GEOGRAPHICAL CHANGE IN TASMANIAN AGRICULTURE DURING THE GREAT DEPRESSION

by

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DECLARATION

This thesis contains no material which has been accepted for the award of any other higher degree or graduate diploma in any University and to the best of my knowledge and belief, contains no material previously published or written by another person, except when due reference is made in the text.

Roger Kellaway
4/7/89

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Roger Kellaway
March 28, 1989

ABSTRACT

One indicator of a stagnant economy has been a slow rate of population growth. If Tasmania had been able to retain its natural increase between the first postwar census in 1921 and the second in 1933, the final population would have been 256,170. The recorded population was only 227,599. The difference was a result of out-migration during the 1920s. The flow across Bass Strait was sufficient in one period, 1923/24 to 1926/27 inclusive, to cancel the natural increase and reduce the population of the state. The poor performance of agriculture was seen as the central factor in the process of economic decline. Report after report condemned farming as backward, inefficient and disorganised and called for a restructuring of the rural economy as the first step in overcoming the state's chronic problems of low incomes and population loss.

The initial strategy of agricultural reform was defined by Dr. S.S. Cameron, Director of the Victorian Department of Agriculture. Cameron had been brought to Tasmania in 1925 by the Labour government of J.A. Lyons to examine the deteriorating agricultural situation. He concluded that the principal aim of agricultural development should be to increase the output of commodities that had a proven export record from Australia (e.g. wool, wheat, lamb, fruit and butter) or that could be worked up into a profitable export trade such as peas or eggs. Efficiency in production and marketing was to be stressed. Crops that were produced primarily for the domestic market (potatoes, barley, hops) were to be reduced.

The Department of Agriculture was reorganised and given a mandate to bring Tasmanian agriculture up to the Australian norm. It followed the Cameron plan with the exception that livestock enterprises were favoured over cropping in order to restore fertility to the depleted farmlands of the Northwest Coast and North Midlands. Considerable progress was made along these lines before the rural economy was overcome by the collapse of commodity prices in October 1929.

This study has been structured as a developmental narrative. Statistical and archival sources have been brought together to investigate the evolution of farming systems between 1926/27 and 1936/37. The thesis begins with an overview of the agricultural situation in the

mid-1920s. Agricultural regions are defined for 1926/27 using both the Weaver method and cluster analysis on derived estimates of net farm income at the municipality level. The body of the thesis examines the impact of the Great Depression on four main branches of the Tasmania rural economy. Potatoes, dairying, sheep and fruit are examined separately with the discussion considering problems of locational change, factors behind increasing productivity, and changes in the processing and marketing of rural commodities. The interplay between policy and practice is constantly evaluated as farmers and the government tried to adapt to unprecedented stress in the traditional relationships between the producers and consumers of agricultural products.

The thesis concludes with an examination of the regional component within structural change. The agricultural regions of 1936/37 are defined and compared with those of the pre-depression period. The principal change involved the expansion of sheep farming. This was at the expense of cropping in northern Tasmania and of orcharding along the southern margin of the Midlands. A secondary change involved the expansion of dairying along the Northwest Coast. In addition, the annual rate of agricultural change was examined to determine the relationship between the economic cycle and rural restructuring. Local political and policy factors were found to be of major importance in determining the nature of the Tasmanian response to global depression.

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CONVENTIONS

The reader will rapidly become aware that a number of conventions have been followed throughout this thesis. Firstly, this study has used the units of measurements that were current in Australia during the 1930s. Acres, hundredweights and gallons have been used in place of hectares, tonnes and litres. It was believed that it would have been impossible to convert many of the statements that appeared in the historical record as they were obviously approximations rather than precise measurements. Other measurements, for instance a farm size of 160 acres or a subsidy of 3d per pound, have a logic in one system but not the other. It was therefore decided to retain the Imperial system of weights and measures for all units rather than opting for a hybrid that used one system for the easily convertible and the other for those that were difficult or meaningless to convert. A slightly different justification supports the use of the old currency of pounds, shillings and pence. The value of money has been so altered through time that it serves the useful function of distancing the reader from the modern era. As a datum for value, the average male industrial wage in Tasmania in 1926/27 was 206 per annum.

The second convention concerns the system for referencing source material. The arguments in an historical study are only as valid as the data that supports them. Therefore, the text must be as fully sourced as is practical. I have cited all material used with the exception of standard statistical sources such as the Statistics of Tasmania and the Census of Australia. However, in the process of synthesis, material derived from one citation may still be interwoven into the discussion a paragraph or two further along in the text. An intervening footnote may occur. Therefore, any attempt to follow up a topic through investigating the references must examine a range of citations from the appropriate subsection of the chapter. It is also important to note that the references are given in detail sufficient to find the archival file without difficulty, but that the specific document is defined only by date. In most cases, this will be the only document of that date. More formal referencing in the traditional "XX to YY" format was impractical given the nature of much of the documentation. There was a wide variety of formats - letters, memos, circulars, reports, minutes, etc. -but most were bland statements of "fact". In cases where opinion or occasion were of importance, then the author and his affiliation and the background were worked into the text.

The final point concerns terminology. The regional names that have been used in the text are those in common usage on some occasions and those defined for the purposes of agricultural regionalisation on others. The former can be confusing to anyone except a Tasmanian. The state suffered from a collective lack of imagination when it came time to name the major regions of the island. The Bible which had served so effectively for the naming of local features was ignored, and the county names borrowed from Britain were allowed to fall into disuse during the nineteenth century. This left such gems as the Northeast, the Northwest Coast and the South as regional labels. The boundaries of these areas also shift with context. One interpretation of the "popular" regions of the state appears in Figure 1 while formal agricultural regions are defined in Figure 5.

PREFACE

P.1 Introduction

The completion of three decades of academic research in historical geography in Australia and New Zealand was marked by the publication of three review articles.[1] These papers discussed the main trends in the development of the antipodean style of historical geography before 1970 and pointed out the research themes and methodologies that had dominated the literature. They also noted the problems that had received inadequate attention. Two topics were nominated as both important and ignored. The first of these was the evolution of urban systems; the second involved the problems of rural consolidation and change following the passing of the agricultural frontier.

The main emphasis in the historical geography of Australia has been the nineteenth century frontier of settlement. The transformation of a land occupied by aboriginal nomads into a settled agricultural region with links to a global economy was a geographical process with obvious appeal to historical geographers. The massive literature relating to the wheat frontier is an example of the stress placed upon this theme. Recent years have seen Robinson, Dahlke and Camm build upon the earlier work of Andrews, Meinig and Powell.[2] No other aspect of the historical geography of Australia has been so thoroughly examined.

However, these works focus on the initial periods of experimentation, establishment and expansion. The continuing evolution of the wheat belt after the passing of the frontier receives virtually no attention. The transformation of the "wheat belt" of the nineteenth century into the "wheat and sheep belt" of the twentieth remains to be analysed from a geographical

[1]Heathcote, R.L. and McCaskill, M. "Historical Geography in Australia and New Zealand" in Baker, A.R. (editor) Progress in Historical Geography, (Newton Abbot, 1972), 144-167.

Perry, P.J. "Twentyfive Years of New Zealand Historical Geography", New Zealand Geographer, Vol. 25 (1969), 93-105.

Williams, M. "Places, Periods and Themes: A Review and Prospect of Australian Historical Geography", Australian Geographer, Vol. 11 (1970), 403-416.

[2]Robinson, M.E. The New South Wales Wheat Frontier 1851-1911, (Canberra, 1976).

perspective. A similar bias is evident in research on other major rural enterprises. The emphasis is placed on the creation of new agricultural regions along the nineteenth century margin of settlement. Little attention has been given to subsequent periods of adaptation and change. In particular, the response of agricultural regions and systems to fluctuations in the economic cycle has been largely ignored.

Wynn considers that the failure to examine the implications of economic fluctuations on the evolution of regional structures is a major gap in the historical geography of Australia and New Zealand.[3] He noted that few other countries were as dependent on the export of such a limited range of staple products. This made the economies of Australia and New Zealand highly vulnerable to trends in the business cycle. In addition, the relative profitability of these staple exports was affected by repeated failure to ship only quality products and to dovetail supply with demand. Wynn suggested that the depression of the 1930s would be an appropriate place to begin the study of these phenomena. The need for an historical geography of the Great Depression in Australia has also recently been put forward by both Jeans and Powell.[4]

Dahlke, J. "Evolution of the Wheat Belt in Western Australia", Australian Geographer, Vol. 13 (1975), 3-14.

Camm, J.C.R. "Commercial Wheat Growing in Queensland 1870-1915", Australian Geographer, Vol. 13 (1976), 173-181.

Andrews, J. "The Emergence of the Wheat Belt in Southeastern Australia to 1930" in Andrews, J. (editor) Frontiers and Men, (Melbourne, 1966), 5-65.

Meinig, D.W. On the Margins of the Good Earth: The South Australian Wheat Frontier 1869-1884, (Chicago, 1961).

Powell, J.M. "Crop Combination Regions for Western Victoria 1861-1891", Australian Geographer, Vol. 11 (1969), 157-169.

[3]Wynn, G. "Discovering the Antipodes: A Review of Historical Geography in Australia and New Zealand 1969-1975", Journal of Historical Geography, Vol. 3 (1977), p. 258.

[4]Jeans, D.N. "Historical Geography in the Future", Australian Geographer, Vol. 14 (1978), p. 67.

Powell, J.M. "Environment and the Australian Experience: Another Crop" Australian Geographical Studies, Vol. 20 (1982), pp. 215-216.

It is the aim of this thesis to remedy some of this neglect by examining the impact of the 1930s on the evolution of rural systems in Tasmania. This period is of critical importance in the modernisation of Tasmanian agriculture. It was a time when farming systems, already in a state of flux, had to be modified to cope with falling prices. Farmers also had to alter their systems to accommodate rapid changes in market demand and patterns of supply. In some ways, it was as if the rings that had developed around the "Thunen world city" during the nineteenth century and which had determined the character of colonial agricultural expansion had been radically rearranged.

The reaction of the economy of the "agland" to rising demand and falling transport costs has been analysed by Peet.[5] The contrary situation of falling demand, or at least falling prices, and a rise in both relative and absolute freight rates has not received similar attention but it is clear that these conditions can lead to a variety of rural responses. Agricultural historians and historical geographers working in Britain have long been aware that the reaction to agricultural depression is a complex process.[6] At one extreme are depressions that have acted as barriers to progress. Traditional forms continued unchanged as farmers abandoned improved techniques in order to conserve capital and maximise short term profits. In frontier areas, it would be expected that the margins of farming would retreat with a general shift towards more extensive forms of land use. This would be the reaction expected from the standard view of the von Thunen model. Other depressions have acted as catalysts for rural change. Forces of reform present in the rural economy were activated to transform the agricultural structure of the region with, for example, more intensive forms of production being adopted to counterbalance falling prices with greater output. Von Thunen himself commented on the impact of falling grain prices. Interestingly, he noted that farmers in northern Germany using the improved system increased their output of animal products rather than converting to

[5]Peet, J.R. "The Spatial Expansion of Commercial Agriculture in the Nineteenth Century: A Von Thunen Interpretation", Economic Geography, Vol. 45 (1969), 283-301.

[6]Mingay, G.E. "The Agricultural Depression 1730-1750", Economic Review, Vol. 8 (1956), 323-338.

Perry, P.J. British in the Great 1870-1914, (Newton Abbot, 1974).

the less intensive three-field system.[7]

Most depressions fall between the two extremes with a complex mixture of regression and progress. The net regional pattern will be determined by the independent decisions of individual farmers choosing between alternative strategies of economic survival. Either strategy - the low investment "rundown" policy or the high investment "improvement" option - may be the more rational for given sets of individual and industry factors. The situation for Tasmania will be examined with reference to the period from 1926/27 to 1936/37.

An analysis of the rural depression in Tasmania is especially pertinent on account of the importance of the primary sector to the state's economy. The census of 1921 revealed that 32.9 percent of the male workforce was engaged in agriculture with another 9.6 percent employed in mining, forestry, fishing and trapping. These values were the second highest in Australia being exceeded marginally only by Queensland. They stress the basic rural nature of the island state at this time. Even towns and cities reflected the rural base of the economy with thousands of jobs in jam factories, wool stores, and on the wharves being directly linked to the rural sector.

The primary sector was unable to cope with the number of people attempting to enter the workforce. Employment in agriculture had increased by only 2.5 percent since 1911 compared to the overall increase in the male workforce of 11.6 percent. Even this modest increase in agricultural employment was a temporary phenomenon related to the return of servicemen from the Great War. Off-farm migration was visibly depopulating the countryside while the chronic movement across Bass Strait was threatening to become a deluge. Natural increase should have given Tasmania a population of 256,170 by the time of the census of 1933. The recorded population was only 227,599. The difference was a result of out-migration during the 1920s. For four years, 1923/24 to 1926/27 inclusive, the flow of migrants was so great that it exceeded natural increase leading to an actual decline of 3,639 in the population of the state.

The plight of Tasmania as expressed by the high rates of out-migration, the low levels of wealth per capita, and growing concerns about

[7]Morgan, W.B. "The Doctrine of the Rings", Geography, Vol. 58 (1973), p. 311.

the financial solvency of the government began to attract attention. A new "industry" was established to conduct inquiries into the problems of Tasmania. Some were instituted by the Commonwealth; others by the State. These investigations stressed the need to solve the rural problem as a prerequisite to finding a solution for the general problem. Report after report condemned farming as backward, inefficient and disorganised. Increased output and closer settlement were seen as answers to the interrelated problems of low income and high out-migration. Few went as far as Sir George Buchanan who argued, using a methodology reminiscent of Griffith Taylor, that Tasmania could support a population of four million.[8] Most were content with promoting new wheat-sheep farms throughout the pastoral Midlands and with increasing the productivity of existing small farms in the dairying, agricultural and orcharding districts.[9] In popular terms, the developmental strategy was to turn Tasmania into the "Denmark of the Antipodes" or the "Ireland of Australia".[10] Proposals for industrialisation - the "Belgium of the Southern Hemisphere" concept - received less attention, while a proposition put forward in the satirical column "Mr Pepys in Tasmania" to base the economy on "... a second Monte Carlo at the foot of Mt. Wellington" was met with outraged indignation.[11]

The depression occurred at a time when traditional agricultural systems were under scrutiny. The Cameron report, the Lockyer report, the report of the Public Accounts Committee, and various studies by the Development and Migration Commission argued for the restructuring of Tasmanian agriculture. A plan for reorienting Tasmanian farming away from cash crops and the domestic market towards horticultural and livestock products for the overseas market was put into effect during the late 1920s. The pre-depression strategy of agricultural improvement received additional emphasis in the 1930s. It was widely believed that the problems of the

[8]Buchanan, Sir George, "Report on Transport in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1926-27-28, Vol. 5), p. 61.

[9]Lockyer, Sir Nicholas, "Financial Position of Tasmania", Journals and Printed Papers: Tasmania, (1925/26), Paper 53, pp. 5-6.

[10]Advocate, 5 January 1925.

[11]Illustrated Tasmanian Mail, 14 July 1926.

depression would be ameliorated by increasing output, by eliminating unsound practices, and by organising the marketing of agricultural commodities on more efficient lines. Major advances were made on each of the three fronts though the timing and detail of these developments were strongly affected by the downturn in the economic cycle.

The effects of the Great Depression on the total rural structure is considered in three stages. The first part of the study concentrates on defining the agricultural patterns of 1926/27, the problems of farming in pre-depression Tasmania, and an examination of the impact of depression on the rural economy in general terms. Some emphasis is given to the methodologies needed for defining agricultural regions and for gauging regional variations in the intensity of economic decline. The second part of the study involves an analysis of trends in the four major branches of the rural economy viz: potatoes, dairying, pastoralism and orcharding. An additional chapter in this section incorporates material on crops, that while trivial to the overall economy, effectively illustrate some selected subthemes. These five chapters form the core of the study. Each chapter considers the basic patterns and processes of agricultural change at levels ranging from the industry to the farm. The study concludes with a general assessment of the Great Depression in rural Tasmania. Regions are redefined, various indices of temporal and spatial change are examined and an attempt made to place the period 1926/27 to 1936/37 into the history of the evolution of modern Tasmanian farming.

P.2 Methodology and Sources of Data

It has become the accepted convention in historical geography to begin every major work with a statement outlining the author's concept of the natur
the methodological approaches adopted by the study are justified. This habit has developed as a reaction to the widespread negative attitude towards historical geography and its traditional methodology found in many sections of the academic literature. Mainstream geographers have frequently viewed the problems of historical geography as trivial and the methods as obsolete. Their disdain even found support among some historical geographers in the late 1960s and early 1970s.[1] These students of historical geography were concerned with the declining status of the subject within geography as a whole and called for radical reforms that would develop a quantitative and theoretical approach towards the study of the past in line with contemporary paradigms.[2] Otherwise, they argued, utilising Koelsch's famous catchphrase, historical geography would enjoy the familial expectations of a mule with "... neither pride of ancestry nor hope of posterity".[3] Even scholars in related disciplines have regarded historical geography with less than awe claiming that many of its applications and problems were intellectually shallow.[4]

Most historical geographers rejected the above case. They argued the need for a pragmatic approach. Their maxims were that any problem was worthy of a solution and that any methods that contributed to the understanding of man, landscape and region were inherently satisfactory.

[1]Ward, D. "The Debate on Alternative Approaches in Historical Geography", Historical Methods Newsletter, Vol. 8 (1974), p. 82.

[2]Baker, A.R., Butlin, R.A., Phillips, A.D. and Prince, H.C. "The Future of the Past", Area, Vol. 1 (1969), 46-51.

Cant, R.G. "The Dilemma of Historical Geography" in Johnston, W.B. (editor) Human Geography: Concepts and Case Studies, (Christchurch, 1969), 40-60.

[3]Koelsch, W.A. "review of Clark, A.H. Acadia: The Geography of Early Nova Scotia to 1760" in Economic Geography, Vol. 46 (1970), p. 202.

[4]Perkins, J. "review of Perry, P.J. British Farming in the Great Depression 1870-1914" in Australian Economic History Review, Vol. 16 (1977), p. 89.

Wynn has noted in the Australian context that the calls for reform and revitalisation that would be achieved by hopping aboard the quantitative bandwagon were essentially ignored. The direction of research throughout the last decade has been towards "... elucidating details of intrinsic importance to understanding particular places ... to discover the complexity of the antipodean past."[5]

It is now commonly accepted that the failure of historical geography to join the movement towards spatial science has been a source of strength. Some historical geographers have contributed to the idealist and phenomenalist positions in debate.[6] Others ignore the philosophy in favour of the practice. The argument of Jeans that the purpose of historical geography is to examine complex situations, localised in time and space, in their spatial and environmental setting is a statement of the conservative point of view.[7] This line has been adopted as the methodological justification of this study. The aim is to examine an important substantive problem. The Great Depression of the 1930s caused a critical restructuring of the patterns of farming in Tasmania. It represents the breaking point between the rural geography of the nineteenth century and the rural geography of the contemporary period. This thesis examines patterns of change in the rural landscape. The aim is to establish a better understanding of the period as well as to examine the patterns and processes of agricultural change in a particular place.

This study will try to be a work of scholarship in the traditional sense. No startling new views on the nature of historical geography are developed. The calls for a new approach towards historical geography have been ignored. The analytical methods and technical skills of modern geography have been drawn upon where necessary but the overall thrust of the study does not pretend to be in harmony with the concept of geography

[5]Wynn, G. "Discovering the Antipodes: A Review of Historical Geography in Australia and New Zealand 1969-1975", Journal of Historical Geography, Vol. 3 (1977), p. 252.

[6]Guelke, L. "The Idealist Alternative in Human Geography", Annals American Association of Geographers, Vol. 64 (1974), 193-202.

[7]Jeans, D.N. "Historical Geography in the Future", Australian Geographer, Vol. 14 (1978), p. 67.

as a spatial science. It does not aim to construct and test general models of rural responses to depression. Nor does it take up any other rigid philosophical position such as Guelke's idealist approach. The emphasis has been placed on finding solutions to specific problems in order to understand and explain the 1930s depression in rural Tasmania. In this fashion, the thesis follows the philosophy outlined by Cole Harris in his critical paper on the relationship between theory and synthesis in cultural, regional and historical geography.[8]

The sources of data for a study are one of the most important controls on the methodology of historical geography. The range of data sources required to reconstruct the geography of the past is one of the basic reasons for the adoption of synthesis as the major aim of historical geography. The geographer examining the present frequently controls the data inputs to those sufficient to test a particular hypothesis. More often than not, these data have been collected for this specific purpose. The historical geographer tends to fossick through a wide range of sources drawing out elements of interest from the overwhelming mass of background clutter. One of the major quandaries of handling this type of material is that there are no formal rules controlling the selection or rejection of evidence. Harris has argued that archival work by taking notes can never be standardised.[9] Nor can there be formal rules for the selection of the correct route through contradictory data sets. The results will always be based on a scholar's judgement of how one particular piece of evidence fits into a general interpretation. Moodie and Lehr point out another problem.[10] Data in historical geography are largely the records that have survived the passage of time. The observations are secondhand and knowledge about the past will always be incomplete.

The range of sources, the incompleteness of data sets, and the definition of research problems broader in scope than usual in mainstream

[8]Harris, R.C. "Theory and Synthesis in Historical Geography", Canadian Geographer, Vol. 25 (1971), 157-172.

[9]Harri
in Ley, D. and Samuels, M.S. (editors) Humanistic Geography: Prospects and Problems, (Chicago, 1978), p. 129.

[10]Moodie, D.W. and Lehr, J.C. "Fact and Theory in Historical Geography", Professional Geographer, Vol. 28 (1976), p. 133.

geography, all tend to lead to synthesis rather than analysis as the basic methodology of historical geography. This synthesis is not without theory. Moodie and Lehr develop an argument that historical geography is based "...on a temporal juxtaposition of evidence and theory that provides a unique point of view which in turn elicits a distinct set of geographical questions".[11] Fact and theory interact; neither can be supreme. In the present case, one of the integrating concepts is "managerialism" - of how the rural economy was manipulated in certain directions by state and corporate activities. This theory comes from, and in turn is controlled by, the data. However, it is not intended to formally examine this theory. The overall aim is to focus on the time and the place, to achieve as Harris says, "... a more penetrating understanding of an intricate part of the world".[12]

The data sources used for this study are divisible into two types. Firstly, there are sources of data that enable the reconstruction of regional patterns of farming at a particular date and the measurement of changes in these patterns through time. These are the regional and pattern oriented sources. Secondly, there are sources of data that enable one to try to determine the processes behind the changing regional structure. These include regional data at more local scales such as the district and the farm as well as much aspatial material. These form the process oriented sources. The two types have to be approached separately and then drawn together to link the patterns of change with the inferred processes.

The basic source for regional analysis are the annual statistics of agricultural and pastoral production.[13] Every farmer was bound by law to provide a return outlining operations during the crop year. The original returns were destroyed after processing and the data compiled and published as municipal aggregates. The benefits of these statistics are well known. So are their defects. They enable the reconstruction of the regional pattern of farming. However, it has to be remembered that the internal variations

[11]Moodie, D.W. and Lehr, J.C. "Fact and Theory in Historical Geography", Professional Geographer, Vol. 28 (1976), p. 135.

[12]Harris, R.C. "The Historical Mind and the Practice of Geography" in Ley, D. and Samuels, M.S. Humanistic Geography: Prospects and Problems, (Chicago, 1978), p. 126.

[13]"Production: Stock and Crops", Part V of Statistics of the State of Tasmania, (Tasmanian Branch: Commonwealth Bureau of Census and

within any municipality may render the treatment of each area as a meaningful spatial unit rather dubious. The intra-municipality differences may be greater than the observed inter-municipality differences and the resultant regionalisation of agricultural patterns may be little more than artificial statistical constructs.

These statistics are also important in allowing the measurement of agricultural change through time. However, the apparently simple task of comparing the same parameter over a number of years is often hampered by changes in definitions, by changes in base dates, and by changes in sample size. All of the above occurred in Tasmania during the 1920s and 1930s. There were three systems for measuring the net value of production, the date for collecting livestock statistics was changed from the late autumn to mid-summer, and it has been shown that the supposedly universal coverage of farms was in fact merely a very large sample whose accuracy depended on periodic drives to register farmers.[14] At least one problem does not occur. There were no significant changes to the boundaries of the municipal grid.[15]

On occasions, the official statistics collected details beyond the usual "head of livestock" and "number of acres" type of data. Cross tabulations and special surveys can be extremely useful. The attempts to conduct an economic farm-type classification between 1926/27 and 1931/32 was one example of a special survey. These data have been used by Scott in the only previous appraisals of the rural depression in Tasmania.[16] In the current study, the farm-type survey has been utilised to discuss farm diversification and in the analysis of the intensity of rural depression.

The basic regional patterns at the mesoscale have been determined from the published statistics. The investigation of regional patterns at this scale through cartographic analysis has long been a major research tradition in historical geography. The work of Clark in Prince Edward Island, Jordan

Statistics, annually).

[14]Scott, P. "Approach Levels in Agricultural Geography", Australian Journal of Science, Vol. 24 (1961), p. 176.

[15]Farmer, R.S. The Geography of Migration in Tasmania 1921-1961, Ph.d. thesis, Geography, University of Tasmania (1968), pp. 602-608.

[16]Scott, P. "Approach Levels in Agricultural Geography", Australian Journal of Science, Vol. 24 (1961), 174-180.

in Texas, and Powell in Victoria are examples of the utility of mapping historical statistical data.[17] The treatment of the data can be as simple or as complex as the situation demands. However, the structure of the Tasmanian municipal grid limits the value of the more sophisticated techniques. The local government areas vary in physical size and in the number of rural holdings, have eccentric shapes, and usually contain a variety of different landscape units within their boundaries. The theoretical problems of conducting statistical analyses with this type of data are well documented. The methodological dilemmas related to particular techniques are discussed as they occur. The use of multivariate statistics was not totally precluded but was handled cautiously and with the aim of having the technique develop the problem rather than becoming the problem.

Patterns are only one aspect of the historical geography of the depression. Processes create patterns. However, processes can only be inferred, not proven from statistical data of this type. Cloher defined the problem in terms of three principles viz: the principle of equifinality; the principle of indeterminancy and the principle of inertia.[18] Other sources must be used to examine the processes behind agricultural change in order to complete the study. These sources have mainly included contemporary newspapers, other statistical sources and archival records.

Rural news and the farming columns in the three daily and three local newspapers were examined in a systematic fashion. Each of the major newspapers was sampled for each year between 1925 and 1939 avoiding overlap in coverage. The weeklies were consulted at a less frequent interval with only one paper being considered for any year. There were some

Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), 58-65.

[17]Clark, A.H. Three Centuries and the Island: An Historical Geography of Settlement and Agriculture in Prince Edward Island, (Toronto, 1959).

Jordan, T.G. "The Imprint of the Upper and Lower South on Mid-Nineteenth Century Texas", Annals American Association of Geographers, Vol. 57 (1967), 667-690.

Powell, J.M. "Crop Combination Regions for Western Victoria 1861-1891", Australian Geographer, Vol. 11 (1969), 157-169.

[18]Cloher, D.U. "A Conceptual Reversal: "Timeless History and Time Geography", Australian Historical Geography, Vol. 1 (1980), 5-12.

problems inherent in this system as it tended to give packages of information on specific topics rather than broad and uniform coverage. No other solution was possible given the fact that the Mercury in Hobart, the Examiner in Launceston and the Advocate from Burnie serve distinct rural hinterlands and that the regional weeklies serve even more localised districts. In any case, the reporting of rural events was erratic. The current condition of a field of Algerian oats or an essay on stomach fluke in sheep lifted from an overseas farm journal were the most common forms of agricultural news. The highpoints were the end-of-year reviews of the state of the agricultural economy, or when some major political or economic event forced direct reporting of the rural scene. Also of value were occasional surveys of individual farms or small districts.

Other statistical sources were called upon to investigate specific themes ranging from unemployment trends in the Labour Reports, apple exports from competitive mainland states in Overseas Trade through to potato marketing in Sydney in the Statistical Register of New South Wales. These sources present one major difficulty. Each has its own conventions and definitions which are usually hidden away in the preface rather than clearly exposed to the casual user. These provide traps for the unwary. For instance, apples were exported from Tasmania in cases (bushels) valued at average market return in state statistics while the Commonwealth reported the same shipment in centals valued at the Hobart domestic price. The bushel/cental conversion fell within a zone of acceptable difference but the principle of export valuation adopted by the Commonwealth made it impossible to compare values from state to state or from time to time.

The third source of process oriented data represents the documentary material that could be broadly termed "archival". These sources are commonly regarded as the foundation of historical research. They vary from published material that is widely available such as the annual reports of government departments or printed reports of commissions of inquiry through to single copies of documents held in the various public and private record depositions around the state. The major source in this latter form has been the general correspondence files of the Department of Agriculture from 1929 to 1939, held as series AD9 in the Archives Office of Tasmania. These files contain an almost complete record of the impact of government on the rural economy. Details range from the trivia of running a bureaucracy

through to confidential material on individual farms and rural industries. As time has eroded the need for these documents to remain restricted, the Department of Agriculture allowed access to files that fell within the 50-year rule. Besides, it is doubtful if the Department or the Archives have much knowledge about the material preserved in the gloomy dungeons beneath Franklin Square. Only the first few files in the first box had been culled and catalogued. The rest remained untouched. This allowed the "intelligent browsing" through the totality of the data set which is so often impossible when the data has been organised and pruned.[19] Extensive use has also made of the files of the Premier's Department (PD1) and the Tasmanian Farmers, Stockowners and Orchardists Association (NS 901). The former provided extensive information on the critical period before the beginning of the Agricultural Department files. The latter provided an insight into rural issues from a non-governmental source.

None of the above sources are sufficient by themselves. There is a degree of bias in each. It requires the critical evaluation of the total range to allow the reconstruction of the Tasmanian rural scene in the 1930s. Some sources give detail relevant for a major region or the state. Others give information at a more local level right down to the individual property. Still others comment on problems without any spatial input. The information from all sources must be moulded together to create an overall synthesis of changes in Tasmanian farming during the Great Depression.

[19]Powell, J.M. "Australian Sources for Historical Geography: A User's Report to Custodians", Australian Historical Geography, Vol. 2 (1981), p. 40.

P.3 Tasmania and the Great Depression: Context and Literature

The first quarter of the twentieth century was a period of prosperity throughout the agricultural hinterland serving the Thunen world city. The terms of trade had been shifting in favour of more remote locations since the 1890s. Prices were rising on English and European markets; competing nations were diverting more of their production to meet domestic demand; and the ability of far distant regions to serve the global market was enhanced by improvement in transport systems. Agricultural exports from Australia increased from £35.3 million in 1900 to £75.4 million in 1914.[1] Most of this increase was real - in volume and price - rather than through inflation. Furthermore, it was matched by the transformation of Australia from a pioneer economy into a mature agricultural region. Farmers no longer increased output by putting new land into production. Instead, capital was invested to improve land, stock and machinery. While standard models of Australian economic development place the change from extensive to intensive modes of enhancing agricultural efficiency to the 1890s, one recent examination of the situation argues that the period of greatest improvement occurred in the decade after 1900.[2]

Tasmania shared in these developments. Federation was designed to open up new outlets for potatoes and fruit on the mainland while the widespread theory that Tasmania was another English county was based on the belief that Britain could absorb everything that the island could produce. These concepts acted as stimuli to agricultural expansion. The disruption of statistical series in the early years of the Commonwealth make it impossible to accurately monitor overseas and interstate trade. But as a typical example of agricultural expansion, one can cite the orchard planting fever that swept the Tamar Valley in the years before the Great War. Production increased from 8,003 to 88,753 bushels even though most of the trees had not yet begun to produce.

There was also considerable interest in agricultural improvement. Capital created by the prosperity of farming was available for investment. Two indications of the scale of improvement were an increase in the capital value of farm machinery by 102.8 percent and in the area of improved

[1] Commonwealth Official Year Book 1921, p. 522.

[2] McLean, I. W. "The Analysis of Agricultural Productivity: Alternative Views and Victorian Evidence", Australian Economic

pasture by 97.2 percent between 1900 and 1914. Over the same period, the area of occupied farmland increased by only 22.1 percent. Anecdotal evidence also supports growing interest in the breeding of improved dairy cattle, in new types of potatoes to counter the Irish blight, and in the diffusion of knowledge through agencies like the local Boards of Agriculture and the State Farm School at Deloraine.

The outbreak of global war in August 1914 interrupted the growth of the rural economy. The first reaction was a short-lived export boom followed by a downturn as the disruptions of war became more severe. Labour shortages forced changes in the normal pattern of farming with, for example, beef cattle and cropping being substituted for dairy cattle.[3] Other products became unmarketable due to controls on shipping. The Ministry of Food (U.K.) allocated shipping space for meat, fruit and dairy products from various sources. Fruit was the product of most concern to Tasmania. The state received allocations which normally covered half the standard export crop. War losses took a further toll. In 1917, 50,000 cases of apples were lost with the sinking of the "Ballarat" and the cargo of the "Suffolk" arrived in poor condition after a voyage of 128 days in convoy.[4] It fetched less than the freight. In 1918, the apple season was the most disastrous on record as no fruit was sent to Britain. The argument by Scott that the fruit industry was prosperous during the war seems difficult to support.[5] Even the jam industry was affected by shortages of tinplate.

Scott also argued that sheep farming was favoured by the war. This was true throughout Australia. The pastoral industry recorded an astounding increase in its share of the gross domestic product from 8 percent prewar to 21 percent in 1917/18.[6] This was largely the result of the Wool Agreement of 1916 in which the British arranged to purchase all wool produced in Australia at a guaranteed price. In Tasmania, this

History Review, Vol. 21 (1981), 6-28.

[3]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), p. 59.

[4]"Report of the Agent-General in London", Journals and Printed Papers: Tasmania, (1918/19),Paper 3, p. 3.

[5]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), p. 59.

[6]Cotter, R. "War, Boom and Depression" in Griffin, J. (editor) Essays in Economic History of Australia 1788-1939, (Brisbane, 1967), p. 245.

favoured the traditional sheep farming districts of the Midlands. However, an argument could be put forward that the war destroyed the initial attempt to establish a frozen meat trade based on the Northwest Coast.

Disruption to normal trade patterns continued into the immediate postwar period. Shortages of shipping, labour unrest, and problems caused by the influenza epidemic prevented Tasmania gaining benefit from the high prices that existed for farm products in 1919.[7] This situation continued into 1920. Tasmanian apple exporters were allocated space for 320,000 cases after submitting a request for 800,000.[8] The Board of Trade which controlled all refrigerated shipping continued to give priority to meat and dairy products. However, the war and its immediate aftermath had little long term effect on the planning of the rural economy. It was seen as an unusual event that did not portend any fundamental shift in the relationship between producers and consumers of rural commodities. The return of peace saw farming patterns resume their prewar paths. For instance, the replacement of dairying with beef cattle and cropping was reversed. By 1918/19, dairy cattle numbers had returned to their prewar level. In spite of the problems of many sectors of rural industry, there was no challenge to the concept that the future of farming lay in Tasmania's role as an extension of the British agricultural hinterland.

However, Schedvin has shown that the prewar relationship where the "agland" exchanged rural products for the output of the world urban core had been seriously undermined by the war.[9] Four countries (the United Kingdom, Germany, France and Belgium) had once taken half of the world's primary exports. War damage, the loss of manpower and the costs of the Treaty of Versailles had seriously affected all of these economies. In addition, Europe found it difficult to regain export markets lost to the United States and Japan, and was also increasingly blocked out of markets in the agricultural countries that had recently adopted policies of local industrialisation behind tariff walls. These were just a few of the problems that were sapping European economic predominance. On the other side, many of the agricultural exporting countries had undertaken unwise expansion

[7]Mercury, 1 January 1920.

[8]Mercury, 12 January 1920.

[9]Schedvin, C.B. Australia and the Great Depression: A Study of Economic Development and Policy in the 1920s and 1930s, (Sydney, 1970), pp. 12-75.

of production. The classic example was the increase of wheat in Canada and Australia in response to the collapse of the Russian grain trade. This created the potential for vast production surpluses.

There was no single cause of the Great Depression. The case being argued here is that there were increasing stresses in the economic relationships between the world core and its distant agland. When prices for agricultural commodities began to weaken, the capacity of the agricutural exporting countries to import manufactured goods was reduced. This further weakened the importing capacity of the food receiving countries and the whole system spiralled downwards into depression. Access to the markets of the world became further restricted as nations turned inwards creating new barriers to trade. The remaining markets were reduced by intensified competition and reduced demand. Furthermore, the long term decline in freight rates was reversed. Freight charges took an increasing proportion of the value of agricultural exports as they did not fall in harmony with export prices. The problem of freight was exacerbated in Australia by the decline of the currency against sterling. In von Thunen terms, the prices available at the world city were reduced and the slope of the transport cost line steepened.

The retrospective view of Tasmanians towards the rural depression is one of hard times. Images of ramshackled fences and blackberry choked fields, of shoeless children and foreclosed mortgages run through the reminiscences of the older generation. The popular impression viewed through the filter of time is that the depression was an era of retreat in the rural sector. This view is not necessarily the image that prevailed during the thirties nor is it the impression that is gained from an analysis of the existing literature.

The most common contemporary view of the depression was that it presented an opportunity to revitalise Tasmanian agriculture. This theory was most succinctly stated by the editor of the Advocate in his New Years Day editorial. In reviewing the situation for 1931, he noted that "... adversity has many lessons".[10] Wasteful and inefficient farming practices

[10]Advocate, 1 January 1932.

had begun to be pruned from the farming system while increased production and lower costs were seen as the answer to the challenge of lower prices. The official statistics confirm that considerable progress had occurred. Production gains in six major rural enterprises between 1926/27 and 1936/37 are shown in Table 1. Three year means centred on the relevant year have been used to eliminate any annual abnormality.

Table 1 - Changes in Output and Productivity in Tasmanian Agriculture 1926/27 to 1936/37

potatoes	+ 1.2%	tons	+ 8.4%	tons per acre
apples	+ 14.1%	bushels	+ 29.9%	bushels per acre
dairying	+ 73.8%	gallons	+ 26.5%	gallons per cow
wool	+ 20.4%	pounds	+ 2.3%	pounds per sheep
sheep meats	+ 15.2%	carcasses	+ 104.9%	lamb/mutton ratio
beef	+ 16.0%	carcasses	+ 9.9%	carcasses/stock ratio

Potato yields began to exceed three tons per acre thereby allowing the transfer of two and a half thousand acres of fertile land to alternative uses. Apple production was creating new records while the dairy industry was to the forefront of agricultural expansion. Sheep numbers passed two million for the first time in eighty years. These trends indicate a remarkable achievement. They show that the depression in rural Tasmania was a complex problem. They neither imply that times were good nor that the attempt to increase absolute production was even a rational policy. They do, however, show that there was more to the depression than falling incomes and economic stagnation.

The effects of the Great Depression on Tasmanian agriculture has received scant attention in the literature. Two articles by Scott form the only geographical research into a period which he claimed "... not only wrought profound changes in Tasmanian agriculture at the time but permanently influenced the character of farming".[11] However, these articles only devote a few paragraphs to the geography of rural Tasmania in the 1930s. Scott was concerned with more general issues. The 1961 paper

[11]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), p. 59.

focused on data problems and scales of analysis in agricultural geography.[12] The discussion of the depression was limited to a single paragraph. The 1965 contribution to the Atlas of Tasmania involved a broad but concise survey of the evolution of farming in Tasmania.[13] The period of the Great Depression received considerable emphasis.

Scott concluded that there were five major results of the depression. Firstly, he noted a decline in specialised farming and a growth in mixed farming. This trend was attributed to the desire of farmers to seek income security through diversification. By 1931/32, mixed farming was the largest single system and predominated in all regions with the exception of dairy areas in the Northeast and King Island, and horticultural districts in the Southeast and Huon. However, Scott noted that this trend was obtained from a crude farm-type analysis contained in the official statistics. There were a limited number of categories and no information on the relative importance of the components that made up the mixed farming classes. It will be shown that the rise of mixed farming extracted from these data does not invalidate the trend evident in other data sets of increasing regional specialisation.

Secondly, it was argued that the major element of change from single enterprise to mixed enterprise farming involved the expansion of dairying. Dairy farming was attractive because it offered income protection through the Paterson plan. This scheme used high domestic prices to subsidise export butter thereby giving a higher return to factory suppliers. The transformation of the Northwest Coast from an arable emphasis in 1926/27 to a mixed farming structure in 1931/32 was largely due to the adoption of dairying by former potato monoculturalists. Elsewhere in the state, even orchardists and graziers were moving into dairying.

The third major change involved the increase in the number of sheep by 15 percent. This rise was attributed to the success of the campaign for pasture improvement launched by the Department of Agriculture following its restructuring in 1927. This campaign saw the establishment of temporary pasture on arable properties and the improvement of permanent pasture in the

[12]Scott, P. "Approach Levels in Agricultural Geography", Australian Journal of Science, Vol. 24 (1961), 174-180.

[13]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), 58-65.

grazing districts. Not only did sheep farming become more intensive; it also became more diversified with the development of a meat sector to complement the traditional emphasis on the production of fine wool.

Related to the above was the fourth major change. There was an overall decline in field crops. In particular, intensive sheep farming was displacing cereal production in the North Midlands and the potato was in decline along the Northwest Coast. Finally, there were significant improvements in farming technology. Mechanisation, the wider use of artificial fertilisers, the discovery of solutions for trace-element deficiency diseases, seed improvement and other similar developments represent the trend towards modern, scientific farming and away from the traditional conservative style of the older Tasmanian farmer. These improvements were alleged to represent the fruits of a decade of research and extension work by the Department of Agriculture.

The analysis of the details of agricultural change in these two papers was limited. For example, a single sentence links the expansion of dairy farming to the Paterson plan. No space was available to define the character of the Paterson plan or to discuss its perverse results in Tasmania. In no other part of the Commonwealth did this scheme lead to the expansion of the farm butter sector. Nor could the breakdown of the Paterson scheme in the early thirties and its replacement by other forms of export subsidies with different spatial impacts be examined. Scott was aware that the problems were complex. His cautionary notes regarding the use of the economic farm-type classification are evidence that he recognised that these data could only present a first approximation of complex spatial patterns. Scott's work is valuable as a basic overview. The aim of this study is to expand upon this foundation to provide a more detailed analysis of patterns and processes of rural change in Tasmania during the Great Depression.

CHAPTER ONE - AGRICULTURAL REGIONS OF TASMANIA 1926/27

1.1 Methodological Problems in the Definition of Agricultural Regions

The first volume of Economic Geography appeared in 1925. It contained a paper by Jonasson on the agricultural regions of Europe. Subsequent issues included studies of North America by Baker, South America by Jones and Australia by Taylor. In spite of the work that has accumulated since this date, there is still no standard method of extracting agricultural regions from census data. A large number of techniques are described in the literature but the utility of each system is limited. A method that may be suitable for one problem may be completely unsuitable for another problem; for the same problem in a different place; or even for the same problem in the same place but at a different time. Some of the basic controls on the selection of a method for defining agricultural regions include the character of the data base, the need for comparability through time, and the need for a regionalisation adequate for the scale of the study.

The character of the data is affected by both external and internal factors. The number, size and shape of the statistical areas have an impact on the procedures that can be applied. In Tasmania, the agricultural statistics were collated and published on the basis of the 49 local government areas (Figure 1). Five mining districts on the West Coast were excluded from all statistical analyses while the two urban municipalities were excluded from most procedures. This left 42 districts to form the spatial data grid. This was an adequate number for analysis at the mesoscale. Of more concern was the variation in size of the municipalities. The range in total area was fifty-fold while the area under crops varied even more widely. There was a difference of more than a hundred times between the smallest and the largest district. The number of rural holdings was less variable ranging from a minimum of 54 in Ross to a maximum of 564 in Deloraine. To the statistical and cartographical problems created by size variations within the data base must be added a concern with the alignment of boundaries. For instance, the rural municipalities along the Northwest Coast ran south from Bass Strait cutting across the grain of the country. Statistical manipulations unravelled some of the differences in an east-west dimension but were completely unable to define the important north-south

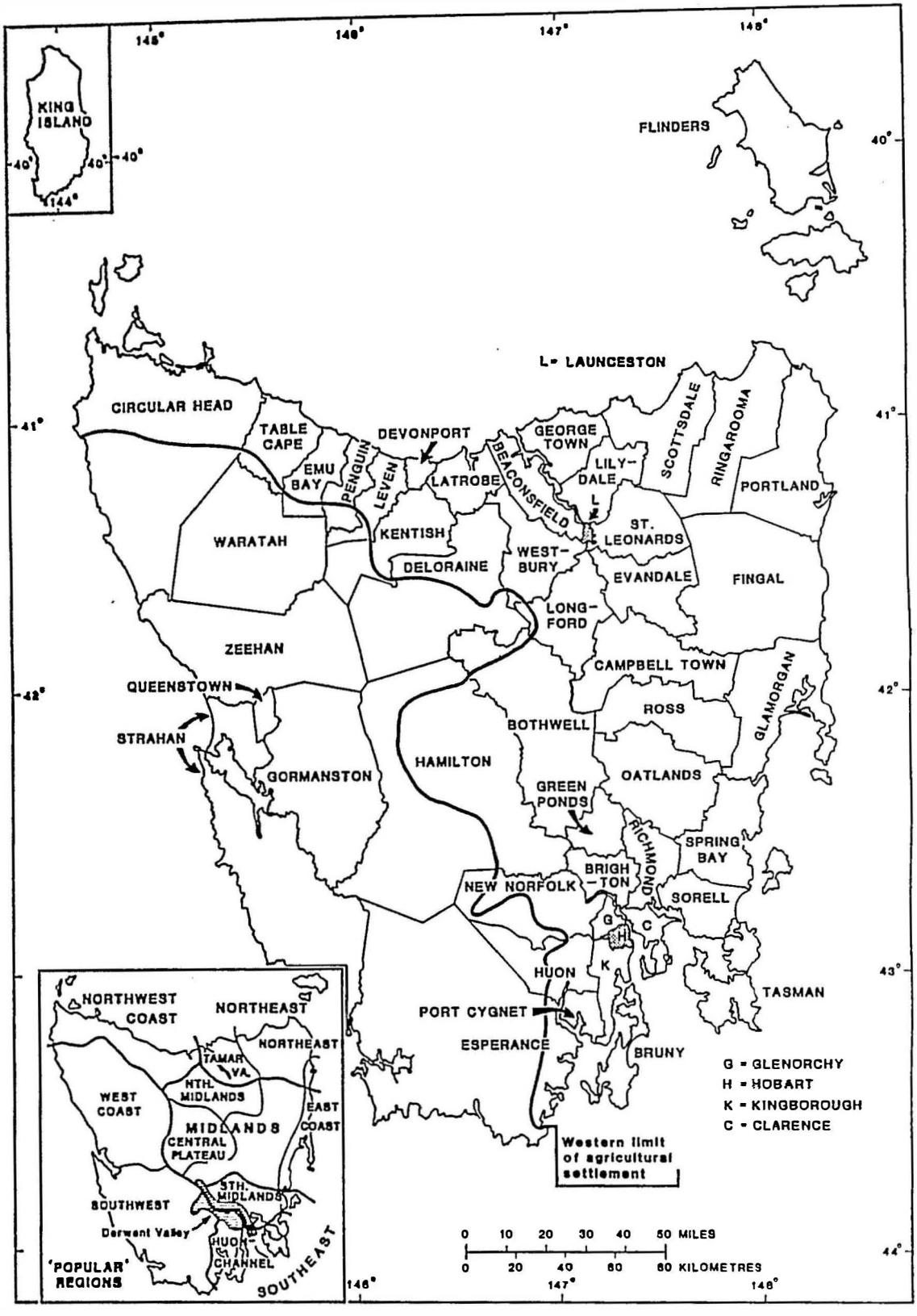

Figure 1 - Municipalities and Regions of Tasmania

trends in farming systems. A different municipal grid would create a different statistical landscape.

The tabulated totals of crops and livestock contain two further elements that create problems for regionalisation. One involves the fact that the individual returns are added together to form a municipal total. The use of aggregated data raises the whole issue known in agricultural geography as "the spatial average".[1] It is impossible from data of this type to distinguish the true mixed farming region from an area where two or three specialised farming systems operate independently. The aggregate statistics for the two districts could easily be identical in form. Therefore, the interpretation of all data obtained from the basic statistical source is exposed to ecological fallacies. The other factor involves a dilemma inherent in applying conventional statistical methods to geographical problems. There are strict rules regarding the applicability of the linear regression model and its derivatives.[2] Geographical data by its very nature must break many of these assumptions. The structure of agricultural regions involves high intensities in some contiguous areas that are matched by low (and often irrelevant) intensities in most other areas. This invalidates both the demand for homoscedascity and for independence between observations.

The second general control involves the need for handling regionalisations at several points in time. A single cross-sectional survey of agricultural patterns could opt for one of the modern techniques of classification. Despite the limitations noted above, a method like principal components analysis can organise a large data array into its fundamental structure as a prelude to regionalisation via an hierarchical grouping procedure. The input data can also include variables on different scales of measurement allowing a different insight into the rural economy. Many of the complications within the statistical process can be ignored. Bennett, for example, examined the problem of transforming data to create a normal distribution.[3] He found that the principal components solutions for the

[1]Weaver, J.C. "The County as a Spatial Average in Agricultural Geography", Geographical Review, Vol. 46 (1956), 536-565.

[2]Poole, M.A. and O'Farrell, P. "The Assumptions of the Linear Regression Model", Transactions Institute of British Geographers, Vol. 52 (1971), 145-158.

[3]Bennett, D. "The Effect of Data Transformation on the Principal Components Solution", Area, Vol. 9 (1977), 146-152.

original data and the transformed data were similar with the unmodified data giving the more conservative outcome. As transformation tended to complicate the interpretation of the results, he concluded that it was unnecessary. Roff confirmed his arguments.[4] The procedures are robust and will withstand abuse.

These techniques are now commonly used in agricultural and historical geography and are incorporated within this study. However, it was felt that a simpler method was essential for the basic regionalisation. It was found in practice that the original data matrix was constantly used to explain maps of component scores. The results of complex mathematical operations can, at times, be difficult to interpret. The reduction of all observations to z-scores was one factor that created obscurities in the final analysis as it allowed erratic cases to overly influence the component score of individual districts.

The problems would have been outweighed by the benefits of these procedures if it had not been for the need to compare agricultural patterns from the beginning, the middle and the end of the depression. This demands absolutely identical variables for the three periods and a fixed regional grid. A number of formal techniques are available to assess the relevance of changes in the principal components solution taken from different cross sections. For instance, Short has used multivariate statistics to look at agricultural change in the High Weald and Robinson has examined a similar problem in the Vale of Evesham.[5] Some of these techniques will be incorporated into the concluding synthesis of total agricultural change. At this preliminary stage, the geographical problem is paramount. The same is also true of the later stages. It was found to be imperative that a simpler methodology had to be available at all times to act as a standard against which the more complex techniques could be evaluated.

One of the more traditional methodologies for agricultural

[4]Roff, A. "The Importance of Being Normal", Area, Vol. 9 (1977), 195-198.

[5]Short, B.M. "An Application of Multivariate Statistical Techniques to the Study of Agricultural Change through Time: A Case Study from the High Weald 1887-1953", Kings College: Occasional Papers in Geography, (London, 1975).

Robinson, G. "A Statistical Analysis of Agriculture in the Vale of Evesham during the Great Agricultural Depression", Journal of

classification and regionalisation is the Weaver test.[6] This measures the deviation of the ranked percentages of crops relative to a series of standard curves with the area being classified according to the number of crops that produce the best fit with the "theoretical" model. Weaver ranked crops by acreage in the American Midwest. Scott did the same for Tasmania in the 1950s, while Powell, Jeans and Camm have applied the Weaver method to problems in the historical geography of Victoria, New South Wales and Queensland.[7] The ability of the Weaver test to display the mosaic of agricultural land use is unquestioned in spite of its lack of any formal statistical justification. Its merits have most recently been argued by Powell who stresses its ability to compress complex data sets into a simpler format which "... permits useful generalisation to promote further research".[8] It has also been assessed as being especially valuable for studies involving change over time in spatially complex patterns.[9]

However, the classification of agricultural regions by the ranked percentages of acres of land under different types of crops is ineffective on at least three counts. Firstly, an acre of an extensive crop is treated as equivalent to an acre of an intensive crop. Secondly, no distinction is made between crops which are produced for sale and crops used as inputs into the production of another commodity. These combine to create apparently significant regions of hay production in many mid-latitude farming systems.

Historical Geography, Vol. 7 (1981), 37-52.

[6]Weaver, J.C. "Crop Combinations in the Middle West", Geographical Review, Vol. 44 (1954), 175-200.

[7]Scott, P. "The Agricultural Regions of Tasmania: A Statistical Definition", Economic Geography, Vol. 33 (1957), 109-121.

Powell, J.M. "Crop Combination Regions for Western Victoria 1861-1891", Australian Geographer, Vol. 11 (1969), 157-169.

Jeans, D.N. An Historical Geography of New South Wales to 1901. (Sydney, 1972).

Camm, J.R.C. "Cultivation, Crops and Machinery: the Development of Agriculture in Queensland 1890-1914", Research Papers in Geography 7, (University of Newcastle, 1976).

[8]Powell, J.M. "Agriculture and Livestock: Victoria in 1881 and 1891", Australian Historical Geography, Vol. 5 (1983), p. 38.

[9]Johnson, L.J. and Teufner, W.E. "Industry Combinations in the Central United States: An Application of Weaver's Method", Professional Geographer, Vol. 20 (1968), 297-302.

Hay would most usefully be treated as a low value input into the dairy economy with marginal amounts available for off-farm sale. The third major weakness of the Weaver system lies in its treatment of the livestock component. This sector is often ignored or treated as a completely separate entity. Weaver prepared a paper on livestock in the Midwest to complement his study on crop regions but he specifically denied any possibility of superimposing "... one upon the other to derive types of farming regions".[10]

These deficiencies in the Weaver method have been recognised and partly overcome through the use of various systems of weighting that reduce diverse types of agricultural production to common units. Weaver used standard livestock units for the analysis of livestock patterns in order to reduce cattle, sheep, poultry, etc. to a common factor. Scott also used standard livestock units to determine patterns of livestock production in Tasmania.[11] He subsequently merged the crop pattern with the livestock pattern to create agricultural regions. In Britain, Coppock used an existing set of estimates of labour requirements for different agricultural activities to devise a formal set of weights.[12] These were used to reduce crop acreages and livestock numbers to common terms from which it was possible to derive a more refined Weaver classification. However, Coppock's weights are not transferable in time or in space. A similar set of weights of relevance to Tasmania in the 1930s had to be devised. A system based on net financial returns appeared to be most appropriate.

The final issue involves the requirement that the regionalisation of farming patterns be adequate for the scale and purposes of the study. There are only minor difficulties in classifying a single farm and few more in describing the agricultural character of a single statistical area. The problems accumulate as the number of statistical areas increase. The simplest techniques can generate a large number of regions. Even though

[10]Weaver, J.C., Hoag, L.P. and Fenton, B.L. "Livestock Units and Combination Regions in the Middle West", Economic Geography, Vol. 32 (1956), p. 237.

[11]Scott, P. "The Agricultural Regions of Tasmania: A Statistical Definition", Economic Geography, Vol. 33 (1957), 109-121.

[12]Coppock, J.T. "Crop, Livestock and Enterprise Combinations in England and Wales", Economic Geography, Vol. 40 (1964), 65-81.

the rural reality may be extremely complex, there appears to be little purpose in having a system of agricultural regionalisation that fails to create general spatial patterns. The number of regions has to be reduced. A degree of information loss is inevitable in striking the balance between the conflicting aims of accuracy and generalisation. Weaver's method offers no solution to this problem beyond the grouping of areas with similar combinations into "crop combination regions". In fact, it tends to give an unmanageable number of regions.[13] Ad hoc methods of simplifying these complex patterns by abandoning order in the rankings, by adopting cut-off points, or by separate examination of first, second and third ranking activities need to be made more rigorous.

This general review of the problems involved in agricultural regionalisation covers material that has been well known since the 1950s. It has been included to stress that the methods that follow have been selected and developed to fulfill four important functions. The methods must be simple for total insight into the rural economy. They must be capable of being repeated exactly at different times. They must be based on economic returns to farming rather than land cover and they must give a coherent regional structure from material that is basically an areal classification.

[13]Subbiah, S.P. "Regionalisation: A New Taxonomical Procedure Tested", Indian Geographical Journal, Vol. 53 (1978), p. 7.

1.2 Procedures in Delimiting Agricultural Regions

The methods of agricultural regionalisation used in this study have tried to achieve a balance between the accuracy of the classification and a number of other important goals. In particular, they were techniques that could be applied at different times and used to determine patterns of change in the structure of farming regions. Many compromises have had to be made beginning with the selection of specific items from the total range of available agricultural statistics. Further decisions were required to transform these statistics, which were expressed in a variety of units, into a common format. Finally, there was the need to select the most appropriate algorithm for the grouping of statistical areas into a final set of agricultural regions. The process at every stage reflected what Johnston has called "the subjectivity of objective methods".[1] Each of these stages will be examined in detail. Despite the possibility - even the probability - of better alternative decisions, it is believed that the methods have given results acceptable for the defined task.

The first step in the classification problem was to obtain the regional distribution statistics for the major agricultural commodities produced in Tasmania. The fourteen items selected included seven crops (potatoes, turnips, wheat, oats, barley, peas and hay), three forms of horticultural activity (market gardens, hops and fruit) and four livestock systems (dairy cattle, beef cattle, sheep and swine). In 1926/27, these activities accounted for 99.4 percent of the measured net value of production. Carrots (139 acres, £13,190) and the sale of horses (£7000) were the largest items in the remainder. However, several aspects of the rural economy were not included in the data base. Poultry farming was the most serious omission. Estimates from the 1930s, although derived from dubious extrapolations, suggested that egg production would add another £310,000 (+8.5%) to net farm income. However, there were no regional statistics on the distribution of poultry. The significance and problems of poultry farming will be examined separately.

The fourteen parameters were taken as "number of acres" and "head of livestock". This presented the first major dilemma. A strong case can be made for the selection of output parameters as the basis of

[1]Johnston, R.J. "Choice in Classification: the Subjectivity of Objective Methods", Annals American Association of Geographers, Vol. 58 (1968), 575-589.

regionalisation. Yield statistics were available for all crops and some livestock activities, sometimes in more detail than the associated area data. In the case of fruit, the only consistent acreage data was for the combined category of "orchards and fruit gardens". Separate yields were available for apples, pears, five types of minor tree fruits and four defined varieties of berry fruits. However, it was thought that the yield data would present problems on three counts. Firstly, yields are notoriously variable from season to season. The coefficient of variation for potatoes (acres), wheat (acres) and dairy cattle (numbers) were 8.2, 26.7 and 8.9 percent respectively. Similar calculations for the output expressed in tons of potatoes, bushels of wheat, and gallons of milk were 19.9, 38.1 and 19.6 percent. A study based on cross sectional comparisons would be more biased using output parameters than the more conventional acreage/number data. Some of the bias may have been overcome by using three-year base periods rather than a single-year cross section.

There are merits to this approach which should have been more closely investigated. However, it would not have alleviated the second problem nor avoided the issues presented by the third. Three important activities were recorded wholly, or partly, in terms of numbers. There were no regional details on the yield of the meat industry. An attempt was made to calculate a stock migration model from which meat yields could be estimated. It was arguable that changes in the number of livestock from year to year should be natural increase less stock losses and on-farm slaughterings with a residual term for stock sent to the abattoirs. There would also be regional gains and losses from stock sent to other areas for fattening or agistment. At the state level, these would be imports and exports of live animals. It seemed theoretically feasible from the table headings but the results were meaningless at both the state and local scale, probably due to errors in the original returns. Without yields for activities that were responsible for 17.5 percent of net farm production in 1926/27, it seemed logical to rely on data that was common for all sectors of the rural economy.

The third factor confirmed this approach. It is well known that yield statistics contain serious errors. Scotland abandoned the publication of crop yields at the county level in 1965 as the results were so unreliable.[2] In

[2]Clark, G., Knowles, D.J. and Phillips, H.L. "The Accuracy of the Agricultural Census", Geography, Vol. 68 (1983), p. 119.

Tasmania, the Bureau of Census and Statistics used to compare the production recorded on the stock and crop returns with the amounts that were marketed. In almost every case, the farmer's returns were significantly less. The Bureau had two responses. For some crops, it proportionately adjusted all the municipality data so that the declared production of a crop, for instance apples, would equal apples exported plus apples used in processing plus an estimated local consumption.[3] For others, it merely noted the discrepancy. Wool production over three years centred on 1926/27 was only 84 percent of wool sold locally or exported while the production of currants and raspberries were 88 percent of deliveries of these fruits to the jam factories. The difference in this case was attributed to production on very small holdings.

A retired officer of the Australian Bureau of Statistics described the Police District collections of the 1930s and 1940s as "... rough, old counts".[4] Apparently, stock sales were used by many policemen as a convenient location at which to interview farmers. Returns were completed on the spot rather than dropped off and collected. This practice alone would place more reliance on area rather than production as farmers would not be able to refer to their accounts. Farmers were similarly sceptical about the accuracy of the stock and crop returns. One complained about the complexity of the form. "They are" he said "so intricate and tiresome that both the jaded Sergeant of Police and the overburdened taxpayer become fed up with the whole business long before the end of the voluminous document is reached".[5] He claimed that this was the undoing of the accuracy of the census in spite of what "... certain gentlemen in Hobart may think". This would be another factor acting in favour of the simpler acreage data. Acreage data was also less likely to be tainted by the concern for financial privacy.

Given these concerns, it was felt that the use of numbers of acres and livestock was the more reliable procedure for a first order analysis of

[3] [AD9 712-97] file 14/3, Limbrick, S.F. "Report on the Tasmanian Apple Industry", p. 3.

[4] Mr Harry Moore, (formerly in charge of Primary Production Statistics, Tasmanian Branch: Australian Bureau of Statistics), 10 September 1985.

[5] [NS901-53] file "E-miscellaneous", 12 August 1923.

agricultural patterns. The decision to use a particular type of data has major implications. Agricultural change can follow different pathways including number and output and even more intangible elements like quality. The analysis is controlled by the exact choice of measure. No single methodology can solve all problems. Alternative methods must be used to bring out other components of change.

The second step in the regionalisation of agricultural activities was to determine an economic weighting for an acre of each crop and a head of each livestock type. These weights were obtained by analysing the net returns from each of the fourteen commodities for a ten year period to establish an average net value per unit. Two interrelated problems arose at this point. The first related to the definition of the net value of production; the second to the choice of a particular base period. Changes in the method of determining the net value of production controlled and restricted the choice of the years for which the economic weights could be calculated.

A new method of defining "net value of production" was developed in 1925/26. It was part of an attempt to achieve uniformity between the states in order to calculate the rural contribution to gross domestic product. Data is available for a ten year period on the basis of this consistent methodology. It can be summarised by the following formula:

$$\text{net value of crop} = \left[\left(\text{crop marketed} + \text{farmer consumption}\right) \text{average price} - \text{certain costs}\right]$$

The system tried to measure the value of output at the farm. Credit was given for all crops marketed including an allowance for consumption by farmers and their families. This created the first major difference between these net values and gross values. Crops harvested but not marketed were not counted. Unsaleable surpluses, produce retained for seed, and crops used as forage on the farm were eliminated from the calculation of farm revenue. Thus, the value of the hay crop in 1926/27 (gross value £680,200, net value £142,000) was largely transferred to the dairy sector as the hay fed to cattle was eventually marketed as milk. This avoided the double counting found in previous methods of calculating local values. It also eliminated the hay regions that are found in many traditional classifications. The Bureau of Census and Statistics made further adjustments to each individual activity deducting the cost of bags or boxes,

and the freight from farm to market. Consistency was not a strong point in these calculations. Some commodities, for example livestock and berry fruit, could apparently be marketed without transport costs! This left a net value of a rather crude type. Further deductions were made for sprays and fertilisers but as these were not allocated to individual crops, they could not be considered. Nor did the cost of hired labour appear as a factor determining net values. In many ways, these data would be more appropriately viewed as corrected versions of gross output. This fact is beneficial rather than detrimental for the purposes of constructing an economic weighting system.

Data were available for the ten years between 1923/24 and 1932/33. This was an adequate length of time to eliminate year to year fluctuations in net returns. Walker in a similar study for New South Wales was content with a five year averaging period.[6] It is not a perfect structure. The ten years are skewed to one side of the study period. It collected information from three economically distinct periods but had no input from the fourth, the depression recovery period from 1933/34 onwards. Two alternative strategies would seem to be preferable. One would have involved the use of a base period centred on the study period; the other would involve three sets of weights calculated from data balanced on either side of the three cross sections. These approaches would have been technically more rigorous but the necessary data were not available.

The economic weight was calculated by summing the net values of the commodity for each year between 1923/24 and 1932/33 and dividing by the number of acres in production over the same period (Table 2). The weights are used to reduce the crop and livestock statistics for each local government area to a common factor of revenue per enterprise. This is strictly a notional revenue. Variations in yields, in the quality of production, and in local specialities within an enterprise group are not considered. The notional values for the fourteen activities were summed and converted into percentages to create a regional economic profile for each district (Table 3).

The scope for distortion in these weightings is considerable. The data forces compromises by grouping different items into one class.

[6]Walker, R.G. "Australian Agricultural Statistics: Some Aspects of the Classification of Farms by Type", Australian Journal of Agricultural Economics, Vol. 2 (1958), 67-74.

Table 2 - Economic Weights for Tasmanian Agriculture

crops in £ per acre		livestock in £ per head	
potatoes	12.68	dairy cattle	8.53
turnips	4.86	beef cattle	5.92
wheat	3.43	sheep	0.68
oats	2.22	swine	3.56
barley	2.08		
peas	4.66		
hay	1.39		
market gardens	37.35		
hops	117.36		
fruit	22.61		

notes

1. barley includes both Cape and Malting barley
2. oats includes both Algerian and white oats
3. peas includes both grey and blue peas
4. hay includes straw and green fodder
5. fruit includes both orchard fruit and berry fruit
6. beef cattle are based on "other cattle greater than two years"

Table 3 - Calculation of Regional Economic Profile, Penguin 1926/27

	Unit Values		Notional Revenue	Percentage
potatoes	3,982 acres	=	50,492	60.2
turnips	6 acres	=	29	0.0
wheat	206 acres	=	707	0.8
oats	2,510 acres	=	5,572	6.6
barley	7 acres	=	15	0.0
peas	298 acres	=	1,389	1.7
hay	2,820 acres	=	3,920	4.7
market garden	2 acres	=	75	0.1
hops	0 acres	=	0	0.0
fruit	15 acres	=	339	0.4
dairy cattle	1,420 head	=	12,113	14.4
beef cattle	776 head	=	4,594	5.5
sheep	2,441 head	=	1,660	2.0
swine	829 head	=	2,951	3.5
			£83,856	99.9%

Sometimes the differences are minor such as the combination of blue peas and grey peas. Other combinations are more serious. For example, "sheep" includes both the wool and the meat sectors added together and related to the number of sheep in each district regardless of purpose. Intricate details of the major rural industries will be examined separately. This is arguably the better procedure in any case. Of more serious concern is the problem of the behaviour of the weights through time. It is possible that one commodity is on a downtrend while another is persistently improving its net return. The average values for the ten year period will distort the reality at all three cross sections. This problem is made worse by the inability to include data from 1933/34 onwards in the weightings.

No general application is advocated for these economic weights. They were developed for a particular economic environment from a set of statistics of local relevance. However, the values fall out in a logical hierarchy and bear some correspondence to other attempts to establish weights for crop and livestock statistics. A comparison of these values to two other weighting systems developed in Britain gave rank correlations of 0.78 with standard gross output and 0.91 with standard man days respectively.[7] Only seven activities could be directly compared which limits the validity of the Spearman rank correlation coefficient. Hops and beef cattle contained the greatest positive residual; dairy cattle the greatest negative. No useful conclusions can be drawn from these discrepancies as the three systems reflect conditions of different times and places.

