Murray districts accounted for around 70 per cent of colonial wheat acreage.\(^{15}\)

\(^{15}\) Statistics of the Colony of Victoria, 1868, Production, p. 2.
Whilst wheat-growing progressed at a spectacular rate in the hinterland counties and districts, the commercial importance of this cereal fell for agricultural producers in the coastal areas. Figure 7.6 indicates that farmers in Bourke and Grant counties halved their wheat acreage in the 1860s. It can also be seen that the extent of tilled land remained constant over the decade. This most likely explanation is that the local arable agriculture had already reached its natural limit near Melbourne by the early 1860s and nearly all accessible lands were ploughed in the following years.

Figure 7.6 Acreage of major crops in the counties of Bourke and Grant in 1860 and 1869

Source: Agricultural and Livestock Statistics, 1860, pp. 2-3; Statistics of the Colony of Victoria, 1868, Production, pp. 2-3.

It is apparent from the figure that the two-fold reduction in wheat acreage largely stemmed from the equivalent increase in the area occupied with different non-grain crops. This dramatic change in the production preferences is not unexpected. Chapter three has presented evidence that farmers of Bourke and Grant counties, in fact, envisaged the inevitable decline of their wheat growing operations as early as the mid 1850s. The limited extent and high cost of
farmland in the rural divisions around bourgeoning Melbourne coupled with free
access of cheap grains to local market encouraged local cultivators to consider
alternative activities not connected with cereal production. The high returns per
unit of land of many globally non-tradeable agricultural commodities such as
green fodder, vegetables and fruits encountering little import competition further
stimulated local producers to abandon wheat, especially given the total failure of
their wheat harvest after the 1864 rust.

On the other hand, in the new decade the rapidly expanding metropolitan market
could absorb mounting quantities of high valued domestically grown non-grain
commodities. In 1865, a Weekly Age correspondent described the character of
farming operations in the Moonee Ponds agricultural district. He informed his
readers that wheat had been extensively grown by local agriculturalists in earlier
years but when „the local demand for hay increased beyond the power of those
who were nearest the market to supply it; and then, hay, of course, being by far
the more profitable crop, was suffered to monopolise their attention“.16 It was
additionally stressed that near large centres of population „nothing is found to be
equally remunerative“ to hay making.17

In March 1866, an Age agricultural reporter observed good-looking crops in the
neighbourhood of Geelong, yet „wheat, in quantity, [was] held only by a few“. The
majority of local farmers relied on hay production and it was thought that „more
would even have been purchased if convenience were afforded by rail, in the
increase of the number of trucks to convey hay and straw from the Geelong
market to the metropolis“.18 In the Keilor district, once a few local farmers had
proved the success of growing potatoes on local lands, many neighbours
followed their examples sowing extensive acreage with this crop an in 1865. It
was, however, believed that „should the crops be good, they would supply but a
few weeks“ consumption for a place like Melbourne“.19

16 Weekly Age, 1 December 1865, p. 12.
17 Ibid., 24 November 1865, p. 12.
18 Age, 1 March 1866, [p. 6].
19 Weekly Age, 20 October 1865, p. 12.
In the late 1860s a large number of agriculturalists near the colonial capital modified their production preferences once more, this time shifting their commercial interests to dairying. In 1867 many Moonee Ponds agriculturalists were reported to have started caring „more now about the dairy than the haystack.” Cows were kept in „considerable numbers” to make butter for the market.20 Part of their fellow hay growers in the Pascoe Vale district „who had so long carried all their eggs in one basket began to think it would be less risky were part of them placed in another, and dairying was the favoured vehicle”.21 Tullamarine farmers were also reported to have started successfully combined dairying pursuits with cultivation.22 Along the Deep Creek Road near Brunswick „hay growing has given way to grazing and dairying on many of the principal farms”.23

The move to dairying, in most cases, seems not to have been dictated by deteriorating proceeds from selling tradeable crops but rather higher potential profitability of producing milk products. High crop yields in the districts where agricultural producers adopted dairying implicitly assumes it. Reporting on the results of the 1869 harvest, a rural contributor of the Leader wrote that Plenty River farmers „all have dairies and make cheese and butter” even though wheat yields were high averaging twenty five bushels an acre.24 The similar high yields of grain were recorded in the last two years in Epping, yet as a local contributor wrote this is „chiefly a dairying district; not half the land is in cultivation than there was ten years ago”.25

Very fragmented and occasional inventories of estates of Bourke farmers who died in 1869, further confirm the thesis that selling non-cereal crops and milk products became the key sources of agricultural producers” monetary income at that time. The list of personal possessions of Edward Malloy of Cranbourne

20 Leader, 21 September, 1867, p. 8.
21 Ibid., 15 August 1868, p.6.
22 Ibid., 8 February 1868, p. 8.
23 Ibid., 12 October 1867, p. 8.
24 Ibid., 20 February 1869, p. 6.
25 Ibid.
included thirty four horses, thirty two bullocks, thirty six cows, four tons of potatoes, 210 lbs butter, three tons of hay but just twenty nine bushels of wheat. The document unfortunately does not reveal the total size of farm, stating that a wheat crop occupied area of five acres, grown most likely for Malloy’s personal needs.\textsuperscript{26} The inventory of belongings of James Lacey, a farmer from Templestowe, listed thirty five acres of freehold land which was mostly devoted to forage crops and pasture: the cultivator possessed five cows, a chaff cutter, and different farming implements which did not include those related to grain-production.\textsuperscript{27} Garret Cahill, a Kilmore farmer, had in his own possession a 240 acre allotment of improved land. Although he died in November, a harvest month, no grown crops were listed among his assets but thirty head of cattle and two horses.\textsuperscript{28}

Similar to agricultural producers farming the land near Melbourne and Geelong, their counterparts from another long-established coastal agricultural district represented by the counties of Villiers and Normanby also cut back on wheat production in the 1860s. Figure 7.8 demonstrates that wheat acreage decreased by around a third in these two counties of the Western district.

\textsuperscript{26} PROV, Probate and Administration Records, File 7/707
\textsuperscript{27} Ibid., File 7/815
\textsuperscript{28} Ibid., File 16/909
Even though wheat declined in its importance in the counties of Villiers and Normanby, the figure makes evident that the total extent of tilled land nearly doubled in this region in the 1860s. The growth of non-wheat farming mirrored the character of local agricultural settlement stimulated by the first Land Acts. As chapter five demonstrated many bona-fide selectors in the Western district, where large-scale commercial outlets for crops were limited, aimed to practice intensive stock-farming on artificial pastures.

The materials drawn from probate records of local selectors who had taken up land under the Amending Land Act regulations but died in 1869, too, confirm this view. Alan McKenzy of Kolora (between Mortlake and Camperdown) leased 156 acres of improved land. He owned cattle valued at £95, horses at £38, sheep and pigs at £11, plough and dray at £6 yet no crops were recorded.²⁹ Likewise, James Milburn of Ripon leased 146 acres. His personal estate included 700 sheep, eleven head of cattle, six horses, a plough, a pair of harness, and a chaff cutter. Neither McKenzy nor Milburn had crops or machinery listed. The

²⁹ PROV, Probate and Administration Records, File 8/946.
The unimportance of commercial land-cultivation on Milburn’s farm may also be implicitly suggested by absence of a wagon commonly utilised to transport bulky crop-commodities; only a small spring cart was recorded as a means of transportation.\(^\text{30}\)

Not only did selectors grow little tradeable wheat in the Western district, but long-established cultivators in the traditional agricultural areas around coastal township reduced their wheat production in the 1860s. The turning point was the poor harvest of 1864 when the blight and wire worm destroyed most wheat crop throughout the district.\(^\text{31}\) Nonetheless, potatoes and oats were affected little by these troubles.\(^\text{32}\) The decline of wheat growing was particularly notable in the Warrnambool agricultural district, where farmers had been producing substantial surpluses of wheat for Melbourne consumers since the mid 1840s. Figure 7.8 demonstrates it by giving statistics on exports of crop-produce from Warrnambool.