The regional economic profiles were classified according to Weaver's method as modified by Coppock and Doi.[8] The method of classification introduced by Weaver was one which determined the number of crops that had the minimum squared deviation from standard models for a one-crop, two-crop, three-crop ... n-crop system. Coppock and Doi introduced minor refinements to the calculations. This technique was found adequate for describing the type of farming found within each municipality. The efficiency of the system was increased when wheat, oats and barley were grouped into a grain crop category and market gardens, hops and fruit into a horticultural category. Problems arose when the results were plotted on a

[7]Morgan, W.B. and Munton, R.J.C. Agricultural Geography, (London, 1971), p. 111.

[8]Coppock, J.T. "Crop, Livestock and Enterprise Combinations in England and Wales", Economic Geography, Vol. 40 (1964), 65-81.

map (Figure 2). The 42 agricultural municipalities were grouped into no fewer than 27 combinations. Only five of the groups had more than one member. Weaver's system had produced an areal classification rather than a regionalisation.

Weaver had found the same problem in the analysis of cropping patterns in the American Midwest.[9] He adopted the principle of disregarding rank order when mapping crop combinations as regional units. This procedure is not acceptable as rank order is an integral part of the criteria by which regions are understood. In any case, it was also ineffective for the Tasmanian data as it only reduced the number of groups by four. Another standard approach advocates the separate analysis of the first, second and third ranking crops. Figure 2 incorporates a division of the map into regions on the basis of the first ranking activity. It is not ineffective as a generalisation but it is difficult to extend this method into the second and third level activities without the adoption of arbitrary cut-off points. The solution adopted was to apply a grouping procedure to the regional economic profile in order to define precise regional limits.

Ward's algorithm is one of the simpler methods of hierarchical grouping. It calculates the squares of the deviations between every pairing of regional economic profiles, groups the most similar pairings into a new individual with shared attributes, and recalculates the squares of the differences for the modified data set. Successively, the 42 original municipalities are reduced one by one into twenty, ten, five and eventually one cluster. Error terms can be calculated for each level of clustering. The first linkage groups the two most similar areas but eventually the process starts to join districts with major differences. The last step combines the two most dichotomous groups. Plots of the error term are used to determine the level at which the clustering process can be stopped and the regional pattern extracted.

Doi, K. "The Industrial Structure of Japanese Prefectures", Proceedings I.G.U. Regional Conference: Japan, (1957), 310-316.

[9]Weaver, J.C. "Crop Combinations in the Middle West", Geographical Review, Vol. 44 (1954), 175-200.

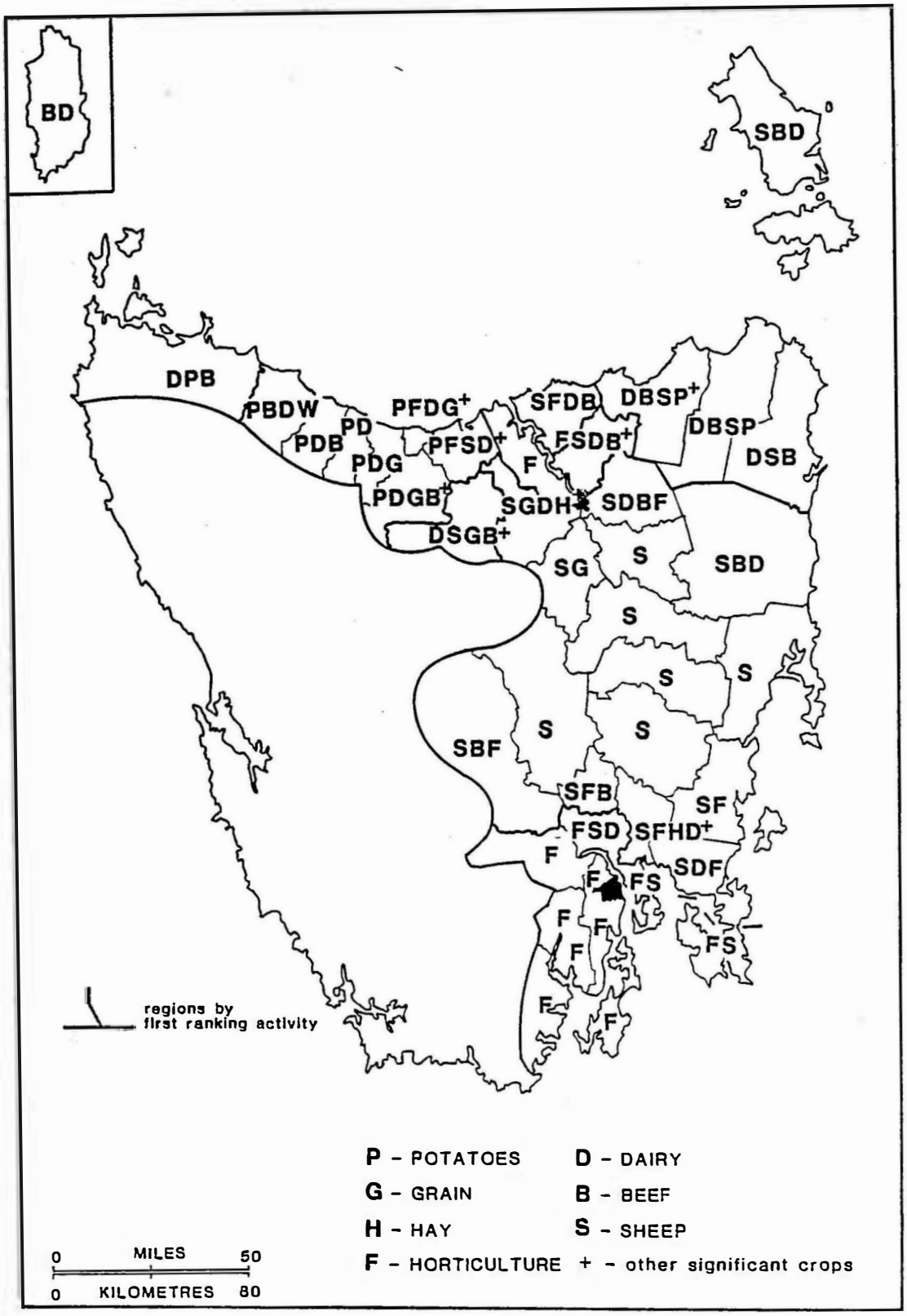

Figure 2 - Agricultural Classification of Tasmania 1926/27 (Weaver's Method)

Cluster analysis was applied to four different expressions of the regional economic profile viz:

(i) percentage data with 14 variables;
(ii) percentage data with 10 variables;
(iii) principal components scores derived from 14 variables;
(iv) principal components scores derived from 10 variables.

The original intention was to follow the procedures used by Cowen and Lovingood in an agricultural regionalisation of South Carolina.[10] This study applied principal components analysis/hierarchical grouping to income percentages for sixteen activities derived from United States farm census data. Examination of the four sets of results led to the decision to accept the simplest mathematical procedure applied to the simplest data set. The principal components approach was rejected for reasons that have already been discussed. The reduction from 14 to 10 variables had the effect of linking the New Norfolk hop economy into the fruit region rather than letting it remain a separate entity. In retrospect, it may have been possible to group additional minor activities for a cleaner solution. For instance, peas and hay could have been incorporated into the grain crop category. The principal components results link the distribution of these two crops with oats, wheat and barley in the first component. The assumption that peas were a vegetable crop was naive. Blue and grey peas by their nature, markets, etc. were a grain crop rather than a precursor of the present freezing and canning industry.

The differences between the percentage data results and the principal components solution were more numerous than expected. King compared the crop-combination regions for Ohio that were derived by Weaver, with maps produced through the hierarchical grouping of principal component scores of the same data.[11] There were few differences. In the case of Tasmania, the regional structure defined by the fifth cluster of the ten variable input gave the following pair of results (Table 4):

[10]Cowen, D.J. and Lovingood, P.E. "A Multivariate Approach to the Analysis of Changing Crop-Livestock Regions" in Adams, W.P. and Helleiner, F.M. (editors) International Geography, (Toronto, 1972), 709-710.

[11]King, L.J. Statistical Analysis in Geography, (Englewood Cliffs N.J., 1969), pp. 199-204.

Table 4 - Alternative Regional Structures for Tasmanian Agriculture

percentage data solution		principal components solution	
sheep	10	sheep	9 + 1 + 1
fruit	9 + 1	fruit	10 + 1
dairy/beef	3 + 1 + 1	dairy/mixed A	1 + 1
potato/dairy	7	dairy/mixed B	5 + 3 + 1
sheep/mixed	4 + 3 + 2 + 1	grain/mixed	4 + 3 + 2
	42 L.G.A.'s		42 L.G.A.'s

(Contiguous areas within the same cluster form an agricultural region. Labels are arbitrary but appropriate.)

The sheep and fruit groups are directly comparable. The two solutions in each case have nine local government areas in common. The other three clusters are defined differently and cannot be directly related. However, both procedures provided logical expressions of the structure of mixed farming in Tasmania.

The two techniques can be compared using the results for the Northwest Coast. The Weaver formula gave eight different codes to the eight municipalities between Circular Head and Latrobe (Figure 2). The first ranking crop splits the area into two regions: Circular Head with dairying and the other seven with potatoes. The percentage data solution also adopts this basic structure with Circular Head in one category linked to other dairy emphasis regions in the Northeast and King Island, and the seven other municipalities forming a potato/dairy zone unique to the Northwest Coast (Figure 3). One subregion can be identified. The two municipalities of the Lower Mersey Valley had an unusual diversity of farming systems with no fewer than eight significant activities. The principal components solution defined three regions and one subregion along the Northwest Coast. The individuality of the regional economic profile of Circular Head is once again apparent. The split of the remaining seven districts into a 3-3-1 format rather than a 5-2 format can be understood in terms of the percentage of total farm income derived from potato/dairy being progressively lowered as the grain/fruit/hay element increases in an easterly direction.

While the principal components solution is interpretable, the percentage data solution has given the more effective result. The percentage data approach had a tendency to build up extensive regions; the principal components method gave a more disjointed structure. The extraction of the seven municipality potato/dairy region is a case in point.

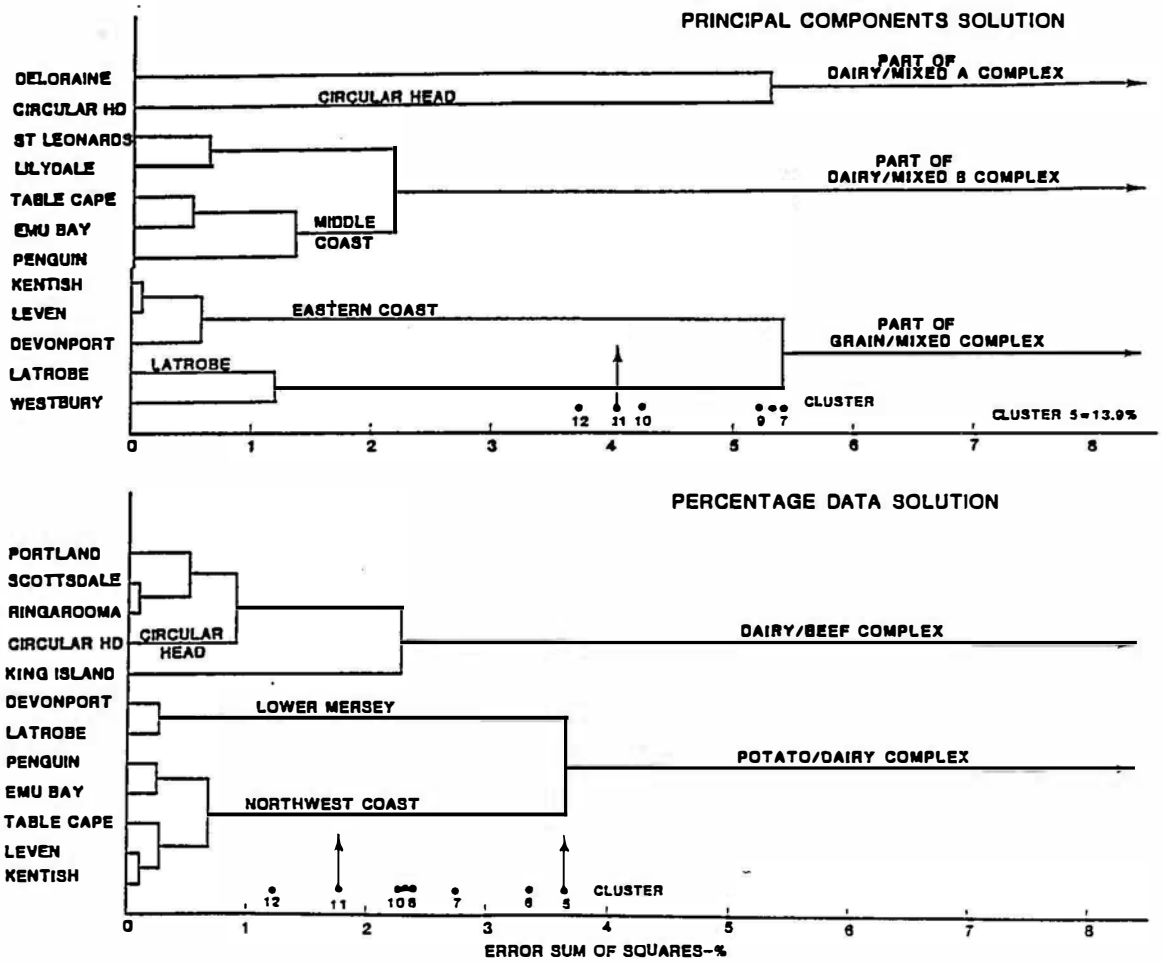

Figure 3 - Comparison of Alternative Regionalisations for the Northwest Coast 1926/27

There were no contiguity constraints within the clustering process though regional and subregional units were defined in terms of contiguous areas. All seven municipalities had their first linkage to another member of the group in the percentage data approach. A region was built up aligned precisely with the first ranking crop in the regional economic profile (Figure 2). The other approach created two regions with several early linkages to districts located in other parts of the state (Figure 3). The logic of these links was not determined. The similarities between St. Leonards - Lilydale and the heartland of the potato/dairy economy of Table Cape, Emu Bay and Penguin lies somewhere in the structure of the four component scores rather than in the regional economic profile. The local interpretation at both ends of this link can be understood. It hasn't necessarily affected the validity of the two localised units. What it has done has been to obscure the boundary conditions. Furthermore, the principal components solution throws up more regions giving eleven local zones on the Tasmanian mainland at the fifth level of clustering compared with nine for the percentage data approach. The discrepancy is enhanced by the fact that the sheep and fruit zones contain more local government areas concentrating the extra two regions into the northern half of the state. The same is true of the four subregions. Only one subregion improves detail within a major zone, the others further disintegrate the regional integrity of the North and Northwest. The favoured approach gives a more balanced distribution of regions and subregions.

1.3 Agriculture in Tasmania: Regions and Structure

The agricultural regions of Tasmania have been reconstructed at three intervals five years apart in order to determine the patterns of agricultural change between the pre-depression (1926/27), the depression (1931/32) and the recovery (1936/37) periods. The 1926/27 crop year was selected as the datum against which changes could be monitored for three reasons. Firstly, it was sufficiently remote from the end of the Great War for aberrations caused by short-term wartime disruptions to farming systems to have dissipated. Secondly, it was a fairly typical year. The net farm income of £5,093,620 was admittedly the second best year experienced in the 1920s but was only marginally (3.9%) above the average return recorded between 1923/24 and 1928/29. Finally, this was the year in which another set of valuable data first became available. The economic farm-type census classified holdings according to the systems that contributed a minimum of £100 to farm income. These data were a valuable complement to data sets derived from the crop and livestock returns.

The overall agricultural structure of Tasmania can be described by examining the distribution of net farm income (Table 5). The first column shows the actual partitioning of net farm income in 1926/27 while the second represents the hypothetical structure obtained when the average net returns were applied to the actual acreage and livestock statistics for 1926/27. The deviation between the two columns is to be expected as the price and yield structure for any individual year will be unique. For instance, this was the poorest wool season before the depression, below average for dairying but an excellent year for both potatoes and apples. The elimination of these annual fluctuations was the justification for establishing a system of economic weights.

The range of agricultural activities found within the Tasmanian rural system was extremely large. A test of the first column using Weaver's method gives an overall assessment of the state as a five-crop region viz: horticulture, sheep, potatoes, dairying and beef cattle. The weighted values reveals the same five basic activities though their order is altered to sheep, horticulture, dairy, beef and potatoes. Nevertheless, the structure was indisputable. Fruit and sheep each accounted for about a quarter of total rural output. A second tier of important activities was comprised of dairy farming, potatoes and beef. Each accounted for roughly an eighth part of

Table 5 - Agricultural Structure of Tasmania 1926/27

	Distribution of actual 1926/27 net income (%)		Distribution of weighted net farm income (%)	
potatoes	12.3		10.2	
turnips	0.6		0.5	
wheat	1.9		1.9	
barley	0.2	5.2	0.3	4.8
oats	3.1		2.6	
peas	2.6		2.0	
hay	3.4		3.3	
market gardens	0.5		0.5	
hops	2.9	27.4	3.8	22.2
fruit	24.0		17.9	
dairy	11.1		13.7	
beef	8.4		10.8	
sheep	26.0		29.2	
swine	3.1		3.3	
	100.1		100.0	

total production. All other activities combined form the third level and accounted for the final eighth. These crops were of great significance to many local regions especially in the North Midlands despite their minor contribution to the overall state economy.

Each municipality had its own regional economic profile. These generated a set of ten statistical surfaces for the state of which six are shown in Figure 4. Distinct core zones for the production of, for example, potatoes, grain crops and sheep products were delimited by isopleths showing the percentage of total income derived from each activity. The problem of agricultural regionalisation involved determining the most appropriate methodology for superimposing the ten individual statistical surfaces and, from them, extracting one map to represent agricultural regions. The application of Weaver's test to municipality data offered no solution in the absence of formal rules for grouping the 27 discrete codings into a suitable number of agricultural regions. Cluster analysis offered a means of comparing regional economic profiles in a systematic fashion. The state was divided into what would be regarded as major agricultural groupings at the fifth level of clustering. At this point, there was a break in the plot of the error term. The movement on to four clusters involved a trebling of the error term from 3.65 to 11.31 percent. In addition, there was no geographical merit in merging mixed farming districts defined primarily in terms of their dairy/beef element with mixed farming districts based on sheep/crop combinations. These same patterns occurred at the fifth level of clustering for the agricultural regionalisations of 1931/32 and 1936/37.

The fifth cluster defined nine major agricultural regions on the Tasmanian mainland (Figure 5). Detailed examination of the grouping tree within its spatial context suggested that a subregional structure could be defined by the eleventh cluster even though this point was not marked by any significant break in the trend of the error statistic. The eleventh fusion represented the last junction of an isolated municipality with its immediate neighbour. In this case, it brought Lilydale into union with George Town to the north and St. Leonards to the south creating a three municipality block along the East Tamar out of what otherwise would have been three separate units. The next two clusterings attached King Island and Flinders Island to the mainland. Extreme isolation had meant that agriculture on the Bass Strait Islands had evolved in a distinctive fashion. It had never been

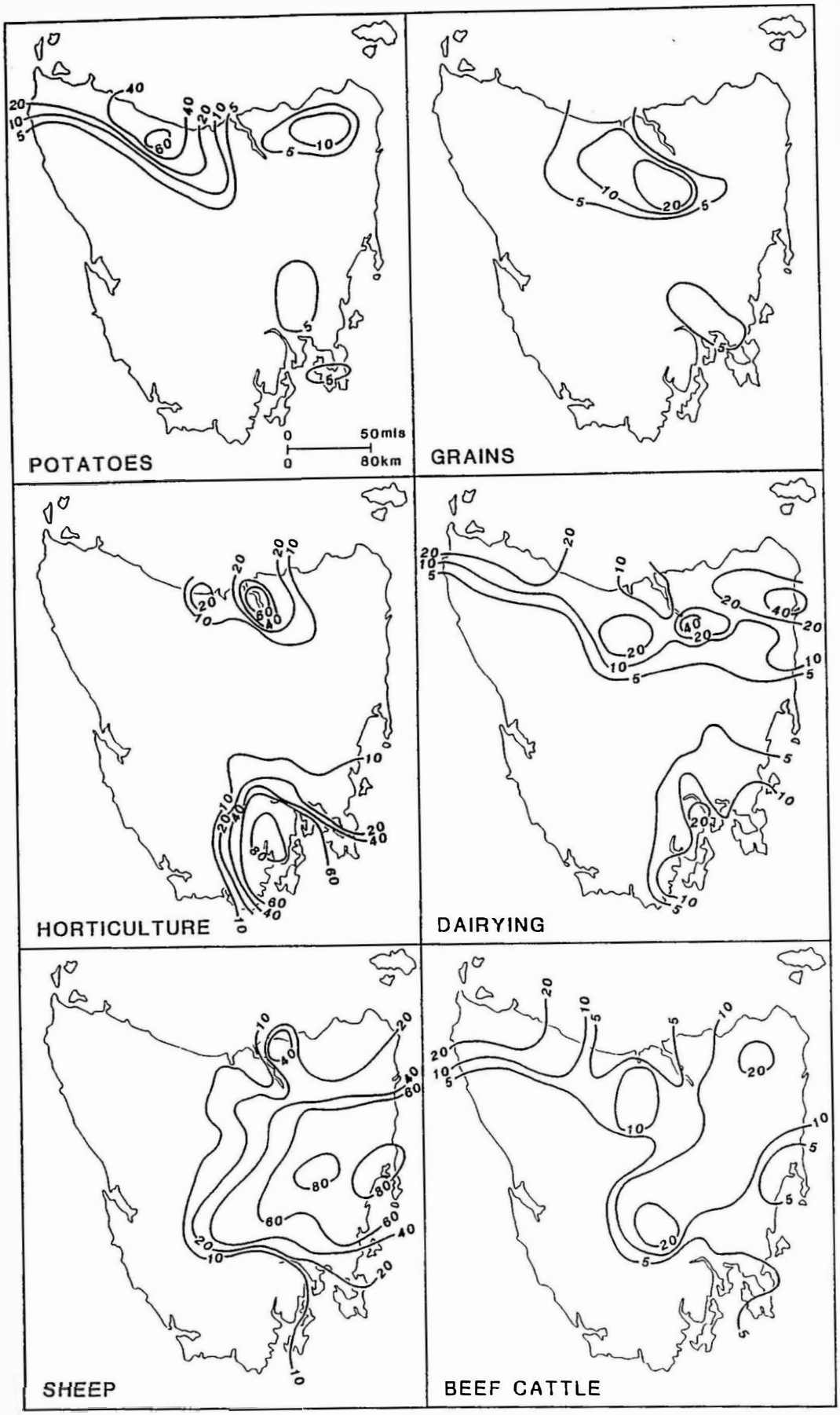

Figure 4 - Percentage of Net Farm Income Derived from Selected Major Activities 1926/27

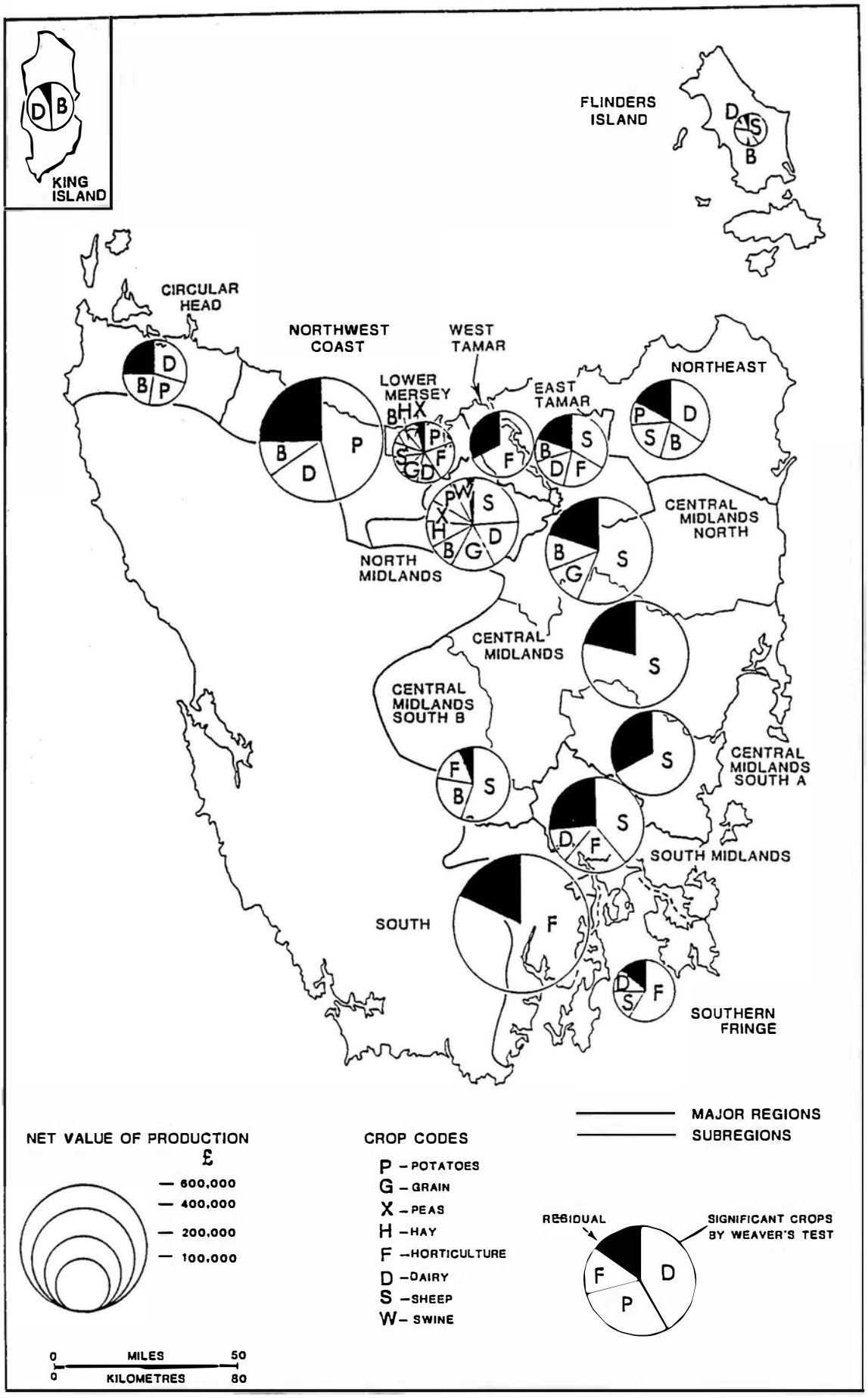

Figure 5 - Agricultural Regions of Tasmania 1926/27

intended to consider these two municipalities as anything but special cases; an intention confirmed by their late grouping with mainland agricultural regions. Subsequent clusters began to fuse subregions into regions. Hence cluster eight created the Midlands complex out of its four components and cluster seven merged the fruit districts of the South and Southern Fringe. These were not isolated districts but collections of linked municipalities of sufficient scale and integrity to be regarded as regional units.

Eleven clusters created the pattern of sixteen regional units shown in Figure 5. Nine major regions are also delimited to show how areas like the Northwest Coast and Lower Mersey or the South and Southern Fringe have merged by the time of the fifth cluster. There are underlying trends in this pattern of agricultural regions that confirm conclusions reached in previous studies. Griffith Taylor in 1930 claimed that Tasmania could be divided into three "... not very different agricultural regions".[1] These were the North Coast where potatoes were the characteristic crop; the Central Division which was primarily sheep with oats and wheat; and the South Coast where tree fruits and berries were dominant. Pastoralism in the Central Midlands and fruit in the South form the core of two major systems identified by Taylor. However, the seven regions strung along the North Coast cannot be grouped together by any simple cropping structure. These were a collection of mixed farming regions whose most important similarity was the fact that no single activity was dominant. The comment on the homogeneity of Tasmanian agriculture must also be rejected.

Scott in 1957 examined the distribution of cropland in Tasmania.[2] Once again, Taylor's threefold division was apparent in the distribution of the first ranking crop with hay along the northern coast, oats in the Midlands and tree fruits in the southeast. Hay in this case would be a reasonable surrogate for dairy cattle. Dairy cattle were a significant element in six of the seven regions along the northern coast in 1926/27 (Figure 5). Scott also noted a distinctive symmetry in the arrangement of agricultural regions in Tasmania. Agricultural structures tended to repeat themselves around two axes. One lay along the Tamar Valley. The other

[1]Taylor, G. "Agricultural Regions in Australia", Economic Geography, Vol. 6 (1930), p. 127.

[2]Scott, P. "The Agricultural Regions of Tasmania: A Statistical Definition", Economic Geography, Vol. 33 (1957), 109-121.

crossed the Central Midlands. This feature was very vivid in the data for 1926/27 with obvious analogies between Circular Head and the Northeast or between the North Midlands and the South Midlands.

These patterns were the product of land settlement and agricultural development during the nineteenth century. Reynolds has put forward a thesis that explained the evolution of much of the basic regional geography of Tasmania in terms of three frontiers.[3] The pastoral frontier, the small farmers' frontier and the mining frontier each left a legacy on the land in a different part of the island. Graziers moving out of the initial settlements at Hobart and Launceston occupied the savanna grasslands of the Midlands in the 1820s and 1830s. Wool for the mills of Bradford and wheat for the grain deficient colonies on the mainland were the central agricultural activities of Van Diemens Land. The landed proprietor and the hired labourer were the key elements in local society. In 1850, wool exports were worth £248,869 while grain and flour shipments totalled £118,444. These two activities accounted for almost sixty percent of total trade. The densely forested country south of Hobart and west of Deloraine was virtually unpopulated. Systems appropriate for the Midlands could not be transferred into country where one early surveyor reported 2,800 trees per acre.[4] Settlement of the lands beyond the Van Diemens Land frontier awaited the development of agricultural economies that were suitable for settlers taking up a small bush block. Developments in the 1880s finally made bush settlement profitable.[5] The export statistics of 1900 revealed the changing structure of Tasmanian agriculture. Fruit had replaced wool as the leading rural export while shipments of potatoes were twice the value of grain and flour. Taylor's "South Coast" region had emerged centred on the orchards

[3]Reynolds, H. "Regionalism in Nineteenth Century Tasmania", Tasmanian Historical Research Association, Vol. 17 (1969), 14-28.
Kellaway, R.G. "The Northwest and West Coast" in Aplin, G., Foster, S.G. and McKernan, M. (editors) Australians: Events and Places, (Sydney, 1987), 370-372.
Kellaway, R.G. "Launceston and the North" in Aplin, G., Foster, S.G. and McKernan, M. (editors) Australians: Events and Places, (Sydney, 1987), 363-365.

[4]Gunn, R.C. "Roads between the Mersey and the Leven", Journals of the House of Assembly: Tasmania, (1860) Paper 7.

[5]Kellaway, R. "Geographical Change in Tasmania 1881-1891", Australia 1888, Vol. 10 (1982), 38-49.

of the Huon and the "North Coast" had appeared with the development of potato and dairy farms along the Northwest Coast and in the Northeast.

The three basic regions identified by Taylor and Scott are derived from settlement history which in turn was related to the natural environment. The same is true of Scott's observation regarding the symmetry of agricultural regions around two axes. It is not my intention to examine these themes in any further detail. Nor is it my intention to describe the local regions as they existed in 1926/27. These agricultural regions have been constructed as an analytical tool for the purposes of studying a dynamic situation in the 1930s. Basic background material regarding farming patterns will be interwoven into the discussion where appropriate.

A regional breakdown of the manner in which farm income was derived from various activities gives only a partial insight into the nature of Tasmanian agricultural operations. Many other factors have to be considered to understand how the farm unit actually worked within the larger physical, economic and social framework. For purposes of convenience, the three traditional factors of production have been used to structure the remainder of this chapter. It soon becomes apparent that the separate analysis of land, labour and capital imposes artificial boundaries between what are highly interrelated factors.

The concept of "land" contained three components viz: the extent of agricultural land, its current and optimal potential for production, and its division into units of productive activity. Tasmania has a surface area of 16,778,000 acres. The amount of land occupied for agricultural or pastoral purposes in 1926/27 was 6,513,106 acres. Only of small fraction had ever been ploughed (589,086 acres) or laid down in pasture (544,647 acres) without ploughing. Most of the balance was used for grazing at stocking densities that ranged from one sheep per acre on the best country in the Midlands to as low as one sheep to ten or fifteen acres in rough forested country. The large amount of unoccupied land was seen as offering some scope for expanding the pioneer fringe. Most of the proposals verged on the ridiculous such as opening a million acres of button grass plains on the West Coast for cattle leases.[6] Others were more serious. The Lyons government

[6]"Department of Lands, Surveys and Closer Settlement: Report for 1926/27", Journals and Printed Papers: Tasmania, (1927/28), Paper 45, p. 1.

created the Crown Land Examination Board to assess the relative claims of forestry, mining and agriculture to the unalienated land resources of Tasmania.[7] Particular emphasis was to be placed on Wellington and Dorset counties in the northwest and northeast extremities of the island. These districts contained swamp country suitable for closer settlement and run country that could be improved by exotic grasses.

Most Crown land was remote from roads and markets and realistic opportunities for new settlement were limited. Better returns could be obtained from more careful management of the land already occupied. One hundred years of unsound agricultural practices had devastated the natural fertility of the wheatlands of the North and South Midlands. A much shorter period of abuse had led to the same result along the Northwest Coast where the blame was placed on the growing of oats and potatoes without any proper system of rotation. Yields of these crops had declined to such an extent that production was " ... perilously near the unprofitable stage".[8] Restoration of soil fertility was essential if Tasmania was to remain competitive on national and international markets. One approach to this problem involved minimal effort. A Devonport chemist had devised a secret potion - the Arnold Soil Formula - that was claimed to increase yields by a third.[9] In spite of the vigorous support that Arnold received from a small band of enthusiasts, the Department of Agriculture rejected this line of action. It preferred a policy of shifting the emphasis of Tasmanian agriculture away from soil depleting systems of cash cropping towards soil restoring systems of intensive livestock farming. The fostering of this process was the main function given to the Department following its restructuring in 1927.[10]

Other factors were also involved in reducing the quality of Tasmania's land resource. One was a critical problem in the Midlands where thousands

[7] [PD1-428] file 28/4/27, 15 November 1927.

[8] Development and Migration Commission "Interim Report on Investigation into Present Position of Tasmania", Journals and Printed Papers: Tasmania, (1927/28), Paper 8, p. 5.

[9] [AD9 712-5] file 3/7, "Arnold Soil Formula".
[PD1-419] file 118/15/26, 8 May 1926.

[10] "Department of Agriculture: Annual Report for 1928/29, Journals and Printed Papers: Tasmania, (1929/30), Paper 26, p. 3.

of acres of medium hill country were being overrun with sapling regrowth.[11] In the Northwest, this problem was replicated by the "blackberry farms" - holdings of 50 to 100 acres that grew little besides what was in fact, if not in law, the most serious of the noxious weeds.[12] Everywhere, there was the curse of the rabbit. Much of the bush that surrounded farming country was little more than a state-owned rabbit warren from which swarms would descend on the hapless farmer to destroy crops and pasture. It was estimated that rabbits ate the feed that could have supported another million sheep.[13] These problems were claimed to be the result of sloth on the part of farmers and a lack of foresight on the part of government.[14]

The third aspect of land involved its division into farms; the fundamental unit of rural production. Rural holdings in 1926/27 numbered 12,385 of which 8,640 were classified as commercial operations. The distribution of farm sizes was a result of nineteenth century settlement policies which had left the state with a number of problems. Some were derived from the policy of granting large estates during the 1820s. There were 250 properties in Tasmania that were over 5,000 acres in extent. These estates accounted for 48.5 percent of the total occupied area. Most were in the Midlands and were regarded by many observers as being farmed at levels well below their productive capacity. The Premier, J.A. Lyons, called for a Commonwealth Grant of £500,000 to allow the government to acquire 111,000 acres of land along the Main Line Railway for closer settlement.[15] This was another recognition of an often-identified problem though the proposed solution may not have been a sound proposition. However, there was no debate that there were too many small holdings in the state. There were 3,402 rural holdings of less than fifty acres and 2,192 holdings between fifty and one hundred acres in size. Together, they occupied a mere 3.4 percent of the agricultural land. Many were never intended to be commercial operations. For instance, the high rate of sub-commercial holdings in the five municipalities of the Central Midlands

[11] Mercury, 2 July 1929.

[12] Advocate, 8 February 1928.

[13] Winspear, R.W. Taking Stock: A Tasmanian Viewpoint, (Launceston, 1935), p. 10.

[14] Advocate, 8 February 1928.

[15] Lyons, J.A. "The Case for Tasmania: Appendix 17 - Outline of Proposals for Development", Journals and Printed Papers: Tasmania,

(42.2%) reflected the farmlets placed inside the townships to attract useful "country mechanics" to these districts in the 1820s and 1830s. Nevertheless, the operation of the Waste Lands Acts from 1851 onwards created a crazy patchwork of farms along the Northwest Coast and in the hill country of the Southeast. Many farms were restricted by size and topography to intensive activities such as berry fruit. Others were virtually abandoned. One witness appearing before the Commonwealth Public Accounts Committee called for the consolidation of these blocks, many of which were without a dwelling, into practical farms.[16]

"Labour" was the second of the three factors of production. The labour issue in the 1920s concerned both the quantity and quality of the agricultural labour force. In 1926/27, there were 16,340 males employed in agriculture. Most were farming on their own account or were relatives assisting without pay. Only 5,075 (31.1%) were employed on wages though this proportion would be increased if some assessment of seasonal labour could have been included. Male employment in agriculture had fallen by over two thousand in the space of five years. While the 1921/22 postwar peak of 18,693 would have been inflated by returned servicemen, this trend of falling employment in the agricultural sector was one of the more visible signs of decay in the Tasmanian economy. There was no evidence to suggest that mechanisation was displacing this labour. Almost half the job loss came from the dairying industry. The employment effect of another 23 milking machines would have been negligible.

One contemporary economic observer claimed that the output per male farm worker in Tasmania was between 60 and 65 percent of the Australian average.[17] The larger size of mainland farms and the higher degree of mechanisation accounted for some of the difference. However, it was also widely acknowledged that a lack of agricultural expertise was a major contributing factor to the low levels of labour productivity in Tasmania. An editorial in the Tasmanian Fruitgrower and Farmer examined the problems of farming and noted that many farmers carried out their operations following

(1925/26), Paper 52, pp. 28-29.

[16]Advocate, 1 March 1930.

[17]Billing, G.C. "The Productive Efficiency of Tasmanian Farming", Economic Record, Vol. 5 (1929) p. 277.

the "... old rule of thumb methods of their fathers and grandfathers".[18] It then went on to explain how some farmers were "... apathetic and will not take the trouble to learn while others are so conservative in their ideas -a conservatism that amounts almost to pigheadedness - that even when they possess the knowledge, they will not put it into practice".

Problems such as the declining yields of potatoes and wheat came from the failure of farmers to adopt modern methods. This failure can be attributed to three factors. Firstly, the demographic structure of rural areas worked against innovation. Rural areas in 1921 were dominated by males over forty-five years of age.[19] More detailed examination of tables in the 1921 census confirmed that older workers were over-represented in agriculture. These revealed that 34.0 percent of the agricultural workforce was over forty-five and 15.6 percent were over sixty. In fact, these figures understate the true situation. The 1921 census reflected the influx of soldier settlers. Many had given up farming by the mid-1920s. The tables were also inevitably biased by the large numbers of youths in the rural labour force who would fill out the subcategory "relatives assisting with or without wages". There were no age details for the various subgroups but the exclusion of persons aged less than twenty gave a rural workforce where 40.7 percent of adult farm workers were over forty-five.

These details would only be of academic interest but for the operation of two other factors. One related to low standards of education; the other to the effects of isolation. Both factors worked to limit the spread of new ideas. General and agricultural education levels in Tasmania were poor. The school leaving age was thirteen. Most left at this stage. Only 42.9 percent of the fourteen-year and 21.0 percent of the fifteen-year age groups were still receiving formal education in 1921. In the absence of detailed data, it can only be inferred that few of these were from country districts. The state high school system in 1926 consisted of five schools.[20] The two city schools contained two-thirds of the enrolment. Devonport (219

[18] Tasmanian Fruitgrower and Farmer, 1 March 1926.

[19] Farmer, R.S. The Geography of Migration in Tasmania, Ph.D. thesis, Geography, University of Tasmania (1968), p. 41.

[20] "Education Department: Report for 1926", Journals and Printed Papers: Tasmania, (1927/28), Paper 13, p. 13.

pupils), Burnie (75) and Scottsdale (70) were the country schools. The cost of boarding put serious limits on enrolments from country districts beyond the immediate vicinity of these centres.

Formal education was not highly valued by many members of the rural community. One typical viewpoint was expressed by a correspondent to the Advocate during the debate over the introduction of high school fees in 1931. It was pointed out that the pupil on leaving school had:

"... to get work on the farm, and therefore any higher education would only confuse his wits. Besides, the farmer does not want a scholar who would be resting and reading on the plough handles instead of doing his work".[21]

In fact, the education system had become aware of the need to teach courses relevant to the needs of the rural population.[22] An enthusiastic Inspector on the Northwest Coast had developed agricultural programmes for the primary schools that popularised basic concepts of modern agriculture and a new secondary course in agriculture had been developed for the Scottsdale High School. Attendance of boys from other districts was assisted by bursaries. It was not entirely fair to attack the school system for turning out "citified" scholars as was done by the Tasmanian Fruitgrower and Farmer.[23]

While these small developments would eventually have significant impact, it must be remembered that the legacy of the nineteenth century meant that Tasmania had very high levels of rural illiteracy. R.L. Robb, a visiting British agricultural scientist, put it politely in saying that the standard of education of the average Tasmanian farmer was not high.[24] The 1921 census reported that 7.4 percent of the total male population between 45 and 65 were unable to read. This was more than twice the national average. Likewise, the number of illiterates in the rural male population

[21] Advocate, 9 September 1931.

[22] "Education Department: Report for 1926", Journals and Printed Papers: Tasmania, (1927/28), Paper 13, p. 3.

[23] Tasmanian Fruitgrower and Farmer, 1 March 1926.

[24] [AD9 712-23] file 16/20, Robb, R.L. "The Grassland Possibilities of Australia", typescript dated July 1930.

over twenty (6.8%) was twice the national figure. The census definition represents the total absence of education. Functional illiteracy would be far higher. A large proportion of the rural population would probably have been unable to read the agricultural columns in the daily press.

Contemporary opinion was not hesitant in identifying areas that were particularly backwards. These were generally districts where the spread of improved methods was hindered not only by the low level of education but also by isolation from contact with new ideas. A correspondent writing to the Advocate highlighted the problem:

"Off the beaten track in the Huon, at the back of Sheffield, and in outlying parts of other regions of this state the hill country sheltered from progress the inhabitants, who were cut off in their environments from contact".[25]

While this correspondent expected improvement as motor transport decreased the isolation of the hill-country farmer, Scott writing in the 1950s was able to correlate results on a standardised school test with the general level of agricultural development.[26]

Attempts were being made in the 1920s to try to overcome some of the above problems. The introduction of agricultural education into the schools was one line of progress. Another was to improve rural education generally by amalgamating one-teacher schools into a central facility.[27] These were obviously long term projects. A more immediate response was to promote farmer education. In 1925, the Department of Agriculture and the Development and Migration Commission cooperated in setting up the Agricultural Bureau.[28] This followed a scheme developed in South Australia which involved local groups of farmers meeting on a regular basis to discuss and evaluate new trends in agriculture. Local branches often organised

[25]Advocate, 11 September 1937.

[26]Scott, P. "An Isonoetic Map of Tasmania", Geographical Review, Vol. 47 (1957), 311-329.
Scott, P. "The Geographical Distribution of Intelligence", Australian Journal of Psychology, Vol. 9 (1957), 41-46.

[27]"Education Department: Report for 1926", Journals and Printed Papers: Tasmania, (1927/28), Paper 13, p. 2.

[28][NS·901] file "Agricultural Department", 5 January 1926.

practical experiments and assisted schools with the development of an agricultural programme. The original focus of branch activity was in the troubled potato country of the Northwest Coast (Figure 6). Ten of the seventeen branches existing in 1927 were along the Coast. Five of these were in the Circular Head municipality, a district known for its large number of innovative farmers. In 1928, the movement had 2,000 members mainly in the north.[29] The expansion into the south took place in 1929 and 1930. Branches were found in almost every agricultural district including many of the most backward.

Another means of educating the farmer was through the District Agricultural Officer. Before the reform of the Department of Agriculture in 1926, most of the work of the Department was regulative. There was only one field officer to act as a source of advice on practical farming problems. Premier Lyons submitted in the "Case for Tasmania" that the community had to pay the cost of providing expert assistance to agriculture in order "... to put these fundamental industries on a sound and scientific basis".[30] This argument was accepted by the Lockyer Inquiry and the Commonwealth. Federal funds were made available to double the budget of the Department of Agriculture which allowed inter alia the appointment of seven District Agricultural Officers to start work in 1928.[31]

The District Agricultural Officer was an important catalyst in the spread of modern farming knowledge. George Salier, a prominent farmer from Scottsdale gave evidence to the Public Accounts Committee that called for the appointment of more extension officers.[32] He claimed that farming practices in the Northeast had been revolutionised through the work of Mr Hicks, the District Agricultural Officer. However, the system was not without its critics. Many farmers disliked the use of experts who had no experience of real farming.[33] This case was most colourfully put by Mr

[29] Mercury, 1 January 1929.

[30] Lyons J.A. "The Case for Tasmania: Appendix 17 - Outline of Proposals for Development", Journals and Printed Papers: Tasmania, (1925/26), Paper 52, p. 29.

[31] Mercury, 1 January 1929.

[32] Mercury, 18 February 1930.

[33] Advocate, 3 September 1927.

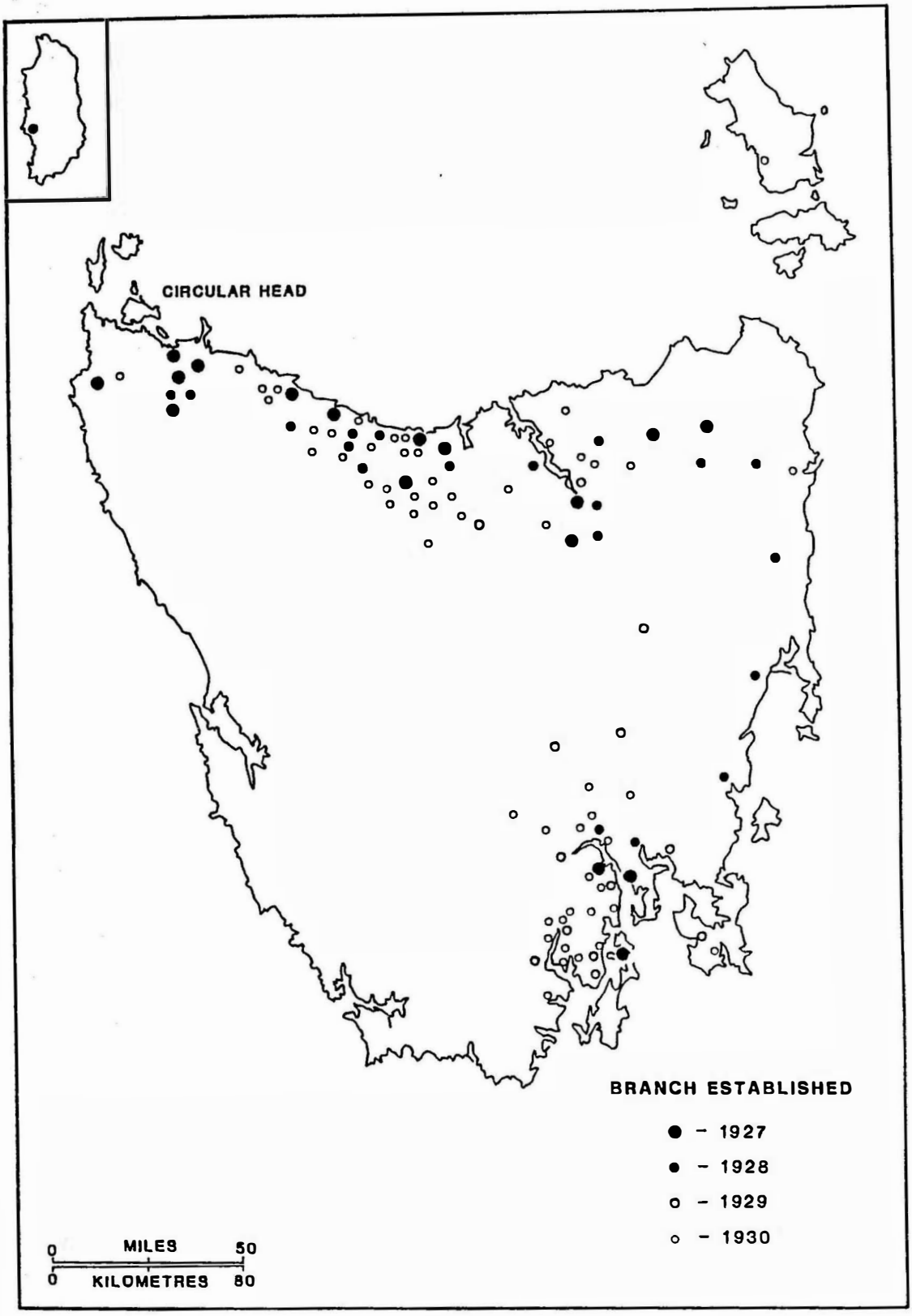

Figure 6 - Distribution of Agricultural Bureau Branches 1927-1930

W.H. Sayer, a father of ten from a ninety acre block that he had rescued from blackberries who saw "... forty diplomas running around Tassy! Stop this waste of thousands of pounds and the appointment of about forty experts with all their diplomas".[34]

"Capital" is the third factor of production. The central problem was that farm incomes were low. The regional expression of this problem can be seen in Figure 7. This map shows the notional income per rural holding at the municipality level. It must be stressed that this is strictly a map of the application of a revised set of standard economic weights to the crop and livestock statistics for 1926/27. The revision involved a restriction of the basing period for determining the weights to five years (1924/25 to 1928/29). The aim was to assess income patterns that were typical of the middle twenties. It was not a map of the actual income derived in 1926/27. The average net income per farm was in reality 8.2 percent greater than the notional average of £380.

Low incomes resulted from small farms. The aim of land settlement policy from the time of the Pre-emptive Rights Regulation of 1851 onwards had been to encourage native born Tasmanians to consider bush settlement as an alternative to emigration. It had become customary for settlers to take up land with insufficient capital and these resources were soon exhausted by the costs of clearing and developing a farm.[35] There were a large number of partly-developed farms where the costs of running the entire operation had to be carried by a few acres of productive land. This problem was compounded by the lack of working capital which forced farmers to adopt poor methods which soon became accepted as normal. In turn, these reduced the yield, trapping the settler in his poverty. Many farmers in the back country of the Northwest Coast were reported to be struggling along on returns of less than £100.[36] Others had allegedly abandoned their land to their creditors and either shifted to the towns or left the state.

The map of notional farm income (Figure 7) showed that all the bush settlement areas of the late nineteenth century had below average incomes.

[34]Advocate, 5 September 1927.

[35][AD9 712-79] file 29/9, 3 July 1933.
[AD9 712-48] file 3/9, 27 November 1934.

[36]Examiner, 24 February 1930.

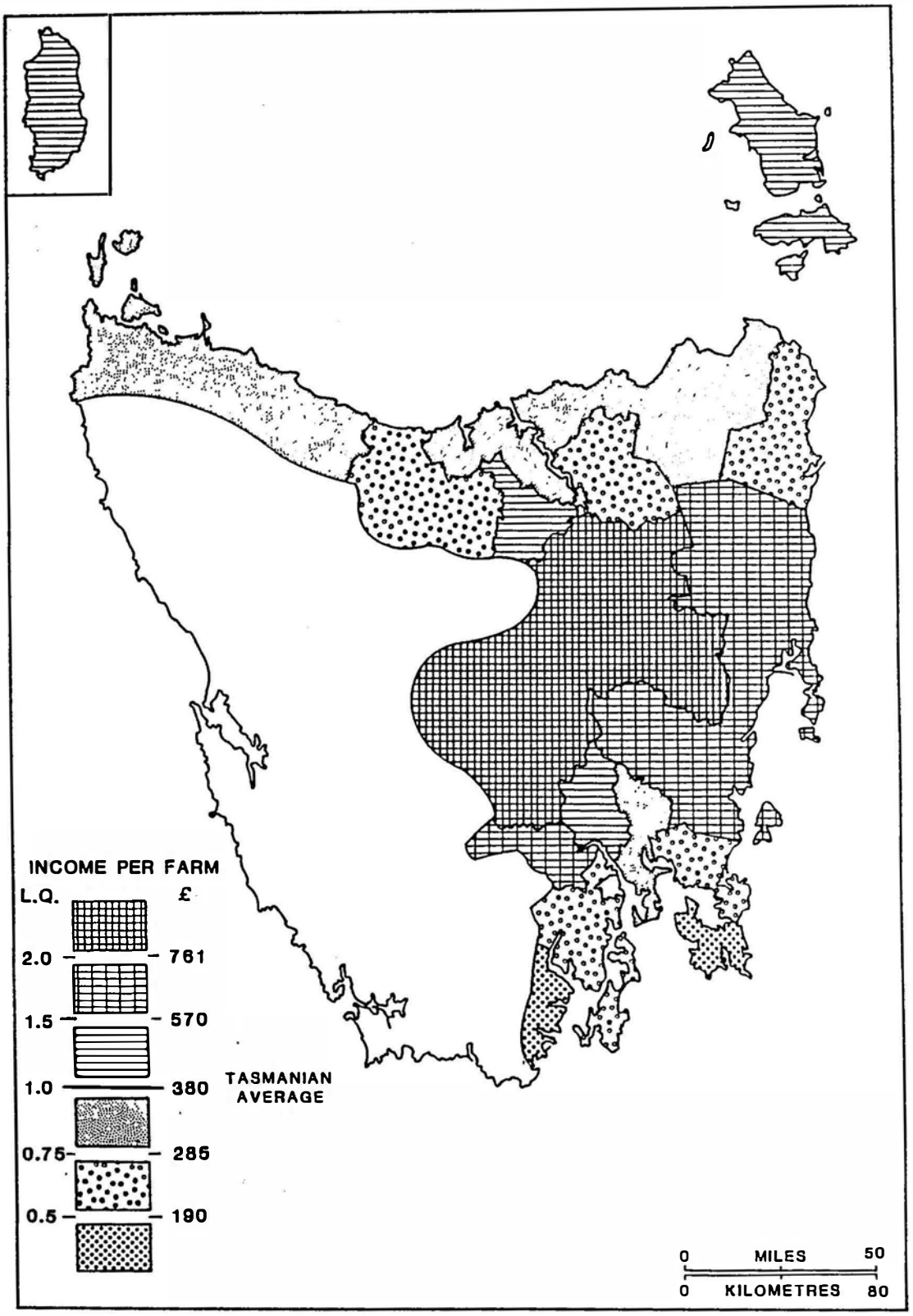

Figure 7 - Notional Farm Incomes 1926/27

The country behind Devonport with its heavy emphasis on potatoes, hay and oats was more severely stressed than districts further west where dairy farming was more important. The total income derived from all agricultural (cropping) activities in 1926/27 divided among all male agricultural workers gave £150 per capita. Dairying and fruit gave returns per male worker of £353 and £367 respectively. These are probably overestimates of the real situation as the dairy industry employed a large number of females and the fruit industry had to meet the costs of an army of pickers. The notional income per rural holding (Figure 7) placed the Southeast and Huon at levels 25 percent below the state average. The proceeds of pastoralism shared among the estate owners and workers yielded £766 and the notional income per rural holidng peaked at £1,902 in Ross and £1,937 in Bothwell despite the large proportion of non-commercial farms in these districts. This is not to say that the pastoral sector was without financial problems. One of the more important was that land values in the Midlands bore little relationship to the productive capacity of the property. Graziers had to carry an interest burden based on the prestige of their industry.

However, public attention was focused on the plight of the potato grower and small orchardist. Cheap rural credit was one means of assisting a debt-ridden farmer but the Agricultural Bank was virtually inactive. In 1922/23, it lent a paltry £9,394 compared with £1,428,882 and £1,417,646 for similar institutions in Western Australia and South Australia.[37] The building up of the Agricultural Bank was the policy of the Lyons Labour government and this was slowly achieved. However, the amount of available credit was only one factor. The level of interest rates was another important consideration. It was argued by H.A. Nicols, M.L.C. that the interest rate of 7.0% on Agricultural Bank loans, while adequate for established farmers, was an impossible burden for settlers clearing land.[38] Nicols also pointed out that loans were limited to capital projects. Loans for working expenses would be useful for the small farmer especially as he could avoid selling his crop on a poor market in order to meet day to day liabilities. As it was, most farmers were financed by the merchants who handled their crop.

[37] Advocate, 28 January 1925.

[38] Advocate, 1 September 1927.

The poor performance of the rural economy was recognised as being a central component of the whole "problem of Tasmania" issue. Loans to farmers regardless of the interest rates would have minimal impact on total agricultural productivity unless they could be related to a strategy for changing the overall direction of Tasmanian agriculture. One of the most important features of the mid-1920s was the development of this strategy and the placing of the state on a particular pathway to agricultural reform. The salient features of the evolution of these policies form an appropriate conclusion to this general survey of Tasmanian agriculture.

The first version of the plan bore the imprint of Dr S.S. Cameron, head of the Victorian Department of Agriculture. Cameron was invited to Tasmania by the government of J.A. Lyons in 1925 to report on the deteriorating agricultural situation.[39] Cameron concluded that the commodities produced in Tasmania could be divided into products that were sold on the domestic market and products that were exported overseas. In his view, the aim of agricultural development should be to increase the production of commodities that had a proven export record from Australia (i.e. wool, wheat, lamb, fruit and butter) or that could be worked up into a profitable export trade (i.e. peas and eggs). The Department of Agriculture would be reorganised with the brief to develop these industries and to make them more efficient. Crops produced primarily for the domestic market (oats, barley, potatoes and hops) were to be reduced. Cameron believed that they would continue to suffer from large swings in price and acreage due to the lack of the smoothing effect caused by export parity.

Cameron's report was immensely influential. The position of Director of Agriculture, which had been left vacant for several years for reasons of economy, was filled in 1926. Frank E. Ward was appointed to the post with a mandate to reorganise the Department, to promote research, and to develop farm liaison activities.[40] Lengthy extracts of the Cameron report were incorporated by Sir Nicholas Lockyer into his report to the Commonwealth on the financial crisis in Tasmania.[41] Lockyer argued that an

[39] [PD1-449] file 118/3/26, 21 January 1926, Cameron, S.S. "Report on Agricultural Production in Tasmania", pp. 10-12.

[40] Mercury, 1 January 1927.

[41] Lockyer, Sir Nicholas, "Financial Position of Tasmania", Journals and Printed Papers: Tasmania, (1925/26), Paper 53, pp. 5-10.

interest-free loan of £1,000,000 should be made available for rural development over a ten year period. The Commonwealth was unable to accept this recommendation but made large tied and supervised grants to Tasmania for agricultural purposes. The Development and Migration Commission, in particular its director Mr. H.W. Gepp who was formerly a manager of the Electrolytic Zinc works at Hobart and Dr. G.F. Findlay, an officer of the Commission became involved with the Department of Agriculture in implementing a developmental strategy.

Cameron's report had been seriously flawed by his enthusiastic advocacy of wheat farming in the Midlands. Wheat production had declined from an average of 60,569 acres n the 1890s to an average of 21,477 acres in the 1920s. Cameron was not alone in wanting to restore wheat production to its former level. However, other authorities recognised the futility of this proposal. Ward was a native Tasmanian but had spent most of his professional career with the New Zealand Department of Agriculture. Findlay's personal antecedents are not known but the plans which he drafted for the Development and Migration Commission drew upon the precedent set in New Zealand of grassland farming.[42] His experience in Tasmania had involved work on the Northwest Coast while helping to organise the Agricultural Bureau.[43] The policy that these two men devised for the development of Tasmanian agriculture focused on the replacement of cash cropping with livestock systems. Their aim was to build up a grassland farming sector throughout the northern half of the state. Dairying and fat lamb would help to restore fertility to land depleted by continual cropping and would also provide farmers with a means of diversifying their income away from the declining market for oats and potatoes. It was confidently predicted that, within a few years, grassland farming would "... become the backbone of Tasmanian agriculture".[44] This plan, although designed in the mid-1920s, was to be of tremendous importance to the evolution of Tasmanian farming over the depression decade.

[42] [PD1-427] file 22/2/27, 29 April 1927, Findlay, G.F. "Interim Report into Present Position of Tasmania".

[43] [PD1-427] file 22/7/27, 25 November 1927.

[44] "Department of Agriculture: Annual Report for 1928/29", Journals and Printed Papers: Tasmania, (1929/30), Paper 26, p. 3.

CHAPTER TWO - AGRICULTURAL SYSTEMS AND PROBLEMS IN THE 1920s

2.1 Potato Farming

Potatoes were established as an important part of the farm economy in the 1850s. The crop was well adapted for pioneer conditions along the Northwest Coast as a small parcel of poorly cleared land could produce potatoes far more efficiently than it could produce wheat. The potatoes could then be carted to a nearby port and shipped to the rapidly growing market of Melbourne. This provided a basic income for a settler located on a typical 80 acre bush block. In the 1880s, the development of an integrated system of railways and ports allowed the potato trade to expand and become the regional staple.[1] By the turn of the century, the Northwest Coast was growing 18,163 acres of potatoes which was 67.4 percent of the Tasmanian crop. The Northwest Coast had become the main potato exporting region of Australia with small farms between Latrobe and Circular Head producing a large part of the table potato requirements of Sydney, Melbourne and Brisbane.

In 1926/27, the Northwest Coast contained 76.3 percent of the total acreage of potatoes (Figure 8). Potatoes were a central element in the farm economy of each of the eight municipalities and three formal regions along the Northwest Coast. Elsewhere, potatoes were important in three other districts but at a much lower level of intensity. Potatoes were ranked seventh in the activity listing for the North Midlands (Figure 5). This region grew 4.8 percent of the state's potatoes, mainly on the chocolate basaltic soils to the north and west of Deloraine in areas immediately adjacent to the main potato district. Another 5.2 percent of the acreage was found in the Northeast. While the amount of potato farming was sufficient to make potatoes the fourth ranking industry in the region, potatoes were actually only found on limited outcrops of basaltic soils where farming systems could replicate the potato/dairy economy of the Northwest Coast. The final area in which potatoes played an important role in the farm economy were in the municipalities of Oatlands and Richmond. This combination of municipalties is not a formal agricultural region but merely an ad hoc recognition that districts east of the Main Line Railway between

[1]Kellaway, R. "Geographical Change in Tasmania 1881-1891", Australia 1888, Vol. 10 (1982), pp. 43-44.

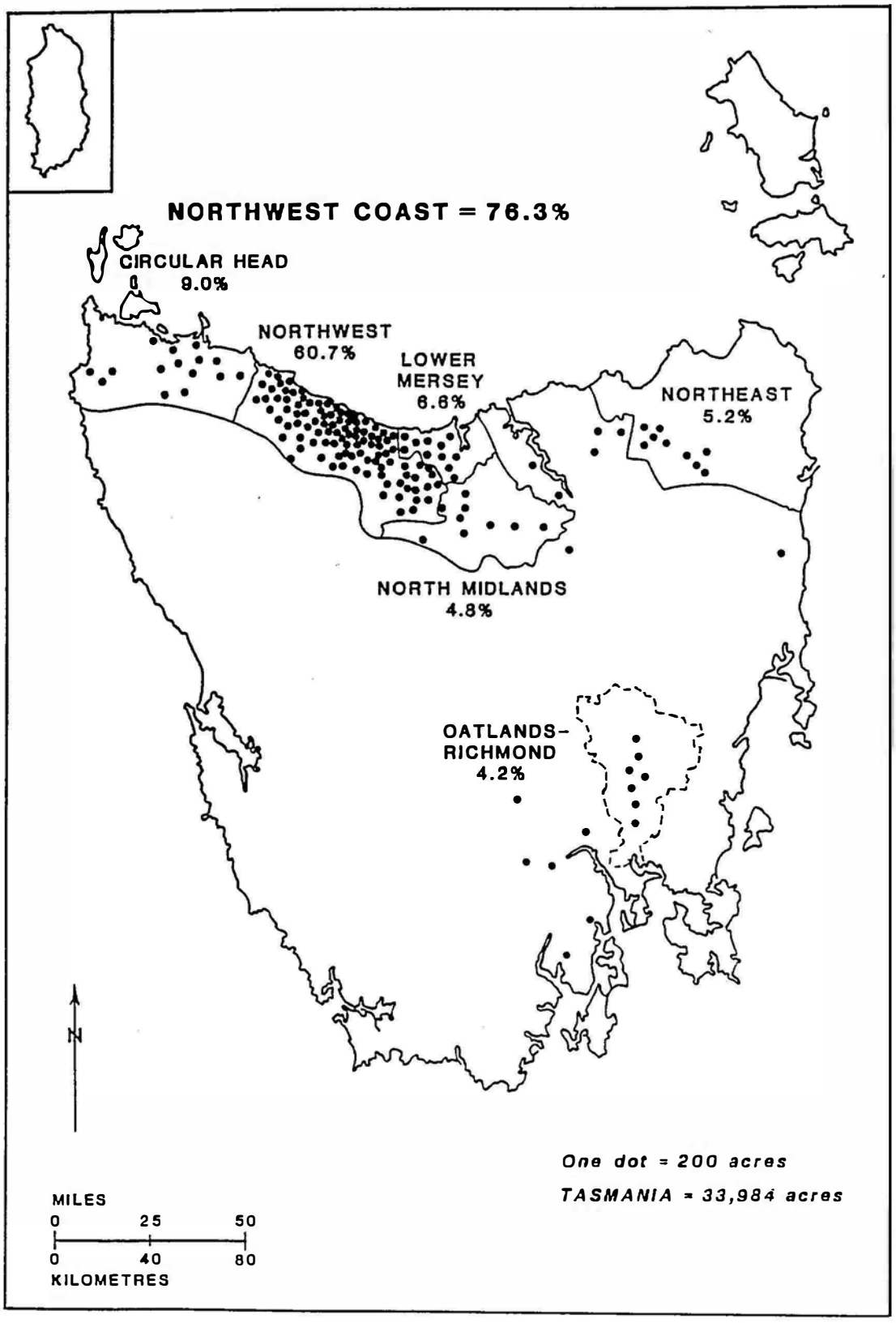

Figure 8 - Potato Farming in 1926/27

Parattah and Colebrook grew 4.2 percent of the crop. Almost all of the output were seed Bismarcks for use in early districts along the Northwest Coast. Farms scattered throughout the rest of the south grew the whiteskin potatoes favoured by the Hobart market.[2]

The nature and intensity of potato production in the dominant zone along the Northwest Coast varied in two directions. Variations in the east-west trend can be seen in the agricultural regionalisation. All of the agricultural regions found along the Northwest Coast had potatoes as a basic defining element. Potatoes were the most important crop in the Northwest Coast potato/dairy region. The highest intensity of production was recorded in the municipalities of Penguin and Emu Bay. Farming in these two districts was virtually a potato monoculture. Potatoes accounted for 60.2 percent of regional farm income in the former and for 51.4 percent in the latter. Dairying was a minor secondary activity nearer the coast with some beef cattle in higher inland districts. The other three municipalities also had potatoes as their major crop but at a lower level of dominance. Balance was provided by dairying in the Table Cape district and by grain crops, hay and peas in Leven and Kentish.

There was a rapid fall off in the importance of potato farming outside the Northwest Coast potato/dairy region. Circular Head had a diversified structure in which potatoes assumed a role within the threefold division of the local economy into dairying, potato, and beef cattle sectors. There was also a large residual term. Circular Head was a region where other root crops were common. Potatoes (3,042 acres) were complemented by 1,867 acres of turnips and 20 acres of carrots. Potatoes were found on red basaltic soils; the minor root crops were apparently concentrated on farms on the Welcome and Mowbray swamps.[3] Potatoes were also the first ranking crop in the Lower Mersey region but contributed only a small proportion of regional farm income. Farming systems were highly diversified with no fewer than eight activities forming the Weaver classification for the combined municipalities of Devonport and Latrobe. Potatoes in association with sheep, dairy cattle and grain crops were mainly found on the larger farms to the east of Latrobe.

[2]Mercury, 16 February 1928.

[3]Ward, F.E. "Agriculture in Tasmania", Handbook for Tasmania: ANZAAS 1928, (Hobart, 1928), p. 62.

Production decreased in intensity and changed in character with distance inland from the coast. The most intensive areas were within nine miles of the sea and under 900 feet in altitude.[4] Potatoes would normally disappear about 20 miles inland. First class land in improved condition near the coast was valued at £30 to £35 per acre.[5] More remote farms, partially cleared, brought only £7 to £8 per acre. The reasons for this discrepancy in value are obvious. Farms near the coast were located on the most fertile soils, were in close proximity to ports and towns, and had been settled and developed for two or three generations. At higher elevations, the red soils on basalt faded into the less fertile brown soil series. There were also additional climatic hazards which restricted cropping to main season Brownells. Distance to ports was of decreasing significance with the spread of motor transport though earlier conditions of cart and rail transport meant that the original settlement of much of the back country had occurred only since the turn of the century. Many of these farms were only partly cleared with the majority having only fifteen to twenty acres under cultivation.[6]

Farms at higher elevation did have one advantage. They could produce, or were believed to be able to produce, disease-free seed potatoes for sale to growers more favourably situated for the production of market potatoes. Inland areas along the Northwest Coast produced seed for the Brownell main crop while Bismarck seed was railed north from the specialised seed farms in the high districts southeast of Oatlands. The concept behind this particular organisation of the potato industry was the belief held by many Northwest Coast farmers that seed should proceed from "... a poorer to a better soil, and from a colder to a warmer climate".[7] Some authorities such as the Victorian Potato Expert claimed that there was little evidence to support the theory though C.E.W. Oldaker of the Department of

[4]Lowndes, A.G. and Maze, W.H. "Land Utilization Regions of Tasmania", University of Sydney Publications in Geography 4, (Sydney, 1937), pp. 15-17.

[5][AD9 712-22] file 15/17, 16 October 1929.

[6]Development and Migration Commission "Investigation into the Present Position of Tasmania: Fifth Interim Report (Internal Transport)", Commonwealth of Australia Parliamentary Papers, (Session 1929, Vol. 2), p. 1742.

[7]Advocate, 15 January 1929.

Agriculture stressed the advantages of seed secured from high altitudes.[8] The cooler climate helped to limit the insects that could transmit the potato blight. This altitudinal zonation was a part of the British potato industry and was incorporated into the certified seed schemes developed in Tasmania during the 1930s.

The output of potatoes in 1926/27 was 114,000 tons. This was a postwar record and came from an acreage similar to that which had produced 67,000 tons the previous year. It was fortuitous that the good season in Tasmania coincided with below average crops in Victoria and New South Wales.[9] Some sales in January were as high as £20 per ton though the seasonal average was only £7 10s. While this was low, the trade was profitable. This was not usually the case. One estimate of a break-even point for a three ton per acre crop was £7 3s 4d.[10] In three of the preceding six years, the seasonal average price was below this value. In two, it was actually below £6. A fourth year was marginal but probably unprofitable given the low yield of 2.3 tons per acre. The poor performance of the potato industry led to the Northwest Coast being frequently identified as one of the crisis regions of Tasmanian farming. Notional farm income in the five municipalities most involved with potato farming was £260. This was 23.5 percent below the Tasmanian average.

Three aspects of this problem deserve attention. The first is low yields. The average yield in 1926/27 was 3.5 tons per acre. This was the highest yield recorded for sixteen years but was still deplorable when compared to the yields obtained in the early 1900s or when measured against yields overseas. For instance, it was less than half of the English level.

The coincidence of declining yields and the arrival of Irish Blight in the years before World War I is interesting but largely irrelevant. The old Agricultural and Stock Department felt that blight and other pests played only a minor role in the pattern of declining yields. More blame had to be placed on the potato growers of the Northwest Coast who showed a long

[8]Advocate, 15 January 1929.
Mercury, 2 August 1929.

[9]Advocate, 7 January 1928.

[10][AD9 712-28] file 18/32, Development and Migration Commission "Notes on the Potato Industry of Australia", February 1930.

standing "... indifference to the humic content of the soil".[11] The organic content of the red basaltic soils could be easily depleted. Forty years of continuous cropping in some districts had taken a toll of the natural fertility. Agricultural advisers drew attention to the need to rotate potatoes with green crops and to apply natural and artificial fertilisers.[12] Both practices had once been uncommon in the Tasmanian potato belt. However, fertilisers had spread rapidly with the opening of the E.Z. superphosphate plant in 1923 though it was still the case that the use of fertilisers by a few farmers on the Mowbray Swamp was regarded as unusual enough to receive comment in the press.[13]

Another major cause of low yields was the use of degenerate and diseased seed. All seed in Tasmania came from commercial stock.[14] Some farmers would buy seed from specialised seed growers with a good reputation. Others would buy seed paying attention to price rather than quality while the observed practice on many farms was to reserve some of their crop for use as seed. This was an unsound practice. It was made worse by the tendency of farmers to sell everything marketable when prices were good and to use chats and other castoff potatoes for the next crop.[15] Commentators repeatedly pointed out the need for improved seed selection.[16] One interesting proposal was for the government to establish a "stud" seed farm from which farmers could buy small lots to propagate their own seed.[17] While it would not be a proper certified seed, it should remain true to type for some time.

The Director of Agriculture argued that a yield of eight to ten tons

[11]"Agricultural and Stock Department: Report for 1917/18", Journals and Printed Papers: Tasmania, (1918/19), Paper 16, p. 2.

[12]"Annual Report of the Department of Agriculture 1924/25", Journals and Printed Papers: Tasmania, (1925/26), Paper 20, p. 2.

[13]Advocate, 13 January 1927.

[14][PD1-452] file 118/47/28, 10 November 1928.

[15][AD9 712-71] file 18/23, 27 August 1934.

[16]Advocate, 8 January 1927.
North Eastern Advertiser, 10 June 1927.

[17]Advocate, 15 January 1927.

per acre could be achieved with improved methods.[18] The aim was not to increase the production of potatoes but to convert land into other activities. These would increase and diversify the farmer's income and would also assist in restoring soil fertility. The main benefit specifically for potatoes in a higher yield would be in spreading the fixed costs of production over a larger output from each acre.

The Australian market would have been unable to absorb any additional production. In an average year, potatoes were in marginal oversupply. A good season in several states would clog the market and drive prices below a payable level. A bad season would give those lucky or skilled farmers who had produced a crop an opportunity to recoup some of their losses. It is not surprising in these circumstances that the Tasmanian potato industry and the economy of the Northwest Coast were in a perilous condition. Nor is it surprising that marketing issues were of major concern to the industry and the state.

About ninety percent of potato shipments were sent to Sydney with most of the balance consigned to Brisbane.[19] The Melbourne market was, in essence, preserved for Victorian producers. Competition on the Sydney market was intense. Mainland growers had the advantages of lower freight costs; Tasmanian growers had the advantage of producing the Brownells and Bismarcks preferred by the Sydney consumer. Occasionally, there were imports from New Zealand. In 1926, Tasmania complained to the Tariff Board that potatoes were being dumped on the Australian market and called for the duty to be raised from £1 to £4 per ton.[20] The Tariff Board set up an enquiry to assess the proposal.[21] The Board heard evidence that showed that New Zealand whiteskin potatoes were not in direct competition with Tasmanian redskins and that most of the difficulties of the Tasmanian potato industry were due to inefficiencies in local production and marketing. However, the Board agreed to lift the duty to 50 shillings.

By the time the Tariff Board published its findings, the tariff issue was irrelevant. The problem had been solved in another fashion. Corky

[18]Ward, F.E. "Agriculture in Tasmania", Handbook for Tasmania: ANZAAS 1928, (Hobart, 1928), p. 64.

[19][AD9 712-31] file 20/14, 17 February 1930.

[20]Advocate, 26 January 1927.

[21]Tariff Board "Potatoes: Report and Recommendations", Commonwealth

scab had been found in New Zealand and imports prohibited.[22] This was despite the fact that corky scab was endemic in Tasmania. Its presence had actually been used by the Victorian Department of Agriculture to block Tasmania's access to the Melbourne market. This policy was strongly resented by Tasmanian producers who argued that the disease was of no consequence. Neither was the Victorian market from which they had been excluded although some growers felt that the competitive margin held by Tasmania would eventually have led to a large trade. Most felt that a limited market in Melbourne would reduce competitive pressure in Sydney. No one believed that New Zealand had any right to the Australian market. The push to open the Victorian market by abolishing non-tariff barriers to interstate trade while simultaneously preventing the Commonwealth from trading off the potato ban against a counterban imposed by New Zealand on Australian citrus became important issues in the 1930s.

Of more immediate concern were practical problems in the marketing of potatoes. The export of potatoes was handled by produce merchants who shipped to wholesalers in Sydney. The potatoes were sold on the wharves in Sydney at prices fixed each week by the "Sussex Street" merchants according to auction levels on potatoes coming through the Sydney railway yards.[23] The returns were remitted to Tasmania for payment of the farmer following deductions for costs. The Tariff Board worked out the costs of export as 27s 3d per ton.[24] In addition, there was a five percent commission for the Tasmanian agent. Unloading costs in Sydney, wholesalers' commissions and retailers' margins increased the spread between the Tasmanian farm price and the final price to Sydney consumers. The difference according to the Burnie Branch of the Agricultural Bureau was between 100 and 400 percent.[25] This range was supported by a witness giving evidence before the Development and Migration Commission.[26] H. Brumby of Herrick claimed

of Australia Parliamentary Papers, (Session 1926-27-28, Vol. 4), 2137-2142.

[22]Advocate, 27 January 1927.

[23]New South Wales Official Yearbook 1926/27, p. 550.

[24]Tariff Board "Potatoes: Report and Recommendations", Commonwealth of Australia Parliamentary Papers, (Session 1926-27-28, Vol. 4 p. 2141.

[25]Examiner, 8 December 1926.

[26]North Eastern Advertiser, 10 June 1927.

that the producer got only one-third of the market value of the crop. The rest was taken up in marketing charges.

The scale of the gap is confirmed by statistical data. A comparison of the seasonal average price for Tasmanian potatoes with the 1927 average Sydney retail price gives a margin of 256 percent. In fact, the margin would be greater as the Sydney retail price was based on local N.S.W. potatoes, not the prime Tasmanian product.[27] However, it is not possible to support claims that the agents were profiteering. Commission levels were not unreasonable. The main problem seemed to be that freight and other marketing costs would absorb the entire profit when prices were low. More important were claims that merchants bungled the trade. Potatoes were left standing on the wharf with a good market or forwarded onto an overloaded and declining market. However, the merchants do not deserve all the blame. A slight rise in price would see farmers send off hundreds of tons causing chaos in the ports and destroying the market they were trying to catch.[28]

The need for a marketing organisation to supervise the disposal of the crop was widely recognised. The Agricultural Bureau was pushing for a marketing scheme and many growers indicated a willingness to pay an export levy of 1/2d per bag to cover the costs of a marketing division within the Bureau.[29] Eventually, a Potato Marketing Board was set up though its main functions were limited to the benign supervision of the Sydney trade. A market liaison officer oversaw the trade, attended the price fixing meetings of the Sussex Street merchants, and handled publicity. However, the Potato Marketing Board worked through the produce merchants and had no plans to establish its own export system.[30] It apparently accepted that many firms in the trade were efficient, or at least accepted that the merchants gave credit which bound growers to their company.[31]

[27]New South Wales Statistical Register 1926/27, pp. 529-530.

[28]Advocate, 2 March 1928.

[29]Advocate, 20 January 1927.

[30]Examiner, 10 July 1928.

[31][AD9 712-28] file 18/16, 17 January 1931.

The third problem involved the rapid decline of one of the basic secondary enterprises in the potato belt. Production of fodder oats, hay and chaff had always been associated with potato farming on the Northwest Coast. Exports of oats and chaff through Devonport were considerable in 1926/27 though there was no long term future for the trade. The rise of motor transport was reducing the market year by year and the high level of current shipments had occurred through what the Advocate called " ... the tribulations of our neighbours".[32] Most observers regarded the fodder trade as a dying industry and were amazed at the amounts still being produced along the Coast.[33] It was also noted that the seasonal conditions that favoured a glut potato crop also produced an unmarketable surplus of oats and hay. In total, the weak potato and fodder crop sectors accounted for 46.9 percent of farm income in the three regions along the Northwest Coast. Wheat and field peas brought the value to over fifty percent.

More and more farmers began to realise that the solution for the problems of the Northwest Coast depended on finding alternatives to obsolete cropping systems. There were 1,769 commercial farms in the Northwest Coast potato/dairy region of which 1,194 were operating within an agricultural specialisation. Some proposals were based on diversification within the existing potato economy through the production of additional varieties of potatoes and by the establishment of factories to process potatoes into starch and glucose.[34] While similar industries existed in the potato districts of Europe and the United States, profitable operations in Australia would have been unlikely. Another closely related proposal was to convert some potato land into sugar beet. Trial crops of beet were actually grown at several spots along the Northwest Coast with the aim of establishing an industry similar to the one at Maffra in Victoria.[35] The massive subsidies required for sugar production in Australia should have suggested that profitable operations were unlikely.

[32]Advocate, 5 January 1925.

[33]Development and Migration Commission "Interim Report on Investigation into Present Position of Tasmania", Journals and Printed Papers: Tasmania, (1927/28), Paper 8, p. 5.

[34]Advocate, 7 March 1928.

[35]Examiner, 2 September 1926.

The main thrust of rural reform was more practical. Many farmers in the Northwest according to the Illustrated Tasmanian Mail were already giving up the growing of potatoes owing " ... to the uncertainty of the market, in order to take up dairy farming, for the products of which there is an absolutely certain and steady market".[36] In 1926/27, there were 40 specialist dairy and 420 agricultural/dairying farms within the Northwest Coast potato/dairy region. The switch to dairy farming which was so pronounced in the late 1920s and early 1930s had early beginnings. It was not to be an easy process given the low rural incomes, the need for capital, and the lack of necessary farming skills but it would eventually reorient the Northwest Coast from a predominantly cropping economy into a true mixed farming region.

[36] Illustrated Tasmanian Mail, 6 October 1926.

2.2 Dairy Farming

Dairying had first become a significant enterprise in Australia during the late nineteenth century when refrigerated shipping made it possible to export butter and cheese to markets in the northern hemisphere. A series of new dairying regions began to appear along the east coast of Australia and in New Zealand.[1] One of these was the Northwest Coast of Tasmania where dairy farming was seen as having potential for opening up small blocks in this high rainfall and heavily forested country. The first modern butter factories were established in towns along the Northwest Coast in the 1890s and the districts to the west of Deloraine soon gained a reputation as the state's principal dairying region. Dairy cattle complemented potatoes in the eastern half of the Northwest Coast while specialist dairy farms were not uncommon in the more recently settled areas of Table Cape and Circular Head. However, only 25.4 percent of the state's 41,482 dairy cattle in 1900 were found on the Northwest Coast.

In 1926/27, Tasmania had a herd of some 67,457 dairy cattle (Figure 9). Over ten thousand farms had at least a few cows with 2,161 being classified as a dairy farm by producing at least £100 of dairy products. Nevertheless, Tasmania played an almost insignificant role in the national dairy economy. Exports of butter and cheese during the 1926/27 season were valued at £136,060. Imports of butter and cheese were valued at £79,819. To this must be added imports of milk and cream of £25,790 and butter substitutes worth £19,156. The need for the state to import dairy products during the long off-season was one of the most obvious indicators that the dairying industry at this time had not risen to its potential.

Ten of the sixteen formal agricultural regions and subregions contained dairying as a significant component according to their Weaver classification. These areas contained 74.0 percent of the total cattle. However, the regions in which dairying was the first ranking activity contained only 27.6 percent while the regions which would have been described in popular terminology as "dairying country" contained just over half of the cows. These low values reflected the wide distribution of dairy cattle throughout the agricultural economy. The ten regions also

[1]Lewthwaite, G. "Wisconsin and the Waikato: A Comparison of Dairy Farming in the United States and New Zealand", Annals American Association of Geographers, Vol.54 (1964), 59-87.

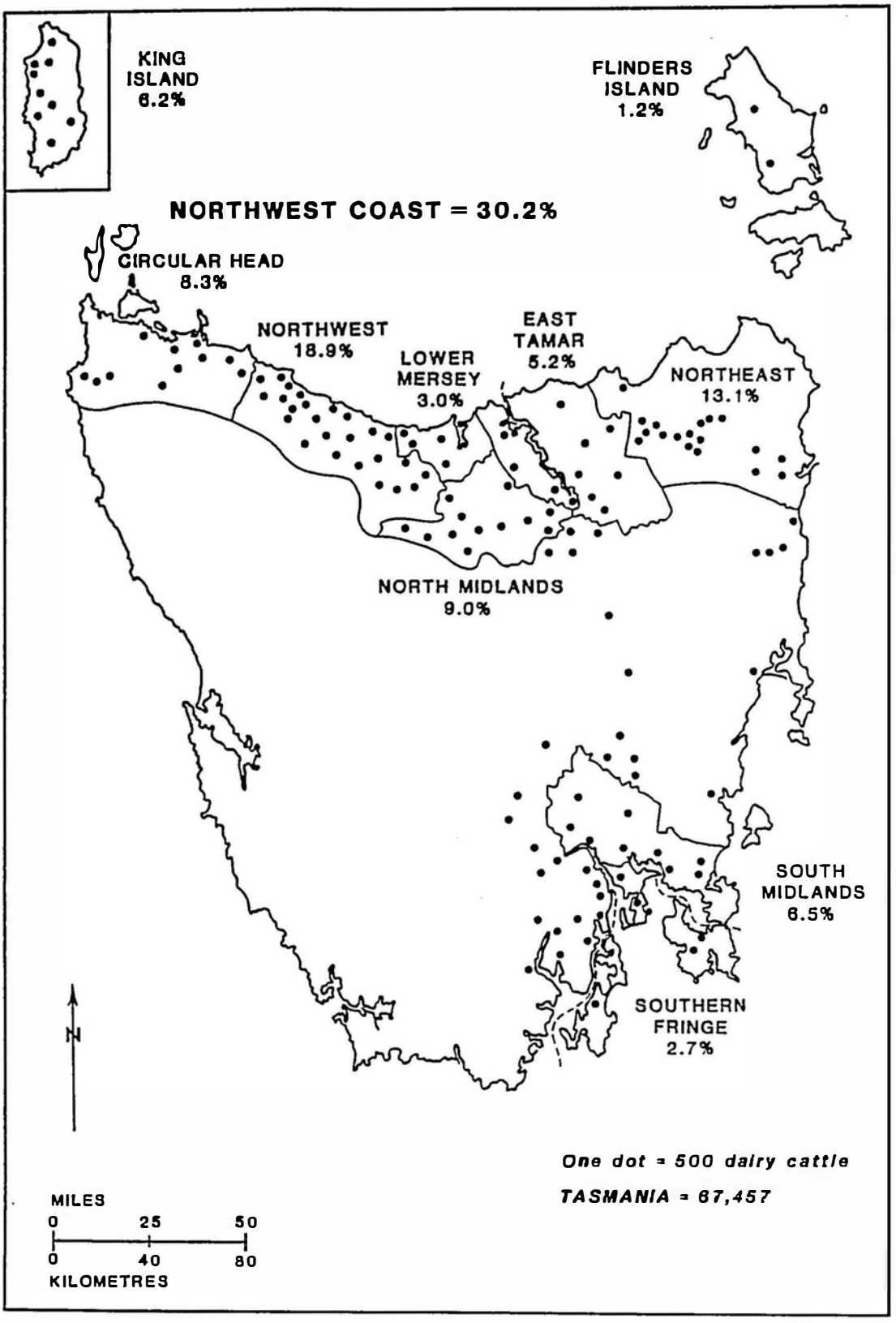

Figure 9 - Dairy Farming in 1926/27

incorporated a number of different types of dairying that covered the range from highly specialised dairying districts producing butterfat for factory processing through to areas where farmers ran a few cows for domestic milk with the surplus churned at home into butter that was sold for casual income. Since each subtype had its own set of locational factors and problems, a more detailed analysis of the dairy economy independent of the standard regional structure is warranted.

Principal components analysis was used to examine the spatial structure of the dairy industry. The final analysis was based on eleven variables derived directly or indirectly from the agricultural statistics. Only one of these variables aroused second thoughts. 'Grease' was an attempt to combine farm butter and farm cheese production into a single variable in the belief that they both represented the same backward sector of dairying. The merging was also essential to eliminate the strong local factor in farm cheese production. Four adjacent municipalities produced over ninety percent of the output. In retrospect, it may have been better to have excluded farm cheese completely. While most was of poor quality, there were apparently areas and farmers that were producing an economic and high quality product.[2] This may have devalued the measured levels of dairying in the Fingal Valley, the centre of farm cheese production.

The analysis was based on 44 local government areas. Hobart and Launceston were included as a large number of dairy cattle were still found within and around the two cities. The five mining districts were excluded as irrelevant even though 18 of their 24 commercial holdings were specialised dairy farms. These were presumably for the supply of town milk. The variables and factor loadings are described in Table 6. Four components had eigenvalues greater than one and each could be identified as reflecting a different facet of the dairy economy. Maps of component scores facilitated the interpretation. For instance, the positive end of the first component was a measure of modern factory-oriented dairying while the positive deviations of the second component extracted whole milk production for either town supply or delivery to a cheese factory. However, the aim of this procedure was not to evaluate each component separately but to restructure the data as a prelude to regionalisation. Cluster analysis of the

[2][AD9 712-129] file 5/4, 5 July 1938.

TABLE 6 - Principal Components Analysis of Dairy Industry 1926/27

Part I - Variable List

INCOME - percentage of regional farm income derived from dairying
NUMBER - number of dairy cattle per rural holding
SWINE - number of swine per rural holding
MILKER - percentage of dairy cows in milk on 31/12/26
GALLON - milk produced per dairy cow in milk on 31/12/26
GREASE - output of farm butter and cheese (expressed as butter equivalent) per dairy cow
COMMDY- percentage of all commercial farms with some dairying
SPECDY - percentage of all dairy farms that are dairy specialist properties
AGRCUL - percentage of dairy farms in an agricultural combination
PASTOR - percentage of dairy farms in a pastoral combination
FRUIT - percentage of dairy farms in a fruit combination

Part II - Results after Varimax Rotation

Variable	Component I	Component II	Component III	Component IV
INCOME	0.830	0.310	0.280	0.047
NUMBER	0.886	0.010	-0.088	-0.148
SWINE	0.840	-0.345	0.172	-0.125
MILKER	0.196	0.172	0.806	0.062
GALLON	-0.160	0.414	0.535	0.286
GREASE	-0.544	-0.358	0.527	-0.109
COMMDY	0.916	0.171	0.127	0.049
SPECDY	0.176	0.898	0.210	-0.023
AGRCUL	-0.008	-0.867	-0.203	0.120
PASTOR	-0.221	-0.251	-0.842	0.094
FRUIT	-0.092	-0.099	0.024	0.946
EIGENVALUE	3.966	2.527	1.383	1.007
PCT. OF VAR.	36.1	23.0	12.6	9.2

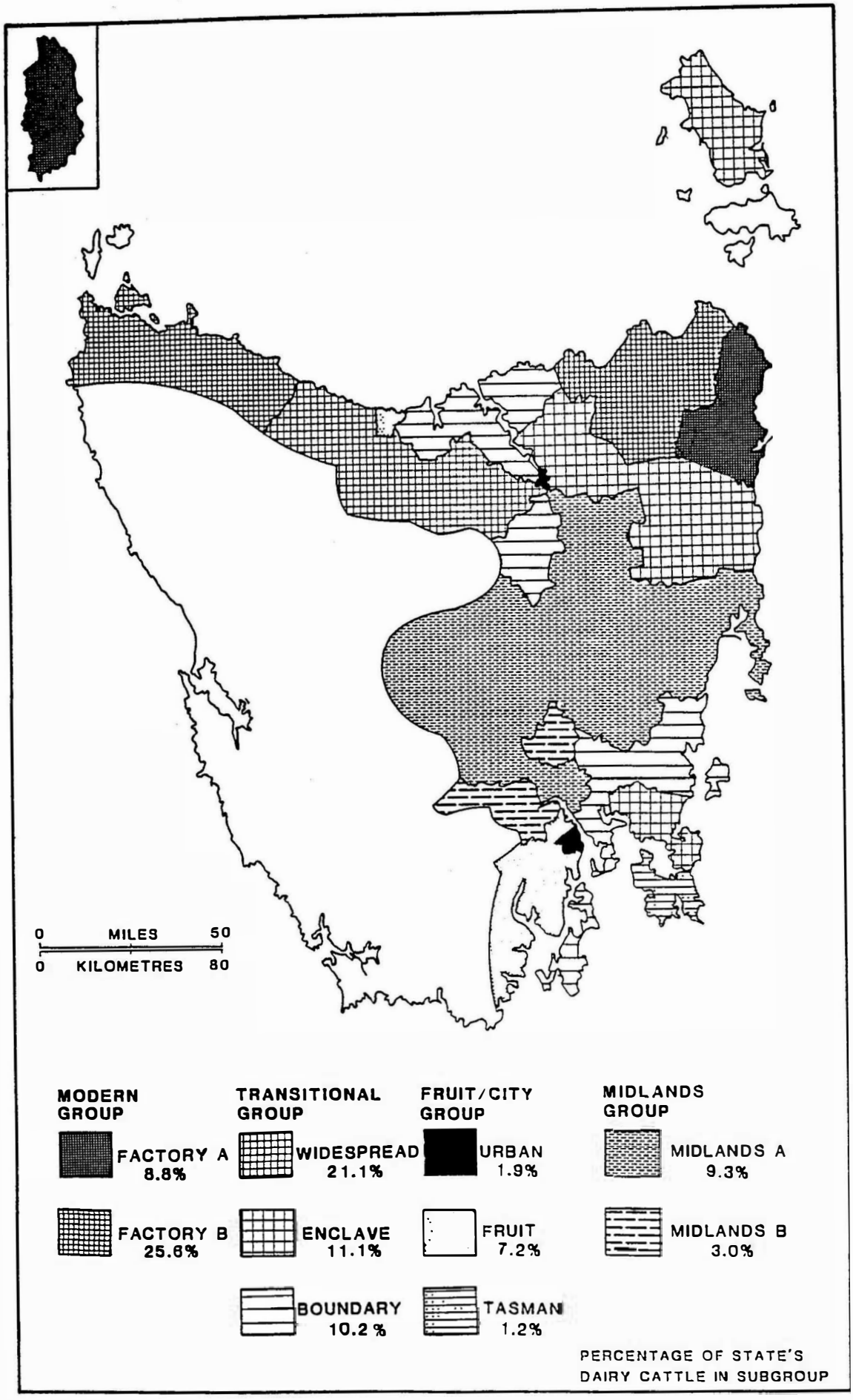

Figure 10 - Regional Structure of the Dairy Industry 1926/27: A Principal Components Interpretation

factor scores formed ten groups before there was a significant break in the plot of the error sum of squares. These form the dairy subtypes from which the four major regional systems of dairy farming were eventually constructed (Figure 10). Unfortunately, not all of the ten subtypes were of the same degree of regional uniqueness. Three clusters were almost certainly little more than boundary situations where the spatial overlap of two or three types of dairy farming distorted the average values of the eleven criteria.

The 'modern' dairying group was made up of six municipalities located at the northwestern and northeastern extremities of the state. These districts contained 34.4 percent of Tasmania's dairy cattle divided unevenly between two subtypes. These were given one word labels of 'factory A' and 'factory B' on the map of dairy farming systems (Figure 10). Factory production was the central feature of both areas. The factor that discriminated between the two was the relative degree of isolation. King Island and Portland made up the 'factory A' group. The farming economy in both of these areas reflected their extreme isolation. The four municipalities forming the 'factory B' group had also been cut off to some degree from the zone of continuous settlement until almost the end of the nineteenth century. Links in some places were still tenuous. Circular Head had only been connected to the Tasmanian rail system in 1923 and one major dairying district (Marrawah-Redpa) within the municipality was still not accessible by road.

Intensive settlement of much of the area that has been classified as 'modern' had taken place during the last years of the nineteenth or in the first years of the twentieth century. This timing had two effects that contributed to the development of dairying as a dominant element of the rural economy. One involved changes to the Waste Lands Act. Regulations in force at this time were more liberal than those in effect earlier in the century. The larger farms that were permitted allowed settlers to develop specialised dairy properties from the beginning. The second involved the ability of local farmers to adopt the techniques and technology of antipodean dairy farming that had been proven in other colonies. An important factor in the diffusion process was the appointment of a dairy instructor with experience in Queensland but probably of more significance was the migration of mainland farmers to these frontier districts in their search for cheap

land. For instance, King Island during the land rushes of 1908-1910 attracted many experienced dairy farmers from Gippsland.

A simple listing can illustrate some of the salient features of the 'modern' dairy farming group. The following figures refer to the percentage of the state totals found in the six municipalities of the 'modern' region viz: rural holdings 15.8; dairy cattle 34.4; farms with dairy component 41.2; specialist dairy properties 44.9; milk production 35.7; and farm butter production 23.7. These values suggest that dairy farms were numerous, large and efficient. There were 890 farms with a dairy component. While two-thirds were mixed agricultural/dairy holdings, there were also a large number of specialised dairy properties. This was especially true of King Island and Portland where over ninety percent of the dairy farms had no other significant activity. One indicator of the scale of farming was the number of cows per rural holding. The 'modern' region had over twice the state average value or almost three times the normal values for the rest of the state. King Island, in particular, was noted for herds of sixty to eighty cows at a time when twenty cows was considered a profitable operation. The efficiency of dairy farming was also noteworthy. Milk production per cow was either slightly above or well above the state average depending on the interpretation of the returns from Circular Head. These were atypically low for the Circular Head area and appear to be more related to the autumn collection date of earlier years than to the mid-summer date used for the first time in 1926/27. The data may be of questionable accuracy in this year unless some peculiar local force had been at work. However, the most significant factor throughout the 'modern' region was the low output of farm butter. Almost all of the milk was utilised within the factory system thereby producing butter and cheese that was capable of being exported.

The second major type of dairy farming was identified as a transitional grouping. Fourteen municipalities in the north and five municipalities in the south fell within one of the three subtypes that were labelled as 'widespread', 'enclave' and 'boundary' in Figure 10. These districts contained 42.5 percent of the state's dairy cattle - a larger number than the modern commercial zone - but with far lower levels of concentration on dairy farming, fewer specialised dairy properties and lower levels of productivity. For instance, the 'transitional' grouping produced

only 38.2 percent of the milk and was responsible for 50.7 percent of the farm butter.

Districts were allocated to subgroups mainly by the intensity of dairying in the regional economy. The labels 'widespread' and 'enclave' were selected with reference to the distribution of dairy factories. The six municipalities that made up the 'widespread' group had access to factories at Burnie, Ulverstone, Devonport, Deloraine and Launceston. There were 478 classified dairy farms in this area though only a handful were specialist properties. The rest combined dairying with a variety of agricultural activities. The 'enclave' group was also related to factory distribution. The unexpected recording of 27 dairy farms on Flinders Island was due to the presence of a small butter factory at Whitemark. Another small butter factory served the isolated dairying district around Bream Creek in the Sorell municipality where there were 90 dairy farms. The situation in Lilydale/St Leonards and in the Fingal Valley involved similar local patches of dairying within a generally agricultural and pastoral environment though there were no local factories. The cream was railed to butter factories in Launceston. The Fingal Valley had once had its own cheese factory and was still the centre of the farm cheese industry. In total, there were 310 properties with a dairy component in the 'enclave' grouping. The third grouping involved no factories nor were there any local clusters of dairy farms.

The three subgroups were also partly defined in terms of a dichotomy between modern factory-oriented dairying and a primitive system of farm butter production. On the mainland, farm butter was only significant around isolated inland towns and accounted for only a few percent of total production. In Tasmania, almost thirty percent of the butter produced was churned on the farm. It was made in every dairying district and competed with the factory product in the shops of Hobart and Launceston. One explanation for the prevalence of home butter production was put forward by the Advocate in 1925.[3] The rural correspondent claimed that most farmers in predominantly cropping districts did not take dairying seriously and left the cows in the charge of their wives and daughters. Any income was regarded as "pin money". This explanation might be sufficient for marginal dairying districts like Latrobe, the locality specifically mentioned in the

[3]Advocate, 29 January 1925.

source. However, most farm butter came from districts with an established factory system and competed with the factory for supplies of cream. For instance, the butter factory in Penguin collapsed in 1924 because of the failure of local dairymen to supply sufficient cream.[4] Penguin was a district that produced farm butter at a rate per cow 62.8 percent higher than the state average. The "pin money" hypothesis also fails to explain the increase in farm butter production that was to occur during the coming decade. It may be that, in some areas within Tasmania, farm butter was a transitional step between cropping and dairy farming.

The third high level cluster has been termed the 'fruit/city' grouping for obvious reasons. Hobart and Launceston formed the first subgroup. Distinguishing characteristics indicative of a fresh milk trade included a high percentage of specialised dairy properties, virtually no swine, and a high milk output per cow. Some of these characteristics were carried into the second subgroup located mainly in the fruit districts south of Hobart with Devonport the isolated example from the north. Town milk was drawn from the more accessible areas of Glenorchy and Kingborough where there were 14 and 24 specialist dairy properties respectively. Districts in the Huon Valley were statistically linked with the urban milkshed in spite of the almost complete absence of commercial dairying. Most of the cattle would have been house cows. The third subgroup was the Tasman Peninsula. This was the only area in the state where farmers had tried to combine orcharding and dairying. This was despite the difficulties of transporting the cream by river steamer to Hobart and Dunally.

The fourth major dairying system was found in the Midlands. This is an area traditionally regarded as devoid of dairy cattle yet the agricultural statistics for 1926/27 reported the presence of no fewer than 8,317 cows and recognised 189 farms with a dairy sector. Some of the individual indices for the ten municipalities stood at high levels. The number of dairy cattle per rural holding in the pastoral heartland of Ross (6.39) and Bothwell (6.09) exceeded those in the recognised dairy districts of Leven (4.77) and Penguin (5.36). There were three explanations for these patterns. Firstly, the large size of the pastoral estates could create statistical anomalies. These high values could represent little more than the

[4]Advocate, 29 January 1925.

house cows that were allocated to the families of the estate labourers. Secondly, some graziers ran their estates as large mixed farms. The property of J.W. Cheek near Evandale was one example.[5] Wool, fat stock and wheat were the main emphasis of this 1,120 acre farm but there was also a herd of Ayrshire dairy and stud dairy cattle. Usually 12 cows were in milk. Thirdly, there were also patches of dairy farming throughout the Midlands especially where small holdings had been created on closer settlement blocks before the war. Farmers located on these properties engaged in a mixed economy of cropping, grazing and dairying. The cream could be railed to Hobart or Launceston for processing in proprietary butter factories or could be processed locally in small factories like that at Baden which served the farmers of the Oatlands municipality.[6] This factory, the Midlands Co-operative Dairy Company, was on the verge of failure as the Hobart companies with a retail butter outlet were paying a higher price for butterfat.

Many aspects of dairy farming in Tasmania during the 1920s were condemned by informed opinion. The Development and Migration Commission in 1927 nominated three factors as hindering the growth of the dairy industry.[7] These were the low calibre of the dairy herd, the primitive systems of feeding, and the deficiencies of the manufacturing sector. Each of these problems had been with the industry for many years and although some ameliorative measures had been undertaken, there was still much to be done to bring Tasmanian dairy farming up to the standards found in the better dairying districts on the mainland.

Dairy cows were mainly derived by mating mongrel bulls with nondescript cows. The result was a dairy herd with a low standard of milk and butterfat production. The average output of milk in Tasmania was twenty percent below the Victorian value with some cows producing as little as 90 pounds of butterfat.[8] The argument for improved breeding was

[5]Examiner, 1 May 1926.

[6]Mercury, 14 February 1927.

[7]Development and Migration Commission "Interim Report on Investigation into the Present Position of Tasmania", Journals and Printed Papers: Tasmania, (1927/28), Paper 8, pp. 5-6.

[8]Billing, G.C. "The Productive Efficiency of Tasmanian Farming", Economic Record, Vol.5 (1929), p. 282.
Advocate, 15 January 1927.

convincing for the Advocate.[9] A dairy farmer, it was claimed, would reduce costs by a third by producing the same amount from twenty good cows as from thirty of the existing standard. Alternatively, the herd size could be maintained and production increased.

The Department of Agriculture took over the grade herd testing programme in 1924/25.[10] At this time there were only three associations with 800 cows. By 1927/28, there were 16 associations with approximately 6,000 cows. Farmers involved in these local associations were mainly from the Northwest and Northeast dairy districts and had larger than average herds.[11] Obviously, only a small fraction of all dairy cattle were under test and the programme was not universally regarded as successful. "Ploughshare", the rural correspondent of the Examiner, felt that it had largely been a waste of money with farmers measuring output out of curiosity rather than engaging in a systematic programme of herd improvement.[12] The "robber cows" were never culled. These comments were probably too harsh. Herd testing and a related dairy bull subsidy scheme were two straightforward means by which dairy farmers could be encouraged to adopt improved practices. This latter scheme covered roughly half the cost of a dairy bull with a proven record.

Farmers could also improve output per cow by the use of improved methods. Failure in basic animal husbandry kept the dairy season too short for really profitable farming. Major economies on the farm and in the factories would have been possible if the milking season could have been lengthened from six to eight or nine months. Tasmania, in fact, was able to produce an exportable surplus of butter for only three or four months of the year.[13] During the slack season, butter had to be imported from the mainland. The Department of Agriculture tried to encourage farmers to conserve hay and silage and to grow conventional fodder crops in order to keep the factories open in the autumn. It was also experimenting in

[9]Advocate, 15 January 1927.

[10]Mercury, 1 January 1929.

[11][AD9 712-8] file 5/5-1, List of Herd Recording Units.

[12]Examiner, 19 November 1926.

[13]Examiner, 18 November 1926.

association with Electrolytic Zinc - the fertiliser company - with a range of exotic fodder crops including maize, sorghum and millet.[14]

The Development and Migration Commission pointed out that there were 22 butter and 7 cheese factories in Tasmania.[15] This was far too many for the amount of milk that was available. The average cost of producing a pound of butter was 5d compared with 2½d in the better mainland factories. The inefficiency of the factory system meant a direct loss to the farmer and the Commission urged that the number of factories be reduced in order to achieve economies of scale in those that remained.

This recommendation was the most contentious in the dairying section of the "Interim Report". An economist, G.C. Billing argued that the cost of 5d claimed by the Development and Migration Commission was greatly exaggerated and that the best (i.e. biggest) factories had costs similar to those on the mainland.[16] Billings also urged caution in factory reduction as it would increase transport charges and possibly lead to a deterioration in cream quality. G.P. Carroll, the Commonwealth Superintendent of Dairy Exports, was also sceptical arguing that the need was not to reduce factories but to increase milk production.[17] He noted that the broken hill country of Tasmania created difficulties in collecting cream not experienced on the mainland and that a system with many small plants rather than a few central factories was inevitable. Better methods on the farm could double milk production which would then improve the economics of many of the smaller factories.

The unseemly competition between factories located in close proximity to each other supported the arguments of the Development and Migration Commission. There were two factories in Burnie, one at Wynyard and another at Yolla that drew cream from the same catchment. There were rival collections of cream along the same road and poor quality cream had to

[14] Examiner, 6 September 1926.

[15] Development and Migration Commission "Interim Report on Investigation into Present Position of Tasmania", Journals and Printed Papers: Tasmania, (1927/28), Paper 8, p. 6.

[16] Billing, G.C. "The Productive Efficiency of Tasmanian Farming", Economic Record, Vol.5 (1929), p. 285.

[17] Advocate, 21 February 1927.

be accepted for fear of losing a supplier. Duplication of plant and staff also raised the cost of production. In 1927, the directors of three of these companies - all of which were cooperatives - proposed an amalgamation.[18] A central factory would halve the costs of production per pound and would allow the combined company to build a cool store in which it could set aside butter for the high price winter market in Hobart. The proposal was strongly supported by the local press but by only some of the suppliers. A ballot of shareholders failed to achieve the necessary majority and the scheme had to be abandoned.[19]

In spite of all its problems, the dairy industry was viewed as having great potential. It was thought that Tasmania should be able to opt into the world butter trade without too many problems once the local industry was placed on a sound footing. The British market was expanding and Australia now followed only Denmark and New Zealand as a supplier of butter. The entry of Tasmania into a trade of such magnitude would be scarcely noticeable outside of the state. However, it would have a major impact within the state by allowing farmers to diversify away from the strife-ridden potato/hay economy. This would provide a solution for what was regarded as the most critical rural problem of the middle twenties.

[18]Advocate, 9 February 1927.

[19]Advocate, 12 February 1927.

2.3 Pastoral Production

Since 1850, rural development had focused on opening the forested country of the island using cropping and livestock systems suitable for the small farm. However, the pastoral estate sector had not diminished in importance. A flock of 1,807,558 sheep accounted for a quarter of net farm income in 1926/27. Wool contributed £1,005,140 while £310,780 was derived from mutton and lamb. The basic features of the industry remained as they had been when the graziers first occupied the savanna grasslands in the 1820s and 1830s. Most of the sheep were concentrated in the hands of a few leading families. There were 55 holdings running more than 5,000 sheep which accounted for slightly less than a third of the flock. A further 267 properties were medium-sized holdings with between 1,000 and 5,000 sheep. These accounted for just more than a third. The remaining third were spread over 3,416 farms; over two thousand of which had less than 100 sheep. The flock also remained concentrated in the Midlands. The six regions that made up the Midlands complex (Figure 11) contained 82.5 percent of the sheep. This was in spite of the fact that some traditional Van Diemens Land pastoral areas such as New Norfolk were not included within the Midlands as defined by the agricultural regionalisation.

The four municipalities of the Central Midlands contained a quarter of the state's sheep. The percentage share of regional farm income derived from sheep ranged from the high seventies into the low eighties. The addition of beef cattle took three of these districts to a position where more than ninety percent of farm income was derived from the pastoral sector. This was very similar to the percentage for properties with a pastoral component (91.1%) though it fails to explain why 82 out of the 195 pastoral holdings had a mixed economy. It is probable that the scale of many of the estates allowed minor sidelines to cross the £100 threshold.

The Central Midlands was classic wool country. The municipalities of Ross and Campbell Town produced fine wool from largely Merino flocks whilst Bothwell and Glamorgan had a larger component of comeback sheep. In total, this region had 50.3 percent of the Merino and 36.3 percent of the comeback sheep in the state. Properties were large. In Campbell Town, there were 19 estates of over 5,000 acres.[1] The sight of extensive plains

[1]Tasmanian Government Gazette, 28 February 1927.

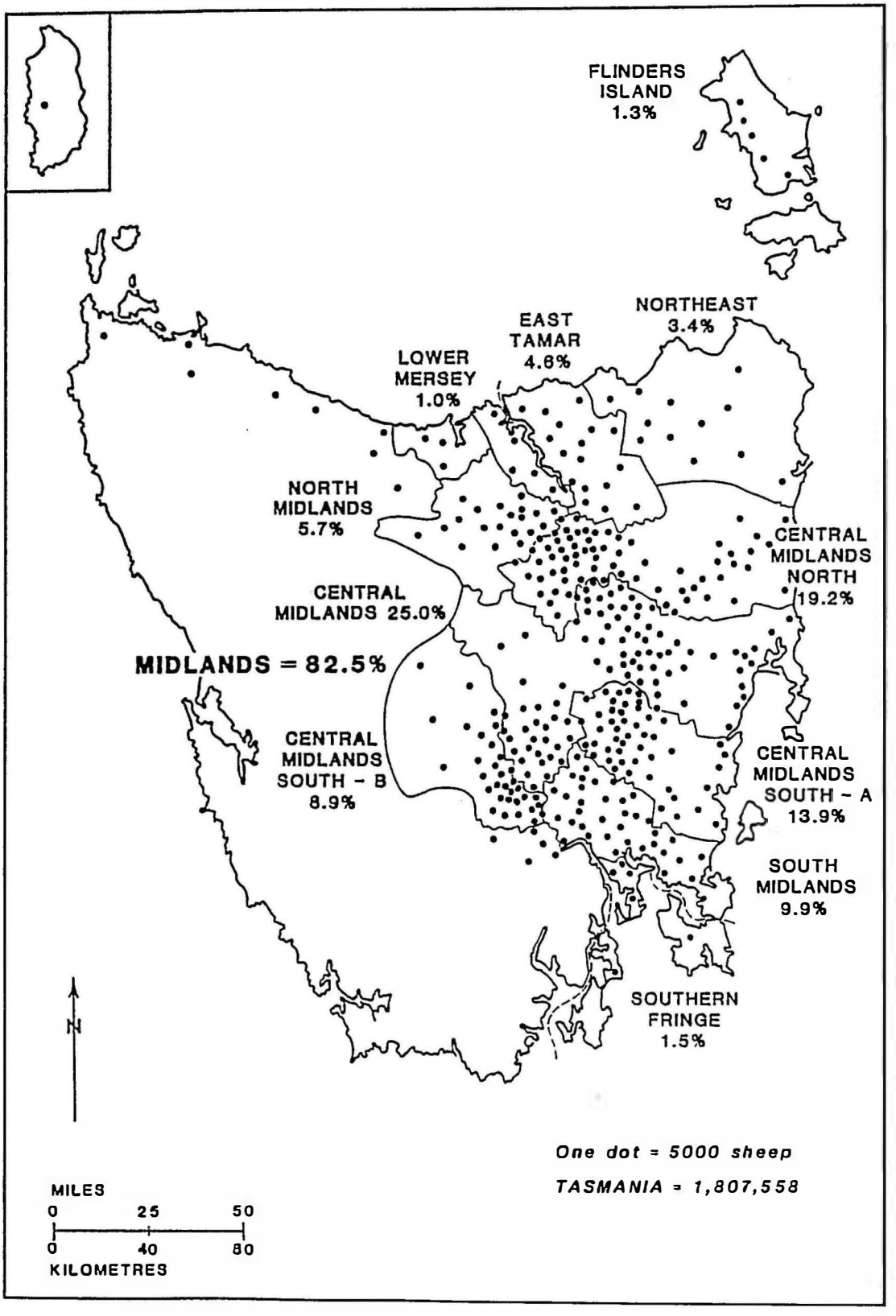

Figure 11 - Sheep Farming in 1926/27

visible from the Hobart-Launceston road that were held in the ownership of a few families and apparently lightly utilised led to repeated proposals to subdivide the land for closer settlement. At a greater distance from the road, there was much rough country. One grazier claimed that the good country was necessary to support the profitable exploitation of the poor.[2]

North and south of the Central Midlands were regions with large numbers of sheep. However, pastoralism was less dominant in the rural economy as levels of broad acre cropping increased. Campbell Town in the Central Midlands and Longford in the Central Midlands North were adjoining municipalities with virtually identical numbers of sheep. Longford had ten times the acreage of wheat, twelve times the amount of oats and ten percent of the Tasmanian pea crop. This final activity was almost unknown in the Campbell Town district. Further diversity was added to the rural economies of the regions encircling the pastoral core by enclaves such as the pocket of dairy farming at St. Marys in the Fingal municipality and the seed potato farms around Tunnack in the Oatlands district. The pastoral component, averaged over the five regions that encircled the Central Midlands, comprised 43.7 percent of all commercial holdings. However, only 12.1 percent were specialist pastoral properties.

The only significant extension of sheep farming beyond the limits of the Van Diemens Land frontier had been to the north and east of Launceston. The East Tamar, the Northeast and Flinders Island had 166,966 sheep spread over seven municipalities (Figure 11). In comparison, the three regions of the Northwest Coast had only 60,375. Sheep were often found on the rough country that surrounded the small islands of close cultivation that were a typical feature in these northeastern districts. In many cases, the pasture could have passed for light forest.[3] Large tracts of scarcely developed land meant that a significant proportion of all pastoral farms were specialised holdings though sheep would almost always be associated with beef cattle. This was especially true for Flinders Island and George Town, the two municipalities that derived more than 40 percent of their income from sheep.

The pastoral industry was not a single entity capable of being measured by one or two parameters. It was a series of more or less

[2]Mercury, 2 July 1929.

[3][AD9 712-22] file 15/12, 29 August 1929.

interrelated industries that covered a continuum from fine wool production to fat lambs. In between were other subeconomies like fat sheep, store stock and coarse wool. A principal components analysis was undertaken to separate these various branches. The results while informative did not extract the desired regional detail. This was largely due to the limited number of input variables that were available once a decision had been made to standardise variables to those available for 1936/37 as well as 1926/27 and 1931/32. This eliminated the economic farm-type data and left only six variables (Table 7). These produced two components when applied to the entire set of 42 municipalities and then to a reduced set of 33 municipalities. The criterion for the second run was that each municipality had to derive at least four percent of local farm income from sheep.

The first component (Table 7) showed the strong relationship between the regional intensity of the grazing economy and an emphasis on the production of wool. In run A, seven municipalities had component scores greater than one viz: Ross, Bothwell, Glamorgan, Campbell Town, Spring Bay, Evandale and Hamilton. The same seven appeared in run B with a slightly different order. The relationship between large properties in regions dominated by grazing activities having high percentages of Merino and comeback sheep in their flock was obvious. The basic pattern had been efficiently defined by the grouping of regional economic profiles (Figure 11). There was little point in deviating from the common methodology.

The second component can be interpreted as a meat production factor. A fat lamb/fat stock economy would have a high proportion of ewes in the flock and likewise a high percentage of the ewes would be expected to lamb each season. Maps of the positive component scores gave a pattern that was suggestive of a meat emphasis with high values in the Northwest and moderate values in the Midland fringe regions that had access to rail transport (Figure 12). The results were not of sufficient precision to establish a reliable index due to the large standard deviations in each of the six original variables. These created interpretation difficulties in the final map of component scores. However, a simpler index based on the relationship between ewe/wether ratios and meat production was confirmed by the second component and it has been used to examine the spread of fat lamb farming in the 1930s.

Table 7 - Principal Components Analysis of Pastoral Industry 1926/27

Part I - Variable List

NUMBER	number of sheep per rural holding
INCOME	percentage of regional farm income derived from sheep
EWEWET	ratio of ewes to wethers
MERINO	percentage of Merino sheep in flock
COMEBACK	percentage of comeback sheep in flock
EWEEWE	ratio of breeding ewes to total ewes

Part II - Results after Varimax Rotation

	Run A - 42 municipalities		Run B - 33 municipalities	
Variables	Component I	Component II	Component I	Component II
NUMBER	0.903	0.156	0.925	-0.051
INCOME	0.953	0.041	0.935	-0.117
EWEWET	-0.471	0.630	-0.293	0.837
MERINO	0.739	-0.148	0.724	-0.123
COMEBACK	0.575	-0.026	0.477	-0.463
EWEEWE	0.184	0.902	0.092	0.855
EIGENVALUE	2.883	1.212	2.906	1.351
PCT. OF VAR.	48.1	20.2	48.4	22.5

The number of sheep in Tasmania had increased during the Great War to stand at 1,781,425 in 1919/20. Numbers collapsed to 1,570,832 in the following year and remained at this level for most of the early 1920s. The postwar decline was attributed to the effect of high prices for meat leading to excessive slaughterings.[4] Unfavourable weather, both actual and anticipated, in the following breeding season acted as a check on replenishment. Another factor at work keeping numbers down was a belief that wool prices would crash with the end of the Imperial Wool Purchase Agreement on 30 June 1920.[5] Britain had acquired millions of bales of Australian wool during the war but had the shipping to remove only a fraction. The rest was stockpiled forming a reserve that threatened the future price especially as the main prewar buyers of lower grade wool had been France and Belgium. These countries had to rebuild milling industries left destroyed by the war. Such factors would have encouraged farmers and graziers to reduce their flocks and poor wool sales in 1921 and 1922 did little to renew interest in the industry.

[4] "Agricultural and Stock Department: Report for 1921/22", Journals and Printed Papers: Tasmania, (1922/23), Paper 8, p. 2.

[5] Mercury, 12 January 1920.

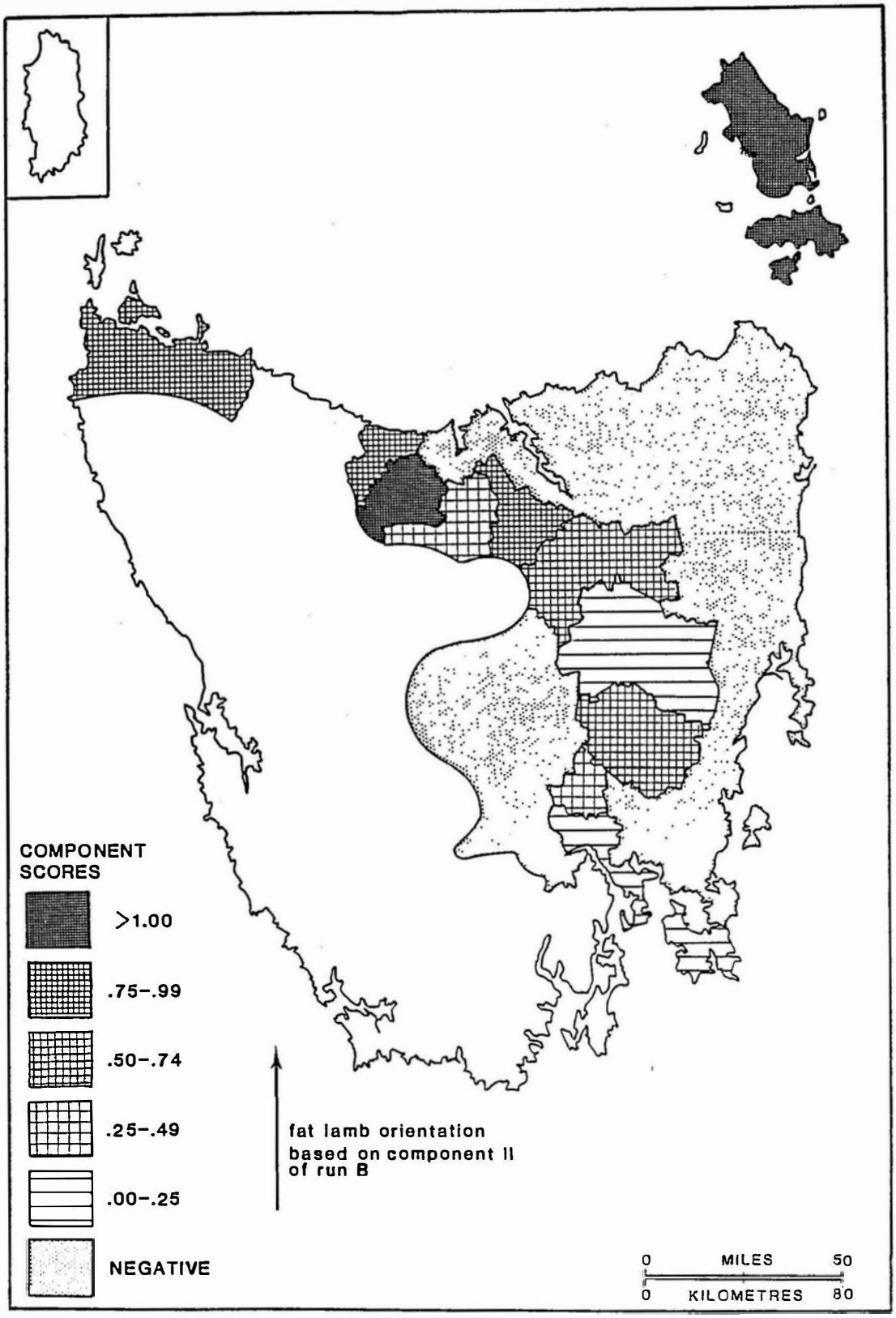

Figure 12 - Fat Lamb Orientation in 1926/27

Wool prices recovered in 1924 with returns in excess of £1 million. This level was to be maintained for the rest of the decade. Sheep numbers began to respond to the renewed prosperity of the pastoral industry by breaking out of the trough of reduced values in 1926/27. Although the true rise in sheep numbers was only half the size reported in the statistics due to a change in the date of collection, it marked the beginning of a period of expansion that would continue until checked by the depression.[6]

On the surface, the pastoral industry seemed prosperous and soundly based. Notional income per rural holding in the Central Midlands region was £1,045. This rose to £1,735 following an adjustment for non-commercial farms. These were the highest values in the state and financed a lifestyle that bore little resemblance to that experienced by farmers in other districts. The visible signs of wealth - the stud Merinos and the grand homesteads - gave the pastoral regions an appearance of prosperity atypical of the Tasmanian countryside. However, Cameron had expressed concern about another face of the Midlands:

"...the neglected fences and buildings, the abandoned or dilapidated houses and obviously decadent townships through which we passed. These and other signs of a pristine prosperity which had evidently passed away, gave food for thought."[7]

The Midlands had been losing population since the 1870s as a static number of sheep could support progressively fewer people. While Cameron saw a solution through the subdivision of the estates into smaller wheat/sheep farms, he also heard evidence that not all was well with the pastoral system itself. One grazier put the proposition to him that the very prosperity of the woolgrowers had engendered "... a looseness of management, a lack of stimulus to improvement and a condition of contentment with things as they are".[8] Cameron felt unable to evaluate the accuracy of this statement from his limited experience but wished nevertheless to draw the attention of the authorities to this comment.

[6] "Production: Stock and Crops", Statistics of Tasmania, (1926/27), p. 5.

[7] [PD1-419] file 118/3/26, Cameron, S.S. "Report on Agricultural Production in Tasmania", p. 8.

[8] [PD1-419] file 118/3/26, Cameron, S.S. "Report on Agricultural Production in Tasmania", p. 13.

Three examples of apathy and/or unrecognised problems can be cited. The first involved a belief that wool would always be in demand. The current expansion of artificial silk (rayon) on overseas markets was dismissed as irrelevant as consumers would return to wool once they realised that artificial fibres failed to "... give satisfaction or service".[9] Another example of an unrealistic concept was the belief that the prime factor in the profitability of grazing was the wages paid to shearers. The problems of low carrying capacity exacerbated by the reversion of much grazing country to bush received nothing like the attention devoted to challenging shearer's rates and conditions before the Wages Court.[10] A final example involved the inflated value of land in grazing districts. Properties were very tightly held and when sales were made, the price reflected the prestige of grazing rather than an assessment of the profits to be made from wool compared to the capital invested.[11] The importance of these issues would become very obvious early in the 1930s.

Wool was sold at auctions held at Launceston and Hobart. The sales held in January 1927 revealed a number of interesting details about the structure and problems of the wool industry. These auctions were great public events during the 1920s. Few growers would sell privately and even fewer expressed support for a wool pool or any other form of central marketing despite the success of the wartime arrangement.[12] Consequently, the financial fate of growers depended on the price in open bidding from agents representing domestic and overseas mills.

Most of the buyers attending the Tasmanian sales in 1927 represented Bradford interests but there were also strong contingents from France and Germany.[13] Normally, the Continent was a large buyer of standard quality wools but in this year, the Europeans were more interested in the fine wools. Representatives were also present from the Launceston woollen mills. These had become a major factor in the Tasmanian wool market as the

[9]Advocate, 19 October 1929.

[10]Mercury, 2 July 1929.

[11][AD9 712-142] file 15/9, 31 May 1939.

[12]Advocate, 24 January 1928.

[13]Mercury, 13 January 1927.

industry had recently expanded and they now served as a useful buffer against the wilder swings of the auction system. Prices were reasonable considering that many lots were of lower than normal quality due to the dry weather.

However, the press reports of the auctions discussed two continuing issues. One involved an unseemly emphasis on fine Merino wools.[14] Only 14.1 percent of the Tasmanian flock were Merinos. It was argued that this was probably too high as the long term trend of the market was towards coarser wools. Tasmania could not fully meet the requirements of its own mills which were forced to import from the mainland and New Zealand to make up the deficiency in these grades. The price and publicity received by a few "star lots" was believed to be responsible for delaying the adoption of sheep like the Polwarth that had the required qualities of fleece as well as having potential for the meat trade.

Another problem discussed by the press involved the unsavoury nature of lots put forward by farmers and small graziers. The woolbroking firm of Robert and Company urged small producers to be more careful.[15] Skirtings and bellies should have been removed and care taken not to include the odd coarse fleece in with the finer wool. This problem had plagued the system for years and reduced the return to the growers as buyers reduced bids to compensate for deficiencies in sorting. It was, in theory, easily rectified. Farmers could take more care in sorting their fleeces or the companies could break up the small lots and have them resorted before auction.

The meat aspect of the pastoral industry was largely neglected by Tasmanian graziers in the 1920s. The agricultural and pastoral statistics valued the production of mutton at £203,560, of lamb at £107,310 and beef at £426,400. These figures must then be increased by the value of live animals and carcass meat imported by butchers. In 1926/27, this could have been as high as £90,000. The paradox presented by a rural state being unable to provide sufficient supplies of mutton, lamb and beef to feed a relatively small population was noted by Cameron.[16] It was another

[14] Examiner, 15 January 1927

[15] Mercury, 13 January 1927.

[16] [PD1-419] file 118/3/26, Cameron, S.S. "Report on Agricultural Production in Tasmania", p. 4.

indication that something was seriously wrong with the pastoral sector.

Refrigeration had had no practical effect on the industry. The obvious analogy between Tasmania and New Zealand had meant that the development of an export trade in fat lamb had featured in the various strategy reports of the 1920s. This call was also heard from within the rural community. The Lyons government passed a "Lamb Raising Industry Encouragement Act" in 1926 though the Legislative Council had reduced the proposed expenditure from £30,000 to £10,000.[17] This Act established a small honorary committee with power to purchase ewes for farmers and to assist with finance for a number of years. It was hardly the active intervention by government to organise the trade that had been envisaged.

The organisation of an export meat trade would be an imposing task. A freezing works would need to be established as the prewar plant at Somerset was virtually derelict. Stock would have to be improved to meet the requirements of the English market and a two-tiered industry established with certain areas specialising in breeding ewes and other districts producing and fattening the lambs. The most suitable areas for the latter activity had few experienced sheep farmers. Finally, the agency responsible would have to gain access to the London market and compete with fat lamb imported from countries with an established reputation. It was not surprising that much of the money set aside by Parliament was not spent.

There was considerable scope for expanding the local market for sheep meats and beef as Tasmania had to import to meet the demand. There was an active debate on whether the shortfall was due to marketing or production factors. Farmers spoke about a cartel of Master Butchers who imported cheap mainland meat in winter rather than pay the costs of farmers who tried to maintain their stock in prime condition during the off-season.[18] The butchers in turn complained about the ban on the import of live cattle which they felt was designed to protect the farmer from competition rather than from the cattle tick.[19] It was argued that imports would be eliminated if Tasmanian farmers would adopt improved methods of supplementary feeding and pasture maintenance to allow stock to be brought forward in winter.

[17] Examiner, 25 November 1926.

[18] Advocate, 4 January 1928.

[19] Illustrated Tasmanian Mail, 6 October 1926.
Mercury, 4 March 1927.

2.4 Orchard Fruit

Favourable climate and soils, a relative freedom from disease and pests, and a particular history of settlement had made Tasmania the second most important orcharding state in Australia. In temperate fruit it had no peer. The island produced half the national apple crop, three-quarters of the berry fruit and almost a fifth of the pears. In overall economic impact, the fruit industry played the same role locally as wheat did on the mainland. Its scale can be easily judged. Two and a half thousand commercial growers provided the raw materials for industries that earned Tasmania a final export income of £2,233,460 in 1926/27. This was almost a quarter of total overseas and interstate trade and more than half of the rural component.

The fruit industry contained four separate strands. Apples were the most important component with a net value of £954,200. This was 70.1 percent of the total. Orchards were found throughout the state. The valleys of the Huon and Derwent Rivers and the shores of the D'Entrecasteaux Channel were the main producing regions in the south. The Tamar and Mersey Valleys were dominant in the north. However, apple orchards were far more widely spread at this time than a listing of the classic regions would suggest. The trade in fresh apples with Britain and New South Wales was the central focus of the industry. Any manufacture was incidental and limited to cull apples. The second sector was "other tree fruits". Pears, apricots and plums accounted for almost all of the £95,360 (7.0%) produced in this category. Three minor fruits in this category - cherries, peaches, and quinces - had outputs of about £1,000 each. Fresh pears were systematically exported to Britain while some apricots were sold on the Sydney market. The balance of these and the other crops were sold locally or processed into tinned fruit and jam. Production was mainly along the east bank of the Derwent.

Small fruits and hops respectively accounted for 12.0 and 10.9 percent of the total net value of fruit production. Berry fruits were grown in the hills south of Hobart and around New Norfolk. Almost the entire production was made into jam or pulp. Hops were concentrated on the terraces of the Derwent and its tributaries above New Norfolk. These hopfields supplied almost the entire Australian demand for brewers hops. Details of the small fruit and hop industries are examined in a subsequent

chapter. Apples were the dominant crop and this section focuses on the structure and problems of the apple industry during the 1920s.

The area devoted to the production of apples was 25,008 acres containing 3,451,061 bearing trees (1926/27). Seven of the formal regions contained a horticultural component and apples were important in six. The South was the region of greatest concentration with over two million trees (60.3% of state total) grading into the Southern Fringe (6.4%) and the South Midlands (9.2%). The Central Midlands South had a horticultural component in its Hamilton subdivision though apples (0.5%) were insignificant. The region gained its economic profile from hops in the Ellendale area. The Lower Mersey (3.5%), the West Tamar (12.0%) and the East Tamar (4.0%) were the apple producing regions in the north.

A list of fruitgrowers contained in Wise's Post Office Directory 1927 has been used to map orchard location in southeastern Tasmania (Figure 13). The term "fruitgrower" was not defined and the provenance of the listing was not explained. There are reasons for suspecting that the data were a compilation of export apple and pear growers. There are also reasons for suspecting the individual entries. Even the tallies into district totals are not without problems as some postal localities in the fruit districts do not appear. However, any deficiencies in the data do not distort the basic pattern. The dominance of the region to the south of the Derwent is apparent. Also evident are subregions within the South.

The three municipalities at the mouth of the Huon River contained 1,365,972 bearing trees. Of the 921 commercial farms, no less than 902 had a fruit emphasis. Only 13 of these combined fruit with another activity. Almost all of the fruit properties would have been involved in some way with apples. Orchards hugged both banks of the river south of Huonville running to Sturges Bay down one side and to Port Cygnet along the other. These districts were the centre of the Tasmanian apple industry. Interstate ships could collect cargo at Port Huon or Port Cygnet though overseas apples were carried to Hobart by river steamer and exported from that port.