**Figure 7.8 Shipment of crop-commodities from Warrnambool in 1863-1870**

![Graph showing shipments of potatoes and grain from Warrnambool, 1863-1870.](image)


\(^{30}\) PROV, Probate and Administration Records, File 7/468.


\(^{32}\) *Age*, 7 January 1864, p. 6.
It can be seen that from 1864 onwards the Warrnambool farmers did not produce wheat for external markets, giving their preferences to production of potatoes, which total export value amounted to nearly £300,000 over the period of 1863-1870. The locally grown potatoes together with the similar produce of farmers from the adjoining Belfast (Port Fairy) agricultural district were sold across the colony. Like flour, potato crop per unit of weight was a sufficiently expensive widely tradeable commodity to justify the high cost of its overland transportation. The Argus reporter investigating the progress of agricultural settlement under the Amending Land Act in 1866 noted that potatoes in Ararat in August were dear averaging at £11 per ton, „and could only be obtained from Belfast and Warrnambool – an enormous distance, through a country plagued with bad roads for a considerable distance from the sea“.

In north-east Victoria to the north of Kilmore, the reporter found that potatoes did not yield good harvest, and most of the local supply was imported from Belfast.

It would be wrong, however, to claim that Warrnambool farmers lost their commercial interest in long-maintained wheat growing, only because of the poor harvest in 1864. A more substantial factor influencing their decision was the tremendous expansion of grain production in the central Victoria region, that virtually made the colony self-sufficient in breadstuffs by the late 1860s. The growing influx of cheap wheat and flour from the hinterland agricultural districts to the colonial capital via the newly contracted Echuca-Melbourne railway eventually deprived Warrnambool agriculturalists from their traditional grain market.

Nonetheless, the development of inland grain industry did not signify daunting prospects for seaside farmers. Bourgeoning Melbourne continued generating high demand for a variety of non-wheat produce, thus enhancing their chances to get income from producing other commodities. The expansion of coastal and inland markets, therefore, still provided sufficient scope for the development of commercial crop-farming in Victoria in the 1860s.

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33 The Operation of the Land Act, p. 15.
34 Ibid., p. 42.
Furthermore, thousands of old and new members of farming society were able to respond efficiently to new opportunities by modifying rapidly their production preferences. In the 1860s it also took only a year or two for Keilor farmers to switch to production of potatoes, for their Moonee Ponds, Pascoe Vale and Tullamarine counterparts to develop dairying and for Warrnambool cultivators to bring to a close their long-maintained wheat-growing commercial operation. This evidence suggests that a large number of colonial farmers were commercially-minded and pragmatic individuals who were capable of modifying their commercial interests to take advantage of new market conditions.

**Building a new community: Types of crop-producers**

The expansion and diversification of farming operations in the colony in the 1860s was interrelated with the numerical growth of crop-producers. In March 1860 the collectors of agricultural statistics recorded 12,000 landholders who tilled allotments exceeding five acres and who were likely to make some living from growing cash crops owing to the size of their farming establishments.\(^{36}\) Over the following nine years 15,000 new members joined the society of crop-cultivators in Victoria.\(^{37}\) Not surprisingly, the local growth rates in the numbers of crop-farmers varied across the colony.

Maps 5 and 6 which reveal the distribution of occupiers of tilled holdings across the colony in 1860 and 1869, respectively, make evident that this growth was most dramatic in the central Victoria region. Prior to the Nicholson Act the gold counties of Talbot, Grenville, Ripon along with the large districts of Wimmera, Murray, and Loddon where market-oriented crop-farming was mainly practiced in the southern shires, accommodated roughly a third of all cultivators in Victoria. Nine years later, every second colonial crop-producer worked the land in this vast inland region.

\(^{36}\) *Agricultural and Live Stock Statistics, 1860.* p. 7.

\(^{37}\) *Statistics of the Colony of Victoria, 1868.* p. 12.
Map 6 Number of occupiers of cropped allotments (farming households) in Victoria in March 1869

Source: Statistics of the Colony of Victoria, 1869, Production, p. 12
Despite a numerical growth of cultivators in the long-settled coastal counties of Bourke and Grant, the local farming population declined in relative terms. While in 1861 every second colonial farmer cropped land in these two counties, a decade later only every fourth did so. Furthermore, millions of acres of land selected under the provision of the first three Land Acts in the Western district did not generate the equivalent expansion of local arable agriculture. In 1860 as well as in 1869 only less than one-tenth of all domestic cultivators resided in the counties of Western Victoria.

The information of Map 6 illustrates that even though the first regional railway linked some hinterland agricultural areas with the metropolitan market in the 1864, the agricultural settlement of that time still largely mirrored the spread of colonial population. The immediate proximity to outlets of crop-produce remained one of the greatest concerns for old and new members of booming farming society in the 1860s.

Apart from evidence on the numbers of land-cultivators and their regional distribution, the available statistical sources yield sufficient materials to classify the types of producers in the late 1860s. This information can also be utilised to determine the structural changes in the farming community over the 1860s and to validate the earlier conclusions on the character of land distribution in the colony, the technological advances of cultivators and their production preferences.

Although the government ceased publishing the separate series of agricultural statistics in 1867, the general colonial returns of subsequent years contained the comprehensive data on occupiers of cultivated holdings. As chapter four has determined an occupier of a tilled holding commonly represented a separate cropping household (pp. 154-155). Given this premise, the comparison of Figures 4.1 and 7.9 indicates that the proportional distribution of crop-growers by the size of their farms did not undergo noticeable changes in the 1860s.
At the beginning of 1869, six out of ten colonial cultivators worked on farms less than 100 acres in extent, in the same ratio as nine years earlier. Other categories of farmers also remained constant in their shares over the 1860s. Nonetheless, it can be argued that opportunities provided by the first three Land Acts, especially by the Amending Land Act of the 1865, and growing personal wealth enabled a large number of long-established cultivators to enlarge the size of their farms. Chapter five has demonstrated that thousands of crop-producers were able either to take up blocks of Crown Land under the occupation licences scheme near their farmsteads or to selected larger allotments in newly opened up agricultural areas. This was largely reflected in the substantial absolute growth of 200-500 acre farms, the number of which increased from 1,500 to 3,700 in 1860-1869.