The other three municipalities of the South contained 713,638 trees. There were 751 commercial farms of which 611 had a fruit orientation. An unknown fraction of these may not have had apples as some districts had a

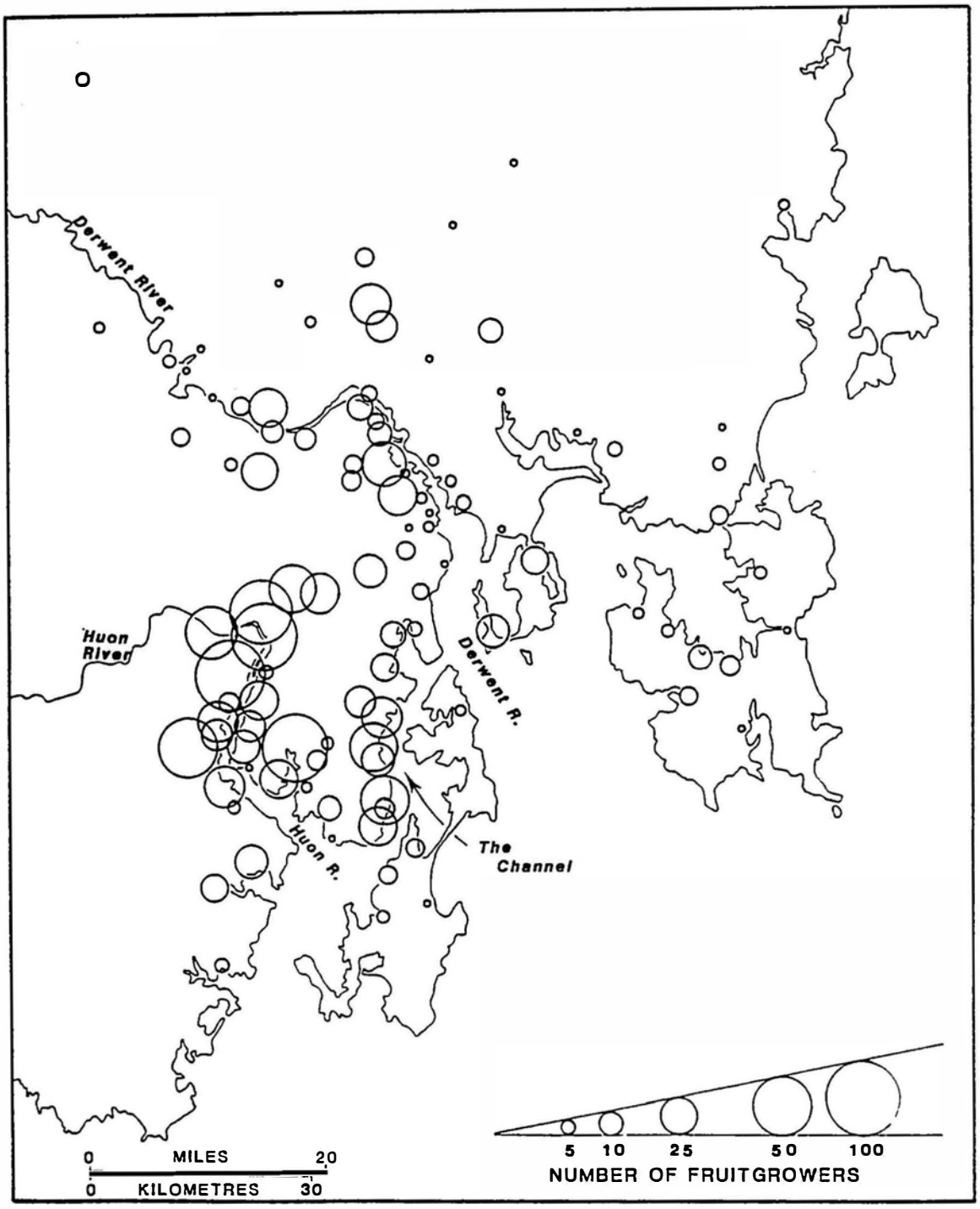

Figure 13 - Distribution of Orchards in Southeastern Tasmania 1927

heavy concentration on berry fruit. One hundred of the fruit farms combined fruit with another activity, usually hops or dairying. Orchards were concentrated along the Channel opposite Bruny Island, in the northern suburbs of Hobart, and in the New Norfolk district. Greater diversity of overall farming systems, less concentration on apples within the fruit sector, and smaller orchard size were obvious contrasts between these areas and the Huon Valley. Other data confirm the distinction. Of particular importance was the trend in the ratio of bearing to non-bearing trees which indicated that few orchardists in this region compared with the Huon Valley were planting new trees to replace those that had passed their profitable lifespan or to adapt orchards to changes in demand for specific varieties.

North of the Derwent, the orchards became more scattered and the systems more diverse. There were 110 properties in the four municipalities of the South Midlands with a fruit component. Of these, 60 were fruit specialist operations. These were mainly found along the Midlands Highway between Brighton and Green Ponds. A large packing shed in the rail yards at Bagdad was an unusual local feature.[1] Apparently, the railway was important in moving fruit from inland districts to the port at this period. The other 50 properties were mixed operations combining fruit with agricultural, pastoral or dairying activities. Sixteen farms combined three functions.

Most orchards in southeastern Tasmania were small. There were some large private or company properties such as "Rostrevor" near Triabunna which had 480 acres of orchard, but the industry was overwhelmly dominated by the small farmer with limited resources. One orchard size classification for five southern municipalities suggested a median orchard size of six acres.[2] Almost seventy percent of orchards were less than 10 acres in size with only 154 properties (9.6%) being over 15 acres. This was the level which contemporary sources held to be the minimum for a commercially viable operation. The most important orcharding districts had higher values

[1]Development and Migration Commission "Investigation into the Present Position of Tasmania: Fifth Interim Report (Internal Transport)", Commonwealth of Australia Parliamentary Papers, (Session 1929, Vol. 2), p. 1740.

[2][AD9 712-120] file 29/7, undated pencilled notes on another document, circa 1935.

(Huon 12.8%, Port Cygnet 15.2%) than the average. However, the small scale of most full-time orcharding enterprises gave the southern Tasmanian apple industry much of its special character.

The amount of land in bearing orchards had been declining since 1922. The Government Statistician suggested two reasons for this trend.[3] One involved the growth of the suburbs of Hobart into adjacent orcharding country. The other involved the writing off of many of the orchards that had been planted in the optimistic period around 1910. This optimism had not proven justified and many orchards had been given up as unprofitable and, in the Statistician's terms, either "... resigned to the cow or grubbed out".

This factor was especially important in the Tamar Valley where the prewar boom in orcharding had been most intense. Overseas immigrants and overseas capital had even been drawn into orchard speculation. Real estate firms in Launceston bought land, planted out orchards and put it up for sale, advertising heavily in army circles in India and South Africa.[4] Some agents were honest, selling good apple country and arranging sound management for the absentee owners. Others were selling land suitable only for quarries with incompetent managers. Many derelict orchards were now being abandoned. The four municipalities of the Tamar Valley saw 18.9 percent of bearing trees removed between 1921/22 and 1926/27. This compares with a 3.6 percent decline in the three Huon municipalities and an 8.8 percent decline for the state as a whole. Little money was recovered by the investor. It was claimed that Anglo-Indians alone may have lost £100,000 in Tamar orchards.[5] For example, one orchard at Karoola in the Lilydale Municipality which had cost £3000 to set up was sold for only £600 in 1927.[6]

These northern orchards had some advantages. The Tamar had been less affected by World War I than the south, being oriented at that time

[3]"Production: Stock and Crops", Statistics of Tasmania, (1926/27), p. 4.

[4]Partridge, F. A History of the Apple and Pear Industry in the Tamar Valley, Major Study, TCAE (1976), p. 20.

[5]Examiner, 18 May 1926.

[6]North Eastern Advertiser, 10 June 1927.

towards the interstate trade. Increasing maturity of trees led to increased production and the opening of Beauty Point as an export port. Between 1922 and the end of the 1927 season, the northern port shipped 862,559 cases overseas.[7] The trade was also well organised. The Tamar Valley Co-op was to the forefront in organising community packing sheds. It had already opened seven central packing facilities with the long term goal of eventually exporting all Tamar fruit under a common label.[8] Orchards were also more diversified. Pears were found on most orchards. In addition, one fruit property in four was classified as a mixed farm in the 1926/27 farm-type classification.

In the south, a modest living could be made from a typical orchard in a good year. However, few growers had the resources to tide them over a bad season. Crop failures and market slumps were commonplace. An air of depression had hung over the orcharding districts since the war with only the 1925 season being judged as offering reasonable returns. The 1926 season can be used to illustrate the precarious position of the apple industry. A record crop of 4,132,000 bushels was harvested but the year saw an unmitigated series of marketing disasters. Just over half the crop was exported to Britain but the average return was only three shillings a case. The export season had started off with an arsenic scare. The discovery of "certain deposits of arsenic" on American apples following several poisonings led to health authorities prosecuting fruit retailers.[9] The resulting publicity reduced demand for apples from all sources.[10] Then, the British national strike disrupted shipping and marketing at the height of the season. At one time, there were seven fruit ships awaiting unloading at King George V docks in London.[11] More fruit was blocked in warehouses. The price dropped to disastrous levels when all of these apples were released onto the market. The loss of purchasing power caused by the strike and the re-emergence of the arsenic scare at a time when alternative fruits were becoming available

[7]Mercury, 21 June 1937.

[8]Mercury, 15 January 1929.

[9][PD1-415] file 61/1/26, 23 December 1925.

[10]Tasmanian Fruitgrower and Farmer, 1 January 1926.

[11]Mercury, 26 November 1926.
Mercury, 11 January 1927.

ensured that the market never recovered.[12]

Nor was the fruit particularly sound. The total crop was large in terms of bushels but the apple sizes were smaller than normal. Exporters had been allowed to ship apples below the minimum diameter even though this could have had serious effects on the reputation of Tasmanian fruit on the British market. It also reduced the price received per bushel even though the export costs were the same. The effect of all these factors was a year in which the net value of the crop was only £515,100. Many growers who had shipped on consignment made such heavy losses that they were unable to continue.[13] W. A. Rayner, an orchardist of Dromedary wrote to the Premier outlining the desperate plight of growers in his district:

> "... there are a number of them on the verge of ruin and unless we get help we will have to ask the government to fund road work for we cannot starve so black is the outlook".[14]

Many orchardists were saved from collapse only by advances from fruit firms and by a joint Commonwealth-State loan of 50,000 to assist growers in difficulties. These enabled the necessary work for the production of the next crop to proceed.

The 1927 season was better in every respect except the number of bushels produced. The quality of the fruit was higher and crop failures on the mainland reduced competition on both domestic and overseas markets. The interstate market was the more profitable, averaging 9s 8d per bushel, and received priority.[15] Shipments to Britain were down by over a million cases even though fruit ships scheduled for Victoria and South Australia were directed to Hobart.[16] It was sometimes difficult to get growers to forward fruit for overseas shipment given the higher return from interstate.[17]

[12] Huon Times, 18 January 1927.
Tasmanian Fruitgrower and Farmer, 1 July 1926.

[13] "Annual Report of the Department of Agriculture 1926", Journals and Printed Papers: Tasmania, (1926/27), Paper 6, p. 9.

[14] [PD1-415] file 61/26/26, 9 October 1926.

[15] Mercury, 20 July 1927.

[16] Advocate, 3 January 1927.

[17] Mercury, 25 February 1927.

However, the overseas average price of 8s 2d was significantly up from the previous years overseas average of three shillings and overseas sales contributed to the success of the season. Net returns from a total crop of 2,902,000 bushels was £954,000. This was the best result since the war and came at a vital time. A good year, it was claimed, was necessary to restore grower confidence in the industry and prevent the widespread abandonment of orchards.[18]

At the beginning of the 1927 export season, the Burnie Advocate discussed what it saw as the three major problems of the Tasmanian apple industry.[19] All were marketing problems. It was becoming realised that marketing was as important as production. The first theme that the Advocate examined was the excessive concentration on the London market. Other ports in the north of England, in Europe, and the East were poorly served while sales at Covent Garden were often depressed by the simultaneous arrival of three or four ships carrying southern hemisphere fruit. In 1928 for instance, Liverpool was without Australian fruit for five weeks at the peak of the season while London was glutted.[20] This concentration on London was a peculiarity of the Australian-New Zealand trade.[21] English fruit importers stressed the need to decentralise or at least schedule shipping to space out arrivals at the Thames.[22] It was widely believed in the industry that an apple export board could solve this problem.

Poorly synchronised marketing was also seen in the mainland trade. The Huon Times suggested that shippers should adopt a simple and pragmatic system of spreading the trade by shipping regularly in a 4:2:1 ratio to Sydney, Brisbane and Melbourne.[23] It described the fiasco that occurred on

[18] "Annual Report of the Department of Agriculture 1927", Journals and Printed Papers: Tasmania, (1927/28), Paper 11, p. 8.

[19] Advocate, 8 January 1927.

[20] [PD1-448] file 61/19/28, 20 July 1928.

[21] Mercury, 1 March 1927.

[22] Mercury, 15 January 1927.
Mercury, 26 November 1927 (Report C.W. Grant).

[23] Huon Times, 22 March 1927.

one occasion when Sydney prices reached 17 shillings.[24] This created a "rush" to catch the market high but the arrival of 38,400 cases on the "Riverina" and 18,000 cases on the "Koranui" caused a five shilling slump in the price. Prices probably would have remained firm if 20,000 cases had been directed to Melbourne or Adelaide. However, growers were not the only villains in market flooding. Shipping companies would delay sailing in order to scour up larger cargoes. The "Ngakuta" wiped out the Brisbane market by waiting for 20,000 cases rather than sailing at the scheduled time with 12,000.[25]

Shipping problems are a matter that will be examined in detail for the 1930s. Overconcentration on London and Sydney, and the attempts to catch markets rather than ship in a regular fashion were problems that could be solved by finding some method of coordinating the activities of two thousand growers. The situation of each making separate arrangements was detrimental to the industry. The inefficiencies of the distribution system can be highlighted by the behaviour of speculators in Sydney. They would buy Tasmanian fruit when the price was low. It would then be railed to Melbourne with a profit for the broker.[26] It was obvious to many that some form of central marketing system was required to divert more of the profits in the trade to the growers.

The second problem discussed in the Advocate involved the poor quality and presentation of Tasmanian fruit on the overseas market.[27] It specifically described how Canadian and American fruit came with each apple carefully wrapped and placed in a colourful container. The cost of wrapping was more than recovered in the higher price. This report was exaggerated but there were many others in a similar vein which suggested that there was something wrong with Tasmanian fruit. For instance, the Mercury reported that New Zealand apples fetched two shillings a case more than the same variety and grade of Tasmanian.[28] This was mainly attributed to strict

[24]Huon Times, 29 March 1927.

[25]Huon Times, 26 April 1927.

[26]Huon Times, 20 April 1927.

[27]Advocate, 8 January 1927.

[28]Mercury, 23 July 1928 (Report A.J. Villiers).

government control over the quality of exports from the Dominion.[29] The product was regarded by English brokers as dependable. Some credit was also attributed to the impact of gaily-decorated fruit cases from New Zealand travelling in lorries around London. The Tasmanian product might as well have been soap according to the trade.[30]

Presentation was just one example of the problems affecting the reputation of Tasmanian apples. Other issues concerned recurring claims of fraud and the difficult matter of the hardwood dump case. Allegations of outright fraud were common. C.W. Grant, a Tasmanian visiting London, saw apples which "...had been topped, cases which contained beautiful fruit on the top layer and what was practically rubbish underneath".[31] Outraged growers responded to the above statement by pointing out that unscrupulous English brokers could be to blame.[32] However, there were enough reports to suggest that the English trade had little faith in the reliability of Tasmanian exports. Bad experiences, claimed one English importer, like the small apples shipped in 1926, gave the state a poor reputation despite the quality of most fruit.[33]

The hardwood case was another long standing problem. Cases made of Tasmanian timber were heavy which added to rail freight costs in Britain. They were also hard and unyielding so that the apples were frequently bruised. The trade could have lived with these problems.[34] The more important concern was that many local millers could not afford the cost of seasoning case timber.[35] The unseasoned wood created unsightly stains that gave an impression to the buyer that the contents were bad.[36] The same apples in a case made of Canadian pine, or in a finished hardwood case with

[29]Mercury, 25 July 1928 (Report A.J. Villiers).

[30]Mercury, 23 July 1928 (Report A.J. Villiers).

[31]Mercury, 26 November 1926 (Report C.W. Grant).

[32]Mercury, 29 November 1926.

[33]Mercury, 15 January 1927.

[34][PD1-458] file 20/2/29, 15 January 1929.

[35]Mercury, 2 July 1928.

[36]Huon Times, 4 February 1927.

planed ends, would bring an extra shilling.[37]

More care by growers, improved export regulations and stricter inspection were remedies suggested by the Huon Times.[38] For instance, inspectors could visit orchards and inform the growers of the precise requirements for export fruit. They could also use the opportunity provided by the visit to select brands for intensive scrutiny on the docks. The editor also suggested a prohibition on the export of plain grade and two-inch apples. This type of fruit did not pay after shipping costs were deducted. However, there were some who defended the trade. F. H. Peacock, the manager of Henry Jones and Co. argued that the export of plain grade and small apples fulfilled a specific demand at the bottom of the market and was a "fair" trade as long as the fruit was correctly labelled.[39] He also claimed that it was invalid to compare the bulk shipments of Tasmania with the limited quantity of high quality fruit shipped from New Zealand.

The third problem mentioned in the Advocate involved the production of too many varieties of apples in Tasmania.[40] It was argued that exports should be limited to ten or twelve major varieties. At that time, any type of apple was accepted for export which created problems in handling and selling Tasmanian fruit. These were described in graphic terms by F.R. Ridley, an English fruit broker.[41] Shipments from Canada or New Zealand would contain a limited number of lines while 5,000 cases from Tasmania required "... Hyde Park for sorting". One grower shipped twenty cases containing three varieties in several different grades. Each had to be catalogued and sold separately. Some of the minor varieties were profitable to the grower but not to the trade. Others were profitable to nobody costing ten shillings to export and bringing five shillings in London.[42] Rationalisation to a dozen varieties would increase the efficiency of the trade but would cripple many growers.

[37]Mercury, 2 July 1928.

[38]Huon Times, 7 January 1927.

[39]Mercury, 20 July 1927.

[40]Advocate, 8 January 1927.

[41]Mercury, 25 July 1928 (Report A.J. Villiers).

[42]Huon Times, 4 February 1927.

The Commonwealth had proposed a scheme for apples similar to the successful export boards for butter and dried fruit. The Minister for Marketing, Mr T. Paterson, toured the fruit districts in the autumn of 1927 trying to muster support for the Fresh Fruit Control Bill.[43] This bill would set up a seven member board that would supervise the export trade in apples. The Board would license export firms and growers and try to improve standards through its power to revoke export permits. The Board would also organise shipping to even out arrivals and attempt to negotiate cheaper rates for freight and insurance.

The bill would not become effective until growers were polled and had agreed to the proposition. There were strong feelings in Tasmania. Opposition to the scheme was led by the Fruitgrower's Protective Union which argued that the two Tasmanian representatives would be outvoted and the trade organised to the disadvantage of the main producing state. Paterson refuted this argument claiming that the mainland states were unlikely to want to squeeze Tasmania out of the export trade as any apples displaced from the low profit overseas market would certainly appear in the Australian urban market.[44] More telling was the dislike of the 1d levy on every export case and arguments that New Zealand with its Fruit Board paid the same ocean freight as Tasmania.[45] There were also fears that a mainland dominated export board would declare certain varieties obsolete and ban them from the export trade. While this would not be an overt anti-Tasmanian action, Tasmania would be the most affected state.

The need for an export control body of some kind was critical. Tasmania was facing increasing competition on its traditional English market. Cool store apples from England, Canada and the United States were encroaching on the market from one end while the later part of the season saw growing competition from other sources of southern hemisphere apples. Tropical and subtropical fruits were also cutting into the market. Organisation was needed to maintain existing markets, to expand into new markets and, in particular, to reduce the costs of export. Even the smallest sums were important. As Paterson declared to a meeting of

[43]North Eastern Advertiser, 1 March 1927.

[44]Huon Times, 4 February 1927.

[45]Advocate, 13 September 1927.

orchardists at Spreyton, " ... if a savings of but sixpence per case can be made, it will represent tens of thousands to the growers".[46] This would be of critical importance to an industry where the producer received such a small percentage of the proceeds from his labour.

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[46]Advocate, 10 September 1927.

CHAPTER THREE - THE DEPRESSION IN RURAL TASMANIA

3.1 The Rural Economic Cycle

Studies in the geography of agricultural depression must somewhere include an analysis of two fundamental aspects of the depression experience. Firstly, they must consider the general timing of depression and recovery. This need not be a discussion of the economic cycle in a technical sense. Indeed, it can be argued that the economic cycle has more validity as an historical concept than as a predictive model. In its historical role, the economic cycle has often provided the framework around which economic historians have structured discussion of complex blocks of time. For example, the trade cycle was used by Hartwell in his examination of the development of Van Diemens Land.[1] In this present study, the economic cycle has been based on trends in gross and net returns to the agricultural sector. A local and rural cycle was regarded as particularly important given that traditional historical models of the 1930s are based on the national experience.

Secondly, a geography of agricultural depression must be geographical. Beever has noted that the impact of the Great Depression in Tasmania was spatially uneven. He argued that "... the degree of depression varied from region to region, something characteristic of most depressions but one usually neglected for the overall view".[2] This neglect is partly due to data problems. Beever utilised banking records to briefly evaluate patterns in the northern half of the island. The present study has essentially relied on official statistics for regional data. The agricultural and pastoral statistics were notoriously deficient in economic matters. The third part of this chapter will explore a number of alternative methodologies for reconstructing the regional impact of the Tasmanian agricultural depression.

Trends in the value of rural production are shown in Figure 14. The gross value was defined by total output valued at average price. It was a

[1]Hartwell, R.M. The Economic Development of Van Diemen's Land 1820-1850, (Melbourne, 1954).

[2]Beever, E.A. Launceston Bank for Savings: A History of Australia's Oldest Savings Bank, (Melbourne, 1972), p. 142.

crude measure of returns to the farming sector. The main problem was that some production was not marketed but used on the farm as an input to further production. At least £500,000 of fodder crops was fed to horse and bullock teams on cropping properties or sold as milk off dairy farms. As well as being unrealistic to have this valued at city prices for fodder; it also introduced a dilemma with double counting. Nevertheless, the gross value offered the most consistent method of comparing the 1920s with the 1930s. The visible breaks in the line were caused by new procedures introduced in 1925/26 to reconcile farm returns with records of factory production and exports and later (1933/34) by unexplained revisions in the value of livestock products. It must also be noted that the latter half of the line is not the gross value as published in the annual statistics. The methodological revision of 1933/34 included an estimate of the annual value of poultry production. This amount has been subtracted to maintain comparability with the earlier system of defining gross value.

The gross value of rural production grew slowly through the 1920s. Most of the increase occurred in the final three years of the decade. At this time, prices were beginning to weaken. Seventeen major cropping and livestock activities were examined for 1926/27, 1927/28 and 1928/29 and compared with the immediately preceding three-year period. Price falls outnumbered rises by eleven to six. This was in line with trends appearing in mainland wholesale indices for rural products.[3] It implies that the increases in gross value were production driven though the 1928/29 peak of £6,705,100 partly reflect the abnormally profitable season for the potato industry. There was then a rapid descent into depression. In 1929/30, the gross value of rural production was £5,500,360. There was a further drop to £4,550,610 in the following year. The gross value remained at this level through 1931/32 and 1932/33 with improvement evident in 1933/34. The depression cycle concluded in 1936/37 with good gross returns in this year and through to the end of the decade. By this interpretation, the Tasmanian farming community spent seven years in succession (1929/30 to 1935/36) when the gross returns from agriculture were at levels significantly below those achieved during the 1920s.

The procedures adopted in 1925/26 to define the net return have been described elsewhere. The system was extensively modified in 1933/34. The

[3]Commonwealth Official Year Book 1935, p. 351.

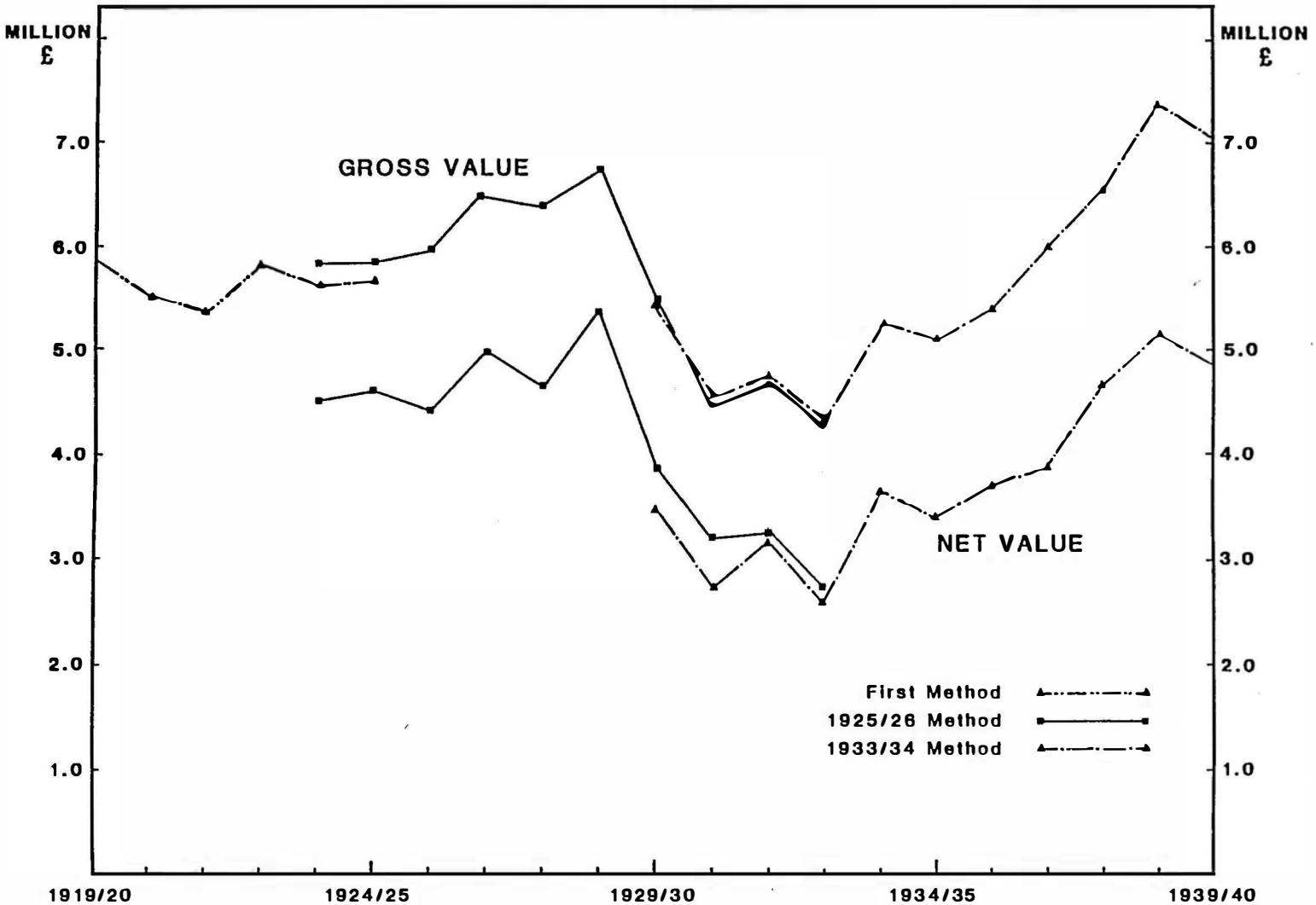

Figure 14 - Value of Rural Production
1919/20 to 1939/40

official statistics reworked the data for the previous four years in order to provide a comparison of the two systems. This revealed an average discrepancy of almost £300,000 as the methods used to estimate many costs had been changed and additional costs, most importantly depreciation on machinery, had been included. Nevertheless, there was sufficient similarity between the two systems (Figure 14) to make a statement about the impact of depression on the net returns to agriculture. Unfortunately, it was no longer possible to comment on net returns to individual activities such as potatoes or wool as costs formerly ascribed to the item were now only allocated to a broad grouping of commodities.

The general structure of the economic cycle is almost identical. The major discrepancy is whether farm income in 1936/37 should be interpreted as fully recovered (gross) or only partly recovered (net). Net incomes however provided a better measure of the stress placed upon the rural economy by reflecting the amount of unrealised income and the burden of fixed costs. The worst years of the depression were 1930/31, 1931/32 and 1932/33. During this period, average gross incomes were 30.9 percent below the mean set in the three years (1926/27 to 1928/29) immediately before the depression. Recorded costs had declined by less than ten percent leading to a reduction in net farm income of 38.4 percent. It must also be remembered that the Government Statistician's definition of net farm income was a long way from being a measure of profit. It was a statement of the amount from which distributions could be made to labour and capital. Many other factors such as the wages of hired labour, the value of family labour, rates, rents and mortgage interest would need to be deducted before assessing the real return to the rural sector.

Falling incomes may be counterbalanced by falling prices. Net returns in Figure 15 have been adjusted to reveal the impact of deflation on the rural economic cycle. The Tasmanian "cost of living" index has been used to measure changes in the value of the currency.[4] The index was based on the weighted average of living costs in five Tasmanian towns. Although it reflected conditions in urban areas, the weighting given to food, groceries and clothing in the construction of the index suggested that it was not completely inappropriate for reviewing the farmer's domestic budget. Its relevance to farm costs per se was less certain.

[4]Commonwealth Official Year Book 1935, p. 356.
Commonwealth Official Year Book 1941, p. 700.

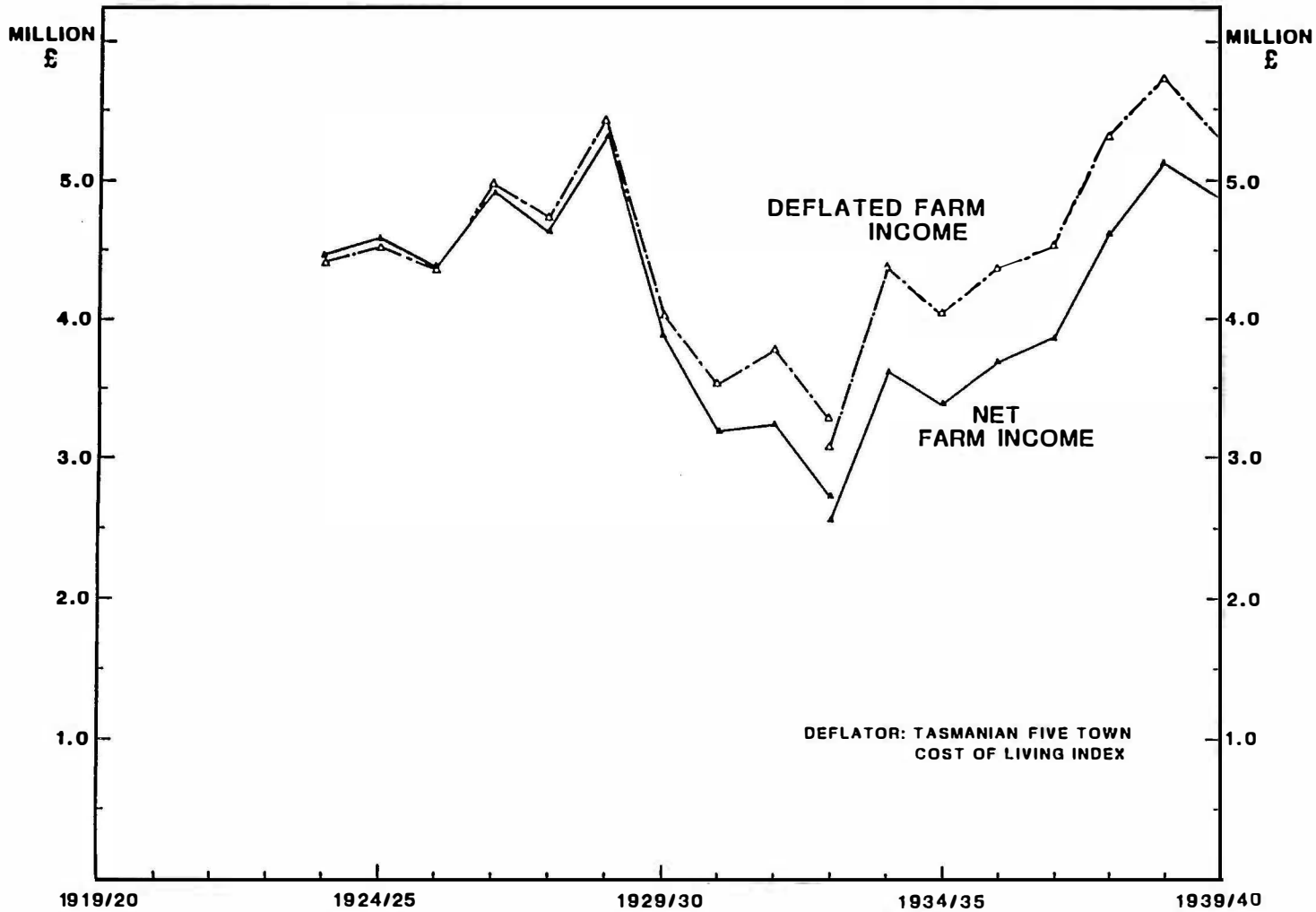

Figure 15 - Value of Rural Production:
Deflation Adjusted

The trend in deflated farm income suggested that the onset of depression was more abrupt, the maximum less severe in intensity, and the recovery earlier and more extensive than previously indicated. The fall in farm incomes in 1929/30 was virtually unaffected by deflation. Farm prices fell far more rapidly than prices for consumer goods. Retail prices eventually reacted to the new market conditions so that farm incomes in 1930/31 were buoyed up by a deflation factor of some £315,000. The deflation factor was worth £554,000 in 1931/32 and £1,115,000 in 1932/33. This led to a considerable amelioration in the impact of the depression. The decline in net farm income from the average of three pre-depression years to the average of three depression years was reduced to 30.1 percent. It was previously reported as being 38.4 percent. Finally, the depression was shortened. Only the four years, 1929/30 to 1932/33 inclusive could be regarded as seriously below real income levels commonly experienced in the 1920s especially as net incomes after 1933/34 reflect the impact of additional costs in the calculation of the net return. However, both measures end the full depression cycle in the eighth year (1936/37). The following three seasons experienced returns as good as or better than any that occurred during the 1920s.

The discussion up to this point has been ahistorical. Gross and net returns to agriculture have been used to set up a rural economic cycle. Virtually nothing has been said about the factors behind these trends or how they impacted upon the Tasmanian community. These are matters of considerable historical importance. The balance of this section will address three problems involved with the interpretation of the rural economic cycle in order to restore the historical commentary to an otherwise neutral analysis.

The first of these problems involves the nature of economic conditions in the 1920s. The standard hypothesis puts forward the concept that prosperity peaked in 1925 and that the Tasmanian economy slipped inexorably from that point towards the crash of 1929. This argument seems to be based on the extrapolation of Australian trends to the Tasmanian situation. Nevertheless, it can be supported by local evidence. Trade union unemployment records show that, in 1925, 7.4 percent of the membership was out of work.[5] The proportion of Tasmanian unionist unemployed in 1929

[5] Labour Report 1929, p. 115.

averaged 13.4 percent with the rates in the third and fourth quarters being in excess of fifteen percent.

Scott has claimed that the decline in farm profitability in Tasmania began in 1925.[6] He cited no specific reason for this trend though it can be linked with the softening of markets for Australian agricultural commodities caused by the postwar rehabilitation of European farming.[7] It can also be linked with the whole pattern of global deflation that began in that year. Both of these processes were reflected in the wholesale price indices compiled on the mainland. The "all-commodities" index in Melbourne was losing about one percentage point each year through the middle and late 1920s.[8] Locally, the Tasmanian statistics noted price deterioration for important commodities such as wool, wheat, meat, small fruits and hops.

Beever put forward an alternative hypothesis which claims that the late 1920s were years of mild prosperity for Tasmania.[9] This was attributed to a number of factors including several profitable years for orcharding, principally 1926/27 and 1928/29. The Tasmanian statistics also noted a number of price rises affecting major products like pome fruits, peas, root crops and factory milk. These partly counterbalanced the larger number of price falls. Gross and net production values (Figures 14 and 15) support the Beever conclusion. Net returns in the period 1926/27 to 1928/29 were 11.1 percent higher than net returns in the years 1923/24 to 1925/26.

The contradiction between the two positions does not mean that one is correct and the other erroneous. Increased production was the main factor behind the increase in rural incomes in the late 1920s. If the published statistics on products marketed are regarded as correct, then the

[6]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), p. 59.

[7]Schedvin, C.B. Australia and the Great Depression: A Study of Economic Development and Policy in the 1920s and 1930s, (Sydney, 1970), p. 27.

[8]Labour Report 1930, p. 11.

[9]Beever, E.A. Launceston Bank for Savings: A History of Australia's Oldest Savings Bank, (Melbourne, 1972), p. 141.

increased production in the second triennium was worth more than £825,000 per annum. The effective impact of this increase in production was reduced to about £500,000 by unfavourable price trends. If the impact of falling prices had not been countered by production gains, net farm income would have fallen by 3.9 percent from the average level established between 1923/24 and 1925/26. Any assessment of whether the steady deterioration of prices under the influence of global factors should be regarded as more important than rising rural production stemming from the policies put forward by Cameron, Findlay and Ward must be a matter of the exact case that is being argued.

There can be no doubt that the economic system collapsed in 1929. The monthly details of the Sydney "all commodities" wholesale price index pinpointed the collapse to the last few months of 1929.[10] The index had reached a two year peak of 1,936 points in October. In November, the index began to plummet. It passed below any normal trading range by April 1930 and finished off the year at 1,493 points. This represented the end of the free-fall phase. Index values in the low 1,500s were the norm for the next five years though there were lengthy periods such as the eight months from October 1932 to May 1933 when the index stagnated in the high 1,400s.[11]

The most obvious correlation with the timing of the collapse of Australian commodity prices was the Wall Street Crash which began on 24 October 1929. Historians have by no means resolved the problem of what caused the Great Depression. Some assign a fairly limited role to "Black Thursday". Rees, for instance, placed more emphasis on exchange rate imbalances than on the antics of Wall Street speculators though he does not hesitate to accept that the loss of $50 billion in market capitalisation within a single week reduced personal consumption and created a psychological barrier against investment.[12] Other scholars identify the Wall Street Crash as the principal factor that turned an American recession into a global

[10] Official Year Book of New South Wales 1929/30, p. 711.

[11] Official Year Book of New South Wales 1931/32, p. 715.
Official Year Book of New South Wales 1933/34, p. 598.

[12] Rees, G. The Great Slump: Capitalism in Crisis 1929-1933, (London, 1970).

depression. Galbraith is among those who argue that the subsequent failure of nine thousand American banks and a hundred thousand American companies turned a financial panic into worldwide depression by destroying markets for both capital and goods.[13]

As a country, Australia was highly exposed to any downturn in world trade. The Commonwealth Official Year Book succinctly stated the problem in its 1931 edition.[14] It noted how Australia in 1928/29 had a national income of £100 per head. Imports cost £23 while obligations for overseas interest were £5. Export earnings were only £21 per capita. The deficiency was made up by overseas borrowings by the states and private capital investment. The events of October 1929 meant that export revenues were soon grossly depleted as both wool and wheat were in particularly exposed market situations. The costs of imports fell by a much lesser amount and the inflow of investment capital nearly ceased. This threw the country into a balance of payments crisis.

The Scullin government responded with conventional economic policies. These were virtually guaranteed to worsen the situation. However, Beever has argued that the Tasmanian economy should have been partly insulated from the spreading depression by two factors.[15] The first was that the state faced no difficulties with its overseas borrowings. Beever attributed this to the fact that private foreign investment in Tasmania had been negligible. It could also have been argued that the state's public debt burden had been reduced following four budget surpluses brought in by the Lyons Ministry. The second factor noted by Beever was that the ratio of overseas to interstate/local trade was low. Only twenty percent of the value of shipments leaving Tasmanian ports was destined for foreign markets. The low exposure to overseas price trends was true even for rural products though the proportion of shipments exported was closer to thirty percent. Some products like hops and potatoes were commercially marketed only within Australia while the main export commodities had important outlets within the country such as Sydney for apples and Launceston for wool.

[13]Galbraith, J.K. The Great Crash 1929, (Boston, 1961), p. 174.

[14]Commonwealth Official Year Book 1931, p. 757.

[15]Beever, E.A. Launceston Bank for Savings: A History of Australia's Oldest Savings Bank, (Melbourne, 1972), p. 140.

Beever believed that these factors ameliorated the depression in Tasmania. Farmer was also of the opinion that the depression was less severe locally than on the mainland.[16] The statistical data suggests that the case remains to be proven. Some data sources point in opposing directions. The fall in deposits held by savings banks was much less in Tasmania than on the mainland.[17] This suggests that conditions were better. However, the heavy reduction in cheques cleared through the Hobart clearing facility may have indicated relatively more stress on commerce in Tasmania than nationally.[18] The unemployment statistics were neutral through 1930 and 1931 with higher trade union unemployment rates reported in some quarters and lower in others. The interesting divergence between the state and national trend (in favour of the state) appeared only in the middle of 1932.[19]

It is not my intention at this time to fully investigate the nature and implications of the rural depression. However, it is important to note that Beever's argument that goods sold on the Australian market were less exposed to depression than goods sold overseas was flawed in the case of Tasmanian agricultural products. Products that were primarily export commodities saw domestic prices fall towards export parity while those that were largely marketed on the mainland faced unprecedented difficulties. The impact of thirty percent unemployment in the major cities and the additional loss of spending power through wage cuts and short time, reduced the demand even for basic goods like potatoes.[20] The five most severely affected rural commodities as measured by decline in net income between the three pre-depression years and the three depression years were oats, wheat, turnips, wool and potatoes. These activities lost more than fifty percent of their previous net value. The five least affected were cattle, peas, swine, milk and barley. These listings suggest that there was no general difference

[16]Farmer, R.S. The Geography of Migration in Tasmania 1921-1961, PhD thesis, Geography, University of Tasmania, (1968), p. 87.

[17]Commonwealth Official Year Book 1932, p. 354.

[18]Commonwealth Official Year Book 1932, p. 349.

[19]Labour Report 1931, p. 107
Labour Report 1935, p. 106

[20]Advocate, 8 December 1932.

between crops marketed overseas and on the mainland though there was a hint that commodities with a market almost entirely within the state (cattle, swine) were favourably placed. However, their impact on total rural income was negligible.

The third problem involved the timing and extent of recovery. Different measures have identified different points for the nadir of the depression. Unemployment figures, for instance, highlight the fourth quarter of 1931 when Tasmanian trade union unemployment figures peaked at 28.4 percent. The average rate over the fiscal year was 27.6 percent. Likewise, this was the year in which Tasmanian company profits were at a minimum.[21] Farm incomes bottomed out slightly later than the general economy and reached their lowest levels with the 1932/33 season (Figures 14 and 15). However, the prices for many commodities had actually been lower in 1930/31. The poorer overall returns in 1932/33 primarily reflected extremely bad conditions in the apple industry.

Most measures suggest that economic recovery was firmly in place in 1933/34. Unemployment rates moved below twenty percent, company profits moved towards pre-depression levels, and the agricultural economy picked up with the infusion of over £1 million of additional net income. The economy continued to improve with the unemployment rate falling progressively from 18.3 percent (1933/34) to 11.3 percent in 1936/37.[22] This was a level similar to those that had prevailed before the depression and only slightly above the average Australian rate of 10.6 percent. The Tasmanian unemployment rate had been below the Australian rate up until 1936/37 and was arguably inflated by about three percentage points by seasonal female employment in the food processing industries. A revision of the methodology of calculating trade union unemployment in Tasmania brought the rate back to 8.2 percent for 1936/37.[23] This was significantly below the Australian condition. The superior economic performance of Tasmania suggested by these statistics was real and not merely a result of the migration of the unemployed to seek work on the mainland. Mauldon, an economist with the

[21]Mauldon, F.R. "The Tasmanian Economy in 1936/37", Studies in the Tasmanian Economy 4, (Hobart, 1937), appendices.

[22]Commonwealth Official Year Book 1937, p. 451.

[23]Commonwealth Official Year Book 1938, p. 457.

University of Tasmania, attributed the revitalisation of the state's economy to two factors.[24] One was the policy of the Ogilvie Labour government in spending public money to counter unemployment. Public works budgets were trebled and used to build, inter alia, the major hydro-electric schemes on the Central Plateau. The second factor was the beginning of rearmament in Europe which increased the demand for the base metals produced by the mines of the West Coast. Higher metal prices also affected the Electrolytic Zinc Company's smelter at Hobart. This company, the state's most important industrial employer, was able to report in 1936 that its profits were at the highest level since the slump.[25]

Rural commodities had risen significantly above depression levels in 1933/34 but failed to advance much further until 1937/38. The slower pace of recovery in the rural sector was evident in a Tasmanian wholesale price index prepared by Mauldon.[26] The index covered the years 1932/33 to 1937/38. The agricultural subgroup began at levels fifteen percent below the all-commodities index. The difference fell to ten percent in 1935/36 and disappeared in 1937/38. Examination of prices for individual commodities suggest that this lag between the rural economy and the overall economy was a result of extreme price volatility during the waning years of the depression cycle. For instance, the recovery of 1933/34 was primarily a result of the high price of wool. At 22¼d per pound, it was the best season for wool growers since 1927/28 when prices were only a farthing higher. However barley, wheat and grey peas were in a weak position and the price of factory milk was still declining following the collapse of the Paterson plan. In the following year, the depression returned for wool growers as prices fell back to 11½d. Hay and small fruits were also back to depression price levels. The loss of income from these sources was made up by excellent returns for apples and potatoes. The last major market collapse was of potatoes in 1936/37 when prices were actually lower than the depression level. The phasing out of these extreme swings allied with increased production across a large range of commodities allowed net farm income between 1937/38 and 1939/40 to be nearly identical (-1.8%) with

[24]Mauldon, F.R. "The Tasmanian Economy in 1936/37", Studies in the Tasmanian Economy 4, (Hobart, 1937), pp. 22-24.

[25]Advocate, 7 October 1936.

[26]Mauldon, F.R. "The Tasmanian Economy in 1937/38", Studies in the Tasmanian Economy 5, (Hobart, 1938), appendices.

the results achieved in the three best pre-depression years. If deflation was taken into account, net farm incomes would have been 8.1 percent in advance of the late 1920s.

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3.2 Tasmanian Farmers and the Great Depression: 1930 to 1934

The preceding outline of the rural economic cycle has not examined many important themes. One of these involved the reaction of the farming community to the economic collapse that began during the last months of 1929. At first, the news from New York had little impact; the panic on Wall Street being reported in the local press with amused condescension rather than alarm. As a financial story, it was overshadowed by the announcement during the same week that the mine at Mt Bischoff was to close.[1] Stock market crashes and the faltering price of tin were of minimal concern to farmers busy preparing for the approaching summer. The attitude of the man on the land was that the rural economy was in good condition. After all, the 1928/29 season had been the most financially successful on record. This was due in no small measure to the shift in production away from cash crops towards fruit and livestock products that had occurred in the late 1920s.

This confident rural mood was exemplified by the New Year's Day prediction in the Examiner that 1930 was to be another prosperous year for Tasmanian farmers.[2] However, when the books were closed on the 1929/30 season, it was found that farm incomes had declined by a quarter. Apples, wool and potatoes had fallen to half of the net value recorded in the previous season. This brought depression to the Huon and Midlands though not to the Northwest Coast where the difficulties of the potato industry were offset by good returns from dairying. The 1930/31 season lopped a further £700,000 off net farm income. This took the loss with respect to 1928/29 to over £2 million. Almost no commodity or region avoided the price disasters of this year. Even dairying, protected in 1929/30 by favourable weather and the Paterson plan, was beginning to weaken.[3]

The most visible expression of the first stages of economic decline were in the two cities. Unemployment registers maintained by the Hobart

[1]Advocate, 31 October 1929.

[2]Examiner, 1 January 1930.

[3]Advocate, 24 September 1930.

and Launceston Councils showed that the number of men out of work doubled between October 1929 and June 1930.[4] There were also some spectacular company failures; the most important of which was the closure of the Rapson Tyre Company in September 1930.[5] As well as adding another 100 workers to Launceston's unemployment tally, the failure of the tyre company took with it an investment of some £140,000 and a great deal of public confidence. The blow was especially bitter as the Rapson factory had been a major symbol of the hoped-for industrial renaissance of the 1920s.

Problems in rural Tasmania were first believed to be restricted to chronically stressed systems and regions such as the berry fruit farms found in the hills around Hobart. Elsewhere, farmers were believed to be able to struggle on using traditional finance from merchants and brokers for running the property and from country grocers for day-to-day necessities. Even at the worst, it was assumed that their farms would always provide shelter, food and firewood. The inhabitants of country towns were likewise believed to be able to cope with the first years of this depression through having access to vegetable gardens and having room to keep a cow.[6] These concepts were presumably behind the large differential in rates of payment for sustenance that were to occur between urban and rural areas.

Sir Walter Lee, Minister of Lands, Works and Agriculture was among the first in the State Cabinet to recognise that the problems of rural Tasmania had assumed a new dimension. He argued at a meeting of the Land Settlement Policy Committee on 11 March 1931 that farmers of virtually all classes were "... right up against it".[7] Lee's conversion was based on cases of reputable farmers - family men with years of experience - informing him of how they were unable to carry on and would soon have to walk off their properties. The principal difficulty was that their incomes could no longer service their debts. However, the conservative Nationalist Party in which Lee held office was unable to offer much in the way of a remedy beyond extreme parsimony in public expenditure. It was certainly

[4][PD1-476] file 84/4/30.

[5]Advocate, 25 September 1930.

[6][PD1-492] file 183/5/31, 1 April 1931.

[7][AD9 712-22] file 15/11, 11 March 1931.

unwilling to adopt his proposal for placing the interest of the farmers ahead of those of the banks.

Farmers in difficulty could react in many ways. Five possible responses for the economic conditions present during the first stage of the depression cycle will be examined in this section. Firstly, there was the abandonment option mentioned above. This was not particularly credible at this time. It was not easy to walk away from a farm given the lack of alternative employment. If anything, the movement of population to the towns virtually ceased. It may have even been reversed as unemployed family returned to the country. One measure of the scale of return migration was the marked increase in male farm employment between 1928/29 and 1934/35. The recorded peak was 19,846 representing an increase of 3,557 (+21.8%) over five years. Fewer than 400 were wage employees. The majority were "relatives assisting without wages" though a few were men who had taken up small holdings as an alternative to the dole.

Furthermore, few farmers in 1931, 1932 or 1933 were in danger of eviction. Mortgage holders were unwilling to foreclose as a forced sale was unlikely to recover the debt given the fall in property values.[8] A survey of farm sales undertaken by Mauldon showed a 25 percent decline in the average value of cropping properties during these years.[9] Landlords were likewise reluctant to evict tenants. Farms were difficult to relet and an empty property would rapidly depreciate in value as it began to revert to bush. These conditions would change as the economy improved after 1934.

Secondly, farmers could supplement their income by seeking off-farm work. Unfortunately, the depression reduced the number of available opportunities. The difficulties of the apple industry following the export disasters of 1932/33 saw the closure of 81 sawmills in the Huon.[10] Winter

[8]Examiner, 13 January 1934.
[AD9 712-128] file 3/13-1, 23 December 1938.

[9]Mauldon, F.R. "Economic Trends in Tasmania 1931/32 to 1935/36", Studies of the Tasmanian Economy Number 2, (Hobart, 1936), appendices.

[10]Mercury, 19 August 1933.

work in these mills had been a traditional income supplement for many orchardists. A similar problem developed in the berry fruit region near New Norfolk. Many small fruit farmers, often along with their entire family, worked on the hop estates during the picking season. The money earned was an essential part of the family income. In normal times, employment was assured as hopgrowers had difficulties in recruiting seasonal labour from the towns.[11] The onset of depression saw increasing competition for positions whose numbers were declining in line with the fall in the acreage of hops. In January 1931, a prominent grower had to inform the State Employment Board that the hopfields could provide no relief from growing unemployment.[12] Every vacancy in the district had apparently been promised for months and there were long waiting lists. As many again had evidently been refused work.

Off-farm work in many cases was a matter of survival. F.W. Hicks, the District Agricultural Officer responsible for the Northeast, estimated in 1934 that a dairyman with fifteen cows could expect a cash income of no more than ten shillings a week.[13] For comparison, a married man with three children living in the country was paid a weekly dole of 17s 6d.[14] Hicks argued that impossibly low incomes had already forced many farmers in the Ringarooma district into the bush with their wives left in charge of the farms. Some were "... working at mills; others were scratching tin but most were trapping". The latter was a pretty hopeless proposition given the state of the London market for Australian furs.[15] Nevertheless, Hicks was of the opinion that the possum season should be extended to assist these farmers.

Relief was a third possibility. There was both general relief provided by the State and industry-specific relief usually provided by the Commonwealth. In essence, the Nationalist government that held power in

[11] Mercury, 23 January 1920.

[12] [NS901-62] file "Unemployment", 29 January 1931.

[13] [AD9 712-79] file 29/9, 14 March 1934.

[14] [PD1-521] file 84/38/34.

[15] [PD1-511] file 113/1/33, 18 January 1933.

Tasmania until 1934 viewed farmers more as providers of relief employment than as potential claimants for sustenance and dole wages. This attititude was reflected in the Unemployment (Assistance to Primary Producers) Relief Act of 1930. This was the main depression relief initiative of the McPhee Nationalist government. Loans were provided for farmers to undertake development work such as land clearing, swamp drainage or weed control with funding contingent upon the employment of workers listed on the municipal unemployment register. While the scheme was useful for landholders with cash resources; it was completely out of touch with the needs of the typical farmer who needed an income to maintain his farm and his family. This was partly recognised in 1931 through an amendment that allowed farmers to use interest-free loans to pay themselves a wage while developing their own property. The purpose of this change to the legislation was explicitly stated to be to keep farmers on the land rather than having them compete for relief employment on the roads.[16] The Nationalist government was unwilling to go further. There were no schemes to finance running costs. Private credit was deemed to be sufficient even though one prominent farmer informed the Premier that not one landholder in four from his once-prosperous North Midlands cropping district "... could find the £100 security demanded by banks for a loan of £60".[17]

Direct subsidies from the Commonwealth were paid in a number of rural industries to cover unusual circumstances or unusual hardship. In Tasmania, the largest subsidies were provided to the apple industry under the terms of the Fruitgrowers Relief Act of 1933.[18] This legislation provided £63,800 to assist orchardists who were "without resources" finance the 1934 crop. It quickly evolved into an annual subsidy of between 4d and 5d per case of export fruit. It also became an annual source of contention as to how the money should be distributed. There were varying and bitterly-held opinions on whether these funds should be paid directly to the orchardist or posted to the broker who had financed the crop; on whether aid should go to f.o.b. sellers or be limited to those who sold on

[16] Advocate, 11 January 1932.

[17] [PD1-511] file 118/36/33, 22 May 1933.

[18] Examiner, 14 January 1934.
Mercury, 18 March 1938.

consignment; and on whether the disbursement should be on a flat per case basis or related to returns on the specific varieties shipped.[19] There was even a claim from a sawmiller from the Channel who sought a wider distribution of this relief money.[20] He required funds (£150) to carry on until orchardists could pay for their case materials. Otherwise, he would have to close the mill and lay off its three employees.

The fourth option available to farmers faced with falling prices was to reduce costs. However, as E.R. Hudson pointed out in 1933, it was an economic truism that farm costs were notoriously "sticky".[21] Hudson was the Superintendent of Extension Services and was commenting on farm costs within the context of a review of rural problems undertaken by District Agricultural Officers. There was no evidence cited to support this assertion. Nevertheless, his observation was confirmed by the data used to calculate net farm income. The difference between gross and net farm income can be taken as an index, albeit crude, of farm costs. These costs were derived from three components viz: marketing costs including packing, local freight and commissions; crops used on-farm as seed or fodder; and fertilisers, sprays and dips. The ascribed annual value of farm costs declined by £129,000 (-8.1%) between the pre-depression period and the three most intense depression years. The related fall in net farm income was almost £2 million (-38.4%). Virtually all of the decline came from the value assigned to crops used on-farm. These were directly related to market prices. Marketing costs apparently increased while the decline in fertilisers, sprays and dips was negligible.

Hudson's assertion was also supported by anecdotal and documentary sources. One typical example clearly illustrated the limited scope for reducing costs that were measured by the official statistics as well as some of the problems that could arise through adopting excessively stringent economies. It involved a claim that orchardists had reduced the amount of wood-wool and corrugated cardboard that was used to protect the fruit in

[19] [AD9 712-56] file 9/49, 5 September 1934.
Mercury, 10 October 1934.
Mercury, 18 September 1934.

[20] [PD1-521] file 176/16/34, 13 June 1934.

[21] [AD9 712-79] file 29/9, 3 July 1933.

the export pack.[22] It was also virtually pointless. The money that could be saved in reducing protective packing, say 1d per case, was insignificant when set against all the other costs of growing and marketing export apples.

Many farm costs were not included in the calculation of net farm income either because the data was lacking or because the definition of net income was of income prior to its distribution to labour and capital. These unmeasured aspects of farm costs offered more opportunities for economising than did the type of costs that were measured in the official statistics. It was apparent that repairs and maintenance were drastically pruned. R.W. Winspear, the Chief Executive Officer of the Agricultural Bureau wrote in 1935 of how the low prices of the past few years were visible in "... decayed farm buildings and fences, weedy paddocks, worn-out machinery".[23] The former allegation was borne out by some scattered farm budgets; the latter was confirmed by the declining value of machinery reported in the stock and crop returns. Farmers also reduced wages. Particularly severely affected were casual employees. A farmer from Frankford wrote to the Minister of Agriculture noting how he had once been able to pay 15 shillings a day to a good potato digger.[24] Now, the digger would have to do the same work for 4s 6d. This wage, he claimed, reduced the worker to poverty and still didn't allow the farmer to make a profit. The full extent of wage reductions and retrenchments is not known. Most wages, except in limited parts of the pastoral industry, were arranged privately between employer and employee rather than by formal awards.

The fifth option available to farmers was to produce their way out of depression. The theory was that increased production could counter falling prices. The theory was particularly important during the first three or four years of the depression cycle. Not only was it a logical extension of the Cameron policy of 1925; it was in line with the policy of the Scullin government that led to the disastrous "grow more wheat" campaign of 1930.[25] One early proponent of the "production solution" was

[22] Examiner, 1 September 1932.

[23] Winspear, R.W. Taking Stock: A Tasmanian Viewpoint, (Launceston, 1935), p. 5.

[24] [AD9 712-47] file 3/15, 3 September 1934.

[25] Schedvin, C.B. Australia and the Great Depression: A Study of Economic Development and Policy in the 1920s and 1930s,

"Ploughshare", the rural correspondent of the Examiner. He claimed, after only one year's experience with depression, that farmers should approach the problem of lower prices by increasing the output of exportable products.[26] This call was taken up by farmers. Increases of more than twenty percent (1926/27 to 1928/29 versus 1930/31 to 1932/33) were seen in the quantity forwarded to market in the case of six commodities viz: barley, apples, pears,other tree fruits, factory milk and sheep meats. Lesser gains were recorded by peas, straw and wool. All but straw were export commodities.

The total value of the increased production at depression prices was £427,000 per annum. Eighty percent of this sum was made up by the value of factory milk (i.e. butter) and apples. This suggests that the principal factor at work was inertia. The increase in output of these two commodities was largely the result of factors that were in place before the depression rather than of factors that developed during the depression. These factors included the subsidy for export butter that had been encouraging the growth of dairying in Tasmania throughout the late 1920s while the increase in orchard production was related to trees that had been planted immediately after the war finally coming into full bearing. Nevertheless, the depression gave farmers additional stimulus to move into dairying due to the apparent income protection offered by the Paterson plan, while orchardists could increase their output by intensifying the picking effort. There were also some trends specifically focused within the depression period. For instance, barley had expanded following the success of a newly organised producers' co-operative in exporting a thousand tons of malting barley to the United Kingdom during 1931/32.[27] The expectation of further sales to Britain was sufficient incentive for 8,177 acres to be planted in the following season. This was 3,000 acres more than normal.

The "production solution" depended on two premises. The first was that the British market would absorb the increased production. The second was that this would be done at a payable price. This theory was therefore

(Sydney, 1970), pp. 145-155.

[26]Examiner, 1 January 1931.

[27]Examiner, 10 September 1932.

dependent on other countries being excluded from the British market by Imperial preference and the income earned from British sales being enhanced by the devaluation of the Australian currency against sterling. Neither premise was soundly based. The failure of the Ottawa Conference of July 1932 to establish an Empire trading bloc was a blow to farmers even though preferential duties were established for Australian products. Furthermore, Britain's status as one of the few relatively open markets attracted imports in unprecedented volumes from around the world. This led to price declines beyond any previous experience. Devaluation could not produce a profit in circumstances which had led a journalist working for the London Daily Telegraph to query how he could purchase Tasmanian apples from a street vendor in Soho at two for a penny.[28] This represented a wholesale price at Covent Garden of three shillings a bushel. This was a price that was beyond the capacity of the thirty percent devaluation to turn into a profit for the orchardist in the Huon.

The "production solution" had also led to concerns about farmers adopting unsound practices in an attempt to maximise income. In 1933, the Premier, the Honourable J.C. McPhee, addressed the House of Assembly on the agricultural situation. In his speech, he noted that the Department of Agriculture was becoming concerned that overstocking and overcropping were beginning to affect the long term stability of many holdings.[29] It was also becoming apparent that this policy was ineffectual. Barley was the only commodity that earned more for farmers in the depression years than it had beforehand. This was due to the transfer of additional land into the production of malting barley. If the former production from this land could be valued, then the result would almost certainly have been negative.

Marketing data were available for eighteen commodities. The value of production gains minus the value of production losses was £207,000. This was a fairly ineffective way to counter income losses of £2 million. In fact, the encouragement of production beyond the capacity of the market may actually have been exacerbating the problems of the farming community. The average price decline (-37.7%) for the nine products that increased

[28]Mercury, 2 September 1932.

[29]McPhee, J.C. "Ministerial Statement of the Minister of Agriculture", Journals and Printed Papers: Tasmania, (1934), Paper 8, p. 3.

production, actually exceeded the price decline (-32.8%) of the nine products with declining production. Given the spread around the mean, this difference was not particularly significant. However, it is interesting considering that the latter group contained such highly stressed industries as hops, wheat, oats, small fruits and potatoes. Of these, only small fruit, in the form of jam and pulp, was commonly exported.

The Ministerial Statement on Agriculture in 1934 was delivered by Robert Cosgrove on behalf of the newly-elected Labour administration. In his speech, he noted that the Department had shifted its policy.[30] The essential prerequisites for agricultural recovery were now seen as efficiency in production and marketing. Increased production was to be limited to products where any additional output from Tasmania would not affect their price.

The long term impact of most of the pre-1934 reactions to depression was marginal. Most were patchwork palliatives for immediate problems rather than lasting strategies for reform. It appears that 1934 represents a major watershed in the history of the rural depression in Tasmania. A new interventionist state government, federal funding for rural rehabilitation, and most importantly - better trade conditions - allowed farming to begin to adapt to the commercial climate of the post-depression world.

[30][AD9 712-42] file 2/7, 23 October 1934.

3.3 Regional Intensity of Depression in Rural Tasmania

The lack of regional farm income data has forced historical geographers to investigate alternative methods for extracting the spatial component from within a rural depression. For instance, Grigg examined patterns of rural prosperity in nineteenth and twentieth century England using farm rents as an index of changing regional values.[1] Likewise, Perry studied the diffusion of the Great Agricultural Depression from the 1870s to the 1890s by considering the ratio of agricultural bankruptcies to the farming population of each county.[2] Neither technique could be transferred to Tasmania. Most of the farms were freehold rather than leasehold and the only available statewide data set for property values - the land valuation records - are seriously deficient in accuracy and continuity. Similarly, agricultural bankruptcies were of such limited number that spatial analysis was thought to be irrelevant.

Nevertheless, there are data sources that allow for crude estimations to be made of regional variation in depression intensity. The purpose of this section is to investigate several of these sources in order to define possible differences in the depression experience in rural Tasmania. Unfortunately, none of the sources present an unambiguous picture. The difficulties can be exemplified by Beever's use of bank records as a gauge of differences between places in northern Tasmania.[3] Beever drew a contrast between the stressed potato/dairy economy in the hinterlands of Burnie, Penguin and Ulverstone and the expanding districts of the far Northwest Coast that were served by the Smithton branch of the Launceston Bank for Savings. This can be accepted as a valid observation unlike the associated comment that the area around Devonport was relatively immune from depression due to an expanding trade in peas. In fact, the pea trade had only one brief fling before it joined the rest of the local economy in

[1]Grigg, D.B. "An Index of Regional Change in English Farming", Transactions Institute of British Geographers, Vol. 36 (1965), 55-67.

[2]Perry, P.J. "Where was the Great Agricultural Depression?", Agricultural History Review, Vol. 20 (1972), 30-45.

[3]Beever, E.A. Launceston Bank for Savings: A History of Australia's Oldest Savings Bank, (Melbourne, 1972), p. 142.

depression. There was some flaw either in Beever's data or in its interpretation.

The first data set examined were the municipal-level statistics on male income that were collected by the national census held on 30 June 1933. This census required respondents to identify their income for the previous twelve months by marking one of eight categories. This was the first Australian census to investigate income. There was not to be another for forty years. This made it impossible to calibrate the data in order to separate the depression effect from the normal income differences that existed between regions. There were also many deficiencies in the definition of critical terms such as "breadwinner" and "income". The former was not related to conventional concepts of the labour force while the latter, along with many other failings, excluded income from what were known as "civil entitlements".

These income statistics have been used elsewhere to show patterns of deprivation at the height of the Great Depression. The standard approach has been to examine variations in the percentage of male breadwinners above or below some selected level. Spearritt identified suburbs as rich or poor in terms of the proportion of the workforce (16-64 years) earning more than £260 per annum while Camm mapped the proportion of male breadwinners earning less than the basic wage (£163 p.a.).[4] Neither study discussed how the published census tables were manipulated to derive "workforce" from "breadwinner" or "£163" from categories based on £52, £104, £156... etc. per annum. In fact, Spearritt appears to have interpreted the term "breadwinner" to mean "workforce". However, this is incorrect. Some breadwinners were younger than 16 and many were older than 65.

There are two factors involved in the selection of an appropriate poverty line. Firstly, it must be high enough to supress the pensioner factor. The term "breadwinner" included pensioners and other retired persons. Exley and Mauldon writing shortly after the 1933 census claimed that 3,277 of the 7,368 males who reported "no income" in Tasmania were

[4]Spearritt, P. "Depression Statistics" in MacKinolty, J. (editor) The Wasted Years? Australia's Great Depression, (Sydney, 1981), 194-211.
Camm, J.C.R. "Hardtimes: A Cartographic and Graphic

over 65.[5] Hence, a map of "no income" would be significantly distorted by regional variations in the age profile of the population. "Pensioners", defined elsewhere in the census in a table not compatible with the income data, varied from 1.7 percent of the workforce in the Huon municipality to 11.7 percent in Zeehan. In addition, "no income" was a statistical fiction. The Commonwealth Age Pension was paid at a maximum rate of £45 10s per annum. As it was a "civil entitlement", it was ignored by the census. The same was true of the sustenance paid to over three thousand long-term unemployed who were also in this category.

Secondly, the selected level should define poverty. The Commonwealth Statistician in his report on the 1933 census nominated a weekly income of £3 (£156 p.a.) as a low income.[6] This was close to the basic wage used by Camm. However, in the case of Tasmania, almost three-quarters of the state's male population reported an income below £3 per week. The proportion in rural districts was usually over 80 percent. It was believed that a lower criterion would be more appropriate in these circumstances. A "low" income in the Tasmanian context was therefore defined as £2 per week. Interestingly, several economic surveys of Tasmanian farming in the 1930s considered £2 per week to be the living cost of a farm family, and used it as a measure of the value of the farmer's own labour in determining the profitability of a farm enterprise.

Statewide, no fewer than 61.4 percent of all male breadwinners reported incomes of less than £2 per week. Figure 16 plots the proportion by municipality. The map shows a clear contrast in income levels between the five mining districts (40.5%), the two urban districts (50.1%), and the 42 rural municipalities (70.1%). These values contradict previous interpretations by both Beever and Camm that mining districts in Tasmania endured the most serious stress during the depression.[7]

Representation of Selected aspects of the Depression Years 1925-1935 in Australia", Research Papers in Geography 30, (University of Newcastle, 1985), pp. 40-42.