On the other hand, a low financial barrier to commence farming operations on a few dozens of acres, especially if land was granted cheaply under section 42, secured the numerical superiority of small cultivators. The anonymous contributor to the
Portland Guardian who over a few months of 1869 regularly published his notes on the current state of domestic agriculture believed that even a settler with „very limited capital“ was able to „make a beginning in Victoria, and continue to live comfortably“. To take up farming on twenty acres, which were thought to have been a sufficient allotment to keep a large family, the settler required just around £80. His expenditures included a half year rent of freehold land at £1 per acre, six months supply of provisions and clothes – £28, two cows – £2, poultry - £10, pigs - £5, tools and implements - £10, building materials and different utensils - £11. The newspaper contributor stressed that just in a few months this small household operated only by family members could trade its moderate surpluses of poultry, eggs, butter and milk, while keeping on preparing land for cultivation of potatoes and wheat. The economic success of such a small settler ultimately depended on „the proximity of a market, lessening the cost of outfit, and hastening the day of realisation“. With more substantial initial capital a novice farmer might get a larger allotment. One of the viable simple commercial solutions was to keep cows and other cattle on artificial grasses. It was thought that a fifty acre allotment where the rotation of corns and green crops was maintained could produce as much livestock feed as „200 or 300 acres of some flat land“.  

Holdings less than a hundred acres seem, indeed, to have remained a viable area of land to obtain a stable income from producing agricultural commodities near urban settlements in the 1860s. As a Leader reporter acknowledged this fact in 1868: „small farms may succeed very well near large centres of population – a condition afforded by many of the diggings – but not when located remote from a market“.  

Figures 7.10 – 7.13 reveal that the structure of regional farming communities did not differ fundamentally from the colonial scale model: a majority of farmers in all

38 Portland Guardian, 9 September 1869, p. 3.  
39 Ibid., 16 September 1869, p. 3.  
40 Portland Guardian, 9 September 1869, p. 3.  
41 Leader, 16 May 1868, p. 10.
selected agricultural regions occupied holdings less than 100 acres. It is remarkable that in the counties of Bourke and Grant, where the leasehold of land under section 42 was a very uncommon practice, small-scale farming boomed in the 1860s. Figures 4.2 and 7.10 indicate that the number of local farmers utilising allotments of 5 – 50 acres increased by a half and those cropping 50-100 acres nearly doubled during that time. Even though part of the cultivators from the former category might well combine farming with other activities, it is probable that majority of the representatives from the latter were primarily engaged in agriculture owing to the size of their allotments. As has been shown earlier, one or two persons were permanently needed to maintain under plough a fifty acre farm. This rapid growth of farms of 50-100 acres suggests that Bourke and Grant crop-producers, who utilised these relatively small allotments, were largely able to make a living from this extent of land. Otherwise, the number of such farms would have declined in the region.
Figures 7.10 – 7.13 Number of cropping farmsteads of different sizes in the selected counties and the Loddon district in March 1869

Figure 7.10 Bourke and Grant counties

Figure 7.11 Normanby and Villiers counties

Figure 7.12 Talbot county

Figure 7.13 Loddon district

In the Western district counties of Normanby and Villiers the total number of landholders doubled in the 1860s (See Figures 4.3 and 7.11). Yet even here, despite a large-scale distribution of lands under selection clauses, every second local crop-producer occupied a farm not exceeding 100 acres. Many local land cultivators seemingly preferred to carry on planting potatoes or wheat on small allotments in the vicinity of coastal townships where they could dispose of their surpluses, rather than taking advantage of selecting larger holdings further inland.

As could be expected Figures 4.4-4.5 and 7.12-7.13 demonstrate that the small-scale farming flourished in the goldfields areas in the 1860s. In Talbot county and the Loddon district the number of occupiers of allotments less than 100 acres roughly tripled. The Bourke’s occupation licence regulations and section 42 offered tremendous scope for activities of small local agricultural settlers. The number of larger farms of 200-500 acres, however, also nearly tripled in these two regions over the same period.

The new methods of the distribution of public domain introduced by the legislation of the 1860s led to an enormous increase of land „in occupation”, that is freehold and leasehold. Over the period of 1860-1869 the total extent of occupied land increased three-fold and reached nearly nine million acres. In practice, land in occupation could be held by crop-producers under the three different types of tenures: freehold, leasehold of private property, or leasehold of Crown Lands for non-pastoral purposes. Regrettably, official statistical sources did not contain a detailed breakdown of landholders by the type of their land tenure. Very rough indication on the spread of different land tenures in the colony can be drawn from the total number of leaseholders and freeholders, listed for the last time in the series of agricultural statistics in 1867. (See Table 7.2)

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42 *Statistics of the Colony of Victoria*, 1868, Production, p. 8.
Table 7.2 Tenures of occupiers of land not attached to runs in the selected regions of Victoria in March 1867

<table>
<thead>
<tr>
<th></th>
<th>Total Victoria</th>
<th>Bourke and Grant counties</th>
<th>Normanby and Villiers counties</th>
<th>Talbot county</th>
<th>Loddon district</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freehold</td>
<td>11793</td>
<td>4626</td>
<td>1157</td>
<td>1088</td>
<td>994</td>
</tr>
<tr>
<td>Rented from the Crown</td>
<td>4006</td>
<td>468</td>
<td>240</td>
<td>789</td>
<td>240</td>
</tr>
<tr>
<td>Rented from private individuals</td>
<td>3906</td>
<td>1645</td>
<td>566</td>
<td>380</td>
<td>133</td>
</tr>
<tr>
<td>Freehold and rented from the Crown in one holdings</td>
<td>1118</td>
<td>211</td>
<td>70</td>
<td>130</td>
<td>102</td>
</tr>
<tr>
<td>Freehold and rented from private individuals in one holdings</td>
<td>1121</td>
<td>526</td>
<td>131</td>
<td>58</td>
<td>55</td>
</tr>
<tr>
<td>Rented from the Crown and rented from private individuals in one holding</td>
<td>114</td>
<td>17</td>
<td>3</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Freehold, rented from the Crown, rented from private individuals on one holding</td>
<td>60</td>
<td>17</td>
<td>2</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>22118</td>
<td>7510</td>
<td>2169</td>
<td>2476</td>
<td>1537</td>
</tr>
</tbody>
</table>


According to the table only half of Victoria"s farmers had the whole extent of their real estate in fee-simple in the late 1860s. Nearly 40 per cent rented the entire farm either from the Crown or private person, and the rest needed to expand their freehold farm by leasing adjoining public or private lands. It can also be seen that the character of tenant farming varied across Victoria. In the counties of Bourke and Grant the leaseholders of private land, either the entire farm or part thereof comprised nearly 30 per cent of local cultivators. Surprisingly enough the equivalent
proportion of farmers leasing private land was recorded in Normanby and Villiers counties. Although a number of local agricultural areas were opened up in these two counties of western Victoria, just slightly more than 10 per cent of local crop-producers took advantage of the new legislation and occupied Crown Lands. On the contrary, in the Loddon district, but especially Talbot county most tenants leased Crown Lands, largely held under section 42. The practice of renting land from a private person was rather uncommon, which reflects a much larger supply of fresh public lands suitable for growing cash-crops in the central Victoria region than in the coastal counties.

Such a widespread resort to tenant farming greatly diminished the probability of a lifelong occupation of the same farm by an average colonial crop-producer. Terms of leases of private land commonly did not exceed a few years. Occupation of the Crown Land under the section 42, though not limited in duration, also imposed unsecure tenure: the government could terminate the lease at any time. The tenant farmer was, therefore, induced to watch closely the commercial opportunities and prospects of crop-growing in other regions. As soon as the conditions of farming appeared to be more attractive somewhere else, the crop-producer would not hesitate to cease occupying not his own, but a rented allotment, and move his farm on a new place.

The general increase in the number of farmers on freehold and leased land came with the further expansion of cultivated acreage. It doubled in the 1860s. As Figures 7.14 and 4.16 show all categories of farms increased their tillage roughly in the equivalent proportion, except for the largest farmsteads of more than 500 acres where the cropped area nearly trebled.

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43 *Statistics of the Colony of Victoria, 1868, Production*, p. 15.
In the late 1860s the small and medium size farms of 50 - 350 acres still formed the backbone of the colonial cropping industry, as they embraced nearly two-thirds of cultivated acreage in Victoria. The changes in distribution of tillage between the farms of different sizes in the 1860s, however, varied across the colony. (See Figures 4.17-4.20 and 7.15-7.18)
Figures 7.15 – 7.18 Amount of land in cultivation by farmsteads of different sizes in the selected counties and the Loddon district in March 1869

Figure 7.15 Bourke and Grant counties

Figure 7.16 Normanby and Villiers counties

Figure 7.17 Talbot county

Figure 7.18 Loddon district

The cropped acreage as well as its distribution by farms of different sizes remained constant at Bourke and Grant. In the Loddon district and Talbot counties, the farms of 50-350 acres also continued dominating in production of crops, encompassing around three-quarters of local tillage. The radical transformation occurred in the Western district where in the counties of Normanby and Villiers the largest farms of more than 500 acres expanded their tilled area sixfold whereas the smaller ones did not increase their cultivated area significantly. Such a dramatic expansion of tillage acreage on large estates might reflect the efforts of local selectors to feed cattle and sheep on sown grasses.

The changes in the average cropped areas on farms of different sizes do not exhibit the wide-scale technological transformation of Victoria’s agriculture in the 1860s. Figures 4.21 and 7.19 illustrate that in 1860 an average abstract farm had under the plough forty acres; nine years later this figure even decreased by three acres. This general statistical approximation is misleading, however; the swollen ranks of small landholders and specific conditions of farming in different counties and districts tended to diminish the average aggregated figures. The evidence on the changes in the regional data which are furnished by Figures 4.22-4.25 and 7.20-7.23 is more revealing.
In Bourke and Grant counties, the average cultivated acreage per local farm dropped from forty three to thirty three acres over the decade. The area sown with crops reduced at almost a uniform rate across all categories of farmsteads regardless of their size. A decline in the cropped acreage on the farms under 100 acres might, however, be a subject of ordinary seasonal fluctuations, the proportion of farmland kept under the plough on these small farms was still large in 1869. Furthermore, a spectacular nearly 70 per cent rise in the number of farming units under 100 acres in Bourke and Grant counties, where the extent of fresh agricultural lands was limited, could contribute to a drop in abstract figures of average tilled area per such a small farmstead. This factor might also be applied to middle-size farms, which number increased by a quarter in the 1860s. On the other hand, the reduction in an average crop-acreage reflected the shift in commercial preferences of Bourke and Grant cultivators who, as has been indicated earlier, paid the increasing attention to production of dairy-products in the late 1860s.
Figures 7.20 – 7.23 Average crop-acreage on farmsteads of different sizes in the selected counties and the Loddon district in March 1869

Figure 7.20 Bourke and Grant counties

Figure 7.21 Normanby and Villiers counties

Figure 7.22 Talbot county

Figure 7.23 Loddon district

Source: Calculated from Figures 7.10-7.13 and 7.15 – 7.18.
In the western Victorian counties of Villiers and Normanby an average cropped acreage of a small local farmstead less than 100 acres did not change over the 1860s. The landholders on farms of 100-500 acres, however, halved the tillage to 25 acres, whereas the occupiers of the estates exceeding 500 acres nearly tripled the area under plough to sixty seven acres. It may be suggested that farmers on 100-500 acre allotments were most affected by the 1864 rust which compelled them to cut down production of crop-commodities, wheat in particular. On the other hand, the rapid growth of tillage on the largest farms was related to the efforts of their occupiers to increase production of crop commodities to feed livestock. Noteworthy, Table 6.6 does not indicate much farming machinery employed by Western district agriculturalists apart from a large number of chaff-cutters.

Significant changes occurred in Talbot county where an average local farmstead increased its cultivated area by two-thirds to eighty five acres. A small local landholder occupying less than 100 acres, however, even slightly diminished the average extent of tilled land. This was likely to have resulted from a dramatic rise in the number of small settlers who got onto the land under section 42 only in the late 1860s. Farmers on 100-200 allotments enlarged their tillage by one-fifth to sixty nine acres, yet the larger categories of landholders who operated farmsteads exceeded 200 acres doubled the area under the plough to 133 acres. Such a substantial growth in cropped acreage per farming unite was the product of the spreading new labour saving technologies of grain-production adopted by a large number of Talbot farmers. Their counterparts from the neighbouring Loddon district lagged behind in the application of machinery. An average cropped area a local farm grew very insignificantly to forty two acres in the 1860s. Only farms on 200 – 500 acres enlarged the extent of their tilled acreage by a quarter to seventy acres.

These rough statistical approximations of the mean cultivated acreages on different types of farmsteads indicate the gradual transformation of the colonial farming community in the 1860s. On the one hand, there was a tremendous absolute growth of small cultivators who occupied farms under 100 acres. This type of crop-producer
was largely independent of hiring workers or employing machines: unpaid hands of family members could perform nearly all farming operations, much similar to the practice of colonial cultivators in the previous decades. On the other, there was an apparently considerable increase in the number of farmers who occupied larger holdings and who utilised agricultural machinery. This was especially evident in Talbot county where a large number of wheat-growers were able to reap their harvest from more than a hundred acre area.

Most marketable grain in the colony was, however, still grown on thousands of small farms in the late 1860s. Nevertheless, the rapid establishment of numerous large farming units with moderate requirements in hired labour, and thus low cost production of cereals signified the considerable intellectual, financial and technical potential of colonial cultivators to turn globally tradeable wheat into an export staple. Moreover, as a large number of crop-producers were leaseholders without a lifelong commitment to their current place of residence, there was a realistic prospect of applying this potential to the vast unoccupied Wimmera and Northern plains yet to be connected by railways to markets.

**Farmers' wealth**

During the new decade some members of the expanded colonial farming community practiced cultivation to meet their own domestic needs in agricultural products, yet the majority, undoubtedly, made a living by growing marketable crops on their landholdings. The spread of market-oriented cultivation in many regions combined with the dramatic numerical increase of farming population, indirectly denote generally high returns from growing cash-crops in Victoria. Unfortunately, there is not much primary evidence available to estimate precisely the profitability of farming operations and financial standings of crop-producers at that time. The search for financial records of farmers cropping land in the 1860s which might have provided
valuable first-hand information has failed. In the absence of these sources, the rough estimation of farmers’ profits is largely made by using materials drawn from colonial periodicals, official agricultural statistics and probate documents.