[5]Exley, H.J. and Mauldon, F.R. "Employment and Its Seasonality in Tasmania", Studies of the Tasmanian Economy Number 7, (Hobart, 1938), p. 5.

[6]Census of Australia 1933: Statistician's Report, p. 336.

[7]Beever, E.A. Launceston Bank for Savings: A History of

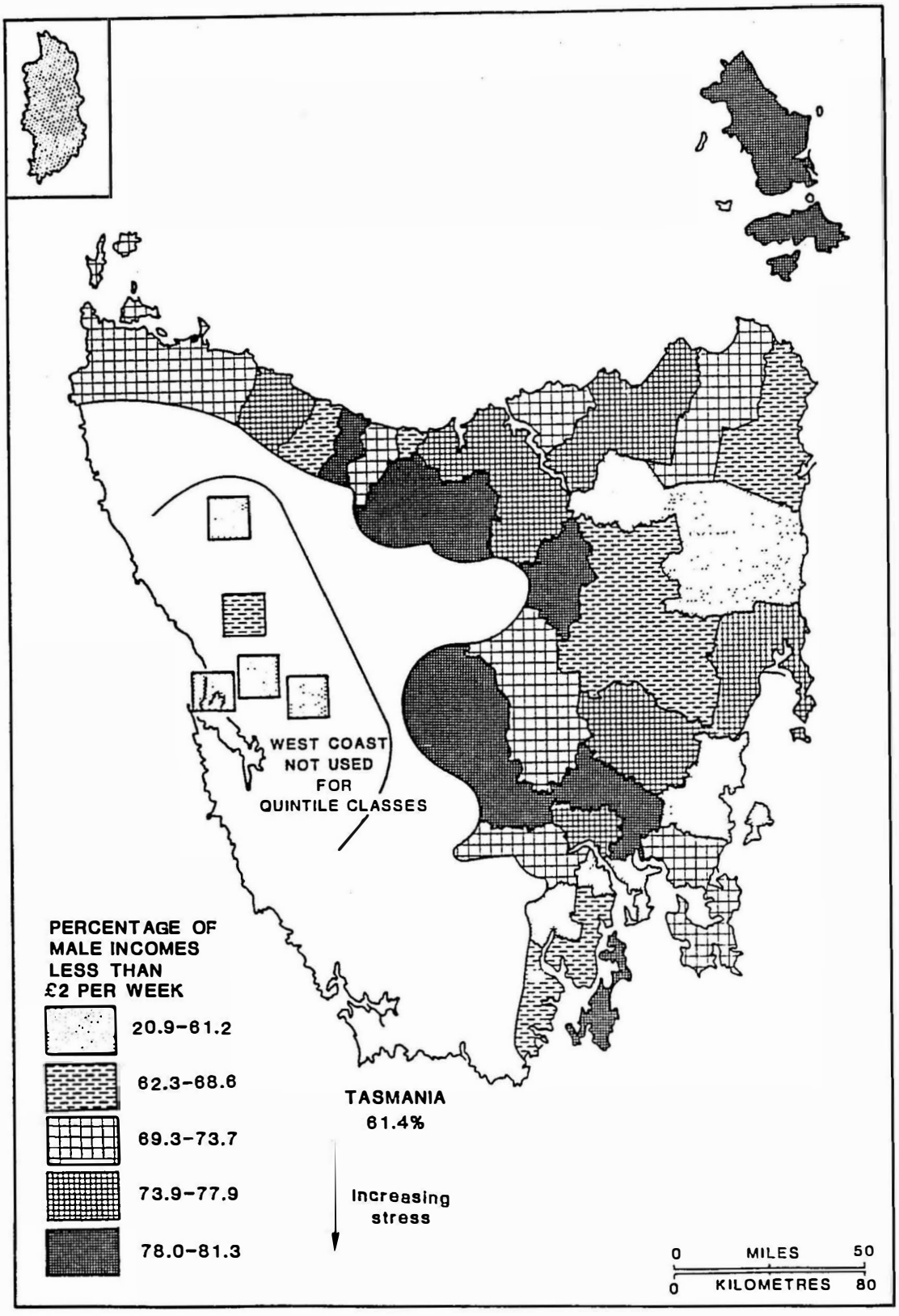


Figure 16 - Low Incomes in Tasmania 1933

It is clearly evident rural districts had the lowest incomes. All the municipalities within the two most stressed quintile groups were clearly identified farming communities. Rural industries within the first quintile employed 51.9 percent of the workforce while rural employment in the nine municipalities of the second quintile was imperceptibly lower at 50.8 percent. These were typical values for rural Tasmania where farming in general provided a livelihood for just under half of the population. The lowest agricultural employment of any district within the two most stressed quintiles occurred in Glamorgan (40.6%). However, the local workforce structure appeared to be distorted by having between two and three times the normal employment in "construction of roads, railways, earthworks and labourers undefined". It was probable that most of this group in Glamorgan would have been rural labourers, unless there had been some idiosyncratic factor involved at the time of the census.

Rural employment within the 18 municipalities in the least stressed fourth and fifth quintiles averaged 18.6 percent. However, this average masked three distinct subgroups. One involved nine municipalities with very high (56.4%) proportions of rural workers. This subgroup contained King Island, four major grazing districts in the Midlands, and four southern orcharding districts. Another subgroup comprised seven municipalities with low (24.9%) numbers on farms, but where farming was still a central part of the local economy. In some cases, such as Emu Bay (Burnie) and Devonport, the municipality contained an urban centre. In others, such as Glenorchy, Clarence and St Leonards, there were large suburban populations while in Portland and Fingal, the local economy comprised a mixture of farming and mining. The third subgroup was formed by the two cities of Hobart and Launceston. Farming was a negligible (3.4%) component of their workforce structure.

Only the first of these subgroups provided useful information on probable farm income levels. A simplistic interpretation of Figure 16 would argue that farmers in cropping districts on the Northwest Coast and in the

Australia's Oldest Savings Bank, (Melbourne, 1972), p. 142.
Camm, J.C.R. "Male Unemployment" in Camm, J.C.R. and McQuilton, J. (editors) Australians: An Historical Atlas, (Sydney, 1987), pp. 246-247.

North and South Midlands were more affected by depression than graziers in the Central Midlands and orchardists in the Huon. However, it must be remembered that this data was seriously contaminated. Firstly, it was not calibrated to remove pre-depression differences in farm income. This would account for a large part of the difference between cropping and grazing districts. Secondly, farm incomes were poorly measured by the 1933 census. One problem involved the definition of farm income whereby a farm running at a loss could be reported at its book-keeping value (nil) rather than at the living income that was still extracted from the property. This was exacerbated by the failure of most farmers and farm workers to include the value of non-cash income despite the explicit instruction to do so contained in the census form.[8] These factors would have accentuated the differences between incomes in rural areas and the incomes of wage labourers employed in factories and mines. Finally, there were problems with the time span over which the reported income was derived. Orchardists in the Huon who exported on consignment were actually reporting returns from shipments that had left Tasmania in March and April 1932 rather than the income from sales that had been made in London at disastrous prices in May and June 1933. Orchardists from Beaconsfield, Lilydale and Latrobe, selling more extensively on the Sydney market, would have incomes partly derived from one season and partly from another. Dairymen, potato farmers and graziers would be reporting incomes derived entirely from sales in 1932/33. As a snapshot of income, the picture taken by the census of 1933 was somewhat out of focus.

Figure 17 portrays an alternative image of the intensity of depression in Tasmania. This index considered the movement of properties across the threshold used by the economic farm-type classification to distinguish between commercial and non-commercial holdings. In the late 1920s, thirty percent of rural holdings were outside the commercial sector. In the opinion of the person who designed the economic farm-type classification, most of these non-commercial holdings resulted from the system that collected stock and crop returns from men who kept one or two cows, grazed a few sheep or had a small orchard on allotments of perhaps five or ten acres in extent.[9] Income from farming on this type of property was

[8]Census of Australia 1933: Statistician's Report, p. 334.

[9]Typescript notes inserted inside cover of Statistics of

very much a supplement to a living derived from some other source.

These properties were not considered to be proper farms. The classification stated that a commercial holding had to be of sufficient scale to generate a final income of 100. However, as farm prices began to weaken; the number of farms listed as being in the commercial sector began to fall. At least a thousand properties - once regarded as commercial - passed below the critical income limit and re-emerged in the non-commercial sector (Table 8). Depression stress was therefore defined in terms of the percentage change in the proportion of commercial holdings in the pre-depression triennium against the proportion that remained "commercial" during the two depression years of 1930/31 and 1931/32. The use of proportional shifts rather than simpler percentage changes was required to compensate for the decline in the number of properties that were submitting returns. This decline could not be interpreted as farm closures related to the depression. It was evidently a decline in the efficiency of collection of stock and crop returns as the total number of rural holdings returned to the 12,000-level shortly after the Second World War.

Table 8 - Rural Holdings in Tasmania 1926/27 to 1931/32

	Number	Commercial		Non-commercial		% Commercial	
1926/27	12,385	8,640		3,745		69.8	
1927/28	12,013	8,626	8,473	3,387	3,593	71.8	70.2
1928/29	11,799	8,152		3,647		69.1	
1929/30	11,623	7,798		3,825		67.1	
1930/31	11,426	6,904	6,895	4,557	4,577	60.2	60.1
1931/32	11,482	6,886		4,596		60.0	

$$\text{Index of depression stress (Tasmania)} = \frac{60.1 - 70.2}{70.2} \times 100 = -14.4\%$$

This index of depression stress was farm-based and fully calibrated. The former eliminated the problem of inferring patterns of rural stress from

Tasmania 1926/27 held in A.B.S. Library, Hobart (call number 6AHI/48).

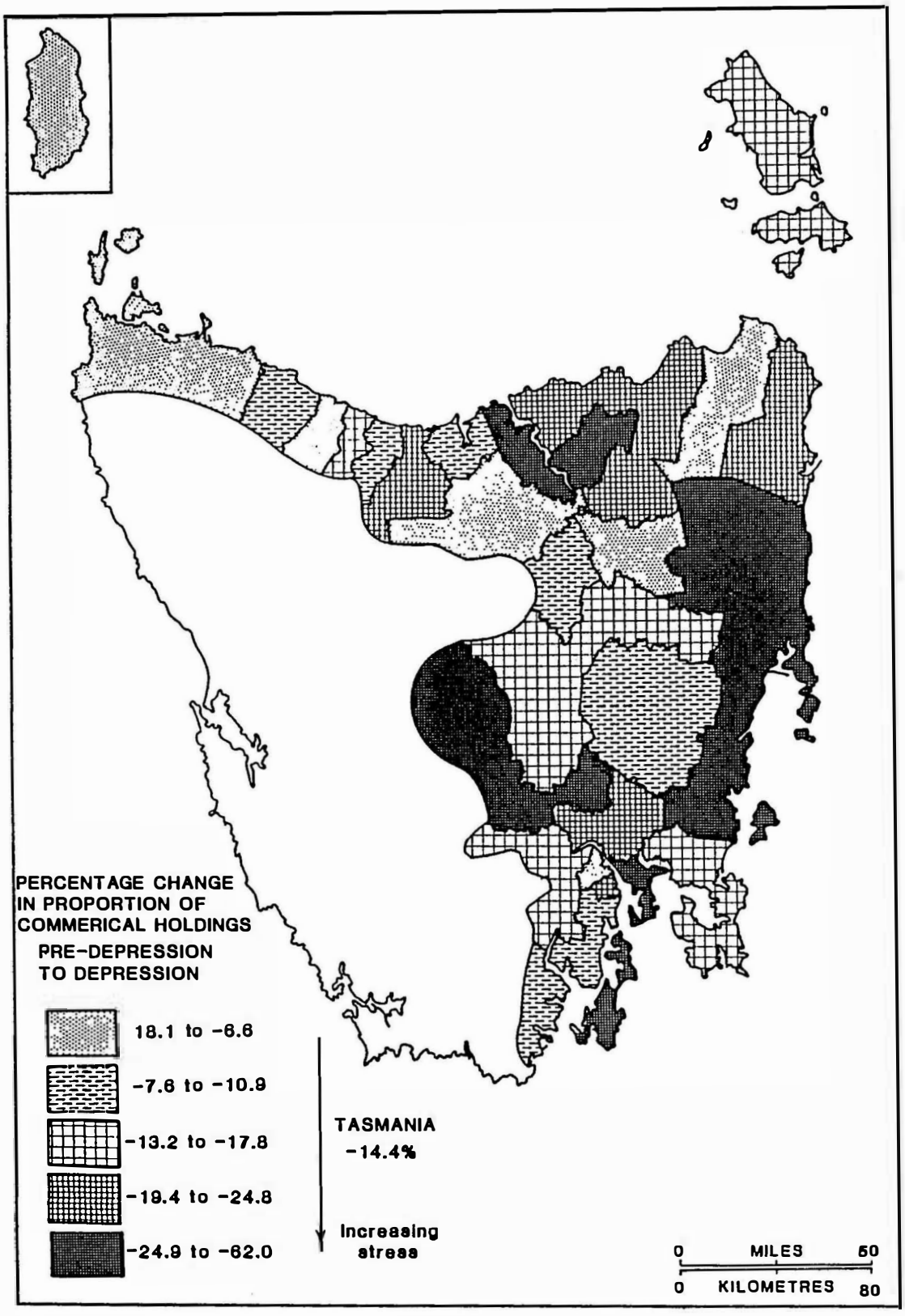


Figure 17 - Change in Number of Commercial Farms: Pre-depression to Depression

general income data especially in the case of districts with a large non-agricultural workforce. The latter addressed the difficulty of assessing patterns which partly relected a depression element and partly normal regional differences in income. The major theoretical flaw with this index was that it measured movement across a single line. Furthermore, this benchmark was set in the lower part of the income spectrum. All things being equal, it would be expected that a district with a large proportion of low income farms should be more affected by a twenty percent decline in farm incomes that a district with a higher average farm income level. Smaller farms should slip more readily beneath the 100 mark. However, this did not appear to be a significant problem in practice. Differences between regions could not be explained in terms of preconceived concepts about the structure of farm incomes.

Statewide, the balance between commercial and non-commercial holdings changed from the 70:30 standard of the late 1920s to the 60:40 rate experienced during 1930/31 and 1931/32. This was a proportional decline of -14.4 percent. The associated map of depression intensity (Figure 17) shifts the focus of attention away from the Northwest Coast and North Midlands towards the Tamar Valley and the East Coast. There is little similarity between the two measures of depression intensity. Penguin, Deloraine and Longford, previously mapped as highly stressed, were now placed in mapping categories that suggested limited exposure to depression effects while districts previously assessed as relatively immune such as Portland, Fingal and Spring Bay were now numbered amongst the most seriously affected in the state. The rank correlation coefficient across 44 municipalities was 0.20. Only in the South Midlands and along the Tamar Valley were there clusters of municipalities that were selected as stressed by both procedures. These areas were made more prominent in Figure 17 by the transfer of Clarence and St. Leonards from low ranking to high ranking stress groupings following the removal of the suburban bias that had distorted the initial census income map (Figure 16).

Deviations in the percentage of commercial farms from the local average of the three pre-depression years appeared to offer a means by which the year by year spread of depression could be monitored. Depression stress in 1929/30 was minimal (-4.4%) on a statewide basis but was in excess of 10 percent in twelve municipalities. A district that had

experienced one holding in ten moving from the commercial to the non-commercial sector must have been responding to deteriorating economic circumstances. In some areas, such as Circular Head and Lilydale, the decline was even across all sectors. In Kentish, the decline was most pronounced in the specialist cropping sector while in Midlands grazing districts such as Bothwell, Campbell Town and Ross, the decline was clearly related to the effect of low wool prices on the smaller grazing properties. In the following year, depression was found in thirty municipalities using a 10 percent decline as an index of depression stress. Seventeen of these districts could have been regarded as severely stressed with a loss of over 20 percent of their standard number of commercial holdings. Only five districts had experienced declines of this scale in the preceding season. Resistance to depression was apparent in the Northwest beyond Devonport, in the North Midlands, and in isolated enclaves at Ringarooma and Oatlands. The rise of mixed dairy farming was the principal factor at work in insulating these municipalities from economic decline. As an example, mixed dairy farms in Deloraine increased from 199 pre-depression to 249 in 1930/31.

A chance discovery of some typewritten notes, glued inside the front cover of a copy of the Statistics of Tasmania 1926/27, placed serious doubts upon the use of these statistics for the purpose of defining annual patterns of depression stress.[10] These notes outlined the procedures used in the economic farm-type classification. They contradict statements made in the published version. For instance, it was categorically stated - once in the introduction and once with the table - that the criterion for defining a commercial holding was an income of £100. There was no statement on how this income was derived or on whether it was a "net" or a "gross" income. The working notes outline the procedure used in 1926/27. Apparently, clerical staff in Hobart examined the stock and crop returns and sorted them into types, according to rules that were based on the scale of operations. A specialised dairy holding required ten cows, a specialised potato farm had to produce forty tons, while an apple orchard had to have a minimium output of 1,200 bushels. Mixed farms had lower thresholds. A mixed dairy/cropping property had to have seven cows plus a minimum of £75 worth

[10]Typescript notes inserted inside cover of Statistics of Tasmania 1926/27 held in A.B.S. Library, Hobart (call number 6AHI/48).

of crops produced for sale. The aim behind the classification was for the farm to have sufficient output to produce a net income of £150. The "net" in this case was possibly the "true net" income that would be derived from the stipulated output. It certainly wasn't the same as that used in the formal calculations of "net farm income" that appeared elsewhere in the agricultural statistics.

These ambiguities could have been ignored. It was not a matter of great importance whether £100 or £150 was the threshold for a commercial farm. However, the only way in which income levels could be adjusted was to change the criteria upwards to reflect falling prices. It is not known how this was done, when it was done or how often it was done. It is even possible that some other approach was devised to cope with falling prices in order to retain the integrity of the farm structure classification. The total statistics for the state suggest that one major change occurred between 1929/30 and 1930/31 (Table 8). If this is true, then the meaning of the annual patterns at the municipal level must be questioned. However, the pre-depression/post-depression comparison in Figure 17 would remain a valid statement. There are also grounds to argue that the use of these statistics to measure changing farm structures would not be invalid.

The third method for the measurement of depression intensity involved the comparison of the notional net income per farm during the depression with average farm income during the 1920s. The pre-depression average was determined in section 1.3 to further the discussion of structural problems within Tasmanian farming at this time. It had involved redefining the economic weights on the basis of a five-year averaging period and applying them to the crop and livestock statistics of 1926/27. A similar procedure was used to define depression income levels. A set of economic weights was compiled using information on acreages and net income for 1930/31, 1931/32 and 1932/33. These weights were then applied to the crop and livestock statistics of 1931/32 to create a measure of farm income in each municipality at the mid-point of the depression cycle.

The measure of depression stress is the change in the average income per farm. Statewide, the income of the average holding had fallen from £380 to £269. The regional results can be viewed from three perspectives. One is in terms of the absolute decline in income, another is in terms of

the number of municipalities with notional incomes falling below some assigned level, and the third is in terms of percentage decline. The first procedure is not especially appropriate as it fails to recognise that by far the greater proportion of the change of farm incomes between the pre-depression and depression period was cyclic. The rank correlation between municipal farm income in 1926/27 and 1931/32 was 0.91. The level of farm income in the pre-depression period largely established the amount by which it could fall. Hence, average farm incomes in Ross could fall by £612 and those in Emu Bay by £108 for nearly identical declines of about one-third. The second approach is more effective in defining the spread of depression. In 1926/27, eleven of the 44 municipalities had farm incomes below an arbitrary value of £250. Most were urban or suburban districts though there were some classically backward farming areas among the eleven. Five years later, there were 25 municipalities with incomes less than £250. These included all districts south of the Derwent except New Norfolk, all districts along the Northwest Coast except Latrobe, and all districts in the Northeast except Ringarooma. Even once well-regarded districts such as Longford and Westbury in the North Midlands and Richmond and Sorell in the South Midlands had fallen below this limit.

By this criterion, the depression had most severely impacted on farming within the areas of late nineteenth century bush settlement. This type of analysis was current during the depression. Sir Walter Lee argued in March 1934 that the depression had had its most serious effects on specialised cropping and dairying properties in northern Tasmania and on orcharding properties in the south.[11] Woolgrowers and mixed farmers were, in his opinion, less seriously affected. There was a great deal of anecdotal evidence to support Lee's assertion. For instance, the difficulties of the fruit industry were undeniable. A quarter of the fruit exported in 1933 had actually cost growers two shillings a case to export as sales in London had failed to cover shipping charges.[12] In the following year, many orchardists sold their crop f.o.b. at less than the cost of production in order to avoid

[11]Lee, Sir Walter "Statement of the Premier, 24 March 1934", Journals and Printed Papers: Tasmania, (1934), Paper 19, Appendix 3.

[12]Advocate, 1 September, 1933.

the risk of larger losses from selling on consignment.[13] Men like P.H. Holmes of Scottsdale, were left in a desperate situation.[14] Having lost heavily in 1933, he found that his agent, W.D. Peacock and Co., had taken all the proceeds from his 1934 crop to pay off his debts and would not finance his 1935 crop. In addition, he was behind with the rent and was being threated with eviction. This type of story could be replicated for any district where small farming was dominant.

This may be termed the "difficult times made intolerable" thesis. Low incomes had characterised orcharding and potato farming before the depression and the events of the 1930s compounded the pre-existing problems of these industries. However, it contains preconceived ideas about the nature of farming systems. After all, it was not uncommon for pastoral estates in the 1930s to be supporting rural population at a density not much different from that of the small farming areas. This was pointed out in June 1934 to the newly-elected Labour government. Keith Brodribb invited the Premier to visit his property in the Fingal Valley. Although "Frodsley" had only 5,000 acres, the estate employed six married men and five single men full-time with casual labour employed for shearing and harvesting.[15] Typical cash wages for station labour would be in the range of £80 to £100 per annum. Therefore, the measure of depression stress based on income per rural holding could have quite a different character if it had been expressed in terms such as net income per rural worker.

As stated previously, most of the change could be explained by the economic cycle. Only a fraction of the variance was left to be explained by regionally-variable effects. Nevertheless, the regional factor was vivid. Figure 18 maps the percentage change in farm income between the pre-depression and the depression surveys. The statewide decline was 29.2 percent. This covered a range from five districts with increasing income through to eight districts where the fall exceeded forty percent. The largest falls in both absolute and proportional terms occurred in the

[13]Mercury, 1 October 1934.

[14][AD9 712-56] file 9/49, 5 September 1934.

[15][AD9 712-53] file 8W, 24 June 1934.

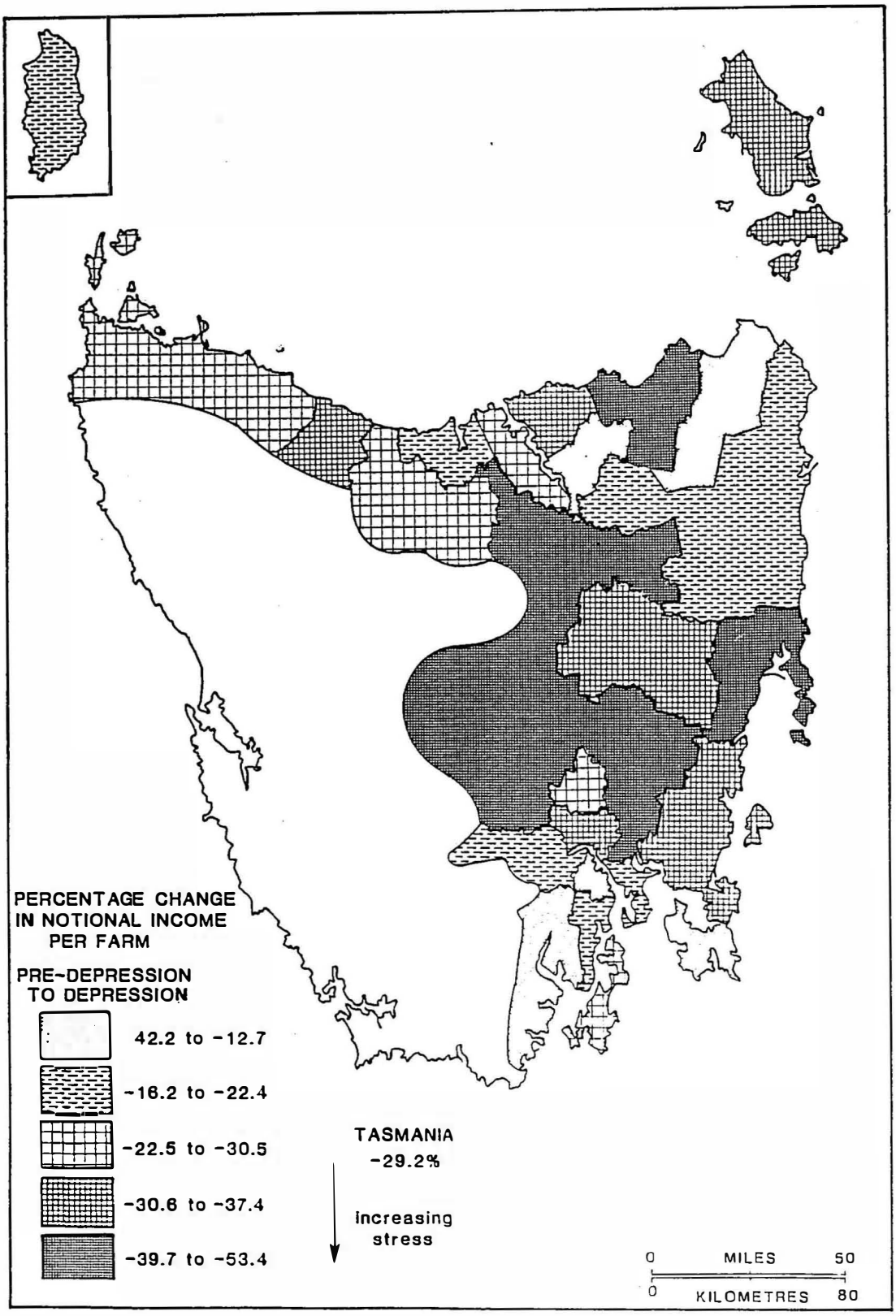


Figure 18 - Change in Notional Net Farm Income: Pre-depression to Depression

Midlands. For instance, Bothwell had its income per farm cut in half (-53.4%). This represented a loss of over £1,000 per property. Eight of the nine municipalities in the most highly stressed quintile were in the North Midlands, Midlands or South Midlands. The ninth was the ever erratic Scottsdale. Five of the next nine were also in areas that were commonly regarded as Midlands while two more, George Town and Flinders, shared the same orientation towards sheep as a central element of the local economy. The remaining two districts in this quintile were Emu Bay and Penguin. These are adjacent areas along the Northwest Coast. However, most Northwestern municipalities were in the middle quintile. The Midlands/pastoral pattern of decline corresponds to a pattern established by the farm classification data although the overall correlation between the two variables of 0.14 indicated no correlation over the entire range of data.

The least affected areas were more scattered. There appears to be three regional types within the last two quintiles of low depression stress. One was an urban type characterised by Hobart, Launceston and Devonport. This urban factor was also appearing in the surrounding suburban districts such as Glenorchy/Kingborough/ Clarence, Lilydale/St Leonards and Latrobe. While some products from these areas were depression resistant, principally market gardening and town milk, the main process at work especially in the extreme cases seemed to be the reduction in the number of reporting farms. In Hobart, census farms declined from 252 to 152. This was sufficient to explain the increase in average income from £83 to £118 (+42.2%). The non-reporting farms had apparently contained less than one percent of the district's agricultural activity. This had lowered the average output per farm in 1926/27. The second regional type was characterised by the fruit-oriented districts of the south such as Huon, Port Cygnet, and Esperance. The fruit factor would have also played a role in many of the peri-urban areas near the three cities. The third type apparently involved strongly dairy-oriented districts such as Ringarooma, Portland and King Island.

The distribution of districts measured as less affected by depression stress using declines in farm income was similar to the pattern of less affected districts that emerged from the census income data. In fact, the correlation between the decline of notional farm income with male income at the census of 1933 was 0.51 percent. This was the strongest of the three

correlations. However, it would be difficult to claim that this would be anything more than random factors within the structure of the index. The probable irrelevancy of the urban data has already been mentioned while the trends in Esperance and Tasman in the fruit areas, and in King Island and Ringarooma in the dairying group, are suspect due to the cycle of pioneer development running against the depression cycle. For instance, the income per farm in Esperance in 1926/27 was the lowest of the truly rural municipalities. Income per farm increased by £11 (+8.5%). However, Esperance remained the poorest of the rural disticts. The rise in income was explained by the increase in land under orchard by 25.5 percent. To a lesser extent, this explanation holds for established orcharding districts like Huon which increased its orchard area by over 300 acres (+6.7%) and recorded only a modest fall in farm income of just under ten percent.

It may be impossible from these three sets of data to determine patterns of relative susceptibility to depression. Firstly, there are serious problems in definition. Terms such as "breadwinner", "income" and "rural holding" are statistical abstractions. They have wide and flexible meanings by themselves and , when combined with another equally vague measure, generate patterns that, at best, pick up only part of the trend. Secondly, it may be the case that a depression as severe as that of the 1930s may have allowed the economic cycle to have overwhelmed the regional component. At one time or another, all of the major rural activities underwent a marketing crisis. These averaged out the regional differences. Thirdly, there were factors that affected the amount of depression stress at the local and seasonal level. One example would be the potato blight that hit the Northwest Coast in the summer of 1930/31.[16] Another would be the drought and associated caterpillar plague in the Northeast in 1933/34. It was predicted by one local shopkeeper that farmers, after this experience, would be facing difficulties in feeding their families over the coming winter.[17]

Factors like the above may explain the different results that were derived from the three data sets discussed in this section. Nevertheless,

[16] Advocate, 1 January 1932.

[17] [MCC33-1 Box 1] file "General D", 1 March 1934.

there is a tendency for the North Midlands, the South Midlands, and Scottsdale in the Northeast to be identified as stressed at both a greater frequency and at a greater intensity than other districts. This is of considerable interest as the North and South Midlands were the areas that experienced the highest rates of change in their agricultural structure, substituting sheep and dairying for obsolete cropping systems and antiquated orchards.

CHAPTER 4 - POTATO FARMING IN DEPRESSION TASMANIA

4.1 Economic Stress and Regional Change in the Potato Industry

The retail price for potatoes in Sydney during the first months of 1939 were twice the levels that had prevailed in 1938.[1] Reduced plantings and extremely dry weather throughout Australia had caused production to fall below market requirements. At times, the cheaper potatoes grown in New South Wales were unobtainable. These were particularly important for the fish and chip trade. Consumers had to pay premium prices for Tasmanian imports or go without. The popular Sydney press took up the issue in alliance with groups as diverse as the Federated Housewives Association and the Citrus Growers Defence League (Figure 19).[2] At one rowdy public meeting, R. Walker M.P. claimed that Tasmanians were working "... a shameful racket upon Australia".[3] It was alleged that millions of potatoes were hidden on the Northwest Coast as unscrupulous Tasmanian growers manipulated the market at the expense of penniless Sydney families.

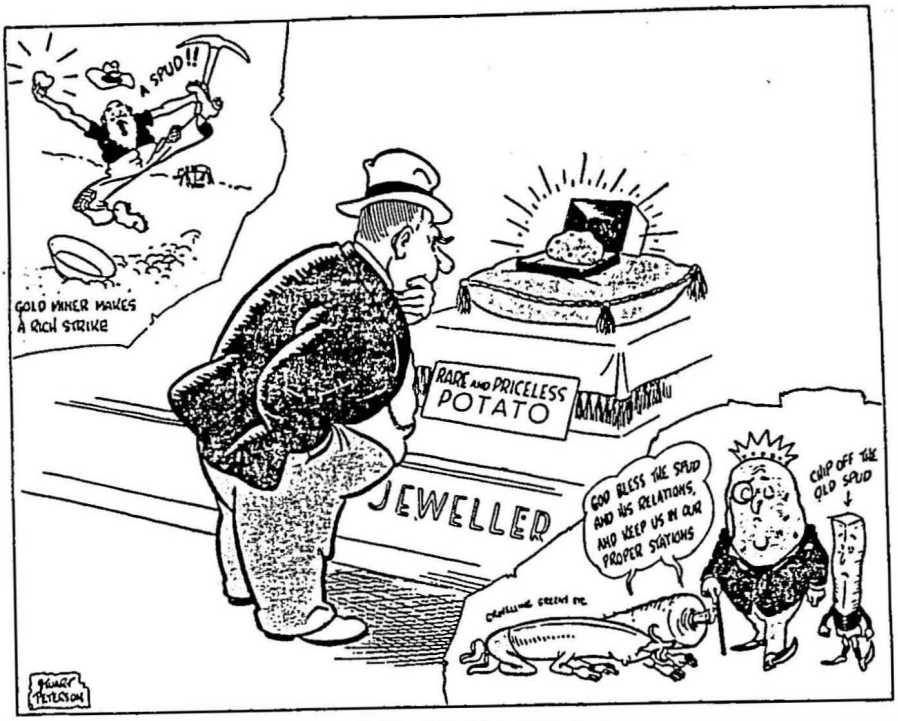
The Tasmanian potato industry in 1938/39 produced an unprecedented gross income of £1,274,070. Only one other year (1928/29) had previously exceeded £1 million. However, the concept that the potato farmers of the Northwest Coast were deliberately distorting the free marketing of potatoes was untenable. The high prices of 1939 actually demonstrated the most serious weakness of the potato industry - the failure to match supply and demand. In most years, more potatoes were grown than the country could consume. Only in seasons when large amounts of the crop had failed did some potato farmers show a significant profit. The distinct inverse relationship between production and price is demonstrated in Figure 20. This relationship was succinctly expressed by a prominent grower from the Midlands following the disastrous prices of 1927/28. He hoped that 1928/29 would be a bad season as "... ten tons at a profit is better than one hundred tons at a loss".[4] The two "best" seasons for Tasmanian potato

[1] Official Yearbook of New South Wales 1938/39, p. 623.

[2] Mercury, 9 March 1939.

[3] [AD9 712-146] file 18/12, Sydney Daily News, 13 March 1939.

[4] Mercury, 17 July 1928.



THE SPUD IS "TOPS"

Tubby: "If I had a few of those I wouldn't worry about Casey and the Loan Council."

Figure 19 - Campaign Against High Prices for Potatoes (Sydney Sun 8/2/39)

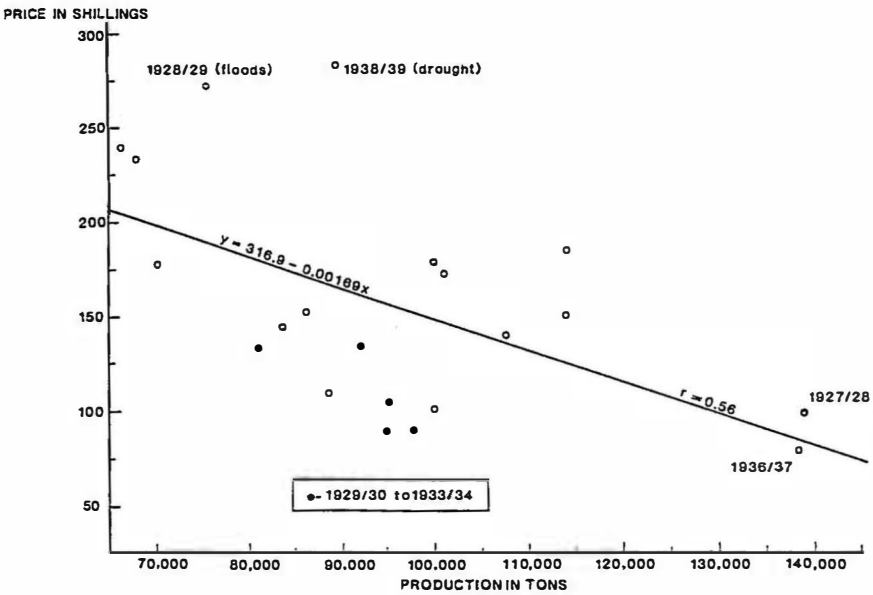


Figure 20 - Relationship Between Potato Production and Price in Tasmania

farmers between the wars had been marked by flood and drought respectively.

Other factors combined to make the situation even more complex. One was a long term decline in the consumption of potatoes. Per capita consumption in the decade before the Great War was 171 pounds.[5] By the end of the 1930s, per capita consumption had fallen to 106 pounds. There was a basic shift in the Australian diet away from its heavy English tradition towards the lighter American model. This was attributed by some to the desire for feminine slenderness; others recognised the importance of changing income structure as the middle class substituted meat for potatoes in their diet.[6] The reduction of crop acreage consistently lagged behind the fall in demand.

Another factor was the behaviour of potato growers. There was never a stable acreage more or less adjusted to market demand. Prices and yields in one year would influence the production levels of subsequent years. High prices caused the following year to have smaller than normal plantings as seed stock had often been sold for table use.[7] The second year would then have larger than normal plantings reflecting the re-entry of many floating producers into the industry following two years of good prices. High yields would also influence the acreage planted in the next season. A bumper harvest would leave an unmarketable stock of potatoes. Farmers would use the surplus as seed in the hope that it would eventually produce a profit.[8] High prices in 1925/26 and a large harvest in 1926/27 had the two trends working in tandem. It led to the planting out of an extra ten thousand acres in 1927/28. The result was an average price of less than £5 a ton. This was one example of the self-destructive behaviour that was typical of the potato industry in this period.

Regular overproduction of potatoes meant that the industry stumbled from crisis to crisis. The problems of the Northwest Coast had been

[5]Commonwealth Official Year Book 1939, p. 931.
Commonwealth Official Year Book 1942/43, p. 905.

[6]Examiner, 8 December 1932.

[7]Advocate, 5 January 1935.

[8]Mercury, 17 July 1928.

highlighted by several enquiries during the 1920s. At the beginning of the depression, the Commonwealth Public Accounts Committee meeting in Ulverstone heard evidence of how the events of 1927/28 had forced many farmers off their properties while others along the Coast were struggling along with net incomes of less than £100.[9] The situation became worse as the depression intensified. The working class market for potatoes in Sydney began to disappear as unemployment levels rose.[10] The average gross return for the potato industry for the first five years of the 1930s was £508,006. This was 64.2 percent of the average return for the last five years of the 1920s.

In June 1933, District Agricultural Officers were asked to report on the economic situation in their regions. F.C. Fricke reported from Devonport that farmers had been forced to cut their standard of living to the barest minimum. In a few cases, their position could only be described as "... down and out with prospects for dispossession".[11] G.A. Golland saw the same pattern in the Burnie district. Most farmers were either heavily in debt to the local shopkeeper or were solely dependent on farm produce for their sustenance.[12] E.R. Hudson, the Superintendent of Extension Services put these local reports into their general context.[13] He argued that farming along the Northwest Coast before the depression had been typified by partly developed, undercapitalised farms operated by men who lacked the technical skills of modern farming. The fall in prices experienced in the early 1930s had turned a bad situation into an untenable one for many, probably a majority, of farmers along the Coast.

All the evidence supports the hypothesis that the combination of structural weaknesses within the industry (low yields, poor transport, etc.) and overproduction in the face of declining demand had made potato farming one of the weakest sectors of Tasmanian agriculture. Even with the

[9]Examiner, 24 February 1930.

[10]Advocate, 1 January 1932.

[11][AD9 712-79] file 29/9, 24 June 1933.

[12][AD9 712-79] file 29/9, 24 June 1933.

[13][AD9 712-79] file 29/9, 3 July 1933.

exceptional prices received in 1938/39, the average gross return from potato farming over the last five years of the 1930s was less than one percent in advance of the typical level of the 1920s. There was no evidence whatsoever to support the allegations made by the Sydney press. It would have been out of character for Tasmanian growers to hold back supplies from a strong market. The normal procedure was to rush off extra potatoes at the first sign of a market advance.[14] This would usually reverse the trend.

However, there was evidence of important changes within the potato industry. These were of sufficient scale to eventually have an impact on the structure of agricultural regions. The two most salient trends were the apparently contradictory phenomena of the increasing concentration of potato farming into the Northwest Coast on the one hand, while farmers within the region were reducing the emphasis on potatoes in their farming regime on the other. These two themes require detailed examination.

The land assigned to the cultivation of potatoes fluctuated annually. The interwar average was 34,811 acres with a coefficient of variation of 10.3 percent. The average acreage between the two datum years of 1926/27 and 1936/37 was 36,664 $\pm$ 7.4 percent. Within these figures was a trend that was not adequately extracted by the standard methodology of comparing the pattern of change across the depression decade. The actual change between 1926/27 and 1936/37 was an increase of 2,983 acres (Figure 21). The increase was concentrated in the Northwest potato/dairy region. These five municipalties gained 3,880 acres over the decade, an increase which took the regional share of the state's potato acreage from 60.7 to 66.3 percent. Almost all of the increase came from the three municipalities of Leven, Table Cape and Emu Bay. The other two regions of the Northwest Coast added a further increment of 335 acres. Over eighty percent of the potato crop was now grown along the Northwest Coast. Plantings throughout the rest of the State fell by 1,232 acres. Decline was especially pronounced in the Northeast and in districts to the south of Hobart. Only five of the nineteen municipalities beyond the limits of the Northwest that had more than 100 acres of potatoes recorded an increase. Growth was heavily concentrated in the seed producing districts near Oatlands.

[14]Advocate, 6 September 1930.

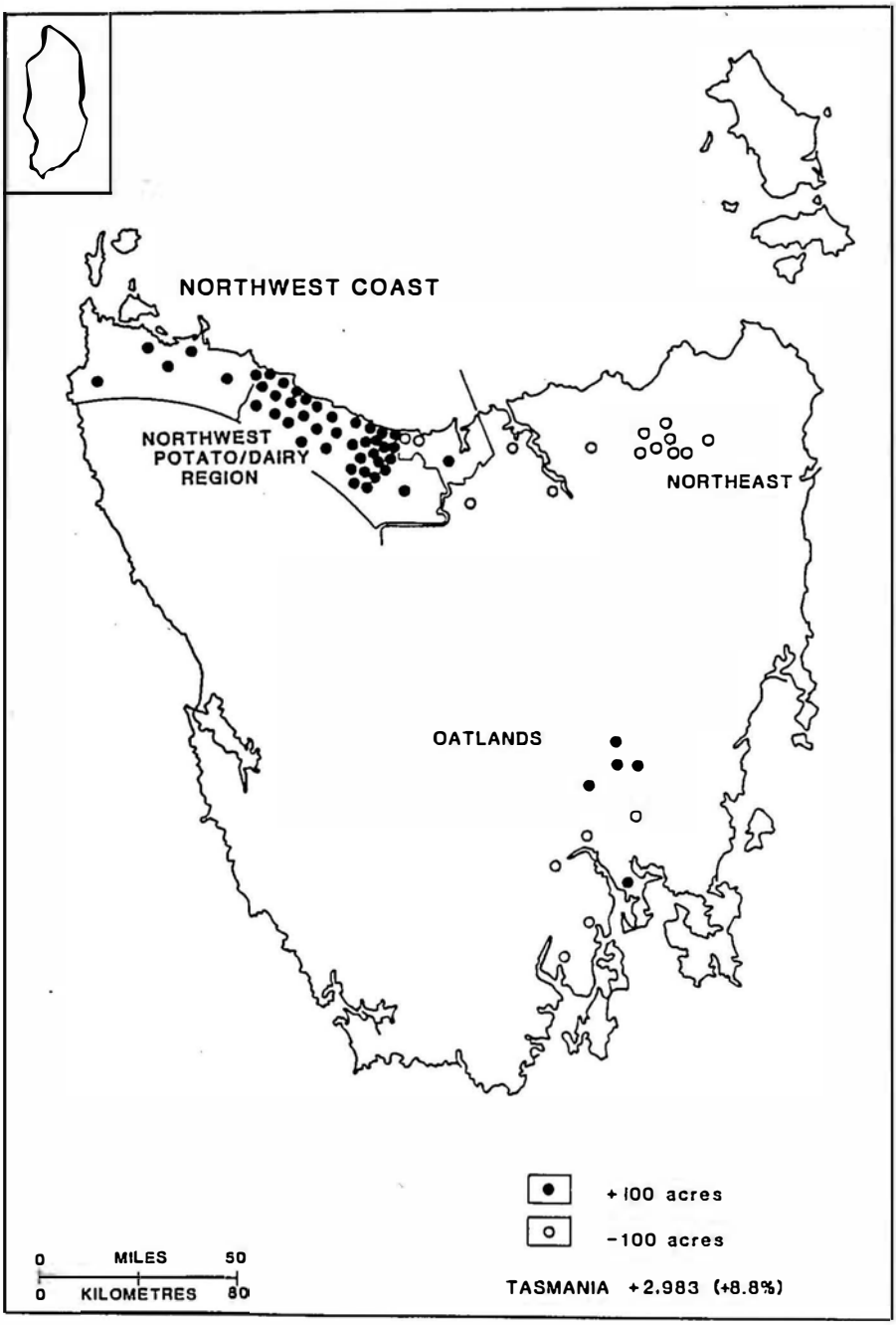


Figure 21 - Regional Change in Potato Acreage
1926/27 to 1936/37

The above pattern was misleading in that it implied an overall increase in the acreage of potatoes in Tasmania. The reverse was the actual situation. Potato farming was becoming more concentrated in the Northwest but this was occurring within a framework of a decline in total acreage. Three year means centred on the datum years of 1926/27 and 1936/37 showed that acreage in the Northwest was virtually static (-0.3%) while the total area declined by 6.6 percent. This caused the share held by the Northwest potato/dairy region to increase from 61.5 to 65.7 percent. The shares of the other two regions of the Northwest Coast remained almost constant.

A linear regression of the annual data for the Northwest potato/dairy region gave a slight positive trend (Figure 22). The trend for the state as a whole had a negative slope. This was a realistic assessment of the true pattern of change in the potato industry despite the possible disturbing effects of the large acreage planted in 1927/28. As the first datum year was well below the expected value and the second was above, the map showing details of regional change by the comparison of one year with the other was a distortion of the underlying trend. However, it was not necessary to examine a decade of records from 42 municipalities using regression techniques to understand the basic pattern of change. The five municipalties of the Northwest potato/dairy region were clearly becoming the ever more dominant focus of the industry. Peripheral areas were either static or in decline.

The early 1920s had seen a westward shift in the production of potatoes in Northwestern Tasmania. At the beginning of the decade, the eastern municipalities of Kentish and Leven were the most important potato districts. Both were surpassed by the western districts of Table Cape and Emu Bay in 1926/27. At this point in time, intense regional change ceased. Regression equations calculated between the datum years revealed changes of less than five percent in three of the five municipalities. Emu Bay was in decline (-14.3%) though its acreage remained above the levels of the early 1920s and the district continued to draw more than half of its net regional income from potato farming. Leven experienced a major increase (+35.4%) in potato acreage with the rise concentrated in the early 1930s. Leven was the only municipality on the Northwest Coast where the proportion of net farm income derived from potatoes increased. Local production was

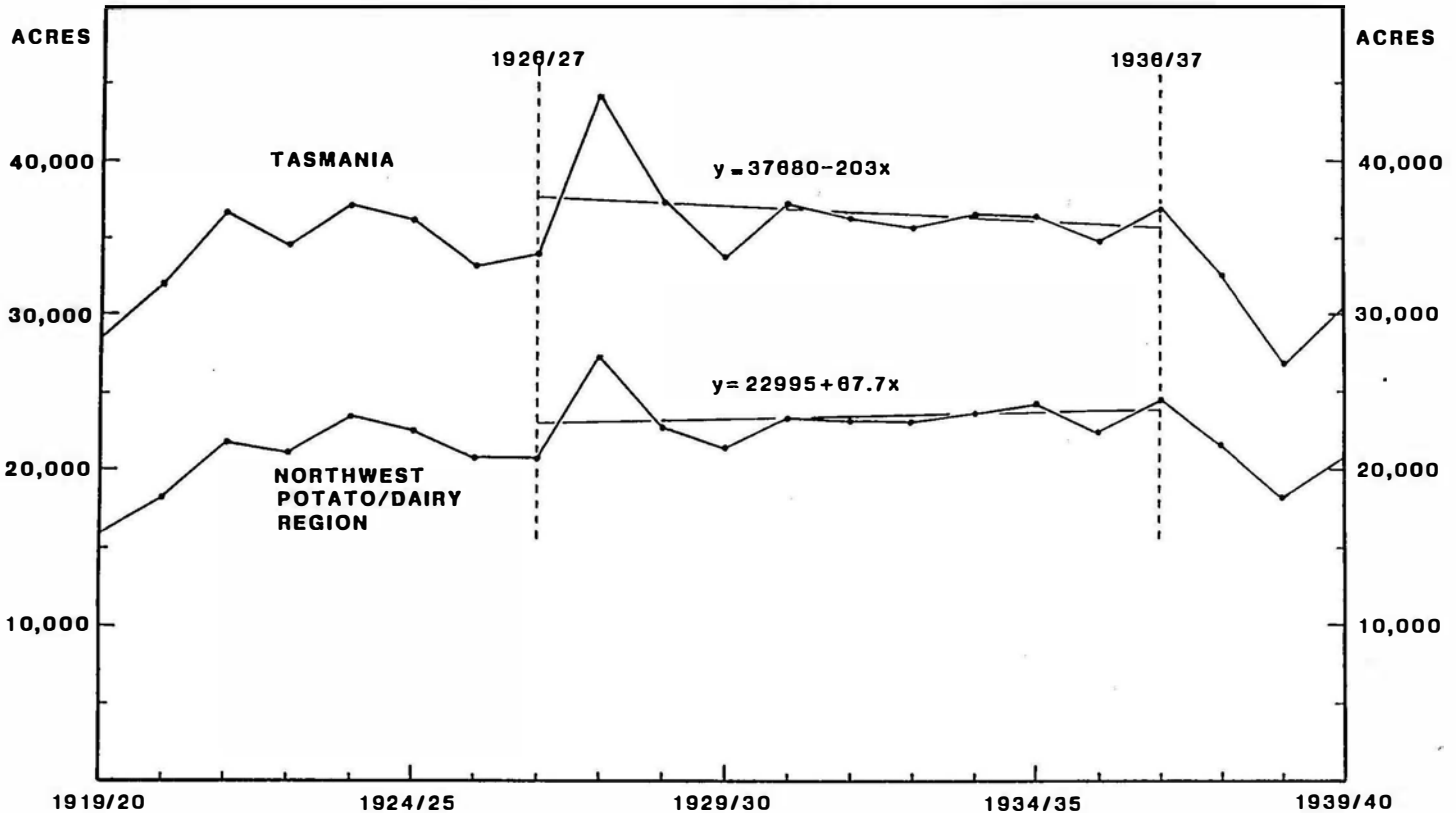


Figure 22 - Linear Trend in Potato Acreage

eventually restored to the level last seen in the years immediately after the Great War.

The reasons for the trend in Leven have not been determined. It may have been a reaction to the failure of the Leven district to integrate successfully into the dairy economy. Evidence to support this case was provided by a District Agricultural Officer who noted that many farmers in the back country of Leven were disinterested in their cows.[15] In his opinion, they would return to potatoes if the price was right. However, the statistical evidence showed an increase in dairy farming throughout the period. Another possibility was related to the establishment of a weekly direct steamer service between Ulverstone and Sydney in 1929.[16] In part, this was intended to provide an outlet for the produce of the country behind the port. It may have improved the marginal returns from potato farming and the timing coincides with the rise in potato acreage. However, port statistics showed the same large potato trade from this otherwise minor port both before and after the new service was introduced. A final hypothesis involves changes in the orientation of potato farming along the inland margin of settlement. Farmers in these districts were becoming increasingly specialised producers of Brownell seed potatoes. For instance, the Advocate reported that all the potatoes sown in the Loongana area in 1932 were destined for the seed market.[17] Given the greater attention being paid to seed in the 1930s, it is possible that inland seed areas and coastal main cropping areas were on different trends. The rising production in the Midlands seed area around Oatlands (+14.2%) indirectly supports this argument.

The increase in potato production between 1926/27 and 1936/37 in the Northwest potato/dairy region was 3,880 acres (+18.8%) by direct measurement. The linear trend gave a more realistic value of 667 acres (+2.9%). In spite of the increase, the importance of potato farming to the economy of the region had slightly declined. In addition, and of far more importance, was the rapid decline in the role of potato farming within the

[15] [AD9 712-102] file 10/3, 24 May 1937.

[16] Advocate, 19 October 1929.

[17] Advocate, 23 January 1929.

economy of the individual farm. The policy of the Department of Agriculture before the depression had been to reduce cash cropping along the Northwest Coast. By the end of the depression, this policy was being expressed in a popular maxim which claimed that every farmer should "... have enough dairy cattle to cover his store bill, a sheep for every £1 rent or interest, and ... devote 10% of his arable land to potatoes (profit)".[18] The partial success of this policy was apparent by 1936/37. The Northwest potato/dairy region had 5,735 (+44.9%) more dairy cattle and 43,615 (+150.0%) more sheep than a decade previously.

The beginning of farm diversification was evident from the economic farm-type classification. In 1926/27, almost 1,200 farms in the Northwest potato/dairy region derived most of their income from some form of cropping. This was termed "agriculture" by the classification. The second most popular system in each of the five municipalities was a mixed agricultural/dairying structure. In total, there were 1,697 farms in some form of agricultural combination. Two-thirds were specialist properties, one-third were mixed. There were only 72 holdings without significant cropping activity. Two years later, agricultural specialist and mixed agricultural properties were approaching balanced numbers. Table Cape and Emu Bay had already exchanged their first and second ranking activity. In the following year, only the Kentish district was left with more specialist agricultural properties than mixed farms. The series ended in 1931/32. Mixed agricultural properties now outnumbered specialist properties in a ratio of three to one. The most common farm type in every municipality was an agricultural/dairy holding.

It was probable that this final pattern persisted without further change until 1936/37. After all, ninety percent of the decade's gain in dairy cattle numbers had been achieved by 1931/32. The Northwest Coast had become a mixed farming region in the proper sense of individual farms having a mix of activities rather than the region containing a mix of farms of different types. The process involved the building up of the dairy and pastoral sectors on holdings that had previously concentrated on agricultural activities. Diversification stabilised income by spreading it over several activities. The attraction of dairy farming, supported as it was by the

[18] Advocate, 25 September 1937.

Paterson plan, was largely a factor of income stability. Livestock systems also helped to rebuild soil fertility depleted by forty years of cropping. The Department of Agriculture encouraged the trend. This is shown in the assistance provided to farmers taking up fat lamb production which is discussed in detail in a later chapter. To some extent, the Department forced the trend. A report on the farm of J.S. Stewart of Wilmot noted that it was not being worked on sound lines.[19] There was far too much cropping which depleted soil fertility and depreciated the value of the property. It was suggested that any loan be conditional upon Stewart agreeing to plant out 25 acres of grass per year until the property could support a dairy herd of 40 cows. Farm plans of this nature became compulsory for farmers seeking aid under the Farmers Debt Adjustment Act of 1935.

However, the potato industry remained central to the economy of the Northwest Coast. In 1926/27, potatoes contributed 46.6 percent of total farm income in the Northwest potato/dairy region. The change over the depression decade involved a modest decline to 44.8 percent. The two livestock systems combined advanced from 22.9 percent to 30.0 percent of regional farm income. The largest sector of decline was the grain industry. Widespread abandonment of oat farming released over seven thousand acres of good quality cropping country for alternative uses.

The changes that were occurring in the Northwest potato/dairy region were being replicated in other potato growing areas around the state. The Advocate reported how sheep had taken the place of potatoes around Deloraine while in Circular Head the Department of Agriculture had been actively investigating novel alternatives to local preoccupations with potatoes, carrots and swedes.[20] Celery was regarded as the most appropriate replacement for these root crops which no longer had a reliable market. Change was far more pronounced in the Northeast. The basaltic soils of the Scottsdale and Ringarooma municipalities had supported an agricultural economy in 1926/27 that was closely modelled on that of the Northwest Coast. There were 404 farms that had cropping as part of the enterprise structure. Most combined agriculture with dairying though there were 108

[19] [AD9 712-13] file 8S, 7 October 1931.

[20] Advocate, 10 October 1936.
[AD9 712-87] file 3/10 Douglas, J. "Suitability of Mowbray Swamp for Vegetable Growing", typescript report circa 1935.

purely agricultural operations. Five years later, only 138 farms retained an agricultural component. Only nine were totally agricultural holdings. Specialist dairying properties were now the most common farm type in both Scottsdale and Ringarooma.

The Public Accounts Committee toured the state in 1930. Its purpose was to investigate the disabilities of Tasmania within the Federation. At Scottsdale, two prominent local farmers gave evidence on rural issues.[21] Henry Jessup declared that cash cropping had been tried in the Northeast but had been found to be unprofitable. No specific local reasons were mentioned though some existed. The need to cover rail freight to the port at Launceston was one major cost disadvantage of the Northeast. Jessup personally had recently taken up dairy farming having concluded that it offered "... a reasonable chance of success in view of the overseas market being established".[22]

Jessup was one of many farmers who abandoned the tuber for the milking pail during the depression. Others supplemented cropping with livestock. A previously weak industry had to face a number of years when potatoes were being sold at fifty percent below the cost of production.[23] This statement may not be entirely credible as its source was the Farmer's Union, a radical (Social Credit) body that spread throughout the Northwest Coast in 1934. However, even the grazier conservatives in the T.F.S.O.A. accepted that "... the position of the potato grower in this State was tragic, to say the least of it".[24] There was a definite regional response to the problems of the potato industry. In areas where the production of potatoes had been marginal to the regional economy, the tendency was to abandon the crop completely. Potato production in the Northeast declined to such an extent that it was no longer a factor in defining the agricultural structure at the municipal level. In areas where potatoes had been more central to the operation of the regional economy, such as the Northwest

[21] Mercury, 18 February 1930.
North Eastern Advertiser, 18 February 1930.

[22] North Eastern Advertiser, 18 February 1930.

[23] Advocate, 18 May 1934.

[24] Tasmanian Farmers, Stockowners and Orchardists Association: Annual Report 1934/35, p. 43.

Coast, farmers persevered with the crop although with increasing farm-level diversification into dairying and fat lamb.

UTAS

4.2 Depression and Productivity Change in Potato Farming

Productivity levels in the Tasmanian potato industry were low. The average yield fluctuated with seasonal and economic conditions but a situation had evolved by the 1920s where a crop of between two and three tons per acre was considered to be the norm. This expectation controlled the acreage that was planted. Low yields were the end product of years of continual cropping. Even as late as 1930, the rural correspondent of the Advocate was pointing out the neglect of crop rotation by farmers along the Northwest Coast and urging that potatoes be limited to once in a four year cycle.[1] The common practice of growing potatoes continuously on newly-cleared land, until the high initial yield had declined to the mediocre district average, was especially condemned.

The depression had two effects on the yield of potatoes. One was an immediate but short term decrease in productivity (Figure 23). This was followed by a marked increase in yield per acre. From 1936/37 onwards, a normal crop was in the vicinity of three and a half tons per acre. Thousands of acres of unnecessary potato fields were converted to pasture once it became apparent that the seed improvement programme devised by the Department of Agriculture had altered the balance between land planted and crop harvested. Farmers in districts that had been dominated by a potato economy since the original settlement of the land were able to join other districts along the Northwest Coast in the trend towards a diversified potato/dairy/fat lamb economy.

Part of the decline experienced in the early 1930s can be attributed to the effects of the depression. The rural statistics recorded a fall in the use of artificial fertilisers. The tonnage applied to cropland in the Northwestern Statistical Division fell from 9,482 tons in 1929/30 to 8,631 tons in 1931/32. The slump in the sale of fertiliser was directly attributed to the lower incomes of the farmers.[2] There was also a trend towards the use of seed produced on the property. While this saved the grower the cost of buying seed from a specialist producer, the yield of this type of seed

[1] Advocate, 1 March 1930.

[2] [AD9 712-63] file 14/9-1, 27 February 1932.

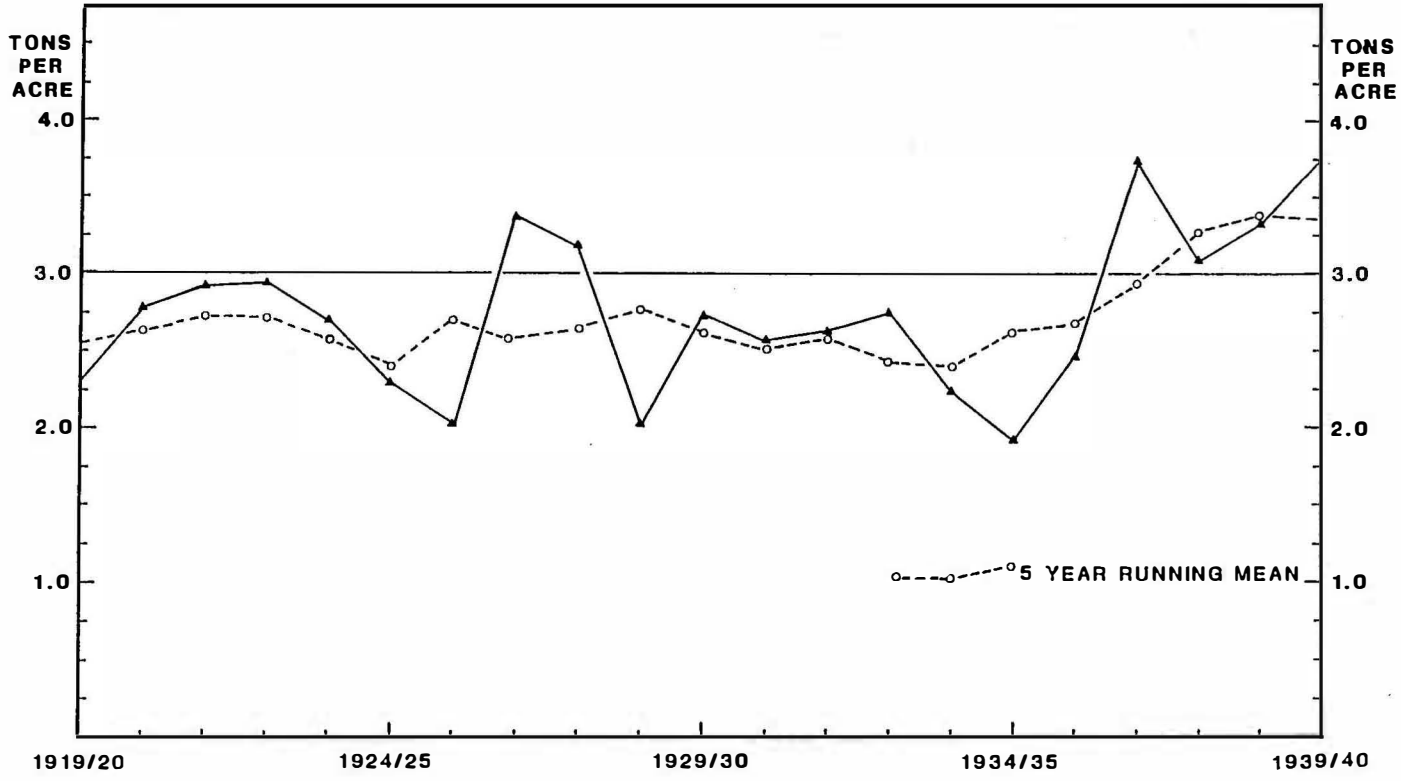


Figure 23 - Productivity Trends in the Potato Industry

was low and decreased with every planting. The gradual impact of these two factors was exacerbated by unfavourable seasons. Heavy rains in December 1934 and January 1935 destroyed some of the crop by flooding and more was lost through the Irish blight.[3] The yield of 1.93 tons per acre was a record low.

The recovery of productivity levels and their advance past the three tons per acre standard in 1936/37 was due to more than the wider use of artificial fertilisers and the return of normal standards of seed control. However, these factors were not unimportant. Fertiliser prices were high in the first years of the depression as the cost of raw materials had increased owing to the fall in the exchange rate and the adoption of a primage duty to raise additional revenue for the Commonwealth.[4] In addition, it was alleged that the Tasmanian Superphosphate Company (E.Z.) was obtaining maximum income from its Tasmanian sales in order to compete in a price war on the Victorian market. However, fertiliser sales rebounded with the adoption of subsidies in December 1932.[5] The Commonwealth offered a 15 shilling per ton subsidy for fertiliser used on non-wheat properties while the state government ordered the Railway Department to reduce the freight on superphosphate. The Tasmanian Superphosphate Company also cut its price. The net reduction in the cost of superphosphate was considerable. A full truck load which had cost £5 5s 0d in November 1932 was £3 17s 6d in August 1933.[6] The use of fertilisers increased throughout the Northwest Coast from 1933/34. The amount used in 1936/37 was recorded as 10,476 tons.

Each acre of potatoes required a half ton of seed. One estimate placed the cost of seed at forty percent of the total cost of growing and harvesting a three ton crop of potatoes.[7] It is not surprising that farmers attempted to economise even though many of their actions were self-

[3]Examiner, 5 March 1935.

[4]Examiner, 3 September 1932.

[5]Examiner, 23 December 1932.

[6][AD9 712-63] file 14/14, no date.

[7][AD9 712-140] file 13/11-3, Kjar, N. "Potato Farming: High Prices for Seed Tubers", 1938.

defeating. Poor quality seed gave poor results. J.H. Lumsden, a southern potato grower, claimed that the old method of planting "... anything with eyes" had a maximum yield of only two and a half tons.[8] The use of reject potatoes as seed also led to deterioration in type and a lower resistance to Irish blight.

The Department of Agriculture had been striving to improve the quality of seed potatoes for many years. One line of approach involved the inspection of Bismarck seed potatoes being railed from the Midlands to the Northwest.[9] These were subject to compulsory examination for corky scab. However, any further inspection for general condition, trueness to type, and other diseases depended on the agreement of both buyer and seller and the payment of a small fee. There were many complaints by both Midlands growers and Coastal buyers about this system of limited inspection and in 1931, all seed leaving the Midlands was subjected to the full inspection.[10] Unfortunately, what had been a small fee when seed potatoes had sold at £10 to £12 per ton had become significant in a year when farmers had to accept prices as low as £3 per ton in order to make sales.[11] Full inspection had to be abandoned in 1932.[12]

High grade seed in Tasmania normally sold at a price margin over the general run that was insufficient to cover the extra costs of production. In 1930, the government tried to stimulate the production of improved seed by adopting the Potato Seed Subsidy Scheme.[13] This provided a grant of 30 shillings per ton for seed that had been rogued for the previous two years and then inspected both in the field and after harvest. The seed was then packed in specially branded bags and placed on the market. In order to make this seed attractive to farmers, its price could not be more than £3

[8]Mercury, 28 April 1931.

[9][AD9 712-28] file 18/27, "Report on Midland Potato Inspection 1929". [AD9 712-28] file 18/27, 21 April 1931.

[10]Mercury, 7 April 1931.

[11][AD9 712-28] file 18/27, "Report on Midland Potato Inspection 1931".

[12]Advocate, 5 October 1932.

[13][AD9 712-28] file 18/28, 24 November 1930.

per ton over the market average. Seed growers complained that the combination of the traditional margin for premium seed and the subsidy still failed to cover the extra costs of producing a quality product. Nor was the amount (£300) set aside for the subsidy going to assist more than a few growers. However, the Potato Seed Subsidy Scheme is of interest in indicating the concern of the government towards the problems of the potato industry and its commitment towards finding a solution despite the unfavourable economic situation.