As it has been demonstrated, in the 1860s in the hinterland goldfields counties and districts wheat became the main staple crop which in turn suggests that prosperity of local farmers or lack thereof largely depended on the income generated by the sale of this grain. The materials occasionally published in colonial newspapers provide a helpful insight into the profitability of wheat growing. In 1862, a Ballarat Star reporter who visited the agricultural Learmonth district estimated the cost of wheat production at around £3 14s per acre on freehold land. He thought that per acre expenditures of a grain-grower included: seeds – 7s 6d, ploughing - 11s 6d; harrowing – 6d; rolling – 1s 6d; reaping 25s; threshing – 7s 6d; collecting – 5s; sending produce to the market with a man and a horse – 15s. As the current wheat price was at around 5 shillings a bushel and yields averaged eighteen bushels an acre, the gross return from growing wheat might reach £4 10s per acre which eventually induced the reporter to conclude that “it is quite evident that farmers have quite enough to contend with at the present time”.

Seven years later, an anonymous rural Leader contributor from Myrtle Creek located halfway between Sandhurst and Castlemaine made similar claims about the substantial returns from wheat farming. According to his calculations, to produce the crop on a 20 acres allotment, a farmer needed to spend £12 for ploughing and harrowing (12s an acre), £4 for seeds (4s an acre), £15 for reaping (15s an acre), £3 3s for threshing (roughly 3s an acre), £1 16s separately for wages of labourers for threshing (roughly 2s an acre), and £2 for leasing land (2s an acre). The total expenses per acre totalled £1 18s. Given the yield of thirteen bushels an acre and wheat price of 6s a bushel, the market cost of grown wheat amounted to £3 8s per acre.

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44 A few farmers’ dairies and financial records which have been located relate to the following decade. (Donald W. McDonald, Diaries, SLV, MS. 11653; Catherine Currie, Diaries, SVL, MS 10886; Warners’ family papers in possession of Daryl Deckert, the President of the Nhill Historical Society)

Extracting listed expenses, every acre sown with wheat generated a farmer around £2 of net profit, or even twice as large as the relevant sum estimated by the *Ballarat Star* reporter in 1862.

Although these two approximations were not comprehensive enough since they did not include every possible item of producer’s expenditures such as the depreciation of stock or implements, there are some other reasons to believe that the inland grain-growers’ net profits was unlikely to be lower than £1 from an acre planted with wheat. Yields in inland counties and districts averaged between fifteen-twenty five bushels per acre in the 1860s or even slightly higher than the relevant figures employed in calculations published in the *Ballarat Star* and the *Leader*. This consequently suggests somewhat larger amounts of wheat grown per unit of land and therefore larger proceeds of local farmers.

Furthermore, both the *Ballarat Star* and the *Leader* contributors assumed that the producer hired farm labourers to perform virtually all tasks. A grain-grower did need to employ farm hands during a short-term harvesting period for labour demanding reaping and threshing operations, yet it is unlikely that he commonly paid someone to plough, harrow or seed his land. In 1867 a *Leader* agricultural observer commented on the complaints of crop-producers about the low quality of hired labour. He admitted that these grumbles were most justified yet questioned „what can they [farmers] reasonably expect when they enlist the services of men only for about six weeks of each year, and permit them to find work of other kinds until harvest comes again?”

Even if he managed a rather large farm, a crop-producer did not need to hire much labour except in the harvesting period. According to Davidson, an Australian agricultural historian, one cultivator using a two-furrow plough and four horses was

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46 *Leader*, 20 March 1869, p. 6.
able to work more than a hundred acres during ploughing months.\textsuperscript{49} This estimation seems to have been valid for earlier decades as well. In 1860 a correspondent of the \textit{Farmers’ Journal} testified that Wyett, a large tenant farmer on the Plenty River, despite his mature age, was able to plough „all his 100 acres himself“.\textsuperscript{50}

The official statistics on the total work force employed on cropping farms similarly suggests that most land-cultivators did not hire labourers on a permanent basis. In March 1869, in Victoria there were around 27,000 occupiers of tilled allotments exceeding five acres, who as has been determined earlier, generally represented distinct cropping households.\textsuperscript{51} The same year collectors of agricultural statistics listed 41,200 males and 19,500 females engaged in work on cropping farms.\textsuperscript{52} As these numbers included farmers themselves and presumably the adult members of their families, it can be suggested that in the 1860s one average cropping household was run by a husband and a wife who might need to be supported by labour of just one hired person throughout a year, except for the short harvesting period, much similar to the practice of the preceding decades.

It should also be remembered that the \textit{Ballarat Star} and \textit{Leader} estimations on the profitability of wheat-growing were based upon the utilisation of manual labour, yet with the employment of simple harvesting machinery the proceeds of wheat growers must have increased considerably. In January 1864, a Newstead correspondent of the \textit{Farmers’ Journal} gave the calculations of his financial benefits from using a simple reaping machine. To harvest wheat mechanically from a seventy acre holding he needed to employ eleven workers for four days. Their payments, rations, horse feed and some wear and tear accounted for 5s 6d per acre. To complete the identical amount of work with manual labour over the same timeframe he would have needed to rely on labour of thirty four reapers whose labour cost must have

\textsuperscript{49} Davidson, \textit{European Farming}, pp. 192-193.
\textsuperscript{50} \textit{Victorian Farmers’ Journal}, 15 September 1860, p. 1.
\textsuperscript{51} \textit{Statistics of the Colony of Victoria}, 1868, Production. p. 12.
\textsuperscript{52} Ibid., p. 17.
reached nearly £1 per acre or more than three times as high as reaping by machine.\textsuperscript{53}

The substantial financial benefits of mechanical harvesting were a self-evident matter for thousands of educated and proactive colonial farmers. The previous chapter has revealed that in the late 1860s there were already in operation nearly 3,500 harvesting machines in Victoria. Some of those were utilised by a few separate farming households, thus increasing the number of grain growers who reaped benefits of mechanical harvesting. The list of belongings of Mosses Finn, a Western district farmer who died in 1869, for example, included his share in a possession of a reaping machine which was stated separately from his own various agricultural implements.\textsuperscript{54}

After all, the cost of hired farm labour directly depended on the fluctuation of wheat prices. Figure 7.24 demonstrates this fact by comparing the index of wheat prices and the average index of wages of farm labourers over the 1860s. Both indexes followed a remarkably similar pattern throughout the decade. 1864 was only one remarkable exception when the rust destroyed most grain crops in coastal areas and the domestic wheat prices inflated far above the average cost of farm labour.

\textsuperscript{53} Farmers’ Journal, 15 January 1864, p. 41.

\textsuperscript{54} PROV, Probate and Administration Records, File 7/695.
The short-term rise of wheat prices, however, brought in considerable benefits to inland grain-growers who were largely not affected by natural misfortunes. In March 1865, from Elmhurst near Ararat, for instance, it was reported, that a local farmer earned £100 from just 1.5 acres of fresh land sown with wheat.\textsuperscript{56}

Not only did wheat pay well for cultivators in the hinterland goldfields counties and districts, the production of many other crop-commodities was also remunerative. This was especially the case for those agricultural producers who occupied farmland in the immediate vicinity of large centres of population. Throughout the 1860s the \textit{Ballarat Star} published annual reports on the values of crops disposed of by local farmers at the Western Borough market.\textsuperscript{57} The market inspector who collected these statistics considered only the values of hay, straw and oats commodities, excluding

\textsuperscript{55} General farm labourers, ploughmen, reapers, mowers and threshers

\textsuperscript{56} \textit{Ararat and Pleasant Creek Advertiser}, 7 March 1865, p. 2.

\textsuperscript{57} \textit{Ballarat Star}, 25 July 1862, p.2.
wheat sold by farmers directly to millers or agents. The results of his statistical observations later republished by the *Leader* are summarised in Figure 7.25.

Figure 7.25 Total value of hay, straw and oats sold on the Western Borough market in Ballarat in 1861 - 1868


The amalgamated annual cost of hay, straw and oats sold on the Western Borough market grew steadily in the 1860s. Certainly, the farming community around Ballarat also expanded as well which meant that increasing proceeds from these crops had to be distributed between a larger number of producers. At the beginning of 1860 there were around 400 residents in Grenville county around Ballarat who farmed allotments exceeding five acres in area and who presumably supplied the largest part of agricultural produce for the urban market.\(^{58}\) Over the next eight years, the number of such cultivators tripled.\(^{59}\) Even so the astonishing sum of nearly £700,000

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\(^{58}\) *Agricultural and Live Stock Statistics*, 1860. p. 16.

\(^{59}\) *Statistics of the Colony of Victoria*, 1868, Production. p. 12. (there were recorded 1,276 occupiers of cropped holdings more than five acres in Grenville county in March 1869)
went into the pockets of around a thousand Ballarat farmers from growing just three plain forage crops in just eight years; convincing proof of prosperity shared by a many local cultivators.

Given the fact that in 1871 Melbourne population was roughly four times larger than that of Ballarat, it is apparent that the market of the main colonial city provided an opportunity for thousands of Bourke and Grant crop-producers to earn sustainable profits by supplying metropolitan consumers with their produce. The 1864 weather calamities, however, hit those agriculturalists hard. It was estimated that at the beginning of that year, the losses of Geelong cultivators alone reached nearly £100,000.60 In June the same year the Age wrote in its agricultural report:

   Around Geelong it appears probable that but a very insignificant breadth of land will be placed under cultivation this season. We are told both that on the Barrabools and for a considerable distance on the Colac road the newly ploughed lands look like little black spots upon a green carpet, so few are they, and seen at such distance from each other.61

Overall the acreage in Bourke and Grant counties dropped by around a quarter in 1864.62 The collector of agricultural statistics from the district of South Bourke was „struck with the melancholy look of the homesteads, empty barns, and decay and non-improvement visible” in his region in early 1865.63 Similar comments on misfortunes of agriculturalists, though not so gloomy, were made by other collectors of statistics from Bourke and Grant rural districts.64

The impact of the rust on local cultivators was, however, short-lived. Next year, the Geelong Register acknowledged the good prospect of crop-farming, stressing that

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60 Age, 11 January 1864, p. 4.
61 Ibid., 2 June 1864, p. 7.
63 Ibid., 1865, Agricultural Reports, John James, South Bourke, pp. 90-91.
64 Ibid., William Archer, the County of Grant, pp. 92-93; Jno. C. Caffin, District of West Bourke, pp. 89-90; ibid., George Bennett, District of East Bourke, p. 90.
“grumblers are very scarce this season, and those only of a mitigated character.” 65 The Age similarly reported about local agriculture turning “the corner of depression and ... entering upon seasons of prosperity.” 66 In 1867, the collector of statistics from the North-West Bourke district, which encompassed a third of the county’s acreage, stated that:

Farming has for two years enjoyed seasons of great fertility, much to the contrast with the year 1864, when the rust and bush fires spread such devastation amongst so many. The country again wears an aspect of plenty equal to the earlier years of prosperity and comfort such as was not then enjoyed. 67

His colleague from South-West Bourke had a similar idea that “in fact, the aspect of agricultural districts this year is ‘full and plenty’.” 68

In another coastal traditional agricultural area around Warrnambool farmers were similarly quick to recover from the weather misfortunes by expanding rapidly the production of potatoes. The Argus agricultural reporter who visited Warrnambool in 1866 reported that the yields of this crop averaged around ten ton per acre. As the total production cost, including rent of £5 an acre, was estimated at £12 per acre and potato crops could be locally sold from £4 to £5 per ton, the profits of local agriculturalists were large. 69 Overall, assessing the progress of Warrnambool potatoes-growers the reporter concluded that:

Warrnambool itself is a pretty and thriving seaport. Its exports of potatoes have been enormous during the last two or three years, and it may now be said to supply the whole of the colony with that indispensable esculent. The

65 Cited by Leader, 20 January 1866, p. 17.
66 Age, 19 October 1866, [ p. 9].
67 Agricultural and Live Stock Statistics, 1867, Agricultural Reports, Jno. C. Caffin, District of North West Bourke, p. 89.
68 Ibid., James Watson, District of South-West Bourke, p. 90.
69 The Operation of the Land Act, p. 32.
money thus brought into circulation by the farmers has stimulated business in the township, and the shops have the appearance of doing a good trade.\textsuperscript{70}

The probate documents also indicate that crop-producers in the coastal regions were able to maintain, if not improve, their economic positions in the 1860s despite all challenges of climate and declining prices. Amongst colonial farmers who died in 1869 and whose probate papers specified the value of their properties, twenty five persons cropped the land in the counties of Bourke and Grant. Figure 7.26 groups these persons by the amount of their wealth.

Figure 7.26 Wealth of farmers who died in the counties of Bourke and Grant in 1869. Frequency distribution.

Source: PROV, Probate and Administration Records.\textsuperscript{71}

The 1869 pattern of the wealth distribution among the members of farming community in Bourke and Grant does not differ significantly from that of 1860. (See

\textsuperscript{70}The Operation of the Land Act, p. 37.

Figure 4.27) The largest proportion of farmers still possessed assets valued between £251 and £500. The category of less well-off agriculturalists with the wealth of £101–£250 grew whilst the share of the least wealthy largely remained constant in the 1860s.

Probate documents indicate, however, that some changes in the financial positions of farmers working the land outside the counties of Bourke and Grant. The assets of eighty three farmers who died in 1869 in Victoria were valued after their death. Figure 7.27 breaks down the wealth of these farmers into six categories. It can be seen that every fourth cultivator was of modest means; their wealth did not exceed £100. The possible increase in the ranks of these not-well-to-do agriculturalists over the 1860s (see Figure 4.26) should be attributed to the operation of Amending Land Act which lowered dramatically the monetary barrier to access land resources, enabling thousands of low class people to commence cropping small allotments in the hinterland regions.

Figure 7.27 Wealth of farmers who died in the colony of Victoria in 1869. Frequency distribution.

Source: PROV, Probate and Administration Records.\textsuperscript{72}

\textsuperscript{72} Files 7/268, 8/120, 8/946, 8/249, 14/426 and 7/287, 7/949, 7/953, 11/718, 8/824, 10/613, 13/118, 10/339, 11/883, 10/800, 7/558, 13/242, 7/707, 7/425, 8/641, 15/118, 9/711, 16/909, 8/359, 7/441,
On the other hand, the proportion of farmers who enjoyed a personal wealth of around £500 remained large. As in the late 1850s as a decade later, the cost of possessions of nearly every second farmer fell in the range between £250 and £750. As has been mentioned earlier, the approximations claimed in legal documents commonly undervalued the real cost of land, chattels, and goods owned by crop-producers. Only in very rare instances were detailed inventories of the deceased’s possessions made; almost universally legatees stated in their affidavits the total assumed amount of wealth. This causes some doubts that the information retrieved from the probate records of eighty-three persons may precisely represent the wealth of more than 20,000 individuals engaged in farming in the late 1860s.