The main credit for the increase in productivity in the late 1930s must be given to the certified seed scheme. The aim of this scheme was to make a high-yielding, virus-free seed available to all potato growers. The objective was to double the yield of potatoes. This would have two major implications. One would be a massive improvement in the profitability of the potato industry. Table 9 shows the relationship between costs and yield circa 1930:

Table 9 - Production Costs in the Potato Industry[14]

Crop Yield (per acre)	Growing Costs (per ton)	Harvesting Cost (per ton)	Total Costs (per ton)
3 tons	£4/13/4	£2/10/0	£7/3/4
4 tons	£3/10/0	£2/10/0	£6/0/0
5 tons	£2/16/0	£2/10/0	£5/6/0
6 tons	£2/6/8	£2/10/0	£4/16/0

Although these data were based on the Victorian situation, a less detailed set of Tasmanian statistics from 1938 was almost identical in the final estimate of the cost of producing a ton of potatoes at various yield levels.[15] Higher yields reduced the per ton cost as the inputs of seed and fertiliser were stated to be the same for a good and a bad crop. This was not technically correct. For instance, high grade seed cost more than average grade. However, many growing costs were independent of yield and any improvement would have an obvious impact on the profitability of potato farming.

[14] [AD9 712-28] file 18/32, "Notes on the Potato Industry of Australia", typescript: Development and Migration Commission, February 1930.

[15] [AD9 712-140] file 13/11-3, Kjar N. "Potato Farming: High Prices for Seed Tubers", 1938.

The impact on profitability would be most affected by a second factor. It was clearly understood that higher yields would demand a reduction in acreage. All the arguments for the adoption of a certified seed project stressed this point.[16] A doubling of the yield would release half the land currently under potatoes - approximately 18,000 acres - for alternative uses. Therefore, farmers would increase their income by producing commodities for which there was a more reliable market. Farmer adaptation to the new circumstances was unexpectedly rapid. In 1935/36, the yield was 2.47 tons per acre. In 1936/37, the yield was 3.75 tons off a slightly larger than normal area (Figure 23). The conjunction of a large planting and a high yield led to commercial disaster. The average price of 79 shillings per ton was a full 11 shillings lower than the worst depression year. Farmers recognised the futility of producing without markets and began to cut back their acreage. They accepted that the new level of yields would prevail in the future. Acreage was down 4,499 in 1937/38 and fell another 5,772 in 1938/39. The state decline was 10,271 acres (-27.8%) in just two years. The reduction in the five municipalities of the Northwest Coast potato/dairy belt was 6,431 acres (-26.3%). At the same time, these municipalities had 56,089 (+77.2%) more sheep and 404 (+2.2%) more dairy cattle than in 1936/37.

The certified seed scheme is undoubtedly the best example of the application of agricultural science to the problems of Tasmanian farming during the Great Depression. The scheme was based on experimental work begun at Myrtle Bank in 1928 by staff from the newly-established research laboratory at Launceston.[17] The outstation at Myrtle Bank, on the slopes of Mt Barrow in northeastern Tasmania, was set up to investigate a variety of problems related to the production of potatoes. The most promising results were soon apparent in the selection of a high quality Brownell seed. Realising that future development might be hampered by the less than suitable local environment, the Brownell research was transferred in 1930 to Tewkesbury, located inland from Burnie and in traditional Brownell seed producing country.[18]

[16][AD9 712-28] file 18/31, 7 July 1930.
Advocate, 27 February 1932.

[17]Mercury, 1 January 1929.

[18][AD9 712-1] file 2/2-1, "draft of Annual Report 1929/30".

The Brownell was the mainstay of the Tasmanian potato industry. A survey of growers with more than five acres undertaken by the Potato Marketing Board in 1927/28 and 1928/29 revealed that 79.8 percent of the state's acreage was planted in this one variety.[19] Some districts such as Leven and Kentish were completely committed to this type of potato. The problem with the Brownell was particularly acute. It was alleged that its yield was in decline.[20] This had caused some farmers to switch to other varieties. The extent of this shift cannot be calculated. There are problems in reconciling the Potato Marketing Board's data with the Statistician's last estimate of Brownells as a percentage of the total crop. This was 51 percent in 1926/27. However, it was regarded as a serious problem. The Brownell and the Bismarck were the premium potatoes on the Sydney market. Other varieties brought a lower price while the tendency to disguise these inferior lines as "Tasmanian Potatoes" or even "Tasmanian Brownells" was destroying the reputation of the trade.[21]

Brownell seed was produced in the back country of the Northwest Coast. The seed was not subject to any inspection while one attempt to assist growers by circulating a list of the "best" potato seed producers was deemed to be an unacceptable action by a government department and the list was withdrawn.[22] It was noticeable that the list contained the names of 31 growers of Brownell seed and 25 growers of Bismarck seed. There is interest in this ratio considering the difference in scale of the two industries.

E.R. Hudson, the Superintendent of Extension Services was anxious for the improved seed available from the research stations to be released to the farmers.[23] The Government rejected this proposal in 1930 partly because the experimental work was incomplete and partly because of the difficulties of funding even the modest request for £5,000.[24] However, the

[19] Examiner, 16 February 1929.

[20] [AD9 712-70] file 18/7, 7 January 1932.

[21] [AD9 712-70] file 18/7, 7 January 1932.

[22] [AD9 712-28] file 18/31, 6 March 1931.

[23] [AD9 712-28] file 18/1, 7 July 1930.

[24] [AD9 712-28] file 18/31, 4 September 1930.

urgency of the situation was recognised and commercial operations were begun in 1932.[25]

There was a carefully designed system for controlling the release of the improved Brownell seed. The total demand for Brownell seed potatoes was in the order of 15,000 tons. Consequently, a chain of seed farms was required to turn the thirty acres of seed potatoes at Tewkesbury into a factor that could reform the potato industry of the state. The Tewkesbury Potato Research Station was the central element in this scheme. It produced the "elite" seed whose quality was ensured by continuous monitoring of the growing crop and painstaking sorting of the dug potatoes. The elite seed was then released to a small number of selected growers who undertook to produce a seed that met the requirements of a "mother seed" Brownell. Officials of the Department of Agriculture regularly inspected the crop and approved the final sorting before branding the bags as mother seed Brownell. Formal rules were designed to limit the possibility of disease entering the crop. For instance, farms had to be at an elevation above 1,000 feet; seed potatoes had to be grown more than five chains away from any other potatoes; and completely separate storage facilities had to be provided.

The third link in the chain was the "harvest seed" grower. Their role was to bulk up the mother seed into commercial quantities. The crop was grown under similar regulations for field spacing and storage but the height restriction was dropped to 800 feet. Inspections were also less severe. An interesting feature of the organisation of the certified seed scheme can be seen in the distribution of growers (Figure 24). Mother seed and harvest seed growers were located in positions throughout the back country so that separate clusters could serve different areas "... on the front".[26] The stated aim was to minimise costs of transport. Spatial structures that had developed informally in earlier decades were being reinforced by government intervention into the production of potato seed.

The provision of certified seed began to pay dividends in 1936/37. Eight mother seed growers handed on 245 tons to approximately 60 first

[25]Examiner, 27 February 1937.

[26]Examiner, 27 February 1937.

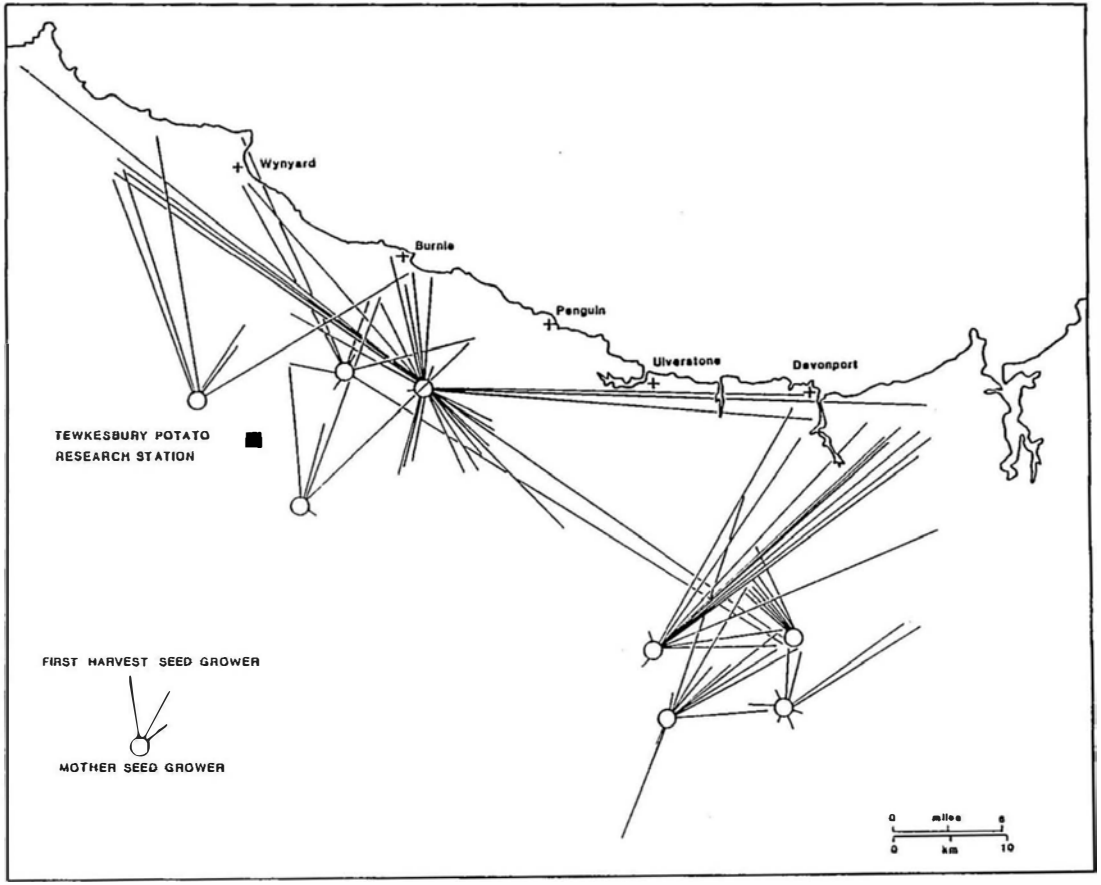


Figure 24 - Certified Seed Production in Northwestern Tasmania 1935

harvest growers.[27] The ultimate seed crop was 660 tons. This was sufficient for the results to begin to appear in the annual statistics. The overall yield of potatoes in Tasmania was 3.75 tons per acre. This was a typical value for the new regime. Never again would yields fall below the three ton level. However, the full potential of certified seed was not achieved. In the last season before the war, it was estimated that only eight percent of the area of Brownells had been planted with certified seed though a much larger proportion was planted with seed derived in some fashion from certified stock.[28] Some came from traditional seed producing country either from harvest seed growers who had failed to put their seed forward for inspection or from other growers who had acquired a stock of first harvest seed. The superior quality of the true certified seed was acknowledged. Bogus seed was sold under misleading labels such as "government seed" or "grown from government stock".[29] However, a more damaging practice involved farmers in the coastal cropping areas trying to propagate their own seed from certified stock. The Department of Agriculture advised against such attempts noting the rapid annual decline in the yield at lower elevations.[30]

The Superintendent of Extension Services had claimed in 1930 that the use of a superior seed would double the yield.[31] There was little that was novel about the agricultural technology that was being proposed. Certified seed schemes existed in other places. The development of a similar project in Tasmania was predicted to have major economic implications for a chronically stressed industry. It would save over £250,000 annually in working costs and release almost twenty thousand acres of land for other purposes. It was to be a slower process than first envisaged. Yields of six tons per acre were not common until the 1960s. However, the eventual success of this intervention by the state in the problem of providing a quality potato seed was becoming apparent in the late 1930s with both a rise in productivity and a decline in acreage.

[27] [AD9 712-139] file 18/8, "Brownell Seed Certification: Suggested Alterations", March 1938.

[28] [AD9 712-139] file 18/8, 2 February 1939.

[29] Examiner, 27 February 1937.

[30] Examiner, 27 February 1937.

[31] [AD9 712-28] file 18/31, 7 July 1930.

4.3 Marketing the Potato Crop

The basic problem of the Australian potato industry was one of limited markets. It depended almost entirely upon the declining local demand for table potatoes. There were no factories to convert potatoes into industrial products while exports consisted of a couple of thousand tons shipped to the Pacific Islands or Malaya. Interstate rivalries that led to de facto trade barriers and the threat of possible entry of New Zealand potatoes created additional marketing complexities. In these circumstances, the habit of potato growers planting sufficient acreage to meet demand in a bad crop year was disastrous. Any increase in yield above the most basic level glutted the market. Potato farming in Tasmania was at the margin of economic viability. It was argued that growers had a profitable season no more frequently than one year in five; perhaps as infrequently as one year in ten.[1] It was not surprising in these circumstances to find that attention was paid to smoothing out the problems of serving existing buyers, of gaining entry into new markets, and of blocking imports.

Shipments from Tasmania were in the hands of private produce merchants. Sales to Brisbane and Newcastle were usually against a firm order but at least ninety percent of the dominant Sydney trade was handled on a consignment basis.[2] Merchants shipped potatoes to a nominated Sydney wholesaler on behalf of the grower. A Potato Marketing Board had been established in 1927 to assist the interstate trade by compiling crop and market reports, conducting consumer advertising campaigns and running a market liaison office in Sydney. It was particularly successful in the early depression gaining freight reductions between Tasmania and Sydney of one shilling per ton in 1931 and two shillings per ton in 1932 plus a reduction in New South Wales merchants' commission of one percent.[3] Some sectors of the industry began to call for the expansion of the powers of the Potato Marketing Board. The aim was to turn it into a body that would control the potato trade within Australia.

[1] [AD9 712-140] file 13/11-3, Kjar, N. "Potato Farming: High Prices for Seed Tubers", 1939.

[2] [AA295-6] file: potato history, "Australian Potato Sales Methods", June 1941.

[3] [AD9 712-71] file 18/16, 18 November 1932.

One proposal was for a national organisation to be formed by growers in New South Wales, Victoria and Tasmania.[4] The national council would examine market trends and advise the states on the grading standards to be applied at any time. Alterations in grade would be used to control the supply. In a good crop year, higher standards would force low grade potatoes to be used as stock feed. If prices rose unduly, grading standards could be relaxed to allow more potatoes onto the market. This scheme was widely supported by growers as it would create an average, reliable return. It would also alleviate one of the chronic problems of potato farming. In a good crop year not only would the farmer receive less for his crop than in a bad year, he also had to pay more for digging, bags and cartage.[5]

The proposal was not universally endorsed. Some farmers argued for the survival of the fittest.[6] Competition would eventually eliminate the unfit (that is, Victorian) grower and ensure the survival of the Tasmanian producer. The use of potatoes as a stock food was also regarded as impractical. Transport costs were such that potatoes could not be sold "off-farm" for stock food especially as the conditions that favoured high potato yields also favoured a good hay crop.[7] "On-farm" use was also not practical given the alternation of high and low yields.

It was also unlikely that a stabilisation scheme could be established given the prevailing constitutional and political climate. Limits placed on free interstate trade were under challenge in the High Court and neither the Nationalist Party while in office nor subsequently the conservative majority in the Legislative Council were interested in organised marketing. Commodity Boards were supported by the Labour government following their election in 1934. However, the commitment of the Ogilvie cabinet to its own policy was, at times, somewhat suspect. In these circumstances, minor reforms that improved the quality and reduced the cost of selling Tasmanian potatoes were more practical than grand marketing schemes.

Control of the quality of Tasmanian potatoes was largely in the hands of the port inspection service. Inspectors would examine a sample of bags

[4]North Eastern Advertiser, 15 July 1932.

[5]Advocate, 4 October 1932.

[6]Advocate, 4 October 1932.

[7][AD9 712-28] file 18/32, appendix 2 to Development and

from every shipment for cleanliness, soundness and grade. However, complaints from mainland buyers about undersized, dirty and diseased potatoes remained common. Topping and stacking were forms of art along the Northwest Coast. Contract carriers would even offer to rig the stack in any way nominated by the grower in attempts to deceive the inspectors.[8] The Potato Marketing Board played a limited role in defending the reputation of Tasmanian potatoes. It publicised the impact that below standard potatoes had on the total trade. As this fact was not always considered important by the individual grower, it also publicised the strong demand for lines from farmers who had good reputations with Sydney wholesalers and retailers. It also resisted proposals raised from time to time to temporarily reduce grading standards on account of special seasonal circumstances.

Freight rate reductions were a major achievement of the Potato Marketing Board during the early depression years. However, these were partly reversed by 1937. Of more lasting significance was the attention paid to maintaining a regular timetable for the potato boats that plyed between Sydney and the four ports of the Northwest Coast. There were two reasons for having regular shipments.[9] One involved the habit of Sydney retailers buying supplies for the week on a Monday morning. If shipments from Tasmania had not arrived, they would buy from other sources. The other factor was that late boats brought eight or nine days diggings to Sydney. The extra potatoes were disastrous on a falling market. The shipping company argued that the main cause for steamers being delayed was the tendency of farmers and merchants to avoid booking cargo until the last minute.[10] Vessels would arrive in port in the morning ready to start loading but shippers would hold back until late in the afternoon. Not only did this practice delay the ship, it also meant that loading had to be done at night at overtime rates. The controversial decision of the Union Steamship Company to fix an hour past which no more cargo would be

Migration Commission "Notes on the Potato Industry of Australia", February 1930.

[8] [AD9 712-111] file 18/7, 31 July 1936.

[9] [AD9 712-27] file 18/15, 5 September 1929.

[10] [AD9 712-27] file 18/15, 23 April 1930.

accepted was supported by the Potato Marketing Board.[11]

New markets would be even better than stable markets. A proposal in 1931 raised hopes on the Northwest Coast for a major new outlet for potatoes. The English firm "Smiths Potato Crisps" announced plans to expand its Sydney factory and to build a new plant in Melbourne.[12] The company's eventual goal was to have a plant in each of the mainland capitals. The main input into these factories was to be Tasmanian Brownells. The Agent-General in London used this fact to try to persuade the firm to build a plant at the source of the raw material.[13] However, the company pointed out that the manufacture of crisps was impractical away from major markets. The product was too bulky to be cheaply transported especially as the tin containers used to pack the crisps were returned to the factory for re-use.

Smith's had to abandon its plan to build a plant in Melbourne.[14] The company lost £12,000, Victoria lost an industry that would have employed 100 men, and the farmers of the Northwest Coast lost a potential outlet for potatoes. The problem was a Victorian ban on the entry of Tasmanian potatoes that had been in force since 1927. A special appeal by the Tasmanian Premier to allow restricted access for the purposes of the crisp factory was rejected by the Victorian authorities.[15] This was in spite of clear evidence that Tasmanian potatoes presented little risk to the health of the Victorian crop. Furthermore, Smith's had conducted extensive trials with Carmen potatoes from Victoria but had found them unsuitable for the machinery used to manufacture crisps.[16] Talk of a retaliatory trade boycott spread along the Northwest Coast.

The use of quarantine regulations to prevent the spread of plant disease was accepted by all states. The use of these regulations for

[11] [AD9 712-27] file 18/15, 13 May 1930.

[12] Advocate, 3 September 1931.

[13] Advocate, 4 September 1931.

[14] Advocate, 12 September 1931.

[15] Advocate, 8 September 1931.

[16] [AD9 712-28] file 18/24, 22 April 1931.

protecting the local market was practised by most states. Corky scab had first been recorded in Tasmanian potatoes in 1915.[17] It had obviously done no harm to the Victorian industry between that date and 1927. Nor had it done any harm to the potato industries of New South Wales or Queensland. The disease required conditions of cold, wet soils that were rare in Australia. In any case, it did little significant damage having no effect on yield and minimal impact on price. The Imperial Mycological Institute, at Kew, England, advised the Tasmanian government that corky scab was not usually a disease that prevented trade.[18] The Canadians viewed corky scab of so little consequence that one percent of corky scab infected potatoes was even allowed in certified seed.[19]

As Tasmanian farmers and government fumed over the intransigent attitude of the Victorian government, they noted that the viewpoint of the High Court in these matters was changing. The Attorney-General advised the McPhee government to take a more aggressive posture.[20] Formal notice was given to the Victorians that the gentlemen's agreement under which potatoes had not been sent to Melbourne was at an end.[21] A carefully inspected shipment of hand-picked potatoes was forwarded under instructions from the government.[22] After it was turned back at the Melbourne wharves, Tasmania initiated action in the High Court.

The case reached the High Court in October 1934. The Victorian ban on Tasmanian potatoes was declared illegal in March 1935. The High Court had maintained its stand, first defined in a dispute between New South Wales and Queensland over cattle movements, that the powers of a State to protect its crops and livestock were limited by Section 92 of the Constitution to measures short of the total exclusion of a whole commodity.[23] The success

[17] [AD9 712-28] file 18/24, 15 September 1931.
[AD9 712-27] file 18/5-2, 16 October 1931.
[AD9 712-28] file 18/24, 4 November 1931.

[18] [AD9 712-70] file 18/5, 13 January 1933.

[19] [AD9 712-28] file 18/24, 15 September 1931.

[20] [AD9 712-70] file 18/6, 22 February 1932.

[21] [AD9 712-70] file 18/6, 30 August 1932.

[22] [AD9 712-70] file 18/6, 13 September 1932.

[23] Examiner, 7 March 1935.

of the legal case made the farmers happy even though access to the Victorian market was of minimal significance. Exports in the five years before the ban had averaged only 1,330 tons.[24] Furthermore, Victoria laid down rigorous conditions for accepting potatoes. Imports had to be sourced from a short list of clean districts, a list which the Tasmanian authorities regarded as unrealistic. However, the government decided not to carry the case any further as any potatoes sent to Victoria from the clean districts would benefit the other areas by strengthening the Sydney market.[25]

Other ways in which the market could be increased were examined during the 1930s. One option was the development of potato industries along the lines of those found in Germany and the United States. Starch was the main product though potato flakes, potato flour, sago and alcohol were also manufactured. Pre-depression studies had always rejected these industries for Australia noting that they were marginal in their own countries and that the investment could never be justified in a situation where potato surpluses alternated with shortages.[26] The Potato Marketing Board investigated the production of power alcohol in 1935.[27] One ton of surplus potatoes could produce twenty gallons of alcohol using simple technology. The fact that methylated spirits retailed at two shillings a gallon pointed out the impracticality of the scheme.

The other option involved the development of markets overseas. A limited export trade was based on periodic sales made by Sydney wholesalers to markets in Asia and the Pacific. This was probably the most appropriate system given the limited scope of these markets and the nature of the shipping links. The Potato Marketing Board tried to foster this trade by offering a subsidy of five shillings per ton for up to 2,000 tons in 1933/34.[28] A trial shipment was made to Portuguese India under this arrangement. Bulk exports to more distant destinations were probably

[24] [AD9 712-70] file 18/6, 30 January 1934.

[25] [AD9 712-111] file 18/6, 1 May 1936.

[26] Mercury, 23 July 1929.

[27] Advocate, 20 July 1933.

[28] [AD9 712-70] file 18/1-1, 8 February 1933.

impossible, but at times, some sectors of the industry became overly enthusiastic about the prospect. One example occurred in late 1931 when reports of a serious potato shortage in England reached Tasmania. Growers called for exports though exports were clearly impractical. Shipping companies had no experience in the long distance transport of potatoes, the freight would have been out of all proportion to the price, and in any case, the shortage was expected to be short-lived.[29] Rising prices would eventually entice British farmers who were holding stock to come into the market.

Nevertheless, there was one aspect of the British market that received serious attention. It was believed that a profitable trade could be developed if Tasmanian new potatoes could be landed in England before the middle of January.[30] This would place Tasmanian new potatoes on the market before the first supplies arrived from the Canaries or the Channel Islands. These would attract a premium price. The first problem was to test the technical feasibility of shipping potatoes to Britain. Overseas experience was limited.[31] The potato trade between Canada and the United Kingdom involved relatively short voyages across temperate water. More comparable was the occasional trade between Britain and the Argentine. Potatoes were carried in cool chambers at between 42° and 44°F. The Potato Marketing Board organised experimental shipments in 1933.[32] These showed that new potatoes could arrive in a marketable state if shipped in cool chambers at 38°F. Those shipped in the vegetable lockers sprouted and were sold as old. An attempt was made in the following year to test the commercial market with a consignment of three tons scheduled to leave in December 1933.[33] Unfortunately, the shipping arrangements came undone. The trade would only be successful if production, shipping and marketing could be synchronised. The erratic nature of refrigerated shipping from

[29] [AD9 712-71] file 18/10, 26 January 1932.
[AD9 712-71] file 18/10, 28 January 1932.

[30] [AD9 712-71] file 18/10, 10 February 1933.

[31] [AD9 712-71] file 18/10, 28 January 1932.

[32] [AD9 712-71] file 18/10, 10 February 1933.

[33] [AD9 712-71] file 18/10, 9 October 1933.
[AD9 712-71] file 18/10, 11 December 1933.

Australia made the Potato Marketing Board abandon further attempts. Even if successful, it would never have been a volume trade.

While trying to find new markets, Tasmanian potato interests also had to pay attention to the potential erosion of the existing Sydney trade by any resumption of imports from New Zealand. Potatoes from the Dominion had been banned in 1927 due to corky scab. Ironically, this was the same disease that justified the Victorian embargo against Tasmanian potatoes. New Zealand had retaliated with counterbans on the import of fruit and vegetables from Australia.[34] Of particular importance was the prohibition of citrus fruit grown in New South Wales owing to the prevalence of the fruit fly.

The first effect of this action had been to almost obliterate Australian citrus exports.[35] New Zealand had been the largest and most reliable overseas market for Australian oranges. The trade quickly resumed its normal level though the source of export fruit shifted from New South Wales to Victoria and South Australia. Exports to New Zealand by 1934/35 were above the level of the 1920s and growing at an average annual rate of twenty percent. New South Wales growers wanted a share of this trade. Orange growers formed a politically effective lobby by being concentrated in a limited number of electorates. The first proposal came in 1935 when the Commonwealth government was asked to consider allowing New Zealand to ship 10,000 tons of potatoes to Sydney in return for accepting citrus exports from southern New South Wales.[36] The Riverina was free of the fruit fly and had experienced especially severe distress throughout the depression.

The farmers of the Northwest Coast were outraged. The municipal councils of Devonport, Leven and Table Cape adopted formal motions of protest.[37] By this time, opposition to the entry of New Zealand potatoes

[34]Advocate, 12 January 1938.

[35]Overseas Trade, Commonwealth Bureau of Census and Statistics, annually.

[36]Advocate, 9 January 1935.

[37]Advocate, 15 January 1935.

on the ground of corky scab was no longer tenable. The Tasmanians focused on protection, claiming that the island had entered the Federation to secure a market for its potatoes, a market that could not be given away to a country that had rejected Federation in 1901. This argument was successful. Potato imports were not allowed even though New Zealand had added the Riverina to the list of permissible citrus export areas.

Nevertheless, the issue continued to simmer. An extract from the Sydney Morning Herald found in the files of the Department of Agriculture carried a report of the annual conference of Central Coast Citrus Producers.[38] A motion had been adopted urging the government to open up the potato trade in exchange for New Zealand accepting citrus fruit from northern New South Wales. A threat was attached that the district would change its political representation at the next election if nothing was done. The Tasmanian Minister of Agriculture replied with a press statement noting that the policy of Australia was protection and that there was no reason why the Tasmanian potato trade should be bartered away to provide assistance for the citrus growers of another state.[39] The Tasmanian case was again successful.

Imports again became a contentious issue in the autumn of 1939. A public meeting in Sydney protested against the high price of potatoes. The vice-president of the Citrus Growers Defence Association addressed the meeting to point out the alleged link between high prices and the embargo on imports. A short extract displays the tone of the debate:

> "When he was at school, Tasmania was an island off the coast of Australia. Now the position was reversed. The state was said to export potatoes and Prime Ministers, and the balance of trade was extremely unfavourable to Australia".[40]

A disinterested observer would probably conclude that the whole debate was futile. New Zealand was unlikely to risk the introduction of fruit fly to obtain a market for potatoes. Even if they had, New Zealand potatoes were

[38] [AD9 712-146] file 18/12, Sydney Morning Herald, undated clipping.

[39] [AD9 712-111] file 18/17, May 1937.

[40] Mercury, 9 March 1939.

not directly competitive with the varieties produced in Tasmania. Exports and imports were marginal factors in the profitability of potato farming. The central concerns were to improve the efficiency of production, to improve the efficiency of shipping and local marketing and, most importantly, to encourage farmers to diversify their operations so that they would no longer rely on the production of an unstable commodity.

CHAPTER FIVE - DAIRY FARMING IN DEPRESSION TASMANIA

5.1 Tasmania and the Export Dairy Trade

The economic farm-type census of 1926/27 showed that the most common farming system in Tasmania was the specialist agricultural (cropping) property. Fruit orchards held second place while mixed agricultural/dairy farms were ranked a distant third. Significant livestock activities were found on barely forty percent of all commercial holdings. The 1931/32 census revealed a radically different structure. The mixed agriculture/dairy farm was now the most common unit in the state. The previously dominant agricultural system had fallen to fourth; edged out of third position within the previous year by specialised dairying. Almost two-thirds of commercial holdings had a significant livestock component. Cash cropping and to a lesser degree orcharding were giving way on several thousand farms to the keeping of stock. The causes of this movement towards dairy farming and intensive pastoralism and its impact on restructuring the face of Tasmanian agriculture during the depression decade are examined in this and the following chapter.

The number of dairy cattle had begun to rise in 1928/29. When growth ceased in 1933/34, the state's dairy herd had been increased by 26,296 (+38.6%). The timing of this period of rapid expansion was suggestive of the processes at work. The movement into dairying had its origins in the mid-1920s as a response to the low and unstable prices for potatoes, hay and oats. Dairy farming was viewed as a viable alternative as it offered a high degree of income stability and prospects of a growing market.[1] The onset of depression proved that dairying was not immune to serious price fluctuations but, if anything, the trend towards dairy farming accelerated as export support schemes continued to create a niche for Tasmanian butter on the British market. The result was that dairy farming became the major activity on farms where it had previously been a sideline and a sideline on farms where it had previously been absent.

The local market could play only a minor role in accommodating the increasing production of butter and cheese (Figure 25). Access to external

[1]Scott, P. "Farming" in Davies, J.L. (editor) Atlas of Tasmania, (Hobart, 1965), p. 59.

markets was critical. It was fortunate that the drive to find a new staple for the Northwest Coast coincided with an increase in British demand for dairy products and with an increased Australian commitment to assist farmers in exploiting this market. The effect on the economic structure of the Tasmanian industry was dramatic. In 1926/27, only one of every five tons of butter produced was exported. Exports of cheese formed an even smaller fraction of production. Dairy farming was primarily orientated to the local market. Furthermore, imports of dairy and related products into Tasmania almost equalled the value of exports from the state. Over the next ten years, the volume of butter exports trebled while cheese shipments increased sixfold. Half of the butter and three-quarters of the cheese was produced for export. Tasmania had finally managed to become part of the antipodean dairying system.

The world dairy trade revolved around the British market. The emphasis of this discussion will be on butter as cheese was not a significant factor in the Australian-British trade at this time. In a normal year, Britain imported two-thirds of all the butter that entered international trade.[2] Denmark was the most important source followed by New Zealand.[3] These two countries were the source of more than half of the butter imported in 1927. The Irish Free State, Australia, Argentina and the Soviet Union formed a further group of four countries that each supplied between five and ten percent of British demand. Australia shipped 488,721 cwt worth £3,836,345. This was 8.4 percent of the trade by volume but only 8.0 percent by value.

The British market had grown during the 1920s and this trend continued into the 1930s. It is hard to reconcile the image of a Britain with three million unemployed, inadequate social welfare, and the hunger marches with the statistical evidence that showed consumption of meat, fruit and butter at record levels. Butter, for instance, had a per capita consumption in 1934 that was 57 percent above the prewar norm.[4] Half of this increase had been recorded since 1931. The cause of this paradox was

[2]Advocate, 14 October 1932.

[3]Commonwealth Official Yearbook 1929, p. 737.

[4]Burnett, J. Plenty and Want, (London, 1966), p. 237.

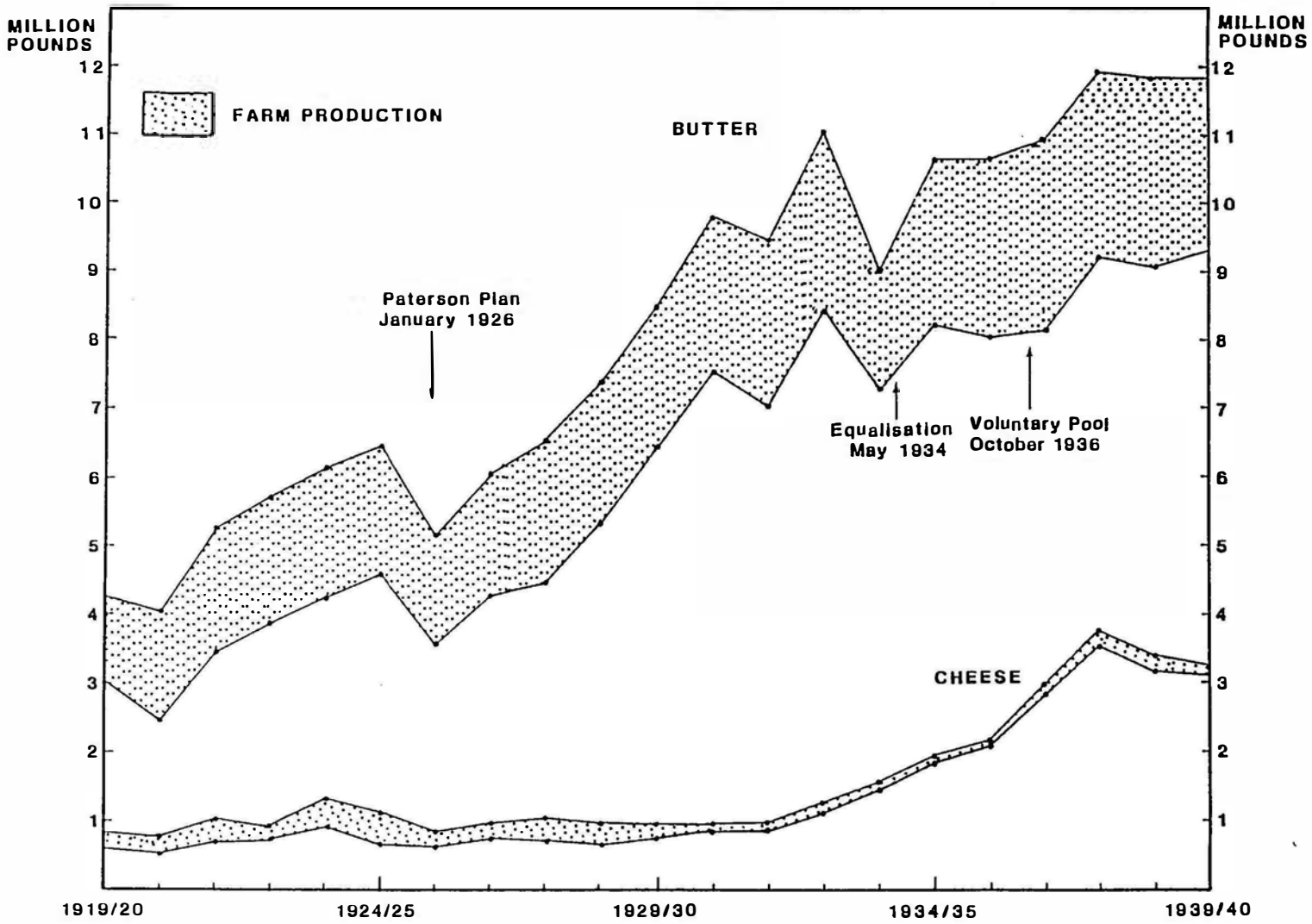


Figure 25 - Production of Butter and Cheese
1919/20 to 1939/40

that Britain's ability to pay for imports actually increased during the Great Depression. The prices that Britain had to pay for imported food and raw materials fell far more steeply than did the income that was received for exports of manufactured goods and commercial services. As a direct consequence, Burnett claims that the dietary standard of the British working class improved during the depression.[5] This situation may have been apparent to Tasmanian farmers. One disgruntled dairy farmer from the Northwest Coast claimed that dairymen were "... being sweated to give people in England a choice butter at first grade prices".[6]

Butter imports into Britain rose from 5,818,611 cwt in 1927 to 9,416,366 cwt in 1937.[7] In spite of the vast increase in volume, the value had declined by almost £1 million as the unit price fell from £166 per ton to just over £100. There were also important shifts in supply regions. Australia was now permanently established as the third main supplier with 15.8 percent of the trade. Australia had done significantly better than New Zealand although New Zealand had done well. New Zealand supplied 31.3 percent of all butter imported into Britain and had displaced Denmark as the leading supplier in 1934. The antipodes now provided as much butter as Denmark and six other leading north European dairying countries combined.

Australia and New Zealand had gained competitive advantage from the Ottawa Agreement of 1932. This established a British duty of 15 shillings per cwt on "foreign" butter. This was a considerable degree of Imperial preference given that the total cost of exporting butter from Australia was 17 shillings per cwt inclusive of refrigerated freight.[8] However, two factors worked against an even greater increase in the Australian trade. One was patterns of consumer preference; the other was increasing competition on the British market.

British consumers had specific preferences for butter from various sources. These preferences were partly based on the relationship between

[5]Burnett, J. Plenty and Want, (London, 1966), p. 255.

[6]Advocate, 2 September 1937.

[7]Commonwealth Official Year Book 1938, p. 745.

[8]Advocate, 14 October 1932.

price and quality and partly on tradition. The cheaper end of the market opted for New Zealand butter while the upper part of the market was served by Danish premium brands.[9] In order to compete, Australian butter had to retail at a discount of 2d per pound for an equivalent grade.[10] This was caused by the lack of reliability in the Australian product. Discrimination against Australian butter began with the wholesale trade which could buy and sell large quantities of butter from New Zealand or Denmark over the telephone.[11] Butter from these countries came in long lines with uniform colour, flavour and texture. Australian lines would have to be personally inspected as its quality was variable within the grade. In addition, Australian butter had no appeal in the north of England.[12] The consumer in the northern industrial cities had adopted Danish butter as the standard against which all imported butters were judged. Neither Australia nor New Zealand could duplicate the taste and colour of Danish butter. Attempts by the Australian Dairy Board to sell in the north were unsuccessful. Australian butter could only be marketed in the south of England in competition with butter from New Zealand, Siberia and the Baltic.

Britain's share of the international trade in butter began to rise during the depression. This came about not only from the increasing real market in Britain but also from the withdrawal of other importing countries from the market. The British tariff of 1932 was negligible compared to barriers established on the continent. Germany imposed a duty of 59s 8d per cwt on Danish butter while Australian butter faced an impost of 118 shillings per cwt.[13] Australian butter seeking entry to France faced a tariff of 604 shillings.[14] In practical terms, these countries had withdrawn from the market. Denmark, the Netherlands, Latvia and other traditional European exporters diverted shipments to Britain. In addition, non-

[9]Circular Head Chronicle, 4 March 1931.

[10]Advocate, 18 September 1932.

[11][AD9 712-51] file 5/2, 15 January 1932.

[12]Examiner, 10 July 1928.
Advocate, 18 September 1932.

[13][AD9 712-48] file 5/5-1, 6 March 1932.

[14][AD9 712-51] file 5/30A1, 20 November 1933.

traditional sources of butter were exploiting the only open market. For instance, the Canadians in 1933 dumped ten million pounds of Prairie butter on the London market.[15] The aim was to protect the domestic price in Canada.

The Australian authorities had foreseen this flood of cheap butter onto the British market and had unsuccessfully argued at Ottawa for Britain to impose a quota on non-empire imports.[16] After all, the Australians were well acquainted with the non-commercial factor in the butter trade. The Australian export industry in the 1920s had been developed on the basis of de facto export subsidies. A bounty of 3d on each pound of butter exported was paid under the Paterson scheme. This bounty was designed to promote dairy farming by covering the gap between local costs and overseas prices. Otherwise, butter exports would have been impossible. The patterns of growth of the dairy sector in Tasmania were strongly related to the impact and details of the Paterson scheme.

The bounty was funded by a national levy on all butter produced in factories. In effect, domestic consumers of factory butter paid a surcharge of 1.5d per pound which was distributed to dairy farmers via a higher payout for factory milk. In Tasmania, the price of factory milk increased by a third within a year of the scheme's introduction in 1926. The impact on butter production was immediate (Figure 25). At first, the gain was through greater milk production per cow. Cattle numbers didn't begin to move upwards until 1928/29 by which time butter production had gained 22.6 percent upon the standard datum of 1926/27. While a lag was to be expected, a further increase in the bounty to 4.5d per pound in January 1929 may have been important.[17] Prices for other commodities were beginning to falter and larger subsidies would have encouraged an acceleration in the shift towards dairy farming.

Butter prices on the London market began a downward slide in November 1929. The average "top" price for choicest Australian butter then

[15] Advocate, 14 September 1933.
Advocate, 15 September 1933.

[16] Advocate, October 14, 1932.

[17] New South Wales Official Year Book 1930/31, p. 277.

stood at 173 shillings per hundredweight.[18] Each subsequent month saw a loss of almost ten shillings. By March 1930, the price was below any seen since the introduction of the Paterson plan. The rate of decline slowed but the final sales for the year averaged 109 shillings. Top average prices in 1931 ranged between 104 and 119 shillings for choicest butter. The Paterson scheme held up the price paid to Australian dairymen through 1930 but eventually the scheme began to unravel. The bounty was reduced to 3.5d in January 1931 and to 2.5d only three months later. However, this subsidy was still sufficient when combined with the effects of the devaluation to make dairying "...perhaps the most profitable of the primary producing industries".[19] The dairy herd in Tasmania increased by 5,030 during 1931.

The Paterson plan between 1930 and 1933 was directly worth £15,000 per annum to the local dairy industry.[20] This was the difference between the levy paid and the bounty received. The Chief Dairy Officer estimated that the indirect support of prices was worth another £30,000.[21] Butter that was exported would have otherwise been sold locally driving the Australian price down to London parity. Nevertheless, the Paterson plan was inherently unstable. Increasing exports meant that the levy was unable to pay the bounty. The New South Wales Department of Agriculture had estimated that when seventy percent of total butter production was exported, the Paterson scheme would be in grave danger.[22] At seventy-five percent, the scheme would be impossible. In 1932/33, Australia exported just a fraction over sixty percent of its total butter supply.[23]

This problem was built into the structure of the Paterson plan.[24] It had been anticipated that when export levels made the subsidy unworkable,

[18]Statistical Register of New South Wales 1931/32, p. 433.

[19]North West Co-operative Dairy Company: Report of Directors 1931, p. 2.

[20][AD9 712-48] file 5/1, 7 November 1933.

[21][AD9 712-50] file 5/26, 13 September 1934.

[22][AD9 712-50] file 5/26, 19 May 1933.

[23]Commonwealth Official Year Book 1936, pp. 712-713.

[24]Advocate, 1 September 1933.

they could be withdrawn. The efficiency of the industry would have improved to a level sufficient to allow it to compete on the world market. No one had anticipated the circumstances prevailing in the summer of 1932/33. There was no way that export butter could pay. Some sales in April 1933 of Australian choicest butter were being made at 64 shillings a hundredweight. The local market was also under stress. In Tasmania, the northern export factories challenged the southern factories that produced for the Hobart market.[25] The wholesale price of butter dropped to 8d a pound at the height of the price war. A truce in January 1934 brought it back to 10d, the level that prevailed in Victoria.

The conditions that had taken the number of farms with some (at least seven cows) dairying from 2,161 (1926/27) to 3,463 (1931/32) were no longer operative. The larger supply of milk could no longer counter falling prices. The gross income from dairying declined below pre-depression levels in 1932/33 and fell even further in 1933/34. The Paterson scheme was on its way out. Negotiations to determine the nature of its replacement led to the Butter Stabilisation Bill being placed before the Tasmanian Parliament in September 1933.[26] By May 1934, similar legislation had been passed in New South Wales, Queensland and Victoria. These acts set up a mechanism whereby the domestic consumer would be called upon to increase their subsidy to the export sector. A committee in each state determined on a month by month basis, the amount of butter that would be sold locally at a wholesale price of 1s 3d per pound. The balance would be exported at 7.5d or 8d per pound.[27] The income from both sectors would be pooled to give an average return of about 11d.

The equalisation scheme was popular in districts where dairymen provided milk or cream for export factories. The aim of the legislation was to give specialist dairy farmers a wage similar to one earned by a person employed in a protected secondary industry.[28] In other districts, the

[25] Examiner, 15 January 1934.
Examiner, 22 January 1934.

[26] Advocate, 1 September 1933.
Examiner, 3 May 1934.

[27] Advocate, 12 May 1934.
[PD1-520] file 68/5/34, 19 July 1934.

[28] Advocate, 1 September 1933.

scheme was bitterly resented as all butter was brought within the ambit of the plan. Every producer of butter had to assume his share of the export trade. Previously, factories producing solely for the domestic market had been allowed to opt out of the levy/bonus system while farm butter production had been ignored. Farm butter was irrelevant on the mainland but critical in Tasmania where one-quarter to one-third of the butter was commonly churned on the farm. This type of butter could not be exported. Home producers were now required to pay a levy of 3d per pound to compensate the factory sector for assuming their responsibility to export a set proportion of their output.

In compensation, the farm butter producers were given the supposed benefit of an enhanced local price. Factory butter would retail at 1s 4d to 1s 6d. This would pull up the price of farm butter, in theory covering the cost of the levy.[29] The Paterson scheme had given the same benefit without cost, a factor that had been important in encouraging the growth of dairying both in mainstream dairying districts such as the Northwest Coast and in marginal areas like the Huon. However, farm butter was available in such large quantities and was often of such low quality that the price pull was insufficient to cover the levy. The unpopularity of the scheme in Tasmania can be gauged by the results of the growers' referendum of October 1934.[30] The ballot was restricted to dairymen who produced at least 500 pounds of butterfat. This disenfranchised many small farmers. Nevertheless, the 'no' vote was 31.4 percent. On the mainland, the 'no' vote was only 1.9 percent.

The transition from one scheme to another had important effects on the growth of the dairy industry. The Paterson plan had taken factory production of butter from 4 million to 8 million pounds (Figure 25). Farm butter had increased by almost a million pounds. Butter production under equalisation failed to increase by so much as one pound. Its goal was not to expand but to stabilise the trade. Any additional output would have had to be exported reducing the average return. It may have had some impact on the trend towards cheese production as equalisation reversed the marginal

[29] Tasmanian Fruitgrower and Farmer, 1 July 1935.

[30] [AD9 712-93] file 5/19, 8 March 1937.

bias against cheese that had been found in the Paterson scheme. However, this is not certain as the trend towards cheese pre-dated the equalisation scheme and continued after it was abolished. One critical factor was that the future of equalisation was always uncertain. The Commonwealth legislation that coordinated the four state acts was of dubious constitutional validity and was being challenged before the courts. Political agitation against the farmer butter levy also destabilised the industry. A second producer referendum had to be held.[31] This time it was on the basis of one man - one vote. The results of the ballot were: for 1,241; against 1,988. Tasmania decided to withdraw from the scheme after 31 October 1936. However, the Privy Council pre-empted this decision by ruling in the James (dried fruit) case that marketing legislation which restricted free trade between the states was invalid. However, some of the benefits of the scheme continued into the late 1930s by voluntary agreements. In Tasmania, all of the factories continued to pool domestic and export accounts.

[31][AD9 712-93] file 5/19, 8 April 1937.

5.2 Geographical Expansion of Dairy Farming: Patterns and Processes

In September 1924, the House of Representatives began to debate the Dairy Produce Export Control Bill. Tom Paterson, the Country Party member for Gippsland, rose to foreshadow his intention to move an amendment that would incorporate his proposal for a levy/bounty system into the bill. Paterson spoke about the plight of dairy farmers around the country. One telling example involved the financial prospects of a producer with 18 cows. This was the largest number that could be handled by one man. If these cows produced at the national average, the most the farmer could expect to earn in a year would be £189. This was considerably less "... than the wages paid to the can washer in the factory to which the man sends his cream".[1] Other speakers in the debate continued to stress the low incomes of dairy farmers and the difficulties of the export market.

Paterson was unable to move his amendment. Instead, the Paterson plan was put into effect at the beginning of 1926 through a Butter Stabilisation Committee organised by the dairy factory association in each state. There was almost nothing in the debate which suggested that the Paterson plan was to be part of a strategy to build up an export dairy industry. The stated aim was to increase dairymen's incomes by raising the Australian price from export parity to import parity. There may have been political reasons for this unexpected emphasis in the debate. Other countries certainly thought that the Paterson plan was an export subsidy. The United States introduced an additional duty equivalent to 3d per pound to counter the effect of the export bonus while dairy farmers in Canada agitated for the exclusion of subsidised Australian butter.[2]

In Tasmania, the Paterson plan was taken as a signal to increase production. The Cameron report had argued for the reorientation of Tasmanian farming away from commodities produced for the Australian market towards commodities that had an overseas outlet. Butter was mentioned as one option. Market reports coming in from sources like the Agent-General in London were stressing the growth in British demand and the inability of

[1]Commonwealth of Australia Parliamentary Debates, Vol. 109, 18 September 1924, p. 4509

[2]Examiner, 23 February 1929.

some traditional suppliers to continue as exporters.[3] Cameron had argued that exports smoothed price trends. So much the better if the products received an export bonus. Even before the end of 1926, the Illustrated Tasmanian Mail noted that potato farmers in the Northwest were giving away cropping in favour of dairying, the products of which have "... an absolutely certain and steady demand".[4]

Dairy farming also met other requirements needed for the agricultural restructuring of Tasmania. The Department of Agriculture believed that a diversified farm economy was essential for the Northwest Coast. The Director of Agriculture stated that Coastal farms should combine dairying, pigs, fat lamb and potatoes.[5] The livestock element not only served to balance incomes across price trends and seasonal conditions, it also assisted in restoring soil fertility to land depleted by decades of uninterrupted cropping. Dairying had several advantages over fat lamb production that were useful in the early stages of diversification. Dairying provided income on a monthly basis, utilised family labour and demanded familiar skills. All farmers along the Northwest Coast had house cows; few had any experience with sheep. Furthermore, the processing and export systems were already in place. Any increase in production would make the factories more efficient by reducing unit overheads.[6] There were no facilities available to slaughter and freeze fat lamb.

The Bureau of Census and Statistics reported that butter factories paid suppliers 12.1d for every pound of butter produced in 1924/25. The payout increased to 13.6d during the first year of the Paterson scheme. This was in spite of a fall in the London price for Australian butter.[7] Payments to farmers remained at this level through 1926/27 and 1927/28 but rose significantly in 1928/29 reaching 15.9d per pound of butter manufactured. This year marked a watershed in the evolution of the dairy industry. The state's production of butter had increased by two million

[3][PD1-427] file 20/2/27, 24 March 1927.

[4]Illustrated Tasmanian Mail, 6 October 1926.

[5]Advocate, 3 November 1931.

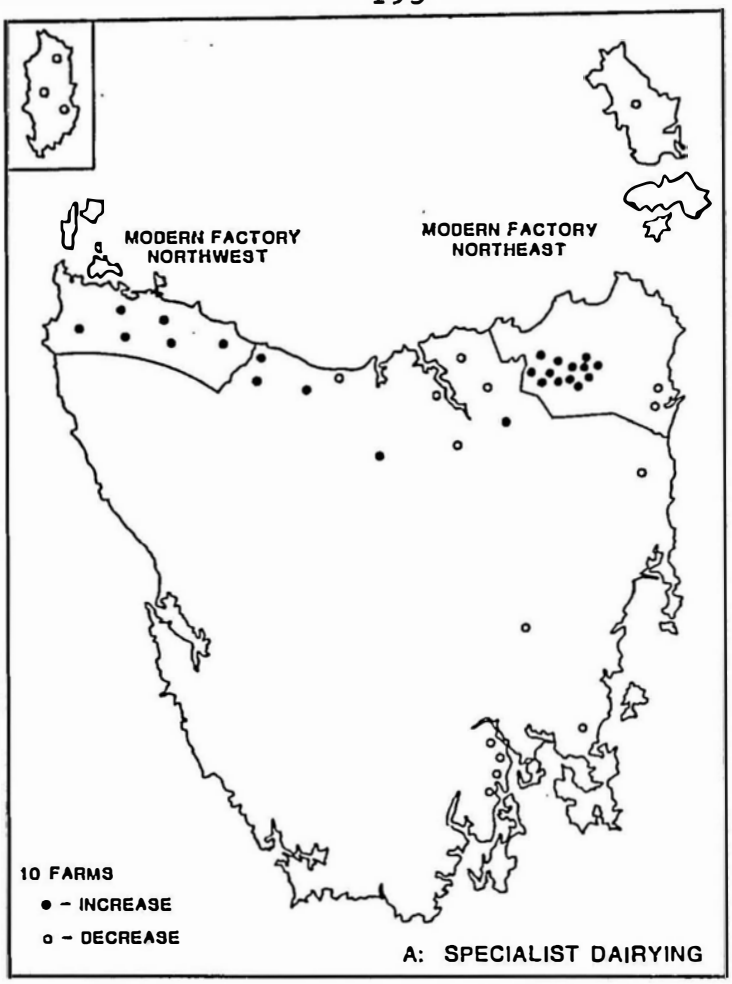
[6]North Eastern Advertiser, 22 February 1927.

[7]Commonwealth Official Year Book 1929, p. 737.

pounds since the introduction of the Paterson plan. However, the number of dairy cattle increased by less than one percent. Another two million pounds would be added over the next five years. This would be tied to an almost forty percent increase in the dairy herd.

Changes in the number of farms with a dairy income greater than £100 have been used to examine local patterns in the pre-depression phase of expansion. In reality, the £100 level represented a minimum of ten cows with no other activity for a specialised dairy holding, and seven cows with cropping or sheep for a mixed dairy property. The number of farms with a dairy component increased from 2,161 in 1926/27 to 2,355 in 1928/29. The gain of 83 specialist properties was relatively more important than the addition of 111 mixed dairy farms. The modest scale of these totals cannot obscure the fact that the Paterson plan was stimulating growth in traditional factory-oriented dairying areas (Figures 26A and 26B). Specialist dairy farms were becoming increasingly common within the six municipalities previously defined as the "modern" sector (Figure 10). Over two-thirds of dairy farms were now found in these districts. Only two years previously, the proportion had been less than half. Specialist dairymen were also increasing in the "transitional-widespread" region. In 1926/27, there were only 17 specialist dairy farms in this area which stretched from Emu Bay to Westbury. Ten were in Westbury, probably within the Launceston milkshed. Specialist dairy farms increased to 60 with the largest numbers in Deloraine and Emu Bay. The trend along the Northwest Coast suggested that mixed dairy farms in the most dairy intensive of the transitional districts were becoming more specialised. This hypothesis was supported by the gauge on factory orientation provided by the first component of the dairy farming principal components analysis that was undertaken for 1926/27. Deloraine and Emu Bay were the most advanced of the municipalities in the "transitional-widespread" region. Deloraine had a small local factory and rail access to larger plants in Launceston while Emu Bay had the large Burnie factory of the North West Co-operative Dairy Company.

Kentish was identified by its low component score as the district with the lowest dairy orientation within the "transitional-widespread" region. This municipality continued to have no specialist dairy properties. However, the number of mixed dairy farms almost doubled. Major increases in the number of mixed dairy farms were found in every municipality except



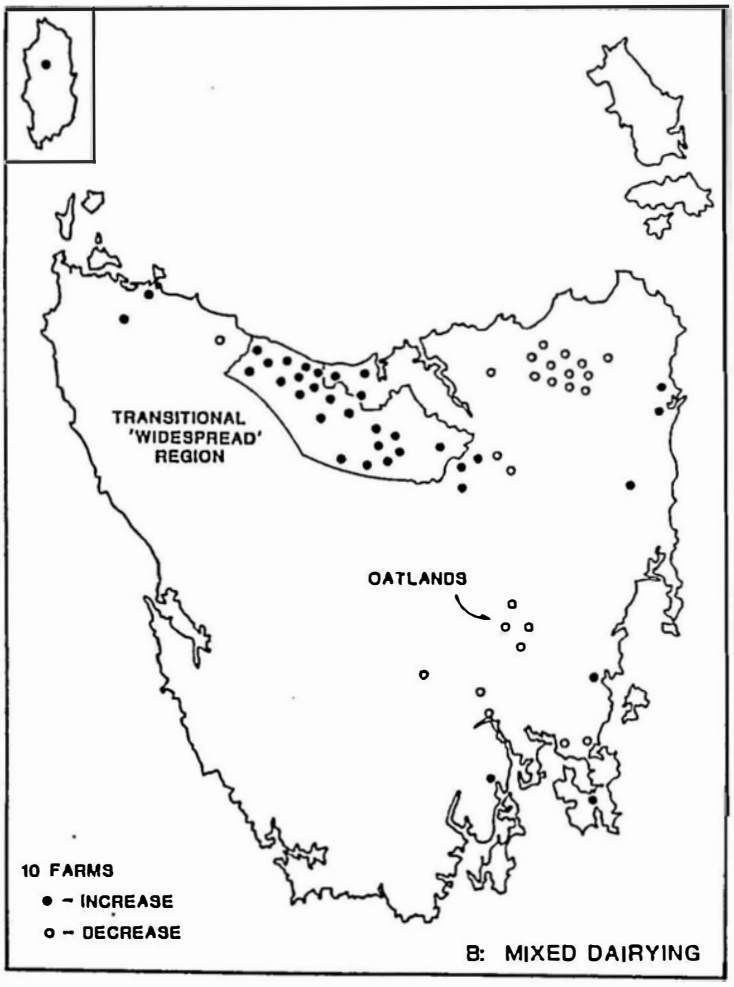


Figure 26 - Change in Dairy Farm Numbers
1926/27 to 1928/29

Westbury raising the regional total from 461 to 679. The most typical combination was the agricultural/dairy unit though the agricultural/dairy/pastoral system was common in Deloraine and Westbury. Farmers who were taking up dairying for the first time, were placing cattle alongside their more traditional activities and adopting the style of diversified farming that had often been proposed for the Northwest Coast. Not all of these farmers were moving into factory-oriented production if the rising output of farm butter in Kentish can be taken as a guide.

Cropping farms on the Northwest Coast were adding a dairy sideline. Simultaneously, some mixed agricultural/dairy properties were becoming part of the specialised dairy sector. This sequence was related to the increasing profitability and maturity of dairy farming. It would be tempting to regard the Northeast as an extreme example of the above trend. The decline of agriculture was so pronounced that it affected the mixed farming sector. Not only did losses to specialised dairying exceed entries from agriculture, some agricultural properties became dairy farms without passing through the mixed farming phase. However, unresolved data anomalies, particularly in Scottsdale, suggest that this explanation is unrealistic. It is difficult to relate the trend towards increasing specialist dairying as measured by the farm-type survey to falling numbers of dairy cattle and an escalating production of farm butter and cheese.

The chief dairying regions were in the Northwest and Northeast. In other parts of the state, the general pattern was one of decline (Figure 26). The southern factories were primarily producing for the local market being too small and inefficient to supply the export trade. At first, the Hobart factories attempted to remain outside the Paterson plan since they were unwilling to pay a levy from which they would receive virtually nothing in the way of export bonus.[8] Eventually, pressure from the northern factories made all but one of the southern firms accept the Paterson scheme.[9] However, there were no profits in southern dairying as the factories in the plan had to share the local market with the firm that refused to join as well as facing increasing competition from the rising output of farm butter. This led to the reduction of commercial-scale

[8]Mercury, 26 February 1927.

[9]Advocate, 17 January 1927.

dairying. The exceptionally large decline in the Oatlands municipality followed the closure of the Baden butter factory in 1927. This enclave of dairying within the Midlands was wiped out as farms with a dairying component fell from 69 to 19.

In contrast to the slow but soundly based growth of the 1920s, the onset of the depression started a massive rush into dairying. Each year, several hundred additional farms reported taking up dairying within a mixed farming system. When the economic farm-type survey was taken for the last time in 1931/32, there were 3,463 properties with a dairying component. Dairy farms had increased by more than a thousand since 1928/29 (Figure 27). At the same time, another thousand farms had been forced out of the commercial sector. The net result of these two trends was that half of the remaining commercial farms had some form of dairying activity.

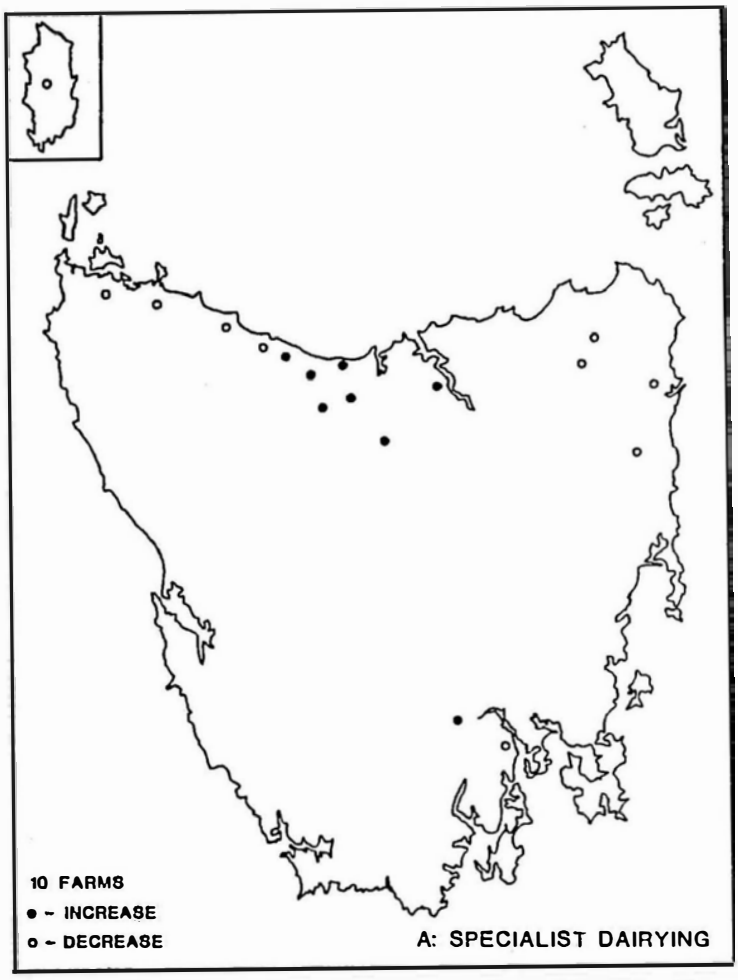
Much, if not most, of the increase in dairy farming can be attributed to farmers, graziers and orchardists trying to use the income from a few cows to survive the depression. Dairying seemed to offer an outlet at a stable price. The Paterson plan had kept up the price of factory milk through 1929/30 at a time when the markets for potatoes, wool and apples had already collapsed. Even after dairy prices fell, it was still possible to get some income. Other commodities, such as chaff and blue peas that were important in parts of the Northwest Coast, were reported to be virtually unsaleable.[10] There were also methods to maintain income through dairy farming. One strategy was outlined by Jessie Alexander, a pastoralist from North Bruny Island, who wrote how she had "... during these hard times tried to increase my returns by milking more cows."[11] Another strategy was to take over the manufacturing process. The value-added component of farm butter may have been worth as much as £20,000 in 1931/32.[12] Both the number of dairy cows and the output of farm butter were increasing. These trends were to continue until 1933/34.

Dairy farming appeared in some of the most unlikely areas (figure 27B). For instance, the number of farms with a dairying component

[10] Advocate, 1 January 1932.

[11] [AD9 712-7] file 5/4-2, 31 August 1931.

[12] extrapolated from C.B.C.S. estimates, 1934/35 to 1936/37



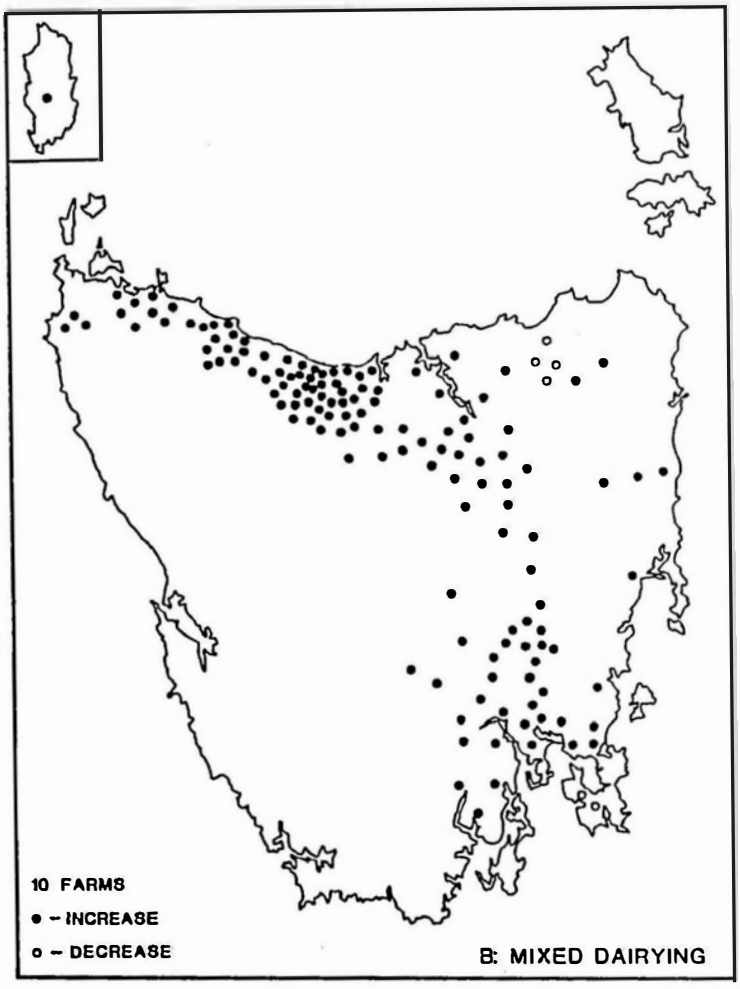


Figure 27 - Change in Dairy Farm Numbers
1928/29 to 1931/32

in the municipalities of Campbell Town, Bothwell and Ross increased from 10 to 69. These municipalities formed the heartland of the wool industry. Dairying made an even larger comeback in the adjacent Oatlands district. Another example involved the Huon Valley where unsatisfactory apple prices had caused many orchardists to pay more attention to dairying. It was even reported that large tracts of land were being cleared for pasture on the slopes above the orchards.[13]

The Department of Agriculture had fostered diversification through dairying in the Northwest but was less impressed with the rise of sideline dairying in other parts of the state. In some districts, dairying would never be viable. One Midlands property owner who kept a milking herd of 10 cows was advised to give them away and buy in some Corriedale sheep.[14] Diversification within the pastoral sector was believed to be a more appropriate policy. In other districts, the scale would never become economic. A man who proposed to build a small dairy factory in the Huon was advised to reconsider the idea.[15] The throughput of one ton per week was only half the capacity required to justify the investment of £3,000. In all districts, the production of farm butter was regarded as destructive of the best interests of the industry. Farm butter displaced factory butter from the local market and by reducing the amount of milk processed in the factories, raised the cost of production.[16] Nevertheless, many families living on marginal holdings survived the depression on the income derived from a few cows.[17]

The depression-insulation factor was the main force behind the expansion of dairying between 1928/29 and 1933/34. However, there were some signs of a continuing development of modern dairy farming along the Northwest Coast. One obvious indicator was the continuing rise in the number of specialist dairymen in the municipalities of Penguin, Leven and Kentish (Figure 27A). A certain proportion of the increase in mixed dairy

[13]Mercury, 18 December 1934.

[14][AD9 712-53] file 8H, 8 June 1932.

[15][AD9 712-7] file 5/4-2, 15 April 1931.

[16][AD9 712-50] file 5/26, May 1933.

[17][AD9 712-51] file 5/30A, 11 July 1934.

farms along the Coast must also be attributed to this process (Figure 27B). The principal components analysis for dairying was replicated using 1931/32 data. The increasing importance of the modern factory sector was inferred from the municipality scores on the first component. Once again, it was the first component that had identified the factory-oriented dairy system. Deloraine and Table Cape had moved well into the modern dairy farming sector though there was still a major distinction between these districts and the large, specialised dairy farms of Circular Head. At the next level, the once important differences between Emu Bay and the Penguin/Leven/Kentish grouping had been eliminated. The individual parameters no longer showed any significant differences in dairying intensity.