This evidence of Figure 7.27, however, can be validated by official statistics on the cost of improvements and implements on farms. The improvements for the first time estimated in 1868 included all buildings on farmsteads, fences, wells, etc., but excluded land. Figure 7.28 gives the average value of improvements and implements per farming unit in 1869.
Figure 7.28 Value of improvements, farming implements and machinery per farm in Victoria’s regions in March 1869

The figure reveals that the total cost of improvements and agricultural implements of an average colonial farmstead was estimated at around £300. This amount did not include the cost of land and draught animals which might add up at least £200-£300 on a freehold farm of 100 acres. The total value of an average colonial farm was, therefore, around £500, or as much as that suggested by probate records. Figure 7.14 also indicates that there were no serious discrepancies in the amounts of farmers’ wealth across the regions. Despite the rapid adoption of harvesting machinery and expansion of cultivation, the average central Victoria grain-grower was as prosperous as his/her fellow farmer from the counties of Bourke and Grant where the production of non-wheat commodities was the main source of profits for farming population.

Undoubtedly these general approximations on farmers’ wealth can hardly reflect the whole complexity of problems related to the financial positions of land-cultivators in

Source: *Statistics of the Colony of Victoria, Production*, pp. 7, 22.
Victoria in the 1860s. Nearly 30,000 Victoria”s residents who worked the land in the late 1860s varied greatly in the extent of their initial capital invested into farming and subsequent monetary returns from cropping operations. Yet, within this diversity there was consistent evidence revealing that in the 1860s land-cultivation remained a highly remunerative pursuit for a large number of newly and long established crop producers across the colony. The farmers" profits were still largely dependent on the extensive exploitation of unpaid manual family labour yet with the new decade the utilisation of agricultural machinery became an increasingly important factor of success in the colonial cropping industry.

**Conclusion**

In the 1860s, small-scale farming continued booming in Victoria. Over that decade fifteen thousand new members joined the class of colonial cultivators. A majority of these novices were small capital holders who benefited from the gold rush in one way or another but now hoped to make some living from cropping near large centres of population in coastal and central Victoria. The allotments, for the most part, were not large, just under one hundred acres, so the unpaid labour of family members could likely still handle nearly all farming operations. As in the preceding decades, this aided producers to save greatly on hiring labour and thus keep the monetary cost of crop-production low on their small farms. Unsurprisingly, the numbers of such landholders went up in the counties and districts of central Victoria, where Crown domain was actively distributed cheaply under the regulations of section 42. Yet what was also notable about small farming was that now it expanded further in the long-settled areas around Melbourne even though the freehold local lands were expensive. More than a thousand new farms occupying less than a hundred acre holding emerged in the local countries of Bourke and Grant in the 1860s, which also confirmed the early argument about sustainability of small farming in the mid-nineteenth century.
The number of old and new cultivators who occupied larger allotments falling in range between 100 and 500 acres of either freehold or leasehold land also more than doubled and reached nearly nine thousand people. Many of those were able to keep under the plough a substantial area of land up to a hundred acres but without employing much extra labour. Capital gained from the gold rush coupled with personal ingenuity enabled this category of cultivators to acquire and then utilise extensively new labour-saving farm machinery. This eventually assisted producers to combine advantages of small-scale farming marked by the low monetary input into crop-production with the gains of reaping profits from more extensive cultivated acreage.

The establishment of large cropping units equipped with grain harvesting machines was especially remarkable in central Victoria, which grew the most tradeable wheat in the colony in the late 1860s. Not only cheap lands opened up with the 1865 Land Act and favourable climate contributed to the shift of wheat-growing to this hinterland region but the construction of the Echuca-Melbourne railway in 1864 which made it possible transport bulky grain commodities to the coast, ending the dependence of Victoria on imported foodstuffs. The relocation of the colonial granary to hinterland agricultural districts did not affect the economic position of farmers in the long-established coastal agricultural areas. Moreover, the recovery from the devastating consequences of the 1864 rust when virtually all grain crops failed was also rapid as a booming market of the colonial metropolis demanded increasing quantities of high value non-grain commodities: green fodder, vegetables, fruits and dairy products. Perishable or too bulky to ship cheaply into the colony, these types of agricultural produce did not face serious competition with imports and paid farmers near Melbourne much better than traditional wheat.

In the late 1860s the potential for further development of arable agriculture was clearly seen in Victoria. By that time, there had been already formed a large class of more than twenty thousand crop-producers who were rapidly gaining practical knowledge of local husbandry. Most of them were proactive, innovative,
commercially-minded and what was also extremely important relatively wealthy individuals, enjoying a personal capital of around £500. On the other hand, in Victoria there was an extensive supply of agricultural lands north of the Dividing Range suitable for grain-growing. To these natural resources the experiences, skills, capital and technologies of domestic farmers might be successfully applied, increasing rapidly the production of globally tradeable cereals.
Conclusion

In the late 1830s the cropping industry of the soon-to-be colony of Victoria was represented by just a few tens of small tilled paddocks brought under the plough by some of the first white pioneers. At that time, however, the young settlement already had a population of several thousand which made the large scale importation of foodstuffs an absolute necessity to compensate for the lack of local crop produce. Despite these humble beginnings of domestic farming, three decades later when three-quarters of a million people lived in Victoria, the colony was virtually self-sufficient in the products of arable agriculture. This outstanding increase in the quantities of domestically grown crops mirrored the tremendous expansion in the ranks of Victoria’s cultivators. At the close of the 1860s in this Australian British colony there were nearly thirty thousand landholders who practiced cultivation. Even though some did not seek many commercial gains in this pursuit aiming just to feed their own families and domestic animals, the majority adopted cropping as a permanent money-making occupation.

This thesis has recounted the spectacular advance of crop-farming in Victoria in the 1830s-1860s. The subject has been presented not as a macroeconomic impersonal story of aggregate growth, changes and the government policy in the agricultural sector of colonial economy, which would have replicated the most favoured approach of previous researchers to the nineteenth century economic history of Australia.¹ By contrast, this theme has been pursued as a "micro" dimensional representation of agricultural development, narrated from the perspectives of ordinary producers of crop-commodities. The thesis has looked into the incentives and setbacks of many thousands of recent migrants who sought to establish themselves on the land in the colony and earn a living from cultivation. Furthermore, it has examined the activities of these novice agriculturalists and their achievements in the new economic and environmental settings over the period of the three decades.

Underpinning the thesis has been the contention that the growing internal demands for agricultural produce provided ample scope for the development of profit-making crop-farming in the mid-nineteenth century. The markets of the very recently settled British Australian colonies may, however, appear to be trivial against the developed counties of the Northern Hemisphere. Yet the growth rate of local commercial outlets for crop-produce would be a much more important factor for the pioneering colonial farmer than their comparative size. Even prior to the gold boom of the 1850s the crop markets grew at an astonishing pace in the southern colonies. Between 1822 and 1850 the total white population in Southeastern Australia increased nearly fifteen times from 24,000 to 330,000 residents which meant that the local consumption of and thus demands for crop-commodities grew by 40 per cent each year over that period.  