It had been anticipated that the structure of the first component would suggest an alternative methodology for isolating the commercial factor. This was important for two reasons. Firstly, many of the variables used in the principal components analysis were derived from the economic farm-type census. These were not available beyond 1931/32. Secondly, there were conceptual problems involved in using highly modified data. While the component loadings and component score coefficents were similar, they were not identical. Nor were the means and standard deviations for the different variables. In fact, these changed systematically with the increasing importance of dairying.

Only six of the eleven original variables could be considered for the construction of an alternative index. The other five were not available after 1931/32. Extracts from the original correlation matrices have been reproduced in Table 10. "Milker" and "Gallon" were discarded immediately as they had not been selected by the first component. This was probably due to the erratic nature of the statistical returns rather than through a failure of the concept that productivity should be highest in the most dairy-oriented regions. The production of farm butter and cheese (Grease) was rejected after more consideration. It had been brought into the first component by varimax rotation but its spatial pattern tended to be dichotomous with alternative causes for districts having low values. "Income", "Number" and "Swine" formed an intercorrelated cluster that were at the core of both first components. These were used in a variety of multivariate mapping formats to try to assess the possible diffusion of factory-oriented dairying from 1926/27 to 1936/37.

TABLE 10 - Correlation Coefficient Matrices - Dairying

1926/27

	Income	Number	Swine	Milker	Gallon	Grease
Income	1.000	0.652	0.575	0.447	0.140	-0.446
Number	0.652	1.000	0.779	-0.023	-0.168	-0.366
Swine	0.575	0.779	1.000	0.163	-0.174	-0.207
Milker	0.447	-0.023	0.163	1.000	0.393	0.109
Gallon	0.140	-0.168	-0.174	0.393	1.000	0.109
Grease	-0.446	-0.366	-0.207	0.109	0.109	1.000

1931/32

	Income	Number	Swine	Milker	Gallon	Grease
Income	1.000	0.736	0.721	0.639	0.391	-0.426
Number	0.736	1.000	0.822	0.237	0.282	-0.415
Swine	0.721	0.822	1.000	0.408	0.456	-0.321
Milker	0.639	0.237	0.408	1.000	0.350	-0.089
Gallon	0.391	0.282	0.456	0.350	1.000	-0.096
Grease	-0.426	-0.415	-0.324	-0.089	-0.096	1.000

Variable labels defined with Table 6 (see page 76)

One set of results is illustrated by Figure 28. The means and standard deviations of 1926/27 were used to gauge the relative intensity of dairy farming in the municipalities at three different times. The match between the 1926/27 pattern defined above and those defined by the principal components analysis was good. Four of the five municipalities with scores greater than one on the first component were in the highest map category. The fifth district was Portland. This was placed in the second map category because its local value of swine per farm was below the required level. The 1931/32 pattern was also calibrated against a principal components analysis. The development of dairy farming in the Northwest was seen by the advance of Table Cape and Deloraine from category three to category two. The situation in the Northeast centred on the decline of Scottsdale and the rise of Fingal. This was the pattern that was also derived from the principal components analysis though the dominance of commercial dairying within the pairing was reversed. Scottsdale was gauged to have a more factory-dominated industry structure than Fingal in spite of declining values on many important criteria. In this case, the principal components analysis gave the more realistic result.

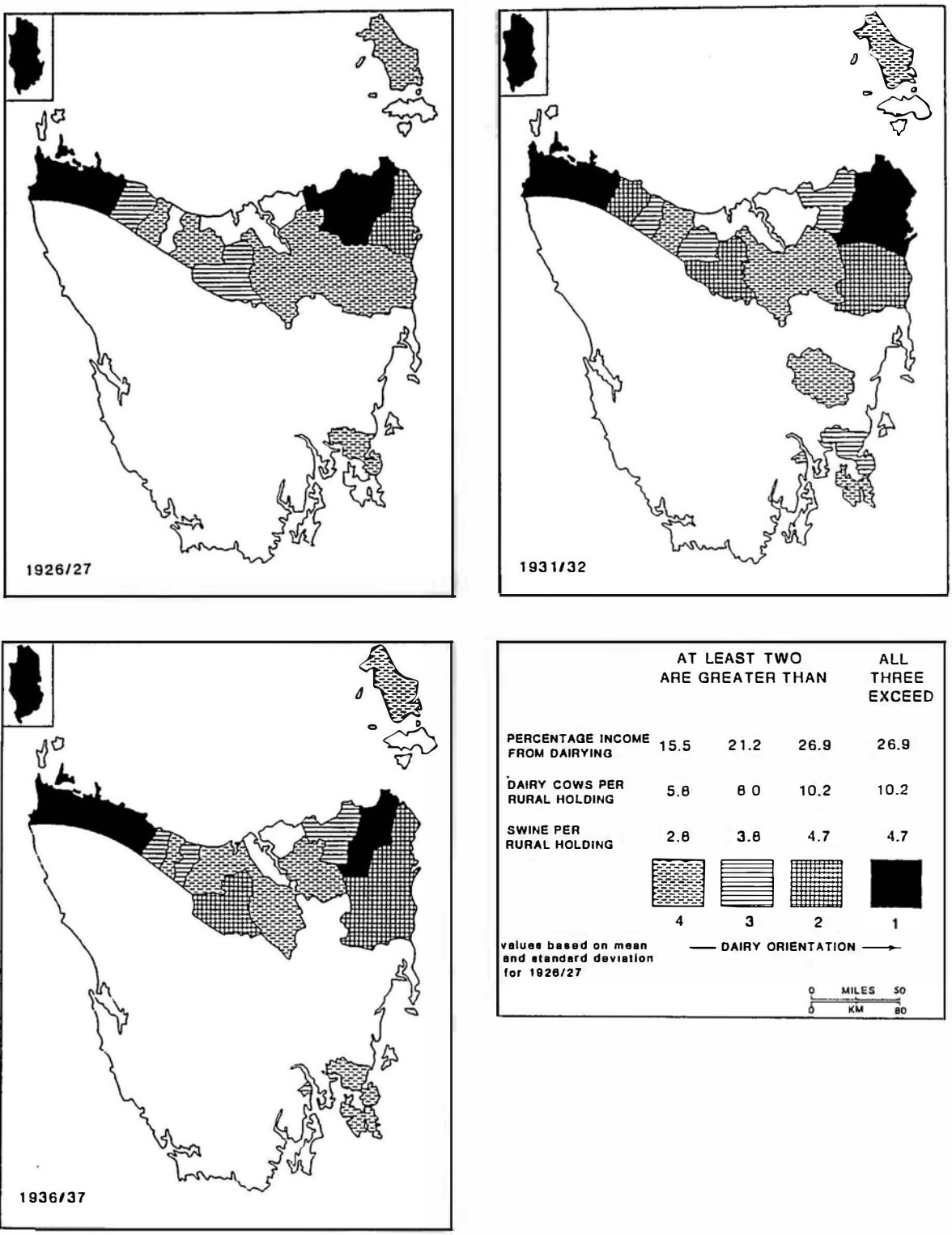


Figure 28 - Patterns of Dairy Intensity
1926/27, 1931/32, 1936/37

Comparison of these two patterns with their principal components antecedents meant that the extrapolation onwards to the 1936/37 data was undertaken with confidence. At first, the results were alarming. It appeared that the industry had stagnated in spite of an increase of 11,802 (+14.4%) cows over the period. Only three municipalities were gained (Lilydale, Devonport, Latrobe) at the lowest level of the system. Countering this was the loss of Evandale and Oatlands from the same level. There were also four promotions compared with three demotions at higher levels. These could be discussed as individual cases with perhaps some hints of the data showing further development of a dairy economy along the Northwest Coast. Four of the seven upward movements but only one of the five downward movements involved a Coastal municipality. This included the final incorporation of Table Cape into the highest category.

This was not the scale of dairy intensification that had been anticipated. In 1926/27, five districts were in map categories one and two with values on at least two criteria that were one standard deviation above the state mean. In both 1931/32 and 1936/37, there were seven districts in the two dairy intensive categories, a rather meagre result for an increase of 26,200 dairy cattle. This was an increase of 38.8 percent. Figure 29 examines the pattern of growth for three ad hoc regions. It is evident that the Paterson plan played a central role in promoting dairying in areas with a strong factory-oriented tradition, such as Circular Head and Table Cape, and in areas with some dairying potential repesented by four other municipalities from the Northwest Coast. It had no immediate effect on the non-dairy districts represented in Figure 29 by the five municipalities of the Midlands Statistical Division. One of these was the Oatlands municipality which had a local butter factory until 1928. The Great Depression saw an increase in dairying in all areas until 1933/34. Two factors combined at this time to confine further growth to the original dairy-intensive districts of the far Northwest Coast. One was the impact of the bad season of 1933/34 when drought, caterpillars and bushfires brought the milking season to a premature close. Farmers were forced to hand feed their cattle.[18] Many could not afford the fodder and had to sell out. The other factor was the switch from the Paterson plan to the Dairy Stabilisation scheme. This had a serious impact on the marginal butter producer while simultaneously favouring

[18] Advocate, 5 January 1935.

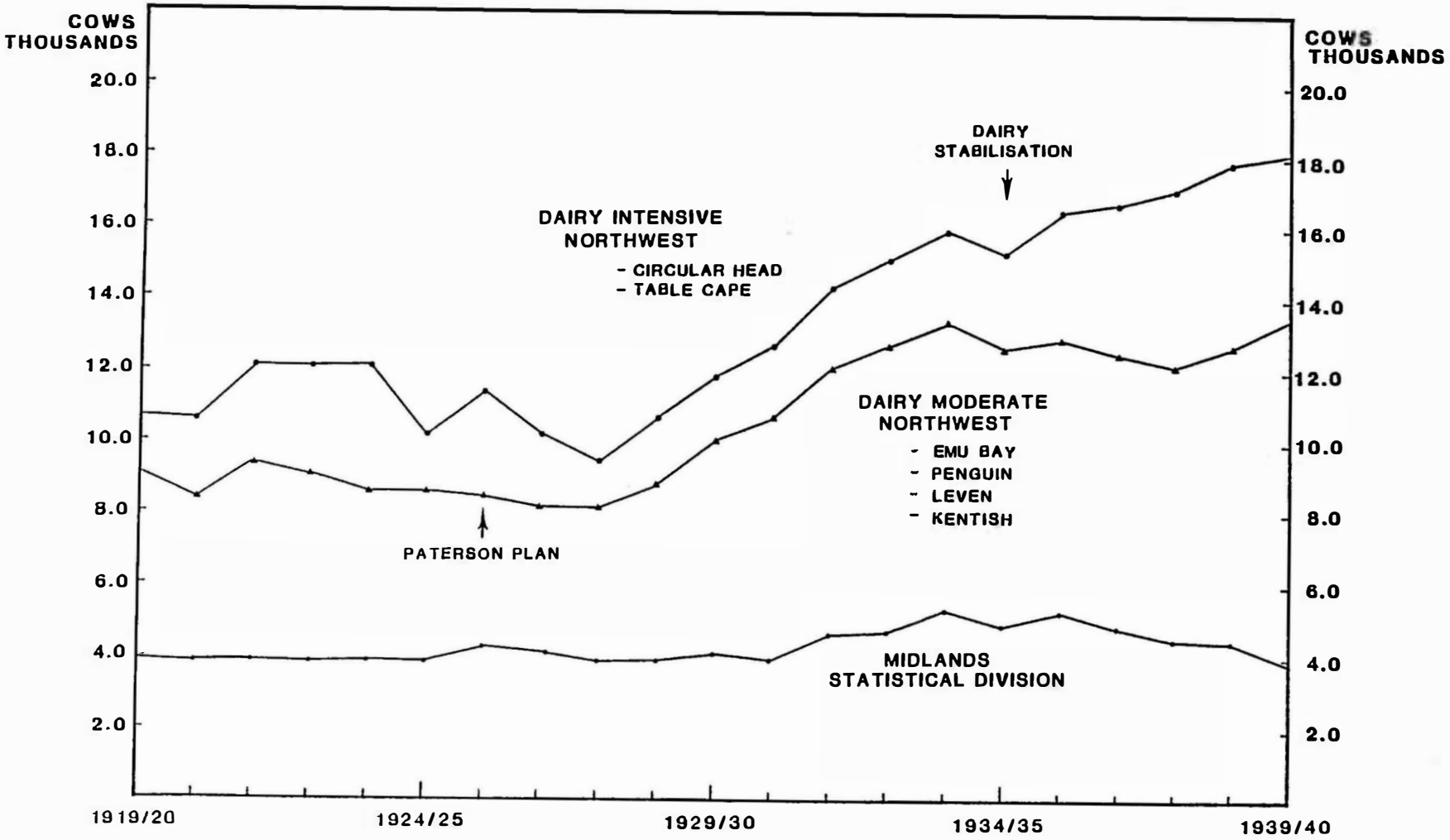


Figure 29 - Patterns of Growth in Dairying:
Three Selected Regions

producers in core dairying districts, particularly those with access to a cheese factory. As mentioned in the last chapter, some parts of the Northwest Coast reverted to potatoes. In the next chapter, the movement of other Coastal districts towards fat lamb after 1934/35 is examined. Both of these trends were aided by the Department of Agriculture beginning to enforce long-ignored regulations on the infrastructure that was required for a properly run dairy farm.

5.3 Productivity on the Dairy Farm

Progress in the dairy industry involved more than merely increasing the number of dairy cattle. Every cow had a basic maintenance cost. In Tasmania during the 1930s, this was estimated to be at least £10 per annum.[1] Not every cow would produce this sort of return. In many cases, a farmer contemplating increasing the size of his herd to increase his income would have been better off to have increased its productivity. This section examines the factors on the farm which could increase the efficiency of the dairy industry either by lowering the costs of production or by increasing the value of the final product. The efficiency of the manufacturing sector is examined in the following section by following the cream from the farm gate through to the export pier.

The productivity of dairy cattle was difficult to measure from the available statistical data. Only one statistical series covered the entire period between the wars. This involved the division of the total production of milk by the number of dairy cattle to establish the milk production per dairy cow (Figure 30). Both the numerator and denominator of this simple expression involved potential error. In particular, the milk production figures were estimates based on returns from factories, the production of butter and cheese on the farms, plus a loading for the consumption of fresh milk. Butter factories, the largest users of milk, would have had to extrapolate the original milk base of the cream received from the farmers. There were inconsistencies in the ratio of butter produced per hundred gallons of milk which suggest that problems may have existed with the extrapolation procedure. Furthermore, the estimates of total milk production were revised without explanation in 1933/34. The revised estimates reduced the recorded production for most of the preceding ten years but some of the details of the revision also allowed for an alternative hypothesis of clerical error. Consequently, the data as originally published were used to compile Figure 30.

The production of milk in terms of gallons per cow is one measure of the quality of the dairy herd. Contemporary opinion held that a good cow

[1] [AD9 712-46] file 3/7, "Production Drive", no date.

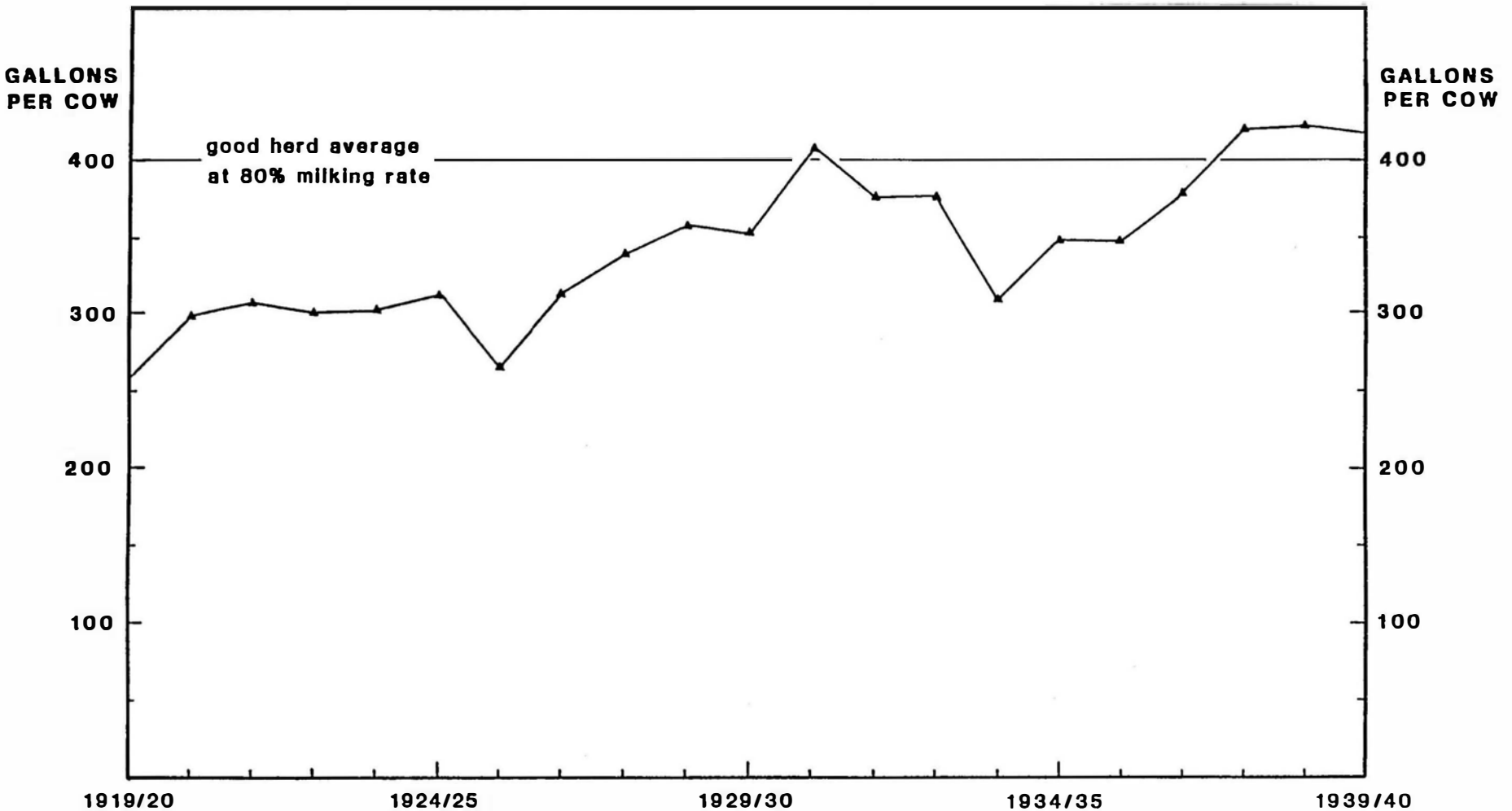


Figure 30 - Productivity per Dairy Cow
1919/20 to 1939/40

would produce 500 gallons of milk over a nine month milking season.[2] A general application of this standard to the state herd as in Figure 30 would also need to account for the changing number of dry cows. Reliable data on the number of cows in milk at the height of the season existed from 1927/28 onwards. In normal years about one cow in five was not in milk on December 31st. This suggests that a reasonable standard for the whole herd would be about 400 gallons.

In the early 1920s, the production per cow was well below this standard. About ten percent of the dairy cattle in Tasmania were reported to be purebred Jersey or Ayrshire.[3] The other ninety percent straddled a range from good "grades" through to "nondescripts" and "scrubs". Feeding practices were also described as being fairly primitive; a major factor leading to a short milking season. Considerable improvements were made in both breeding and feeding in the middle 1920s leading to a rise in productivity from 1927/28 onwards. Productivity peaked in 1930/31 at 406 gallons per cow. Some of the surge recorded in the early depression period was partly due to attempts to maximise income by milking more cows. The proportion of the dairy herd that was in milk on December 31st rose to an unprecedented value of 85.9 percent in 1930/31. This was sufficient by itself to account for one-quarter of the seven million gallon increase in milk output since 1928/29. Other forms of achieving a greater supply of milk from each cow accounted for another quarter. Some of these techniques were also temporary depression measures. The balance came from an increase in the number of cows.

Production levels receded in the following years though the very low output in 1933/34 must be attributed to unfavourable seasonal circumstances. Drought, bushfires and caterpillars brought the milking season to a premature close.[4] In terms of milking effort, the years 1934/35 and 1935/36 were very similar to the last years before the depression. One cow in five remained dry at the height of the milking season. The average output per cow was just under 350 gallons. This value was slightly above the norm

[2][AD9 712-48] file 5/5-2, 14 August 1933.

[3]The Rural Industries of Tasmania, (Hobart, 1925), p. 7.

[4]Advocate, 5 January 1935.

established in the late 1920s but below the values reached during the worst years of the depression. It appears that the depression distorted what may otherwise have been a continuing process of improvement. The increase past the 400 gallon mark in the late 1930s was almost entirely due to real improvements in productivity per cow. Less than two percent of the increase can be related to changes in the milking effort.

A number of other indices of dairy herd productivity were also considered. None was as general or as accurate as the gallons per cow measure discussed above. For instance, the farmers reported the milk produced on December 31st. This could be related to the number of cows in milk on this date. This information was only available between 1926/27 and 1933/34 and serious errors were apparent in the 1926/27 returns. However, it showed the same trend of output per cow increasing towards a 1930/31 peak. Another index was the average butterfat produced per cow in grade herd testing associations. These revealed a major decline in yield during the first years of the depression bottoming out in 1931/32 with a production of 181 pounds of butterfat per cow.[5] There were subsequently major improvements with the average reaching 240 pounds in 1937/38.[6] Most of the gain occurred in one abrupt step between 1935/36 and 1936/37. It was not known how far these data reflected general trends. Herd testing associations covered no more than ten percent of the dairy cattle and the number under test varied considerably from year to year. The farmers that belonged to herd testing associations also had larger and better herds than the typical dairyman. This made the decline in productivity during the first years of the depression especially significant. Finally, there were trends in the amount of butter produced from 100 gallons of milk. A link between rising milk output and lower butterfat content during the early 1930s was also suggested by this data. Unfortunately, this information was not available after 1935/36 when major gains in productivity would have confirmed whether the weak trend observed in the data was likely to be real.

Improvement in productivity had come about in two manners. A number of factors had been improving the quality of the cow; other factors

[5][AD9 712-48] file 5/5-2, 14 August 1933.

[6]"Annual Report Department of Agriculture 1939/40", Journals and Printed Papers: Tasmania, (1940/41), Paper 39, p. 13.

were improving the quality and quantity of the feed provided to the milking herd. Better breeding was an obvious prerequisite for improving the standard of dairy farming. The dairy bull subsidy scheme introduced in 1927 was designed to assist farmers replace scrub bulls with bulls bred specifically for their dairying characteristics. The subsidy was calculated at a rate of 6d per pound of butterfat produced by the bull's dam during her highest testing season.[7] The minimum standard was set at 350 pounds per annum. This was more than twice the level achieved by a typical Tasmanian cow. In 1931, the bull subsidy was reduced to 4d per pound of butterfat. The effect of this economy measure was counterbalanced by the introduction of a bull exchange scheme. The Department of Agriculture assisted farmers to exchange subsidised bulls among themselves once the bull had become obsolete on a particular farm. This was a useful service with virtually no cost. Almost a thousand quality bulls were partly financed by this scheme during the 1930s.[8] Of course, most bulls were still sold privately. Many could not reach the subsidy standard. Farm reports prepared in the late 1930s were still deploring the role of inferior bulls on many dairy farms.[9]

The standard method of assessing the productivity of each cow was through a herd testing system. Farmers were then able to selectively cull the herd eliminating cows with a poor record of milk production and a low butterfat content. Herd testing had been slow to develop in Tasmania with only three associations and 800 cows in 1924/25.[10] These were entirely financed by the local membership. The rapid growth of herd testing after 1927 was due to an agreement whereby the State and the Commonwealth each assumed one-third of the cost. By 1928/29, there were eighteen associations covering 8,251 cattle.[11] While only a fraction of the total dairy herd was under test, these included most of the larger operations and the precepts of breeding and culling for production eventually filtered

[7] [AD9 712-11] file 5/11-3, no date.

[8] "Annual Report Department of Agriculture 1939/40", Journals and Printed Papers: Tasmania, (1940/41), Paper 39, p. 13.

[9] [AD9 712-129] file 5/5, 28 April 1938.

[10] Mercury, 1 January 1929.

[11] [AD9 712-8] file 5/5-1, "Grade Herd Recording Scheme 1929/30".

through to the smaller dairy farms. Nevertheless, the effectiveness of the system was sometimes questioned. Some farmers tested out of curiosity while others became test mad. One report criticised a farmer from Preston in the Leven municipality.[12] His practice of feeding with concentrates was clearly uneconomic. The motive was to protect his position as the top farmer in the unit.

The other method for obtaining increased yields was to improve the standard of feed management. This was a particularly critical factor in Tasmania where the short dairying season was a basic weakness of the industry. Over three-quarters of the butter was produced within a six month season.[13] The Chief Dairy Officer felt that there was no reason why the average cow could not produce for nine months.[14] Supplementary feeding in the winter would bring the cattle into production a month earlier. Forage crops in summer would serve as a buffer against dry weather that might otherwise close the season, while both forage and fodder crops would extend the milking season into the late autumn.

Production of turnips and mangels more than doubled between the late 1920s and the late 1930s. The significance of the declining production of hay over the same period may have been negated by the unrecorded rise in the production of silage. The Examiner in 1936 noted how the concept of silage was spreading among farmers who had previously been reluctant to move away from the traditional systems of haymaking.[15] It was also evident that pasture productivity was increasing. Topdressing of pasture lands had been uncommon in the 1920s.[16] The first statistics on fertiliser applications to grassland were collected in 1929/30. Farmers reported that 52,077 acres had been topdressed during the year. The acreage doubled by 1934/35 and doubled again by 1937/38. Good dairymen in the Leven district were apparently topdressing their best paddocks every two years.[17]

[12][AD9 712-102] file 10/3, 24 May 1937.

[13][AD9 712-129] file 5/5, 2 June 1939.

[14][AD9 712-48] file 5/5-2, 14 August 1933.

[15]Examiner, 10 October 1936.

[16]Examiner, 14 February 1930.

[17][AD9 712-102] file 10/3, 27 May 1930.

Simultaneously, many of the efforts made to improve the standard of pasture grasses were becoming effective. Pasture development for dairying purposes in the late 1920s and early 1930s had been hampered by low incomes. Farmers had been forced to economise by using "local" seed. Some was merely collected from along roadsides, railway lines and fences.[18] This type of seed was heavily contaminated by weeds and inferior grasses. Even commercial lines were suspect. One test showed that true New Zealand perennial ryegrass produced a third more feed than the ordinary commercial grades of this variety that were being imported into Tasmania.[19] In 1932, the Department of Agriculture with financial backing from the Australian Dairy Council began a modest scheme to produce superior grass seed. A subsidy of two shillings a bushel was available for seed grown from approved stock and inspected three times in the field. The seed industry almost immediately trebled in size from its pre-subsidy level of 600 acres.

The availability of certified seed at a time when many farmers were converting cropland into permanent pasture was an important factor in raising milk production. There were also some signs of a new attitude towards grassland management through rotational grazing. The press described a number of properties that were being subdivided into small paddocks. One was a farm at Lebrina, near Lilydale, where three miles of fencing were used to break up the property into small fields.[20] There was also a central laneway to allow cattle to be moved without crossing other fields. The farmer also had spent £200 to pipe water to every paddock and had planted windbreaks of Californian red pine around the boundary. The prevalence of this system of intensive grass and cow management is not known. These reports suggest that while it was rare, it was being watched as an important development. The Australian Dairy Council certainly tried to foster the trend. A farmer at Derby was given finance in 1936 in return for allowing his farm to be used for demonstrations and experiments.[21] In this case, a sixty acre property was divided into 21 paddocks.

[18][AD9 712-13] file 8K, 10 June 1931.

[19][AD9 712-60] file 12/2, 24 March 1932.

[20]Mercury, 2 October 1934.

[21][AD9 712-120] file 29/6, 16 October 1936.

Well fed and well bred cows still had to be milked twice daily. The milking issue focused almost entirely on facilities. Technology was virtually irrelevant. Milking machine numbers were recorded annually until 1932/33. At this time, there was one machine for every thirty farms that had enough dairying to justify a separator. The Bureau of Census and Statistics continued to collect details on the value of dairy equipment on farms. It may be inferred from this data that milking machines increased rapidly after 1936/37. However, milking machines were only justified on properties where hired labour could be replaced.[22] Farms with 100+ cows had begun to appear in parts of Circular Head where milking machines were reported to be in general use before the war.[23] The typical dairy farm of about twenty cows was still more economically served by hand milking.

Poor facilities for milking the cows and storing the cream led to a loss of income. The producer of first grade cream received 0.5d less per pound of butterfat than the payout for choicest while second grade received 1d less.[24] J.T. Armstrong, the Chief Dairy Officer, estimated that the owner of a herd of twenty cows running consistently at second grade would lose ten percent of his income.[25] Farmers were losing thousands each year and the losses accumulated as the cream moved through the system. The factories faced extra expenses in handling several grades of cream while the two lower grades depressed the reputation of all Australian butter on the British market.

At one time, it had been considered ".... quite normal for the cow yards and bails to be an absolute quagmire in wet weather".[26] This time had passed. Clean yards with good drainage, modern milksheds with concrete floors, and hot water for washing utensils were part of a modern dairy system. Formal regulations controlled the erection and maintenance of cowsheds and dairies. These were almost totally ignored. The

[22] [AD9 712-120] file 29/6, 16 October 1936.

[23] [AD9 712-124] file 2/2, "Annual Report: Circular Head District Agricultural Officer 1937/38".

[24] [AD9 712-48] file 5/5-2, 23 February 1933.

[25] Advocate, 10 October 1936.

[26] Advocate, 5 January 1935.

Commonwealth Dairy Expert claimed after a visit to Tasmania that only one farm in twenty had the proper facilities for milking the cows and storing the cream.[27] Even proper facilities were no guarantee. The standard of hygiene on dairy farms was sometimes at depressingly low levels. The premises of a farmer with 45 cows were reported to be unfit for dairying in spite of meeting the technical requirements.[28] The problem was lack of care. The separator utensils had not been washed for several months and had been found lying on the floor in mud carried in by fowls and general traffic.

The Dairy Produce Act had been revised in 1930 in order to promote cleanliness in every facet of the industry.[29] Many of the regulations had been on the books for twenty years. Others had been copied from similar legislation on the mainland. The depression made it impossible to enforce this Act. Farmers did not have the resources to invest in new dairy buildings. As the depression waned, the Department began to intimate that the regulations should be heeded.[30] In 1937, the Minister announced that the Dairy Produce Act would be strictly enforced. This decision was brought about by continuing criticism of the low standard of Australian butter sold on the British market.

Dairy farmers were outraged. Public meetings were held calling for the decision to be rescinded. At one, an apparently riotous affair at Preston, the Minister was described as a grocer, "a soap and sugar artist", who knew nothing about farming.[31] Factory graders and Departmental dairy officers were also condemned. Dire predictions were made by conservative politicans. Mr P.C. Best claimed in the Legislative Council that inspectors were driving settlers in the Meander district off their farms. Nearly all the buildings had been found inadequate and "... the men did not know what to do".[32]

[27][AD9 712-9] file 5/6B, 3 March 1931.

[28][AD9 712-50] file 5/14-3, 4 July 1933.

[29]Advocate, 22 September 1937.

[30]Advocate, 5 January 1935.

[31]Advocate, 2 September 1937.

[32]Advocate, 14 October 1937.

In fact, the Minister by this time had already agreed to modify the policy.[33] Matters of simple hygiene were to be rectified first. The rebuilding of cowsheds and dairies was to come later. Large herds were also to be more strictly controlled than the property with a couple of cows. It had always been realised that the Dairy Produce Act would be difficult to enforce. Earlier legislation had been ineffective. Furthermore, a lot of farmers did not even realise they were producing second grade cream. Competitive grading by the factories meant that much inferior cream was accepted without question. Other producers had no alternative. The Chief Dairy Officer had previously noted the policy dilemma presented by the situation of the farm labourer. The landowners would not build proper buildings and yet these men were expected to eke out their "... low wage by the sale of produce from the two or three cows that they either own or have on loan from their employer".[34]

The amount of butter graded "choicest" in the season before the policy change was 31.9 percent. The amount graded "choicest" in the following year was 47.8 percent. The grading statistics were erratic being affected by seasonal factors and fluctuations in the proportion of output submitted for grading. However, the trend strongly suggests that the policy had improved the quality of milk produced. It was also evident that the policy influenced the decision of many farmers to leave the industry in the late 1930s. Men who had taken up dairying during the depression now had to assess the feasibility of investing in modern facilities for a herd of five or ten cows. The decision of many farmers was to run down their dairying interests. Even in districts along the Northwest Coast, fat lamb was seen by many as more practical than continuing with dairy cattle.

All the lines of argument developed through this section converge on the one conclusion. The depression created an unrealistic and unsustainable boom in dairying. Standards in the industry dropped both from the entry of inexperienced farmers and from the lack of investment resources. Within this decline were continuing elements of progress. Consider, for instance, the changes seen on the 'Alfriston' property at Merseylea, halfway between

[33] Advocate, 9 September 1937.

[34] [AD9 712-92] file 5/15, 27 July 1937.

Devonport and Deloraine.[35] This property was taken over by new owners halfway through the depression. Their first task was to restore the productive capacity of the property by taking up modern dairy farming. This involved building a 24-stall cowshed with concrete floors, building up a herd of registered Jerseys, and subdividing the farm into paddocks of three to six acres for controlled grazing. These types of development became far more common as economic conditions improved and the depression-insulation factor became of decreasing relevance.

[35]Examiner, 3 April 1937.

5.4 Change in the Dairy Manufacturing Industry

Lewthwaite has argued that the manufacture of dairy products in Australia from the 1890s to the 1960s was characterised by the churning of farm cream into factory butter.[1] The aim was to convert a seasonal surplus of a highly perishable product into a commodity that could be exported. The need for efficiency in each phase of the manufacturing process helped to shape the main features of the dominant dairy system. On-farm separation of the cream had two major advantages. Firstly, it reduced the bulk that had to be transported in cans to the factory. Secondly, it left the skim milk on the property to be fed to calves and pigs. This gave home separation a clear margin over alternative technologies such as central separators and over alternative products such as the supply of whole milk to cheese factories. The actual production took place in a central single-purpose factory. Modern plant and qualified staff could economically produce large volumes of a standard product that could be shipped without deterioration to markets in the northern hemisphere.

The adoption of farm cream and factory butter as the industry standard created an integrated farm/factory system. Another system of manufacturing would have had different spatial arrangements between farm and factory and would also have changed many practices on the farm. The Tasmanian dairy industry was modelled upon the Australian norm in spite of some local anomalies such as a more limited role for swine and a large output of farm butter. No analysis of the industry could neglect the manufacturing sector, following the cream through the system which collected the cans at the farm gate and eventually produced a milk solid at a central factory. It was apparent that the processing system was riddled with inefficiencies. Most problems were derived from one basic fact. Tasmania had too many dairy factories. A common opinion was that the Tasmanian mainland could have been adequately served by plants located at Smithton, Burnie, Devonport, Launceston, Scottsdale and Hobart.[2] Even then, the

[1]Lewthwaite, G.R. "Product Diversification and Territorial Contraction: The Changing Status of Australia's Dairy States", Queensland Geographical Journal, Vol. 5 (1979), p. 23.

[2][AD9 712-91] file 5/5-1, 18 March 1935.

viability of a Hobart plant was debatable. But instead of five or six large factories, there were nineteen small butter factories operating on the mainland and factories on both King Island and Flinders Island (Figure 31).

The problems created by an excessive number of factories extended right back to the milking shed. Factories needed cream supply to remain in business. When two or three factories served the same catchment, a factory that graded cream solely on its merits ran the risk of losing suppliers to less scrupulous rivals.[3] An aggressive manager could build up his factory by systematic overgrading. This in turn forced other plants to overgrade to defend their position. The only checks were ineffectual inspection by the Department of Agriculture and the loss of profits derived from producing first grade butter while paying for premium cream.[4] Competitive overgrading also allowed farmers to be careless in matters of cleanliness. One farmer in the Northeast refused to wash his separator nightly.[5] He commented rather pointedly to the manager of the Legerwood factory, who had complained about the quality of his cream, that he always had received top price from the Winnaleah factory. Something was seriously wrong when two-thirds of the cream supply in Tasmania in 1935/36 was theoretically choicest but only one-quarter of the export pack was assessed as choicest by Commonwealth graders.[6] The opinion of the Department was that between forty and fifty percent of the cream was actually premium quality.

Competition for cream led to duplication of the collection system. Cream carts followed each other around the countryside. There were no fewer than four lorries serving one road in the Deloraine district.[7] There was no evidence to suggest that competition made the system more efficient. Companies could have spaced their visits throughout the week. This was not the procedure. Competition tended to decrease the frequency.[8] Lorries

[3][AD9 712-9] file 5/13, 20 March 1931.

[4][AD9 712-130] file 5/11-1, 15 November 1938.

[5][AD9 712-130] file 5/11-1, 15 November 1938.

[6][AD9 712-91] file 5/5-1, 18 June 1936.

[7][AD9 712-90] file 5/1, 7 June 1937.

[8][AD9 712-129] file 5/10-1, 10 May 1938.

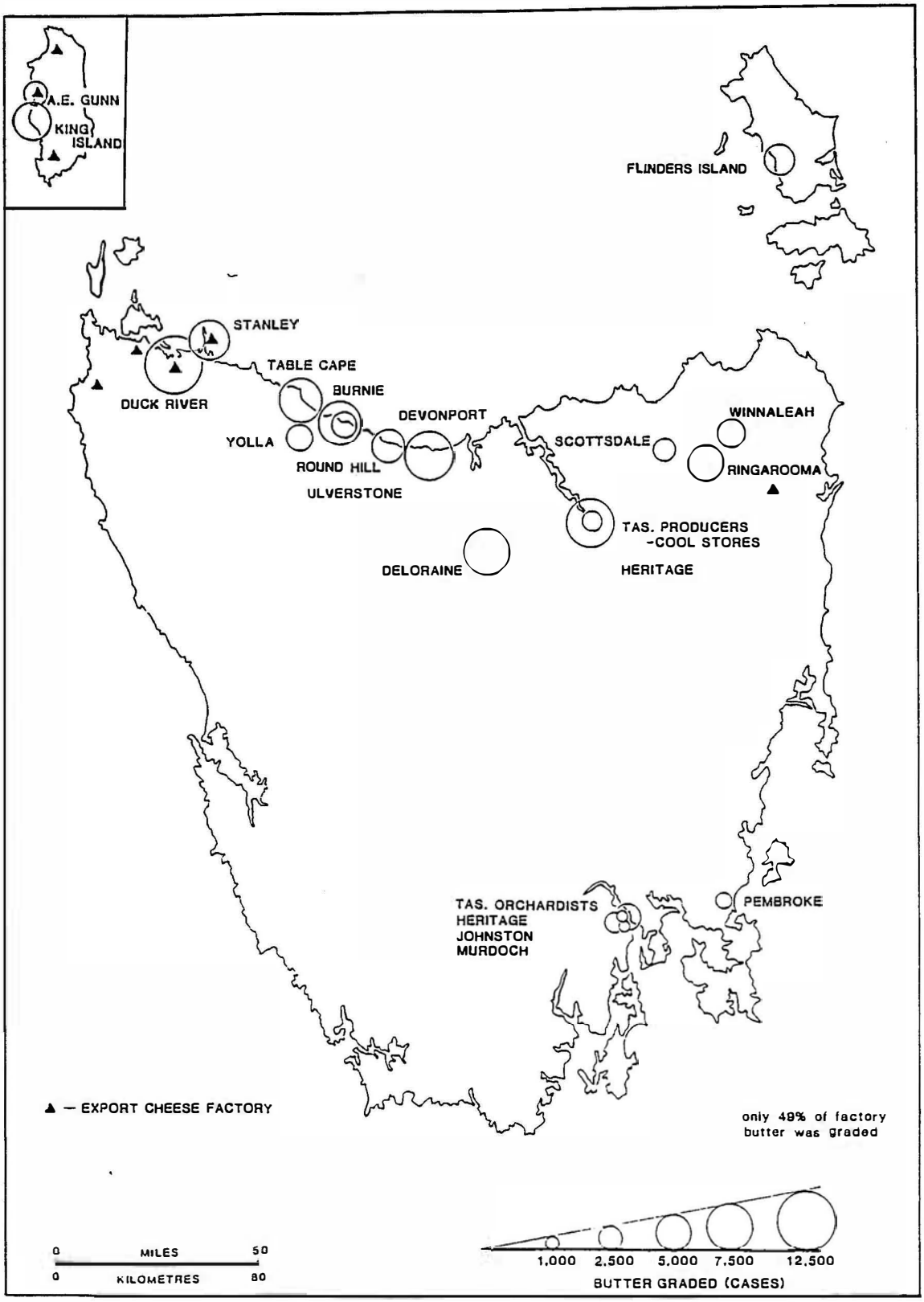


Figure 31 - Dairy Factories in Tasmania
1934/35

were probably also less specialised than they otherwise might have been. One farmer in the Leven municipality complained about how cream was loaded onto trucks that were simultaneously carrying pigs.[9] The only benefit to the farmer was that lorries were sometimes instructed to collect cream from the dairy rather than the roadside. This, in fact, was a further waste of capital, fuel and labour which was eventually reflected in a reduced return to dairymen. There were no general Tasmanian statistics on the costs of cream collection. However, in New Zealand, butter factories paid an average of 0.42d per pound of butter produced for the costs of collecting the cream.[10] The least efficient province was Otago where the cost was almost a penny a pound.

In theory, lorry transport of cream was economic for up to sixty or seventy miles. The Raymond Terrace factory in New South Wales was drawing cream from suppliers located over a hundred miles from the factory.[11] Truck transport was clearly a force capable of encouraging factory amalgamation. Paradoxically, it could also lead to strategies that hindered factory rationalisation. Any attempt to close a factory created an area with an unduplicated supply network. Some other factory would see this as a potential competitive zone. This factor delayed the closure of the Stanley butter factory (Figure 31).[12] The Duck River Company feared that one of the private companies from east of Rocky Cape would move lorries into Circular Head. The cream taken out of the district would negate many of the economies expected from merging the two local companies.

The excessive number of factories helped to reduce the quality of Tasmanian butter. The standard measure of quality was provided by the export grading system operated by the Commonwealth. The system covered all butter exported plus a variable fraction of manufactured butter intended for the local market. The results indicated serious deficiencies not only in the quality of cream supplies but also in the manufacturing process. Many factories were small and poorly equipped. The Commonwealth sent a dairy

[9]Advocate, 2 September 1937.

[10]New Zealand Statistics of Factory Production 1929/30, p. 62.

[11][AD9 712-111] file 18/11, 8 April 1937.

[12][AD9 712-90] file 5/1, 7 June 1937.

officer to Tasmania in 1931 to report on the condition of butter factories.[13] Only four factories (Burnie, Tasmanian Producers and Cool Stores-Launceston, Duck River and Table Cape) had a reasonable range of facilities. None had as full a range as would have been found in one of the better factories in Victoria or New South Wales. Eight factories were claimed to be completely unsatisfactory and needed to be extensively renovated or closed. Five had only one vat for holding all grades of cream while two Hobart factories had no holding vats at all nor any method for pasteurising the cream. The role of scale in the efficiency of butter factories was apparent in the grading returns.[14] The four "acceptable" factories included the first, second, third and fifth largest plants in the state.

Not every problem was due to the excessive number of factories. One instance involved problems with the Road Transport Act which forced some cream onto the railways. In some cases, rail transport was perfectly adequate. The Tasmanian Producers and Cool Stores factory in Launceston used the railways to bring in cream from stations throughout the North and Northeast.[15] An excellent grading record suggested that there were no problems with the system. In other cases, rail transport was a disaster. Dairymen from Ellendale in the Derwent Valley complained about a system where the cream had to be left overnight at the Westerway station.[16] It then travelled down to Hobart the following day arriving between three and four in the afternoon. The Railway Department agreed that the cream suffered from the journey and did not oppose the provision of a twice-weekly road service following representations from the Department of Agriculture.[17]

Another problem that was not related to the number of factories was the poor development of the export system. The procedure was to freeze the butter in Tasmania and ship it as rapidly as possible to Melbourne for

[13][AD9 712-9] file 5/6B, 3 March 1931.

[14][AD9 712-9] file 5/13, 16 February 1931.

[15][AD9 712-50] file 5/13, 12 September 1934.

[16][AD9 712-48] file 5/5-2, 3 October 1933.

[17][AD9 712-48] file 5/5-2, 2 December 1933.

loading onto a ship bound for England.[18] The Bass Strait steamers were not refrigerated and delays on the Melbourne wharves were common. This was a major reason why much Tasmanian butter did not hold its grade when examined in London. As well, the Bass Strait journey added thirty-five percent to the freight compared with the rate that would be charged if the butter had been shipped directly from a Tasmanian port.[19]

Nevertheless, small plants could not manufacture butter as cheaply as large factories. The ability to spread overheads over a larger volume of butter was evident in the bottom line of the balance sheets. Even the smallest changes could have significant results. The North Eastern Co-op at Legerwood spent as much to make 124 tons of butter in 1933/34 as it did to make 164 tons in 1935/36.[20] The extra payout to suppliers, directly attributed to the reduction in unit costs of manufacture, was more than one penny a pound. The amalgamation of two or three small factories into one large plant would increase the profitability of dairy farming and was supported by many sectors of the industry. However, it was a difficult policy to implement. In the case of co-operatives, the supplier/shareholders had to agree to any merger. This usually involved a super rather than a simple majority. It was this factor that defeated the proposal to combine the Burnie, Yolla and Table Cape factories in 1927.[21] Furthermore, there was no guarantee that any action would be effective. The North West Dairy Co-operative closed its plant at Ulverstone in 1931 in order to increase the throughput at its factories in Devonport and Burnie.[22] These towns were fourteen and eighteen miles away respectively. This created a gap in the factory network that was filled within two years by the establishment of a new proprietary factory at Ulverstone.

The government decided that its laissez-faire policy was no longer tenable. The Dairy Produce Act was amended in 1936 to give the Director

[18]Examiner, 14 February 1930.

[19][AD9 713-113a] file 21/4-1, 9 February 1935.

[20][AD9 712-129] file 5/10, 30 January 1937.

[21]Advocate, 12 February 1927.

[22][AD9 712-52] file 6/2, 20 July 1934.

of Agriculture authority to refuse permission for the construction of new factories if the proposal could be shown to be against the best interests of the dairy industry. Some opinion felt that the government had not gone far enough. An editorial in the Advocate called for legislation to zone cream collection areas and to eliminate the legal complexities restricting the merger of factories.[23] Similarly, the Tasmanian Producers Organisation set up a committee to investigate the costs of overlapping cream cartage routes.[24] Its report also urged compulsory zoning. In spite of these inadequacies, the legislation allowed companies to start the rationalisation of the factory network by removing the threat that a new firm would step into the opening created by a plant closure. The Duck River Company bought and eventually closed the factory at Stanley while the North West Dairy Co-op bought and closed the Round Hill factory at Burnie.[25] The pruning of these two plants from the seven that were found on the Coast increased the payout to producers within the first season.

Proposals to start new factories were either discouraged or vetoed. A typical example involved the cool reception given to a plan to build a pasteurised cream plant at Devonport.[26] This would have drawn supply away from the Devonport butter factory. The butter factory had just moved into new premises and had upgraded its plant. This had cost the company over £28,000 and provided a third more manufacturing capacity than the district could utilise. The Department of Agriculture felt that it had to protect the interests of the butter factory. The loss of 50 tons of throughput would have raised the unit production costs of the balance by fifteen percent. There was also little likelihood of any increase in dairy farming within the factory hinterland in the near future. The promoter of the pasteurised cream plant withdrew his proposal with little fuss.[27]

The unfortunate corollary to this system of factory licensing was that the dairy manufacturing sector could become fossilized. Entrepreneurs were

[23] Advocate, 26 October 1936.

[24] Mercury, 1 March 1937.

[25] Examiner, 18 September 1937.
[AD9 712-129] file 5/1, 14 October 1938.

[26] [AD9 712-91] file 5/7, 21 October 1936.

[27] [AD9 712-91] file 5/7, 9 November 1936.

inhibited from starting up new ventures. Not all competition involved a long term loss to the industry. The authorities had only to look to King Island. In 1933, A.E. Gunn, a leading dairyman, split with the co-operative butter factory and set up a proprietary cheese factory.[28] There were many reasons for the split including the failure of the factory to manufacture choicest butter, the dishonest behaviour of the factory manager, and the unwillingness of the co-operative to take up cheese production.[29] Gunn was acknowledged to be a superior businessman. He outmanoeuvred the co-operative at every turn and built his company up to one butter and four cheese factories by 1936.

The turnover of the King Island Dairy Co-operative fell from 338 tons in 1932/33 to 157 tons in 1935/36.[30] The response of the co-operative to its falling profitability was to seek to move into cheese with factories located in the outlying districts. The first was to be at East Wickham. Unfortunately for the co-operative, the Dairy Produce Act now demanded a licence. The Director of Agriculture rejected the proposal feeling that the northern part of King Island was adequately served by two factories owned by Gunn.[31] This decision was upheld on appeal. Subsequent proposals from the co-operative involving a skim milk plant and a casein factory were also rejected.[32] The co-operative was in an untenable situation and was forced into liquidation in 1938. A new co-operative company was formed that combined the assets of the former King Island Co-op and those of Gunn. The arrangement was that Gunn would be bought out over a three year period.[33] The control of all dairy factories on King Island would then be under one system and owned by the producers.

This was the outcome preferred by the bureaucrats and the government. Cosgrove had actually flown to King Island to smooth the final

[28] [AD9 712-90] file 5/1, 12 August 1936.

[29] [AD9 712-129] file 5/1, 5 April 1938.

[30] [AD9 712-90] file 5/1, 7 June 1936.

[31] Advocate, 2 October 1936.

[32] [AD9 712-129] file 5/1, 8 April 1937.
[AD9 712-129] file 5/1, 9 August 1937.
[AD9 712-129] file 5/1, 5 April 1938.

[33] Advocate, 21 June 1938.

negotiations.[34] However, nowhere in the documentation was there any acknowledgement that if the original split had occurred two years after it did, it would not have been possible for Gunn to establish his efficient factories in opposition to the King Island Dairy Co-op. Furthermore, Gunn had noticed how the profit margin between butter and cheese was drifting in favour of cheese. Others made the same observation at a later date but were prevented from establishing cheese factories.[35] This retarded the development of the cheese sector.

Australia had specialised in the export of butter and it was not an unreasonable policy to have this industry placed on a sound basis before expanding the comparatively small trade in cheese. The very nature of cheese factories weakened the butter industry. A cheese factory had to be located in prime dairying country with immediate access to a large concentration of cows. Not only would the turnover in the butter factory be reduced by the supply lost to the cheese factory; the costs of collecting the remaining cream from smaller producers in outlying districts would become more expensive.[36] It was also noted that much of the interest in cheese was based on an artificial pricing structure. The Dairy Produce Equalisation Scheme had reversed the bias towards butter that had been built into the Paterson Scheme. This allowed cheese factories to pay a slightly higher price than butter factories for an equivalent volume of milk.[37] It was clearly not a sound policy to expand an industry based on an ephemeral factor of this type especially when some of the more vocal proponents of new cheese factories were farmers who wanted to develop factory production in order to escape from the chaotic local market for farm cheese.[38]

By the end of the 1930s, there were only five cheese factories with an export licence. Two were on King Island and one at each of Marrawah, Smithton and Pyengana. Applications to build a second factory at Marrawah

[34] [AD9 712-129] file 5/1, King Island News, 22 June 1938.

[35] [AD9 712-129] file 5/10, 30 January 1937.

[36] [AD9 712-91] file 5/10-3, 20 January 1937.

[37] [AD9 712-129] file 5/1, 5 April 1938.

[38] [AD9 712-129] file 5/10, 8 June 1938.

and a factory at Ringarooma as well as several alternative proposals for King Island had been turned down.[39] The Department looked favourably on only two proposals. One involved a cheese factory at St Marys; the other was to replace the failing butter factory at Bream Creek with a cheese factory. Neither scheme was viable and the plants were never opened. A factory at St Marys may have been attractive to small dairy farmers within carting distance of the town.[40] Farmers beyond a five mile radius would have continued to rail cream to Hobart or Launceston while large dairymen would almost certainly have continued with a well-established farm cheese industry. The Bream Creek proposal was even less likely to have been successful. The butter factory was in decline as local dairyman had begun supplying the Cadburys chocolate factory in Hobart.[41] Cadburys was aggressively seeking new suppliers and had made offers for the Bream Creek factory with the intention of closing it down. A local cheese factory to be established, when and if the butter factory was closed, seemed an unusual proposition. Any farmer who could not supply Cadburys could send cream to a butter factory in Hobart.

Notwithstanding the negative factors outlined above, there were some indications that the Tasmanian dairy industry may have missed an opportunity to diversify with this ban on new factories. The current industry is cheese dominated. There were many reasons for the transition from butter to cheese in the 1960s and 1970s. Most are irrelevant to a study of the Great Depression. However, the manner in which lorry transport was beginning to break the traditional nexus between farm and factory had implications that could have been more closely evaluated in the 1930s. Cheese factories were still being assessed in terms of farmers carting milk to a local factory. This was no longer the universal rule. For instance, the Marrawah factory was using trucks to collect milk twice a day from the farms.[42] While the transport of whole milk in cans was not as economical

[39] [AD9 712-129] file 5/10-1, 10 May 1938.
[AD9 712-129] file 5/10, 30 January 1937.
[AD9 712-129] file 5/1, 5 April 1938.

[40] [AD9 712-129] file 5/10 (St Marys), 13 September 1938.

[41] [AD9 712-90] file 5/1, 27 August 1937.
[AD9 712-129] file 5/1, 10 January 1938.

[42] [AD9 712-129] file 5/10-1, 10 May 1938.

as the transport of cream, a central cheese factory was becoming a technical possibility. This may have made it possible for Tasmania to exploit its climatic advantage in Australia for cheese production despite the wide scattering of dairy farms. The development of specialised milk lorries would have made it almost irresistible as one of the basic tenets of the farm cream/factory butter system, that of significant income from swine, was never really applicable to Tasmania.

CHAPTER SIX - PASTORALISM IN DEPRESSION TASMANIA

6.1 Geographical Trends in the Pastoral Industry

Sheep numbers in Tasmania first passed one million in the late 1830s, approached two million in the 1840s, and peaked at 2,219,385 in 1852/53. The number fell below two million in the following season as overgrazing began to affect the carrying capacity of the largely unmodified pastures of the Midlands. The flock throughout the rest of the century generally fluctuated between 1.6 and 1.8 million sheep. This was a level that could be sustained by the deteriorated grassland environment.[1] Significant growth in sheep numbers resumed only in the late 1920s. Two million sheep were once again recorded in 1928/29 after a break of more than seventy years. While further growth was checked by the depression, the upward trend resumed in 1935/36 (Figure 32). Every year from 1936/37 onwards established a new record for the maximum number of sheep. These trends indicated that there had been major changes in the structure of the pastoral industry. An industry that had been primarily based upon extensive grazing had now developed a large component of intensive livestock farms.

The grazing industry contains a number of overlapping and interlocking sectors. Sheep are produced for two discrete markets, namely wool and fat lamb. However, the official statistics made few distinctions between the two sectors and many facets of the two industries were intimately linked in aspects that ranged from graziers in the Midlands providing breeding ewes for the fat lamb farmers on the Northwest Coast through to the growing market impact of coarser wools from sheep grown primarily for meat production. This created problems for structuring the discussion of change in the pastoral industry. For convenience, one section of this chapter examines basic geographical patterns in the growth of the sheep industry. Other sections will examine the problems of the wool industry and the development of an export-oriented fat lamb trade. One facet has been ignored. Beef cattle in 1926/27 were more important to the farming community than the mutton and lamb sector of the sheep industry. However, development within the beef industry was negligible (Figure 32). Tasmania was unable to provide sufficient beef for its own purpose, much less participate in the export market for chilled and frozen meat.

[1]Davidson, J. "On the Growth of the Sheep Population in Tasmania",

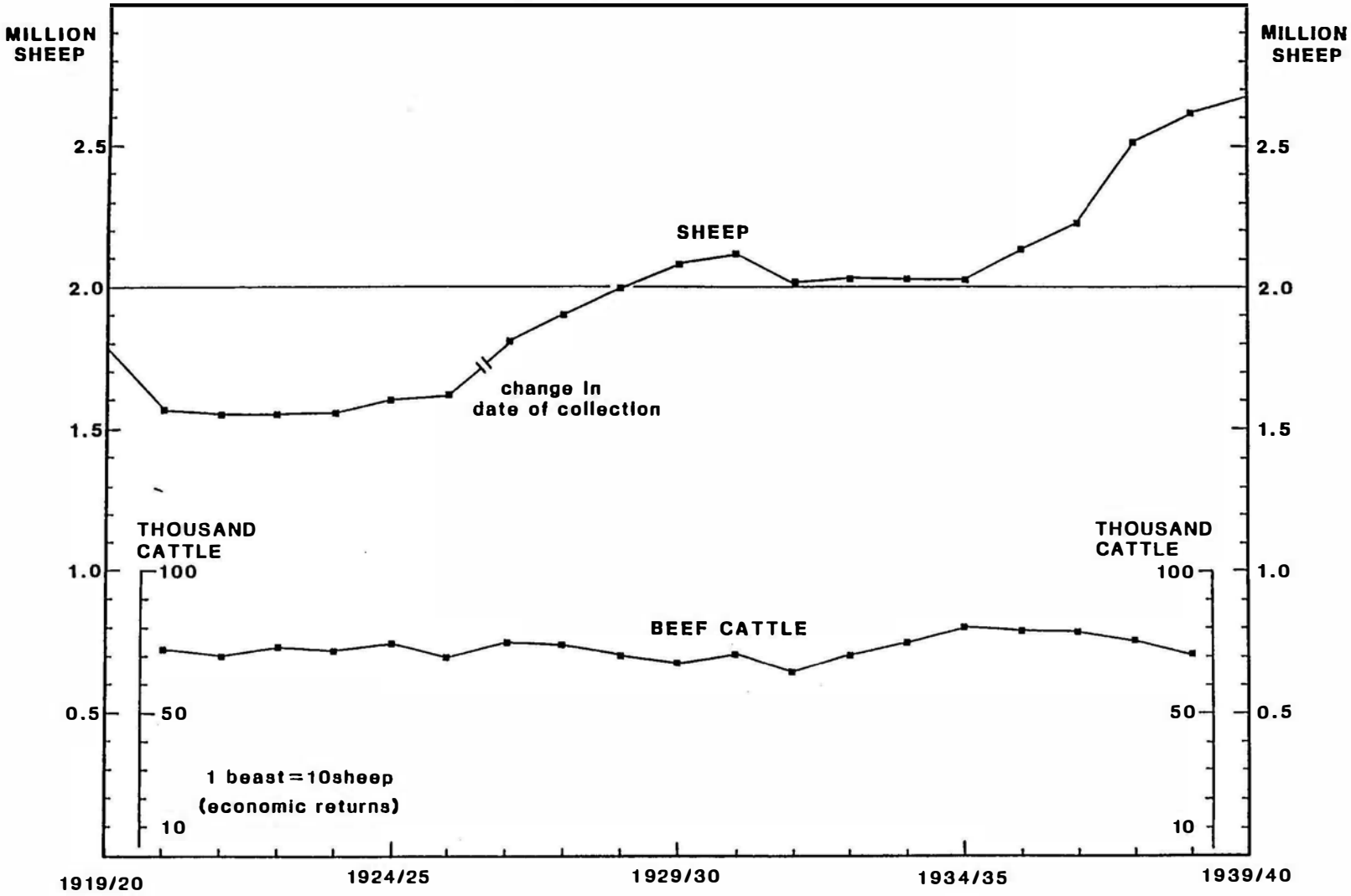


Figure 32 - Livestock Trends: Sheep and Beef Cattle

Figure 33 shows the pattern of absolute increase between 1926/27 and 1936/37. The total flock increased by 426,097 (+23.6%) across the depression decade with gains most evident in the North Midlands, the South Midlands and the Northwest Coast. Districts with an orientation towards fat lamb often doubled flock sizes. Nine municipalities had a rate of increase in excess of one hundred percent. Six of these were found along the Northwest Coast and two in the Huon Valley. Of the nine, only New Norfolk had a strong estate tradition. Wool districts typically grew by less than ten percent with a sizable decline of 6,598 (-4.4%) recorded in Bothwell.

Increases in sheep numbers had occurred in two basic ways. Regions with the highest rates of increase had been transferring prime agricultural country into rotational pasture for fat lamb. This was especially evident along the Northwest Coast. In 1926/27, there were 657 farms along the Coast that reported sheep as part of the farm economy. A decade later, farms with sheep numbered 1,011. Coastal farmers were following the policy of farm diversification promoted by the Department of Agriculture. The second method involved increasing the carrying capacity of existing pasture through the introduction of new species of grass, the control of pests such as rabbits, and through the use of pasture topdressing. While these techniques were initially related to the development of fat lamb economies, it is evident that the pasture improvement had spread into run country by the end of the 1930s.

Fat lamb producers have a strong bias towards ewes; wool producers have a lesser bias towards wethers. This allows the ewe/wether ratio to be used as a conventional measure for discriminating between the two types of production. The higher the ewe/wether ratio, the greater the emphasis on lamb. One interpretation of the patterns shown in Figure 34 is that fat lamb were predominant in districts with a ewe/wether ratio in excess of 2.0. Fat lamb producers were commonplace in districts between 1.5 and 2.0 and found occasionally where values ranged between 1.0 and 1.5. In districts where the ewe/wether ratio was less than unity, fat lamb production was rare. This interpretation is supported by relationships

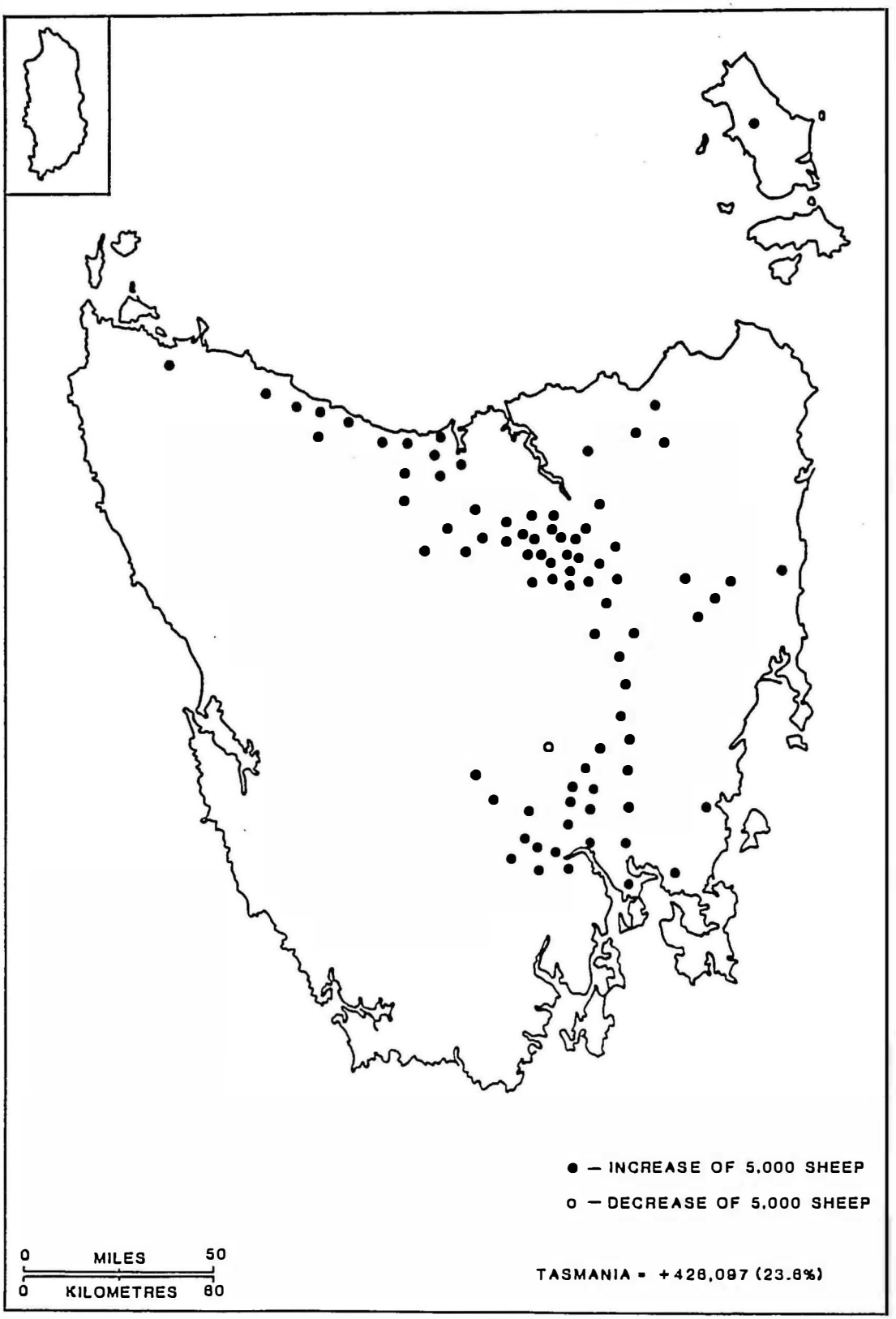
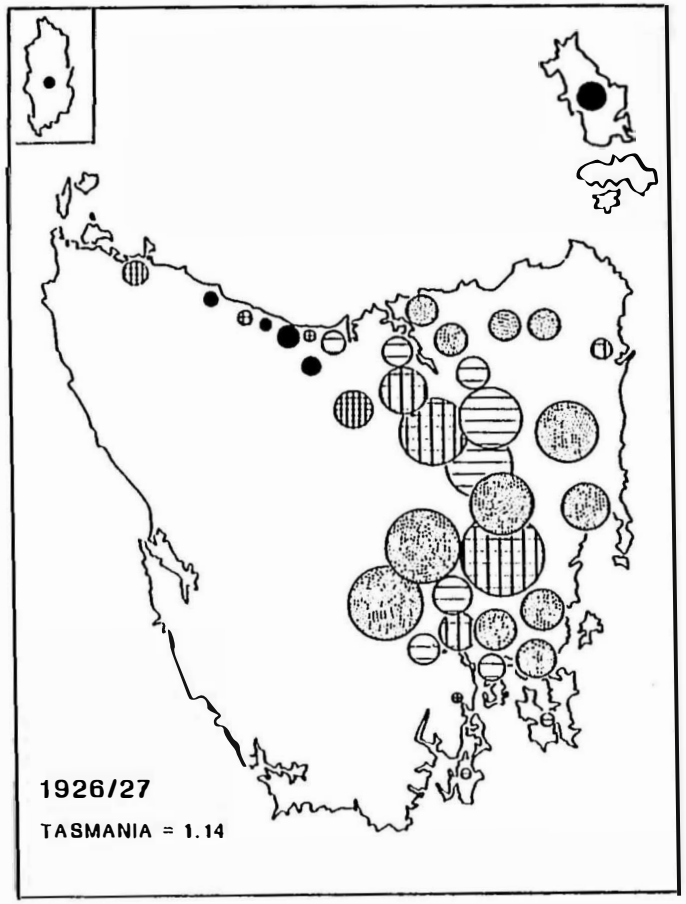
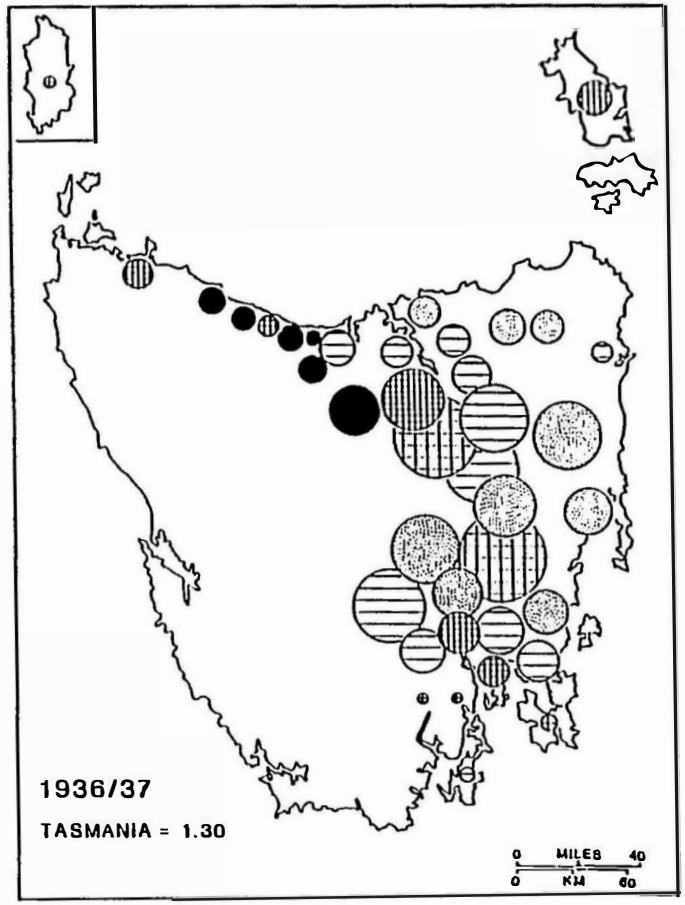


Figure 33 - Change in Sheep Numbers
1926/27 to 1936/37





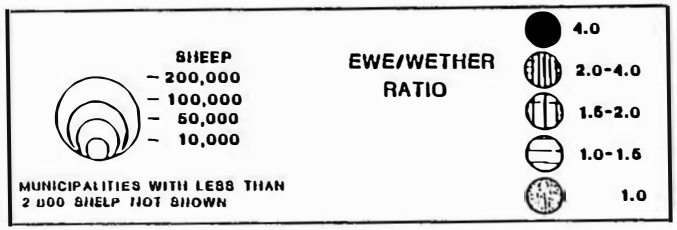


Figure 34 - Regional Orientation to Wool or Fat Lamb Production 1926/27 and 1936/37

examined in a principal components analysis of the structure of sheep farming in 1926/27. Ewe/wether ratios combined with high breeding rates and a low percentage of comeback sheep to define a fat lamb component (Table 7).