The colony of Victoria, administratively incorporated into New South Wales till 1851, experienced a similar population growth in the 1840s which ultimately opened the realistic opportunity for many agricultural settlers to trade the surpluses of their harvest. The commercial horizons of Victorian farmers expanded tremendously with the gold discovery of 1851 as a massive influx of gold-seekers caused the number of local residents to multiply in the very short-run. The chances to make large profits from growing cash-crops were especially high in the Central Victorian goldfields region. The boosting mining population secured high demand for agricultural commodities whilst the geographical remoteness of the diggings from the coast protected the hinterland pioneering crop farmers from the tough competition with cheap imports. On the other hand, the Melbourne demographic boom of the 1850s-1860s led to the sudden increase in the local consumption of high-value perishable or bulky crop-commodities, notably green fodder and vegetables, which could not be shipped in large quantities into the colony. This consequently maintained the good prospects of

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² NSW. Returns of the Colony, 1824, p. 113; Statistical Summary of South Australia from its Foundation, p. 8; Statistics of New South Wales from 1841 to 1850, p. 82.
commercial arable agriculture in the coastal counties around the colonial capital regardless of the direct access of imports to the metropolitan market.

Whilst mounting domestic needs for crop-produce broadened the scope of commercial farming, a large number of immigrants could become professional cultivators with relative ease in Victoria in the 1840s-1860s. There were a variety of ways for newcomers to get on the land. In the coastal areas, especially the counties of Bourke and Grant, where a bulk of good agricultural lands had been already transferred into freehold in the early 1840s, small allotments were readily available to take under lease or be purchased from private persons. In the inner counties and districts the land could be obtained directly from the Crown. Over the 1850s many settlers purchased their holdings at relatively low prices at Crown Land auctions in the booming Central Victorian goldfields region. In the following decade, section 42 of the 1865 Land Act opened even a wider access to land resources by allowing bona-fide cultivators to get very cheaply Crown land under lease in the immediate vicinity of hinterland centres of population. Around 15,000 colonial residents were able to gain advantage of section 42 which expanded rapidly the colonial farming community.

Drawing upon some personal stories and rich supplementary primary evidence the thesis has argued that the establishment of a small farm either on freehold or leased land was within the means of a great number of colonial residents in the mid-nineteenth century. Even though an average migrant might not have sufficient capital to take up crop-farming upon his arrival in Australia, he had a clear prospect to increase his personal savings in the very short run by working for wages. The cost of hired labour was universally high in the second third of the nineteenth century, especially in the 1850s. Many were also able to make their small fortunes in gold mining and industries serving it prior to setting themselves on the land in Victoria.

On the other hand, the establishment of large cropping estates was greatly hindered by the long and costly process of preparing the fertile fresh land for cultivation. This was particularly the case for the earlier populated coastal agricultural districts. Another impediment for large cultivators was the high cost
of farm labour. The application of machinery only partially solved this problem since some operations such as ploughing or harrowing land still required a significant amount of manual labour input. These difficulties, however, led to another consequence: small farmers did not face much competition from the large landholders on the inner market.

Although the notion of the unsustainability of small scale farming in Australian realities is widely accepted in the academic literature, the mid-nineteenth century domestic crop-producer on around a hundred acre farm had, in fact, fairly good chances of success in the existing socio-economic circumstances. The time lag between his access to the virgin land and his first monetary income from crop-farming was generally just around a year. As a great variety of crops were demanded by an increasing number of domestic consumers, the agricultural settler could quickly clear a few acres to start producing vegetables or plain hay commodities for the market while continuing to increase further his tillage. Commencing simple farming activities on a small cleared paddock did not require a sophisticated local agricultural experience, which most European newcomers had naturally lacked prior to their settlement in Victoria.

Furthermore, to keep under the plough an area of around fifty acres the small agriculturalist generally did not need to employ much hired labour since the unpaid labour of his family members could perform nearly all farming operations. This near self-sufficiency in labour eventually enabled the producer to receive a moderate income even in the periods of low crop prices while making large profits during the gold boom of the 1850s. The small farmer was also able to switch easily to more remunerative commodities; an important benefit in the rapidly changing market situation of the 1840s-1860s.

The personal capacity of European migrants who took up farming in the colony further contributed to their economic success on the new land. Many sources described colonial farmers as pragmatic and hard-working individuals who revealed a great determination to resist the inevitable economic and climatic challenges of their occupation. An overwhelming majority of them were literate males between twenty five and thirty five years of age. The literacy skills and
young age increased their ability to learn rapidly methods and techniques of local husbandry.

Moreover, the novice crop-producers were not passive learners of already verified Australian farming practices; many thousands of them were actively engaged in developing new more productive approaches to land cultivation. Nearly thirty rural agricultural societies which emerged in the late 1850s-1860s formed a network of centres at which crop-producers were able to share their special experiences by taking part in numerous ploughing matches, shows, exhibitions and field trials. Agricultural societies also made a valuable input into spreading new technologies by assisting manufacturers and tradespeople of agricultural machinery, tools, implements, seeds, and fertilisers to display their products to a wide farming audience.

The acquisition of more advanced farming knowledge, opening up of cheap fertile lands in the hinterland goldfields counties and districts, and increased personal wealth owing to the gold boom, had a cumulative impact on the development of farming society in the 1860s. Whilst small-scale farming continued expanding during that decade, several thousand crop-producers were able to establish themselves on larger two-three hundred acre farms equipped with simple agricultural machinery. Most of those mid-sized landholders were not new members of the colonial agricultural community but already qualified farmers who took advantage of the provisions of the 1865 Amending Land Act in the central Victoria region.

The rapid expansion of inland agricultural settlement was greatly propelled by the rust of 1864 which nearly totally destroyed the wheat harvest in the coastal areas and consequently pushed grain prices up in the domestic market. As central Victoria counties and districts were largely not affected by weather calamities, old and new members of the colonial farming community sought to obtain a block of cheap local land to commence growing cereals. The current high wheat prices secured the grain producers sufficient returns even from small allotments harvested with a conventional scythe.
The new feature of inland grain growing was, however, the establishment of middle-sized cropping farmsteads. The more substantial extent of occupied farmland allowed the agricultural producers to sow with wheat a large area of around a hundred acres. The members of one farming family could generally perform most cropping operations on that farm except a short-term harvesting period when they needed a few extra hands. Yet with the employment of harvesting machinery, especially with the highly efficient stripper operated by just three people, crops could be gathered in with a relatively small amount of hired labour. The adoption of mechanical harvesting became wide-spread in central Victoria which gained the title of colonial granary by the late 1860s. At that time around two-thirds of all crops in the counties of Dalhousie, Greenville, Ripon and Talbot were harvested with machinery. The ultimate result of these changes was the dramatic increase in the quantities of cheap grains produced by central Victoria farmers in the 1860s. One the other hand, the construction of the Echuca-Melbourne railway in 1864 made it possible to transport these bulky crop surpluses to the large metropolitan market and eventually broke the dependence of the colony on large-scale cereal imports.

The thesis has revealed extensive and verifiable evidence indicating that crop-farming was a sustainable and lucrative occupation in Victoria in the period of 1840s-1860s. It assisted a large number of European newcomers to gain first-hand practical local farming knowledge, generate capital and adopt advanced methods of husbandry. The thesis has suggested that this large class of colonial farmers eventually formed an extensive pool of experienced settlers for the great agricultural colonisation of the following decades when extensive cheap land resources were opened up in the Wimmera and Northern plains and when Victoria turned into a large exporter of crop-commodities. The outstanding farming progress of these later decades had it foundation in the successful development of a farming community, as the experience of Victoria shows.
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