The meat industry was developing rapidly. The state government was actively promoting fat lamb and financially assisting Tasmania's entry into the export trade. However, the numbers exported were insignificant until the very end of the 1930s though the widespread anticipation of the trade had encouraged many farmers to take up sheep production. There was also a major shift in the local market from mutton to lamb. In 1926/27, the slaughtering of sheep exceeded those of lamb by a factor in excess of two to one. By the middle of the thirties, the ratio was approaching parity for the state as a whole. Moreover, a third of the sheep were killed on properties for the use of the farmer and his employees. Almost all lambs were sent to market and processed in abbatoirs. The abbatoirs in Hobart and Launceston had been handling more lambs than sheep since the early 1930s. The second process was probably of more real significance than the first though it virtually passed without comment at the time.

The changing nature of sheep farming between 1926/27 and 1936/37 was indicated by an increase in the average ewe/wether ratio from 1.14 to 1.30. Most of the gains (+38.3%) in absolute sheep numbers were in areas that had a strong orientation to fat lamb in 1926/27. Major gains (+30.9%) were also found in areas with a mixture of fat lamb and wool but sheep numbers in the twelve municipalities that had a wool orientation in 1926/27 increased by a mere 9.1 percent. Even then, four of these municipalities moved into the next category with a ewe/wether ratio of 1.0 to 1.5. Hamilton and Sorell moved into the lower part of the range but Richmond and Lilydale approached the limit (1.5) that had been used to define an emphasis on fat lamb production. Only one district moved in the opposite direction across any boundary. The reasons for the anomalous behaviour of Green Ponds has not been determined. It changed its ewe/wether ratio abruptly in 1936/37 becoming a wool dominated district. It then reverted to its normal status as a mixed fat lamb/wool district in 1939/40.

Fat lambs were integrated into the mixed farming system that was developing along the Northwest Coast. This followed the maxim that called

for "... a sheep for every £1 rent or interest".[2] Sheep played two roles in farm diversification. Firstly, they provided an alternative commodity for income stabilisation and thereby helped in weaning the region's economy away from its excessive reliance on the troubled potato industry. Secondly, sheep had important soil restoring features in spelling and manuring paddocks left depleted by years of cropping.

Sheep numbers along the Coast more than doubled (+126.4%) in ten years. They would go halfway (+50.5%) to doubling again between 1936/37 and the end of the decade. The increase occurred in two waves. The first began in 1926/27 and faltered with the onset of depression. Nevertheless, the number of farms with a pastoral component continued to increase until after the economic farm-type classification was abandoned in 1931/32. At this time, the Northwest Coast had 337 properties with a pastoral element compared with 153 in 1926/27. Almost all of the additional farms were combining sheep with both crops and dairy cattle.

Farmers in the depression lacked the capital to continue to develop a new industry. Many farmers along the Coast were also sceptical about the prospects of an industry where access to export markets involved railing stock south to Hobart for processing and shipment.[3] These problems along with several others were tackled as the economy recovered. The government provided financial assistance to farmers who wished to take up the fat lamb option. The state also financed the refurbishment of the freezing works at Somerset to allow it to participate in the export lamb trade. These actions helped unleash a second wave of increase from 1935/36 onwards. The wider context and finer details of these measures are discussed elsewhere. It is sufficient to note that in 1926/27, the Northwest Coast had only 3.3 percent of the state's sheep. These produced 5.0 percent of the state's lamb crop. The comparable figures for 1936/37, a year near the beginning of the second expansion cycle, were 6.1 and 8.5 percent. These data indicate the scale of change in the agricultural structure of the region.

However, the importance of the Northwest Coast to the development of the sheep industry can be exaggerated. The four municipalities of the

[2]Advocate, 25 September 1937.

[3]Advocate, 4 September 1937.

North Midlands recorded an increase in sheep numbers of 145,083 between 1926/27 and 1936/37 (Figure 33). For every additional thousand sheep along the Coast, there was a gain of two thousand in the flocks of the North Midlands. The apparent discrepancy between the percentage rates of increase (+126.4% vs +42.2%) was due to the large number of sheep on properties in the North Midlands in 1926/27 compared with their relative scarcity on farms further to the west.

Not even in fat lamb was the Coast predominant. For every lamb produced in the Northwest; three came off properties in the North Midlands. The meat factor was again the central element in pastoral expansion. The rate of increase of the four municipalities was directly correlated with the local emphasis on fat lamb production as measured by the ewe/wether ratio. Deloraine (+76.9%) and Westbury (+60.9%) had some features in common with the Northwest Coast. Many local farms, while far more mixed in enterprise structure and crops, were still overly dependent on a decaying cropping sector. Almost half (46.0%) of the commercial holdings in 1926/27 were classified as specialist cropping properties. Five years later, the proportion was only 11.1 percent. Dairying and fat lamb offered attractive alternatives given the sorry state of the markets for wheat, oats, potatoes and peas. Adoption of fat lamb was facilitated by the familiarity of farmers with the handling of sheep and the lower cost of land. Good mixed farms in Deloraine and Westbury were valued at prices between £9 and £12 per acre.[4] Land values in the more productive districts of the Northwest Coast ranged between £20 and £30. This was out of line with the potential returns from the production of fat lamb.

Deloraine and Westbury followed the familiar cycle of increase/decrease/increase experienced throughout the Northwest Coast. Longford and Evandale followed a different pattern. There were modest but irregular gains throughout the depression decade which led into a rapid escalation of sheep numbers in the late 1930s. The surge began in 1936/37 in Longford and in 1937/38 in Evandale. The same pattern was seen in other northern grazing districts such as Campbell Town and Fingal but interestingly not in Ross. Part of the explanation for the difference in trend involved the nature of the movement into fat lamb. There were few

[4] [AD9 712-142] file 15/9, 31 May 1939.

properties in Longford and Evandale in 1926/27 without some sheep. Many were highly committed to the industry. Therefore, the amplitude of the first surge into sheep as farmers abandoned unprofitable crops was less pronounced. Expansion also continued during the early 1930s. Graziers began to see fat lamb as an essential diversification opportunity within the sheep industry.[5] It was noted at this time that one of the largest importers of breeding ewes into Tasmania was a prominent Evandale grazier trying to develop a speciality in early lambs.[6]

The other part of the explanation lies in the central role that the northern grazing districts played in pasture improvement. The grasslands of Tasmania were of notoriously poor quality. A confidential survey of Tasmanian grasslands in 1930 concluded that a lot of what was claimed to be permanent pasture had never been sown but had merely "tumbled down" after the land had been worn out by cropping.[7] The sward consisted of sorrell, Yorkshire fog, browntop, Kangaroo grass, danthonia and native weeds. Even when attempts had been made to establish proper pasture, the techniques were often misguided and fields had quickly become a mass of weeds.

Pasture improvement was one of the main tasks assigned to the reorganised Department of Agriculture in 1926. A two pronged attack was planned with one arm giving publicity to the benefits of improved pasture plants while the other concentrated on scientific research. A pasture research station was established at Sandhill near Launceston to test grasses and clovers for local conditions.[8] One indication of the success of the grassland campaign was the trebling of grass seed production between 1926/27 and 1936/37. Another was in the widespread adoption of pasture topdressing. Statistical details on pasture topdressing were not collected in 1926/27 but the Department of Agriculture estimated that no more than 250 tons would have been applied to pasture in that year.[9] A decade later, the

[5]Examiner, 9 January 1930.

[6]Mercury, 4 December 1934

[7][AD9 712-23] file 16/20, Grubb R.L. The Grassland Possibilities of Australia, (ICI Ltd, not for publication), July 1930.

[8]Mercury, 1 January 1929.

[9][AD9 712-1] file 2/2-1, typescript draft of Annual Report for 1929/30.

amount applied was over 10,000 tons. This was sufficient to manure almost 200,000 acres of pasture.

Eighty percent of the grass seed was produced in the North Midlands. While most grass seeds were generally standard varieties of ryegrass for marketing throughout Tasmania, there was a growing interest in one new species that had tremendous potential for the drier (less than 26 inches) pastoral country between Launceston and Hobart. This was subterranean clover. Subterranean clover could help transform worn out cropping land into permanent pasture. It could even help increase the productivity of those natural grasslands that were capable of being oversown with the seed worked in by a harrow or spring-type cultivator.[10]

Subterranean clover was one of the more important scientific breakthroughs in Australian farming. It apparently made its first appearance in Tasmania in 1926, possibly on the Evandale property of J.W. Cheek.[11] Its role for the next few years was to help graziers move into fat lamb production. Use of subterranean clover became more widespread following the introduction of specially designed seed handling machinery in 1934.[12] These machines allowed farms to produce commercial amounts of seed. The seed producing zone was centred to the south and west of Longford township with outliers as far away as Campbell Town and the Fingal Valley. These were all districts which experienced a sharp rise in sheep numbers in the late 1930s.

In 1937, the District Agricultural Officer who covered the Derwent Valley prepared a review of local agricultural developments.[13] He noted that many properties had adopted subterranean clover and topdressing, often on pastures that had been laid down on paddocks previously depleted by cropping. These observations are in line with the statistical data. Ewe/wether ratios showed a shift towards fat lamb in every municipality in

[10] [AD9 712-144] file 16/2, no date.

[11] [AD9 712-103] file 12/1, 30 November 1937.
Examiner, 1 May 1926.

[12] [AD9 712-103] file 12/1, 15 January 1937.

[13] [AD9 712-120] file 26/6, 26 July 1937.

the Derwent district except for the aberrant case of Green Ponds. Flock increases over the decade were also linked to the relative importance of fat lamb. Little had been done in the more extensive pastoral areas. At most, a few more graziers were growing supplementary fodder crops to carry a larger flock through the months when natural grasslands provided insufficient feed.

The same pattern can be seen in the Midlands proper. The low rates of increase between 1926/27 and 1936/37 were a function of the limited opportunities for fat lamb. Only in Oatlands, which had once had an important cropping sector, were fat lambs found on the typical holding.[14] Elsewhere, graziers had to use any good land on their property for breeding sheep to stock the rough country. Norman Nicolson, a prominent grazier of Campbell Town claimed that this factor made fat lamb impractical in the Midlands despite what the casual traveller along the main road might have thought about the apathy of the grazing fraternity.[15] Nevertheless, the long standing opinion that the Midlands were under-utilised continued through the 1930s. The difference was that fat lamb became part of the closer settlement ethos. The call of "Testraw", the rural correspondent of the Examiner, was for the break up of estates either by compulsory acquisition or by landowners leasing blocks to settlers.[16] The goal in 1936 was to increase the output of fat lamb rather than wheat.

Some woolgrowers were opposed to pasture improvement. Most were uncertain. After all, it was only in 1937/38 that the Department of Agriculture began the first trials on the economics of using superphosphate on run country.[17] Techniques developed for better country required time to spread into districts where natural grasslands were predominant. Even basic husbandry techniques had to be changed. Graziers in the Fingal had suffered heavy losses by feeding sheep incorrectly on improved pasture.[18] Nevertheless, the rise in sheep numbers recorded in most grazing

[14]AD7 file "Information for Settlers", 12 September 1938.

[15][AD9 712-6] file 3/13, 9 November 1930.

[16]Examiner, 19 September 1936.

[17][AD9 712-114] file 24/4-1, 11 June 1937.

[18][AD9 712-117] file 26/8, 26 February 1937.

municipalities in the two or three years before the war indicated that the benefits of pasture improvement had become more widely appreciated.

This survey of the changing distribution of sheep has not covered every district in the state. However, it has been of sufficient detail to conclude that the depression decade was characterised by an increasing emphasis on sheep farming throughout Tasmania. The central factor was the development of a meat sector. Fat lamb was seen as an alternative to cropping in the years immediately before the depression. During the depression, fat lamb became an accepted sideline to wool on properties in the North and South Midlands. As the depression waned, lamb began to substitute for dairy cattle in the continuing restructuring of the agricultural economy of the Northwest Coast. Fat lamb was even considered as a viable alternative to orcharding. As a factor of geographical change, sheep were nearly as important as dairy cattle.

6.2 Economic Depression and Productive Efficiency in the Wool Industry

Wool had been a pillar of the Australian economy since flocks had first started crossing the Blue Mountains in the early years of the nineteenth century. The importance of the pastoral industry continued unabated into the twentieth century. No less than £44 out of every £100 of overseas income earned between 1925/26 and 1928/29 was derived from the sale of wool.[1] Australia's wool clip was almost entirely committed to the export market. Local factories absorbed only six percent of the final output.[2] The limited scale of local consumption and an almost total reliance on an auction system meant that there were no buffers against unfavourable trends on the international market. Few other Australian products were so exposed to fluctuations in world demand.

The wool industry in Tasmania shared the fortunes and misfortunes of its mainland counterparts. The value of the wool clip swung widely from year to year. Seasonal conditions were not a major factor in determining the return from wool. Unfavourable weather which reduced the amount or the quality of the clip in one district was generally balanced by opposing trends in other areas. Variations in gross return were almost entirely due to general market factors. These external price factors need to be assessed in their local context before an examination can be made of changes that were occurring in systems of pastoral production.

Income from wool peaked in 1924/25 and then began a fluctuating decline towards the disasters of the early thirties (Figure 35). The grazing community had anticipated that the Launceston wool sales of January 1930 would see prices that were one-third less than normal.[3] This was in line with trends on the mainland and was variously attributed to growing competition from artificial fibres, to changes in fashion towards lighter clothing, and to increased wool production in South Africa and the United States.[4] However, the forecast was overly optimistic. Actual falls

[1]Commonwealth Official Year Book 1931, p. 130.

[2]Commonwealth Official Year Book 1931, p. 478.

[3]Examiner, 7 January 1930.

[4]Examiner, 8 January 1930.

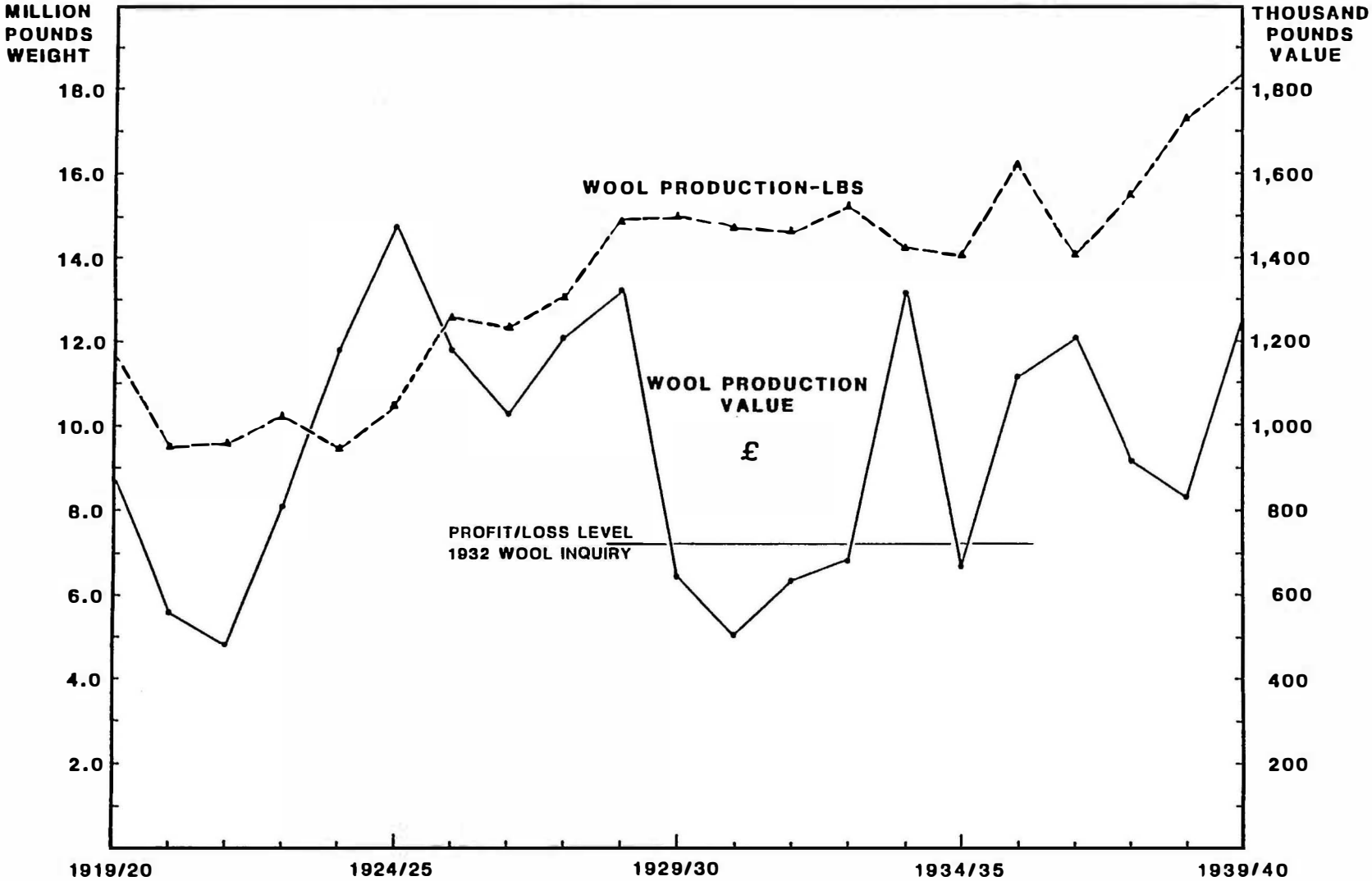


Figure 35 - Production and Value of Wool
1919/20 to 1939/40

straddled a range between 30 and 45 percent.[5] Graziers were apparently resigned to the lower price and almost all lots were sold. The Hobart sales later in the month were even worse. Many bales of broad staple Merino wool were unable to find a buyer.[6] Income from wool in 1929/30 was £743,750 compared with £1,324,440 in the previous year.

Comments made to the press after the sale indicated that many pastoralists believed that low prices would continue for several years. In 1930/31, the sale of wool grossed only £504,430. This was the nadir of the wool depression. Thirty percent of the pastoral holdings that had existed in 1928/29 had passed below the commercial threshold with incomes of less than £100. There was a slight recovery in 1931/32 and another minor rise in 1932/33. These were mainly attributed to increased buying by local mills.[7] The three Launceston woollen mills were reputed to be highly competitive buyers as they did not have to cover export costs. Another factor mentioned in the press was the higher profile of Japanese buyers.[8] Apparently, the military situation in Manchuria required wool supplies for army uniforms. In addition, the devaluation of the yen had opened up additional markets for Japanese woollen products elsewhere in Asia.

Low wool prices for four years in succession resulted in an accumulated loss to the pastoral industry of £2,165,635 (-45.8%) compared with the returns of the previous four years. Graziers were clearly unable to cover the cost of production in these four years and for one additional year (1934/35). The Commonwealth Wool Inquiry Committee of 1932 claimed that the cost of producing wool on an efficiently worked Australian property was 9½d per pound.[9] By this standard, almost £600,000 was required to cover basic working expenses in Tasmania. While only one year was below this level, the returns in the other four were insufficient to

[5]Examiner, 9 January 1930.

[6]Examiner, 14 January 1930.

[7]Mercury, 12 January 1932.

[8]Advocate, 7 January 1932.
Examiner, 2 January 1933.

[9]Commonwealth Wool Inquiry Committee The Australian Wool Industry 1932, (Canberra, 1932), pp. 10-17.

cover the cost of borrowed capital. If Tasmanian borrowings had been at the Australian average - a dubious proposition given the acknowledged overpricing of Midlands grazing properties - it would have required an income in excess of £700,000 for the industry to be profitable.

The initial reaction of graziers was to reduce inputs. The cost of shearing was reduced in July 1930 when the Federal Wages Court ordered reductions in the Pastoral Award.[10] These ranged from 10 percent for shed cooks to 20 percent for shearers. Further reductions followed in 1931. Some permanent labour was also retrenched. A file held by the Tasmanian Farmers, Stockowners and Orchardists Association contains appeals from members for positions for employees who could no longer be retained.[11] It was not possible to determine the scale of layoffs from the official statistics. The maximum decline of employment from the pre-depression level was in 1931/32 (-7.2%). The figure is distorted by shifts into other sectors and by the inclusion of proprietors and working relatives as well as hired labour.

An incomplete set of accounts prepared by A.A. Reed of "Ratho", Bothwell, for the Wool Committee Inquiry noted that he had been able to reduce costs during the first year of the depression by just over ten percent.[12] Labour cost reductions were negligible. Cuts in outlays for contract shearers and domestic servants were counterbalanced by higher costs for station hands. Three-quarters of the economies came from "repairs and maintenance"; the balance from "manures and seeds".

However, the important factor was that income from wool had fallen by almost a quarter off a clip that was almost identical in weight to that of the previous year. Reed maintained cash flow during the year by selling stock at the previous rate but abandoning the buying in of new stock. This was fairly typical. Graziers continued in production only by steadily drawing on their capital. The situation in the medium term can be exemplified by the case of another individual. Rupert Headlam was perhaps

[10] Tasmanian Farmers, Stockowners and Orchardists Association: Annual Report 1929/30, p. 3.

[11] [NS901-62] file "Unemployment".

[12] [NS901-60] file "Station Working Expenses", 7 April 1932.

atypical in that he occupied a Closer Settlement Board leasehold rather than a freehold.[13] However, in many respects his capital outlays were less than those faced by men who had bought into wool country with large mortgages. His property consisted of 1,044 acres on the Lemont Estate near Oatlands. It was prime country - well watered, well fenced and with good soils. Headlam was an experienced grazier and until the slump of 1929/30, his position had always been satisfactory. By June 1932, it had deteriorated to a state where rent was in arrears by £1,123, a bank overdraft had built up to £4,952 and sundry creditors were owed a further £681. The District Agricultural Officer who reviewed his prospects on behalf of the Closer Settlement Board believed that an income of £1,000 was required for stability. At present, the property was earning only £530.

The financial prospects of hundreds of other graziers were similar though not so public. Fortunately, the run of four consecutive years when incomes were insufficient to cover the heavy costs of running an estate came to an end with the wool sales of 1934. The Hobart and Launceston sales were marked by unprecedented demand for comeback and crossbred wool by buyers from Bradford, Japan and the Continent.[14] The market shot upwards with an average price across all grades of 22.24d compared with 10.75d in the 1932/33 season.[15] This recovery was attributed by the press to an improving economy in Britain and the United States and to the continuing westernisation of clothing in Japan.[16] Sales were also aided by a shortfall in world wool production and the low value of the Australian currency.

Wool in 1933/34 produced a gross income of £1,316,460. The success of the pastoral sector flowed into the wider community. Graziers were able to pay off some of the debts accumulated during the bad years. The editor of the Examiner noted that professional men in Launceston were "... now busy getting out the accounts which they had known would have

[13] [AD9 712-53] file 8H, 25 June 1932.

[14] Examiner, 11 January 1934.

[15] Tasmanian Farmers, Stockowners and Orchardists Association: Annual Report 1934/35, p. 40.

[16] Examiner, 2 January 1934.
Examiner, 13 January 1934.

been a waste of postage to send in the past year or two to men on the land".[17] Woolgrowers also had an opportunity to undertake some of the repairs that had been put off during the preceding years. Some could even consider improvements. Unfortunately, the liability for income tax under the existing system reduced the amount available for investment.[18]

Serious price fluctuations continued throughout the remainder of the 1930s (Figure 35). Some years had strong markets and farmers could pay off debts. Other seasons had weak markets and growers would fail to cover the costs of production. The underlying trend right back to the middle 1920s was against wool. The basic factor undermining the competitive position of wool was the abandoning of heavy clothing for warmth under the impact of central heating and automobile transport.[19] Lighter clothing for personal decoration opened the way for alternative, often artificial, fibres to assume a larger share of the market. There were also continuing difficulties in financing international trade that affected the marketing of wool. For instance, Germany would accept Australian wool only if the proceeds were deposited in a closed account and used to pay for the export of German goods.[20] The lack of foreign exchange was also a factor behind the increasing production of synthetic fibres in Germany.

These circumstances were recognised by the Australian wool industry. The appropriate response was believed to involve a reduction in the cost of woollen products in order to make them more attractive to the consumer. In particular, price reductions had to be of sufficient scale to allow wool to gain a share of the large working class markets of Europe, America and Japan.[21] While most of the actions taken to reduce the costs of woollens are beyond the scope of this study, the Tasmanian grazier nevertheless had to become a more efficient producer of the original raw material.

[17] Examiner, 12 January 1934.

[18] [NS901-62] file "Taxation", 12 May 1933.

[19] Wadham, S.M. and Wood, G.L., Land Utilization in Australia, (Melbourne, 1939), pp. 145-154.

[20] [AD9 712-142] file 15/7, 18 February 1939.

[21] Mercury, 16 March 1938.

Table 11 contains a number of measures extracted from the official statistics. Some of the data is tainted and only partly reflects the changing efficiency of the Tasmanian wool industry. The phenonemal rise in "other purebred sheep" is one case in point. Half of the increase is due to an unrecorded change in the definition of a purebred sheep. No other explanation is available for the abrupt change in numbers in this category during the final year of the three-year standardisation period. Other parameters are ambiguous. The rise in sheep numbers is only partly related to efficiency concepts such as pasture improvement and topdressing. The other portion is due to restructuring which introduced sheep for fat lamb into regional economies that had been previously dominated by cropping.

Table 11 - Productivity Gains in the Pastoral Industry

1926/27 to 1936/37

number of sheep	+ 27.1 %
average flock size	+ 9.7 %
sheep in flocks >1000	+ 27.6 %
sheep per pastoral worker	+ 16.1 %
value of pastoral machinery	+ 65.1 %
number of Merino sheep	+ 38.5 %
number of other purebred sheep	+ 244.3 %
wool clip per sheep shorn	+ 2.3 %
lambing rate	+ 2.1 %

[data standardised to avoid seasonal fluctuations]

The Midland Statistical Division contained the classic grazing municipalities of Bothwell, Campbell Town, Hamilton, Oatlands and Ross. Only Oatlands had a significant number of small holdings producing fat lamb. Local details are available for seven of the nine parameters listed above. For most, the rate of increase in these fine wool oriented municipalities was about half of the state average. These included factors that would normally be related to scale of production such as average flock size and sheep per pastoral worker. The results were rather surprising given the increase in sheep numbers on medium and large estates statewide between the periodic surveys of flock size held in 1928/29 and 1937/38 (+33.5%). There is also a paradox presented by the two parameters in which the Midlands grew at rates approximately twice the state level. These were wool clip per sheep and lambing rates. These would normally be expected to correlate with fat lamb districts.

It would be possible to discuss these indices at length. The behaviour of lambing rates in the Midlands could be evaluated in terms of how the regional average converged with the state average from below. Regional shifts in the distribution of Merino sheep, a breed with a poor reproductive record, could be one factor behind this trend. It is unlikely that such a discussion would illuminate the general situation. It appears from the statistical evidence that both sectors of the sheep industry were increasing in efficiency. Extrapolation from the situation in the Midlands indicates that the wool sector lagged behind the meat industry. This was also the main line extracted from the documentary evidence which focused on pasture improvement, pest control and topdressing. These were of more immediate relevance to the sheep farmer than to the grazier. In fact, some graziers opposed pasture improvement in the belief that better grass would coarsen their top clips and increase the susceptibility of their sheep to parasitic diseases.[22]

The Department of Agriculture had no branch specifically concerned with the interests of the grazing industry. It was only in 1937 that a proposal to set up a sheep and wool division was put to the government.[23] The proposal was accepted but no appointments were made on the grounds of cost. The Department's main direct contribution to the wool sector was through a programme to control Black disease. Almost 200,000 sheep were being vaccinated each year during the middle thirties by government veterinary officers.[24]

The relative neglect of the wool industry by the Department of Agriculture meant that improvements were through private initiatives. These were mainly in sheep breeding and the sorting of wool. The aim was to achieve a high quality clip of uniform character. The term "high" must not be mistaken as a synonym for fine Merino wool. Notwithstanding the data in Table 11, the long-term trend was against the Merino, as improved milling

[22] Tasmanian Farmer, January 1938.
[AD9 712-117] file 26/8, 26 February 1937.

[23] [AD9 712-150] file 24/4, 20 January 1938.

[24] "Department of Agriculture: Annual Report 1936/37", Journals and Printed Papers: Tasmania, (1937), Paper 33, p. 18.

technology could produce as good a product from a poorer fleece.[25] In addition, artificial fibres were more directly competitive with fine wool products than the coarser grades. The large increase in Merinos indicated above was an anomaly caused by more favourable prices for fine wools in the first years of the depression. This trend had been reversed in the recovery phase but the proportion of Merinos, while declining, was still above pre-depression levels.

The emphasis in breeding was to establish a quality crossbred sheep. Contemporary practices were often haphazard at best. At worst, there were situations like that described by an agricultural correspondent for the Examiner. He was present at a sale where "... an otherwise sane farmer purchased six mongrel rams for £10".[26] This type of ram had to be phased out - if not made illegal as the correspondent suggested - in order to create a clip that would come in large lots of uniform quality rather than many small and variable lines. A standardised breed would also make for easier management on the properties. The main trends were for graziers in rough or droughty country to select the Polworth while farmers in better districts opted for the Corriedale. The former produced a good long staple fleece though not as fine as the Merino. The latter played an important role in supplying breeding ewes for fat lamb farmers as well as meeting the growing demand for coarse fleeces at the Launceston mills.[27] These firms had previously been importing this type of wool from New Zealand.

Deficiencies in the sorting and presentation of wool had reduced the price obtained by many growers before the depression. The collapse of wool prices in 1930 forced improvement in these matters. E.H. Webster, a principal of a major woolbroking firm noted an improvement in presentation during the 1931 sales, a fact which he attributed to a larger than normal number of skilled woolclassers being brought over from the mainland for the shearing season.[28] He claimed that growers were anticipating fair

[25]Examiner, 11 January 1934.
Examiner, 10 January 1936.
Examiner, 11 January 1936.

[26]Examiner, 1 November 1938.

[27]Examiner, 8 February 1936.

[28]Examiner, 3 January 1931.

competition for good lots but that the market for faulty and irregular lines was expected to be thin. Even lots received from small farmers were observed to be of a higher standard. However, this second observation may be biased by the fact that many small producers were deserting the auction system in favour of direct sales to wool merchants.[29]

One issue in relation to productive efficiency has not been addressed. This involved the relationship between flock size and efficiency. It is often inferred that economies of scale reinforced by the greater commitment and experience of the producer should make larger flocks more productive per unit input than smaller flocks. There were no studies during the interwar period that examined this topic though there is clear evidence that estates were increasing in size. Data on flock sizes were collected periodically and indicate an overall increase in mean flock size of 6.5 percent between the surveys of 1928/29 and 1937/38. Furthermore, only four of the eight size categories showed an increase. Three were from what could be regarded as the estate sector covering flocks with five to ten, ten to twenty and twenty thousand plus sheep respectively. In total, the mean size of flocks exceeding 5,000 sheep increased by 11.6 per cent. While the skewed nature of this increase is suggestive, it cannot prove that it necessarily represented increased efficiency. It had been noted by the President of the Tasmanian Farmers, Stockowners and Orchardists Association that some larger pastoralists had used the depression to buy out any small holdings that were placed on the market.[30] If the increase in flock size merely represented the impact of this process, any relationship between flock size and profitability would be difficult to determine.

[29] NS901-52 file "???RS", undated document entitled "Private Selling".

[30] Tasmanian Farmers, Stockowners and Orchardists Association: Annual Report 1934/35, p. 43.

6.3 Government and the Promotion of the Fat Lamb Industry

The fat lamb industry since the turn of the century had been struggling to become an established part of the Tasmanian rural economy. The most important early initiative had involved setting up the Northwest Freezing and Canning Company in 1912 to process and export frozen lamb and mutton.[1] Unfortunately, the export trade collapsed with the outbreak of hostilities between Britain and Germany and the plant had fallen into disrepair. The trade had not revived with the return of peace and the lack of an export-oriented fat lamb industry was seen as one of the major deficiencies of the farm economy of the 1920s. It was widely believed that a fat lamb industry should be fostered to diversify the income structure of both agricultural and pastoral properties throughout the North Midlands and Northwest Coast. As well, fat lamb would assist with the restoration of soils whose fertility had been depleted by too much cropping. This problem was particularly acute in both of these regions.

It was apparent that the state would have to play a central role in developing the trade. The big mainland meat firms were not interested in setting up in Tasmania as the number of lambs was too small for an economic operation. In turn, farmers were unwilling to invest in the industry as long as the local market was the only outlet. Money clearly had to be made available to build up the number of sheep, to establish slaughter and freezing facilities, and to provide organisation for overseas shipment. The Lamb Raising Industry Encouragement Act (1926) was a beginning but addressed only one part of this problem. This Act provided financial assistance to farmers who bought breeding ewes for the fat lamb trade.[2] Most of the money provided by Parliament under the terms of this legislation was never spent owing to the absence of any potential for export.

The Meat Industry Encouragement Act of 1929 tried to resolve this dilemma. A State Meat Board was established to handle the commercial aspects of an export trade. The costs of the Board were to be met by a temporary levy of one penny a head on all sheep in the state. This clause was ill-advised as it split the rural community into warring factions.[3] Men

[1]Advocate, 4 September 1937.

[2]Examiner, 25 November 1926.

[3][AD9 712-6] file 3/13, 9 November 1930.

with flocks on rough land would never be able to participate in a fat lamb trade and yet were required to pay a levy that would finance a freezing works. Other graziers in better country felt that they were being taxed to assist farmers on the Northwest Coast produce sheep that would inevitably depress the local market for mutton and lamb. These interests formed the Woolgrowers Defence Association to oppose the levy and were successful in obtaining an injunction that prevented its collection until its validity could be tested by the courts.[4] The attention of the newly established Board was diverted from its main task of building up the infrastructure necessary for an export trade towards answering legal and political challenges to the levy. In the meantime, the Board was without funds and had to operate on loans provided by an unsympathetic Nationalist government.[5]

The onset of depression stimulated interest in fat lamb production amongst a wider section of the grazing community. A number of woolgrowers, interviewed when leaving the disastrous Launceston Wool Sales of 1930, commented on how the salvation of the sheep industry depended on diversification into fat lamb for the British market.[6] This attitude assisted the emergence of a compromise whereby the levy was to be more clearly focused on properties that could potentially receive some benefit. Ironically, the new levy on lambs marked and lambs/sheep slaughtered was not all that different from the original proposal by the Agricultural Bureau for a levy on fat sheep alone.[7] It had been the government that had insisted on a general levy.

In early 1930, the State Meat Board commissioned Mr Ross Grant to investigate alternative strategies that could be used to start up an export trade. The report was made public in September 1930.[8] Grant argued that while the trade should go ahead, the disturbed state of the British market

[4]Examiner, 7 January 1931.

[5][AD9 712-31] file 21/3, 28 February 1930.
[PD1-491] file 146/1/31, 21 March 1931.

[6]Examiner, 9 January 1930.

[7][PD1-491] file 146/1/31, 31 March 1931.
[AD9 712-6] file 3/13, 22 November 1930.

[8]Advocate, 27 September 1930.

and the lack of a guaranteed supply of lamb meant that an overly ambitious scheme would not be advisable. Grant claimed that the industry would have to be developed around existing facilities. The Hobart abattoir could be used for killing with the freezing carried out at the wharfside coolstores of Henry Jones and Company. This was obviously not as good as a self-contained freezing works but was practical and cheap. The system could handle 25,000 lambs in a 3½ month season. This would be more than sufficient to test the trade.

Grant opposed the proposal to purchase and renovate the Northwest Freezing and Canning Company's plant at Somerset. The original strategy put forward by the Agricultural Bureau in its 1928 push for a government scheme to build up the fat lamb industry had been centred on the acquisition of this plant by a farmer's co-operative.[9] Grant concluded that the asking price of £18,000 with another £7,000 required for essential repairs was too expensive in the current economic climate. The industry, at least initially, would have to be based in Hobart though it would draw stock mainly from the North Midlands and Northwest Coast.

Exports began in January 1931. Lambs were collected from the North Midlands and railed to Hobart for processing. The North Midlands bias in the supply of lambs can be seen in the origins of the initial export consignment with 450 coming from Hagley, 480 from Western Junction and 240 from Powranna.[10] The system adopted by the State Meat Board involved a preliminary payment to the farmer as soon as the meat left Tasmania. This was based on 75 percent of the London price on the day of shipment less killing and marketing charges.[11] The remaining quarter was held for settlement against the final price. In addition, the farmer would eventually receive the value of the skin.

It was believed that the State Meat Board would be able to sell Tasmanian lamb at Smithfield for 8d per pound.[12] This was a discount of

[9]Examiner, 1 February 1929.

[10]Examiner, 6 January 1931.

[11]Examiner, 7 January 1931.

[12]Examiner, 5 January 1931.

one halfpenny from the going rate for prime New Zealand lamb and was a realistic expectation being the standard differential between the New Zealand and Australian product. This price would net the farmer about 5d per pound. In theory, the trade should have been as profitable as any from Australia. The export charges of 3d per pound were competitive with fees charged by the mainland meat works and the rail freight south was no more burdensome than freight from mainland grazing districts to coastal abattoirs. Nevertheless, only 10,500 lambs were processed and exported the first season. This was only 42 percent of the capacity of the export system and represented less than ten percent of all lambs slaughtered in Tasmania during 1930/31.

The 1931/32 season was more successful with 18,986 lambs shipped to Britain. The trade then faded away with 7,813 lambs exported in 1932/33, 2,627 shipped in 1933/34 and only 2,354 sent overseas in 1934/35.[13] The State Meat Board had been established to develop the export fat lamb industry. Judged by this record, the second attempt to enter the British trade appeared to be a failure. Contemporary observers focused on two groups of factors to explain this failure. One set involved the difficulties of developing an export industry at a time when the British market was being swamped by imported meat. The other group involved the problems inherent in building a system that could process a large volume of fat lamb starting from a low base and working with inadequate resources.

Britain was supplied with meat from domestic, empire and foreign sources. The impact of the first years of the depression on British agricultural markets have been described elsewhere for the case of dairy products and apples. The effect on the meat trade was similar. Exporting countries began to increase shipments at a time when markets on the Continent were closing down. These supplies were diverted to London, the only open market, and caused prices to collapse. British producers began to lobby for protection against overseas meat, empire producers called for bans on foreign meat, and foreign producers stated how British interests would be harmed if London was closed to their exports. Meanwhile, the meat continued to flood in and while consumers responded positively to the low prices, the producers at best obtained a minimal profit. The Dominions

[13][PD7-Trade Matters Excluding Fruit], 20 March 1935.

gained some advantages over foreign suppliers from the Ottawa Conference but a continuing glut and a need not to overly antagonise British farmers forced Australia and New Zealand to temporarily suspend shipments of sheep meats in November 1932 and to try to rationalise exports through a quota system from 1933.[14]

Each Australian state was given a defined share of the national quota. The small trade from Tasmania received a nominal allocation of 47,000 carcasses or one percent of the Australian total.[15] In the previous season, Tasmania had only exported 18,986 lambs. On the surface, this appeared to present an opportunity whereby Tasmania could expand within an assured share of the Australian trade. Paradoxically, the Tasmanian trade declined. In 1934, the Australian export target was increased with Tasmania continuing to have the right to supply one percent of the total. All other states increased exports; Tasmanian exports fell away to insignificant levels. Tasmania for some reason was unable to handle the low English prices.

The Manager of the Agricultural Bank noted how farmers had been claiming for years that they would supply the product if the state could supply the market.[16] He went on to condemn Tasmanian farmers for making such little effort to supply a market for fifty thousand lambs. However, apathy is not a sufficient explanation for the initial failure of the State Meat Board. A Board of Enquiry had already reported to the Government urging that the State Meat Board be restructured.[17] This report also noted that there were serious practical problems hindering the development of the trade. These included a lack of knowledge about fat lamb farming, a lack of finance for improvement of pasture and stock, and the difficulty of meeting exacting export standards with the ad hoc system of slaughtering and freezing adopted after the Grant report.

The export trade needed a consistent supply of high quality lambs in order to be profitable at the prevailing prices. There was no money to be

[14] Examiner, 24 November 1932.

[15] Examiner, 11 January 1933.

[16] [AD9 712-113a] file 21/4-1, Adams, S.R. "Report on Lamb Export Trade", typescript 22 November 1935.

[17] "Report of the Board of Enquiry Appointed to Investigate the Operations of the State Meat Board and Questions related to the Meat Export Industry", Journals and Printed Papers: Tasmania,

made in exporting inferior carcasses. The early shipments in 1931 represented the best that Tasmania could provide. The lambs were selected before slaughter and carefully graded afterwards with the intention of trying to create an impression among the butchers at Smithfield that Tasmanian lamb was a quality product. Hopefully, the market would accept and price Tasmanian lamb alongside New Zealand lamb rather than Australian. Some success was achieved with the early shipments though it should be noted that there were reports coming through that many lambs had the undesirable "leggy" character which devalued the Australian product while other carcasses showed evidence of problems with the freezing procedure.[18]

Top quality lambs were not readily available at this time. This was the main factor behind the failure of the State Meat Board's attempt to export. Successful exports presupposed a domestic fat lamb industry upon which an export sector could be grafted. This did not exist in Tasmania. The local meat market until well after the Great War had been dominated by mutton (Figure 36). Many of these sheep were nothing more than the culls from the wool flock. While the market for lamb was clearly improving, it was also reported that the market was undemanding, accepting lambs of undefined breeding and up to twice the weight of what could be allowed in an export trade.[19]

Moreover, the attempt to build up a flock of high grade meat sheep for exports was parallelled by a rising demand for lamb in the towns and cities of the state. Data from Hobart and Launceston showed a converging trend in the number of sheep and the number of lambs being processed in the municipal abattoirs throughout the 1920s. These lines first crossed in 1931/32. This was a year of rapid escalation in the total number of lambs slaughtered. However, only one lamb in eight was destined for the overseas market. The increase in local sales was more than three times more important than the rise in exports. This pattern was even more true in 1932/33. A fifty percent decline in the price for prime and extra prime

(1933), Paper 23.

[18] [PD1-491] file 146/2/31, 26 March 1931.
[PD1-491] file 146/2/31, 1 April 1931.

[19] Advocate, 25 September 1937.

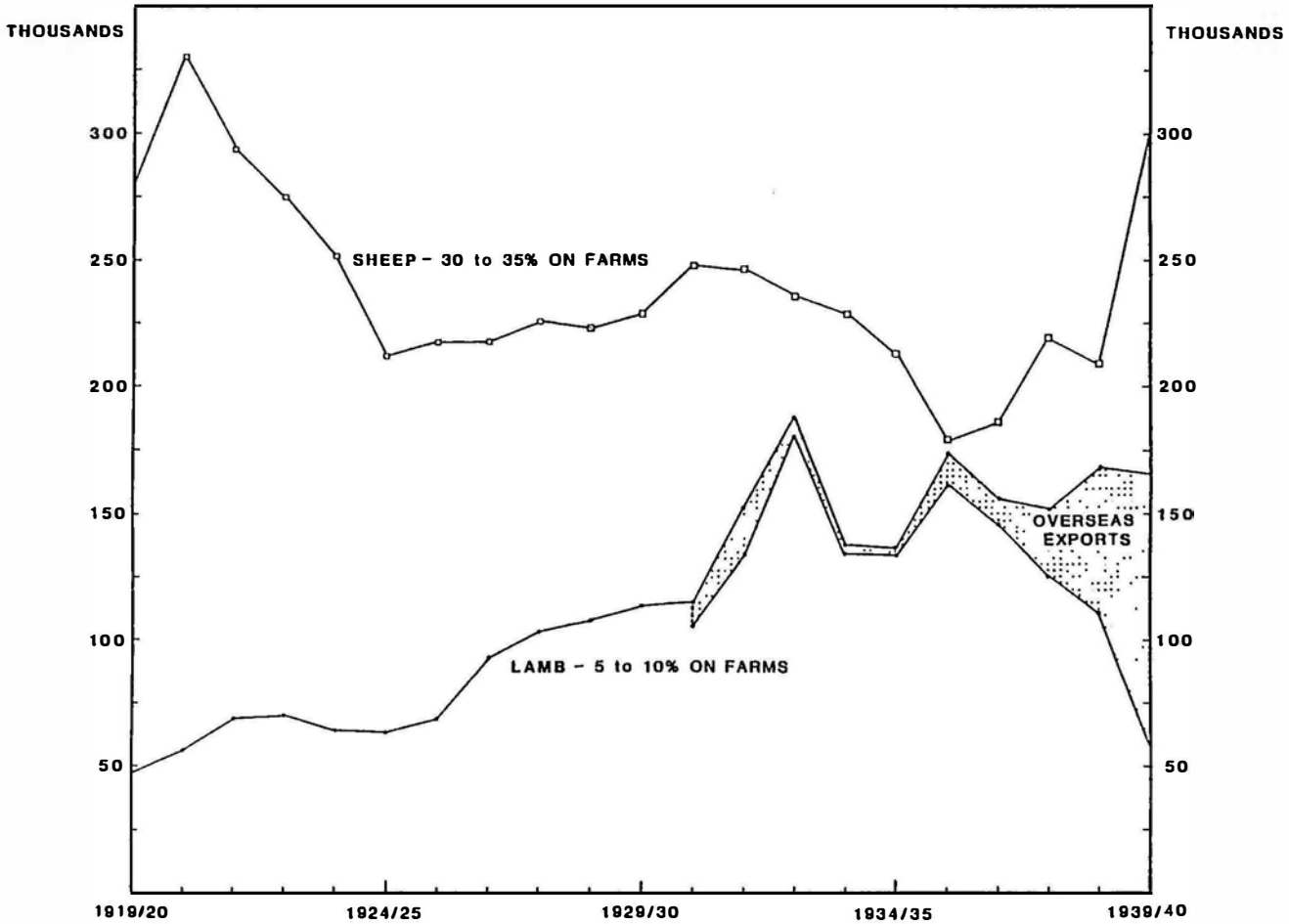


Figure 36 - Production of Mutton and Lamb
1919/20 to 1939/40

lamb had clearly caused a rise in Tasmanian consumption. By 1936/37, the ratio of lamb to mutton consumed in the two cities was virtually the reverse of that which had existed in 1926/27.

Producers with export quality lamb faced lower costs and fewer uncertainties by selling locally. Exports involved carrying the rail freight to Hobart and selling on consignment. The final payout depended on market conditions months after the stock had left the property. Local sales were made at one of the many periodic auctions in a district saleyard with immediate payment. In addition, there were no killing and export charges. The attractiveness of a fixed price sale even allowed buyers representing Victorian meatworks to be active in Tasmania though no great volume of business was ever done.[20] Finally, the local market was synchronised with the existing farming calendar while the export market required adjustments to farming practices. The big demand in the United Kingdom was in the winter months with a particular strategic gap that offered prospects of maximum profit coming between the end of the English season and the start of large scale arrivals from New Zealand. This required Tasmanian producers to adjust lambing times and adopt feeding practices that would allow a consistent weekly supply of lambs at the correct weight to be brought forward for processing and shipment.[21] Not only was this difficult to organise, it also brought the lambs onto the market at a time when local sales were at the lowest.

The 1933 report led to a restructuring of the State Meat Board and a reduction of its powers.[22] Small numbers of lambs continued to be exported but the Board was no longer an active agent in the trade. Its functions were to provide advice and to guarantee a minimum yearly turnover of £250 at the Hobart abattoir and of £850 at the Henry Jones cool store. Nevertheless, the factors of farm income diversification and soil restoration that had caused the initial enthusiasm for fat lamb were still present. New factors had also developed. One involved growing claims from mainland

[20] Examiner, 10 January 1933.

[21] [AD9 712-150] file 21/7, 12 May 1938.

[22] "State Meat Board: Annual Report 1938", Journals and Printed Papers: Tasmania, (1938), Paper 30.

states for the reallocation of Tasmania's unused export quota.[23] The other involved the government's growing role as a landlord. Depression relief measures had seen the state assume the debts of thousands of farms. The need to save the small farms on which it held a mortgage led to renewed attention being paid to fat lamb from 1936.[24]

The first line of action was to build up the number and quality of breeding ewes in the state. The aim was to encourage farmers to maintain a standing flock of breeding ewes and to retain the ewe lambs for future breeding.[25] This was in place of the common practice of the time where farmers bought in a line of ewes to produce one crop of lambs. Both ewes and lambs were fattened and sold. This procedure was cheaper in the short run than the maintenance of a breeding flock but placed the responsibility of developing appropriate qualities for fat lamb production in the hands of disinterested graziers in the Midlands.[26] A man with a standing flock could run his own breeding programme. One ram could be used with half the ewes for production. Another could be used with the remainder for breeding stock rather than merely using left-over lambs as the breeding ewes for the next season. Eventually, the higher returns from better meat, a heavier clip of halfbred wool, and a higher lambing percentage would make the standing flock an economic proposition.

A sufficient number of appropriate ewes was not available in Tasmania to allow farmers to build up a standing flock. The Department of Agriculture turned to the mainland buying 10,000 ewes in 1936 and 12,000 ewes in 1937 for distribution in small lots to interested farmers.[27] Farmers could purchase these ewes on easy terms with loans also available for pasture improvement, fencing and fodder crops.[28] Although any farmer was

[23]Mercury, 10 March 1936.

[24]Examiner, 7 November 1936.

[25]Advocate, 5 September 1936.

[26][AD9 712-149] file 21/4 Colman, J.M. "A Survey of the Lamb Raising Industry of Australia" typescript April 1938.
[AD9 712-113A] file 21/4-1, 23 April 1936.

[27][AD9 712-113] file 21/4-1, 30 October 1936.
[AD9 712-113A] file 21/4-2, 8 March 1937.

[28][AD9 712-116] file 21/4-2, 14 May 1937.

eligible to apply, most of these sheep were taken up by state-indebted farmers along the Northwest Coast. No security was required if the farmer was judged "able" by the Department of Agriculture.

The second line of action undertaken by the government was to reconsider the system which based killing and freezing facilities at Hobart while the sheep were mainly being produced in the North and Northwest. Renewed interest was focused on the facilities of the Northwest Freezing and Canning Company at Somerset. This plant had been specifically designed in 1912 for the fat lamb trade but the Great War had intervened and blocked the development of the industry.[29] It had subsequently operated as a bacon factory and butter store as well as manufacturing small goods and ice. It had not operated at a profit and had become dilapidated over the years. Its use had been rejected by the Grant Report in 1931.

Eventually, it was no longer possible to ignore a facility that could handle 750 sheep per day, freeze on site and store 15,000 carcasses and which was located within the region which the government viewed as critical for the future of the fat lamb industry. The only technical objection to the plant involved the need to ship the frozen carcasses three miles to the wharf at Burnie. This was a problem given the lack of insulated rail wagons or lorries.[30] However, the plant required extensive renovations. The funds were provided in 1937 through loans to the Northwest Freezing and Canning Company from both the Tasmanian (£7,500) and Commonwealth (£5,000) governments.[31] In return, the Department of Agriculture could appoint one of the directors of the Company. This strategy blended the private ownership of the basic facility with state investment in the improvements.

The State Meat Board was also reformed at this time to allow it to actively engage in the business of meat export.[32] Contracts were arranged between the Board and the Company to start processing export fat lamb in

[29] Advocate, 4 September 1937.

[30] [AD9 712-113A] file 21/4-1, 9 February 1935.

[31] Advocate, 22 July 1937.

[32] "State Meat Board: Annual Report 1938", Journals and Printed Papers: Tasmania, (1938), Paper 30.

the summer of 1937/38. Merchant firms, in particular Clements and Marshall, were also allowed to participate in the system and actually did most of the business. Exports totalled 27,222 lambs compared to 9,439 in 1936/37. Two-thirds of this total passed through the Somerset plant.

Given that only 62.2 percent of the lambs processed at Somerset were first grade, the net value to the exporter of 19s 6d was a fair return and virtually identical to the local price for the same mix of prime and good lambs.[33] It was regarded as a reasonable result as many lambs came off farms where men had little experience in the careful handling of sheep. The following year was even more successful with 56,242 lambs exported.[34] Hobart handled 20,425, the largest number to date while Somerset processed and exported 35,817 lambs. It appeared that the industry was heading towards a self-sustaining and commercial level. Somerset was only marginally below the throughput which federal authorities regarded as the minimum for an economic operation. Its facilities were also being expanded with the aid of further state loan of £6,000.[35] This would allow the simultaneous processing of export lamb and export pork, and was in line with the Department's policy to promote both activities in order to diversify the farming structure of the Northwest Coast. The main threat to the industry was unrestrained enthusiasm. Regional interests had begun work on a third freezing works at Launceston once legislation to restrict the number of plants had been defeated by the Legislative Council.[36] The Department feared that a third plant would mean that all factories would operate at an uneconomic level. In fact, the events of September 1939 ensured the success of the fat lamb industry.[37] Britain signed an agreement to take a fixed volume of Australian meat at prices set by the 1938 season and would

[33] [AD9 712-150] file 21/7, 12 May 1938.

[34] "State Meat Board: Annual Report 1939", Journals and Printed Papers: Tasmania, (1939), Paper 41.

[35] [AD9 712-125] file 2/6-7, explanatory notes to Public Works Execution Act 1938/39.

[36] Examiner, 11 November 1938.
Mercury, 11 November 1938.

[37] "State Meat Board: Annual Report 1940", Journals and Printed Papers: Tasmania, (1940/41), Paper 30.

bear all war losses. Under the terms of this agreement, Tasmania's three factories were able to process and export a record 108,345 lambs.

In 1940, the Manager of the Agricultural Bank reported that the fat lamb industry "... may now be deemed to be firmly established taking into account the facilities available for processing, the high quality of the lambs produced, and the steady increase in exports during the last three years".[38] After a number of false starts, the farming community and the government had put together a system for producing, processing and exporting fat lamb. The government played a pivotal role. It had provided the farmers with 70,000 mainland ewes to act as a nucleus for a breeding flock. It had further upgraded quality by importing a small number of stud ewes and rams. It had also provided the necessary capital input into the manufacturing system, most notably in the loans to refurbish the Northwest Freezing and Canning Company's plant at Somerset. Nevertheless, the industry was too heavily reliant on quotas and guaranteed sales. It did not survive until the return of peace.

[38] "Agricultural Bank: Annual Report 1939/40", Journals and Printed Papers: Tasmania, (1940/41), Paper 37, p. 7.

CHAPTER SEVEN - FRUIT FARMING IN DEPRESSION TASMANIA

7.1 Regional Concentration and Structural Change in the Apple Industry

Apple orcharding had been the mainstay of the Tasmanian fruit economy throughout the 1920s and its dominance over the three minor fruit industries increased during the 1930s. This was in spite of a major decline in the area under orchard. In 1926/27, the area under bearing apple orchard was 25,008 acres containing 3,451,061 trees. By 1936/37, the area had declined to 21,609 acres with only 2,940,127 trees. However, this reduction in acreage did not imply a reduction in output. The increasing maturity of many trees and improved methods of pruning and spraying had led to an increased production of apples. In the 1920s, a crop of four million bushels was regarded as exceptional. In the 1930s, a crop of this size was regarded as a poor year with normal production approaching six million. There were even claims that Tasmania had the capacity, if not the markets, to produce a crop of ten million bushels.[1] There were also important shifts in the location of apple production. Details for five orcharding regions presented in Table 12 stress the interrelated themes of continuing concentration in the Huon Valley and massive decline in districts immediately north of the Derwent. More detailed municipality data on the changes in the number of bearing and non-bearing trees and in the evolving ratio between the two confirmed the basic pattern of concentration and decay in southeastern Tasmania (Figures 37 and 38).

The Huon Valley contained the three municipalities in which the fruit industry was most firmly entrenched. The economic farm-type classification of 1931/32 showed that 97.6 percent of all commercial holdings in the Huon had a fruit orientation. Most were specialist fruit operations. Only 44 of the 804 commercial fruit growers had a significant secondary activity, usually dairy farming. It is impossible to gauge the balance between apple orcharding and small fruit farming on the individual properties. However, the Huon apple industry in 1931/32 yielded £21 of gross farm income for every £1 derived from berry fruit.

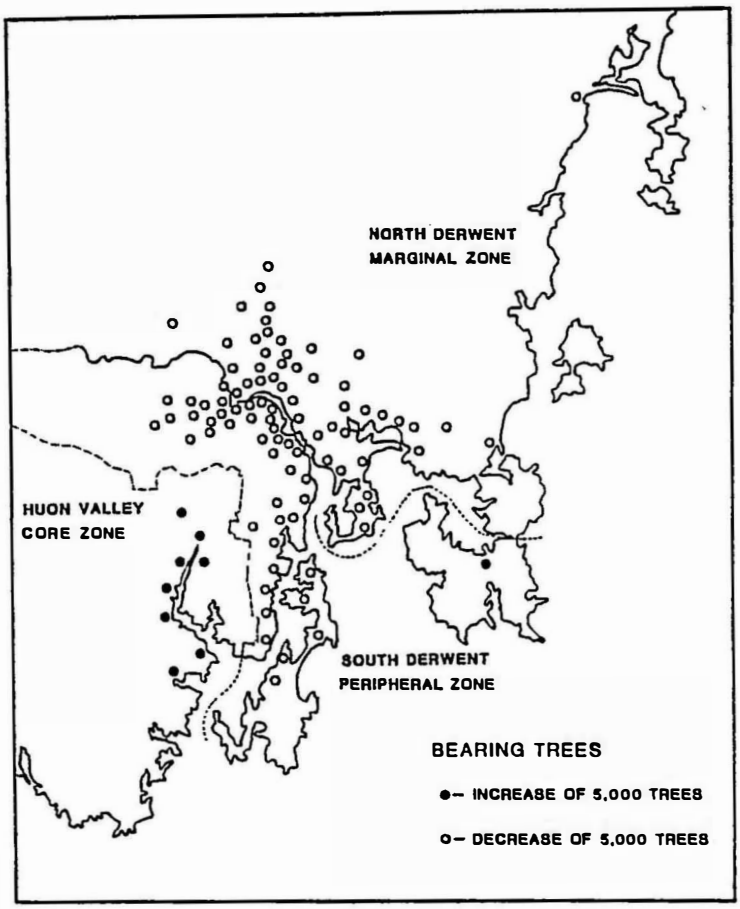
[1]Mercury, 18 March 1938.

Table 12 - Distribution of Bearing Apple Trees in Tasmania

Huon Valley Core Zone		
1926/27	1,365,972	(39.6%)
1931/32	1,379,376	(42.1%)
1936/37	1,409,381	(47.9%)
South Derwent Peripheral Zone		
1926/27	785,170	(22.8%)
1931/32	766,725	(23.4%)
1936/37	632,068	(21.5%)
North Derwent Marginal Zone		
1926/27	484,726	(14.0%)
1931/32	419,856	(12.8%)
1936/37	250,162	(8.9%)
Tamar Valley		
1926/27	552,772	(16.0%)
1931/32	507,128	(15.5%)
1936/37	457,451	(15.6%)
Mersey Valley		
1926/27	121,062	(3.5%)
1931/32	112,975	(3.4%)
1936/37	119,044	(4.1%)

The trends in apple orcharding in the Huon Valley were clearly delimited by two parameters. Firstly, it was the only region in the state where the number of bearing trees was increasing. The number involved was small but, juxtaposed against the general decline, it meant that the industry was rapidly becoming more concentrated. More than fifty percent of all producing trees were to be found in the Huon Valley from 1937/38. Secondly, the increase in non-bearing trees (Figure 37) indicated that growers had sufficient faith in the industry to invest in new stock at a time of intense economic difficulty. In 1926/27, the Huon had only 30.3 percent of the new plantings in the state. Non-bearing trees quadrupled in number over the following decade raising the share of the Huon Valley to 55.5 percent. Of particular interest were the changes in the ratio of bearing to non-bearing trees in the older orcharding districts of Port Cygnet and Huon (Figure 38).

Between the Huon Valley and the Derwent estuary was a band of five contiguous municipalities that shared at least two of the three following attributes: high levels of specialised orcharding; a modest decline in the number of bearing apple trees; and a limited amount of planting of new



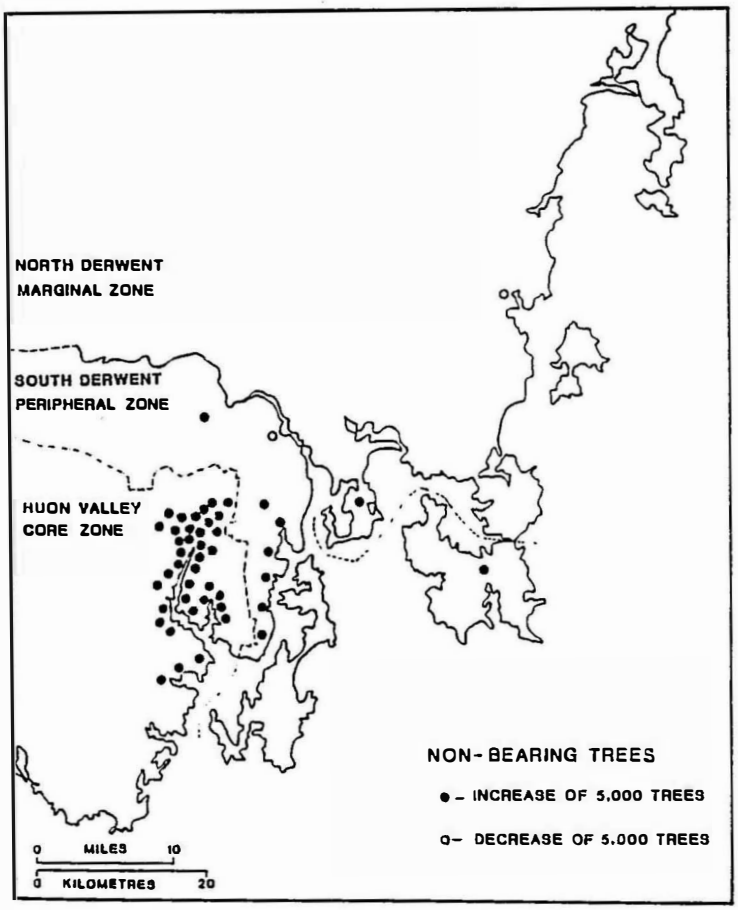


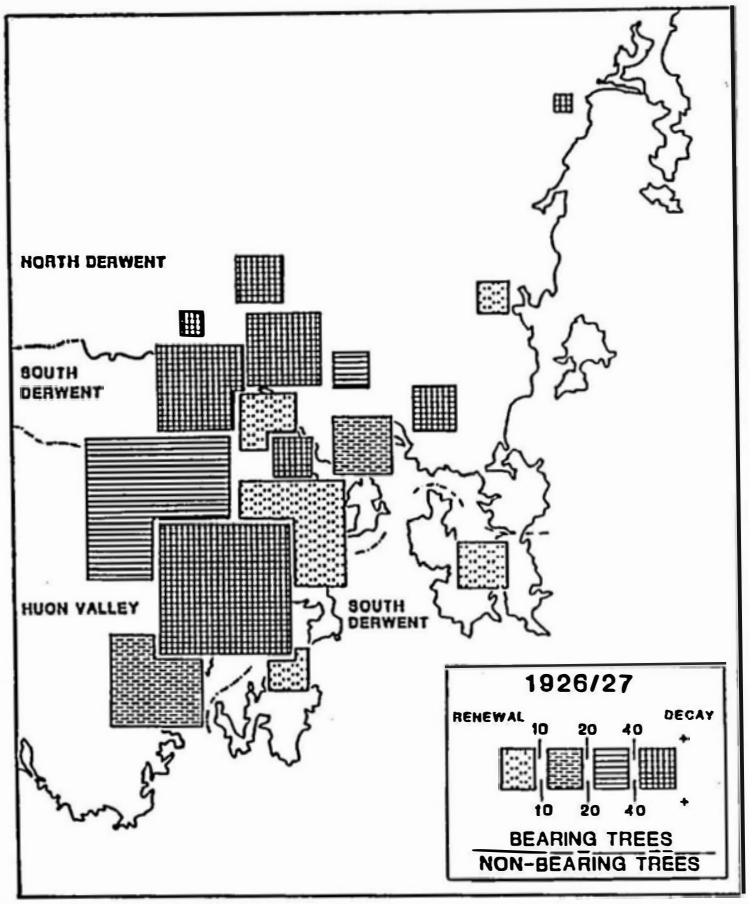
Figure 37 - Regional Change in Number of Apple Trees in Southeastern Tasmania 1926/27 to 1936/37

orchards. The Tasman municipality was included as a sixth member of this group although it had an obvious local trend involving an increase in the number of bearing trees (Figure 37). The South Derwent Peripheral zone had 596 orchards in 1931/32. This represented 78.9 percent of all commercial farming operations. However, orcharding was becoming concentrated into scattered local nodes and being replaced by other activities in less favoured locations. This process was assisted by one fruit farm in five having an important second activity. Structural diversity enabled farms to reduce their dependence on fruit and to diversify where possible into dairying and cropping during the early and middle thirties.

The North Derwent Marginal zone comprised the municipalities to the north of the Derwent and along the East Coast. Apples were in rapid decline throughout this zone (Table 12). Almost half of the trees that existed in 1926/27 had been pulled out a decade later. The corresponding value for the South Derwent Peripheral zone was only twenty percent. It was also an unchecked decline as little effort was made to renew orchards by planting out new trees (Figure 37). The loss of 23,186 trees in the Green Ponds municipality was hardly counterbalanced by the potential of the 36 non-bearing trees recorded in 1936/37. The apple industry was dying out in many districts. This process was encouraged by many of the orchards north of the Derwent being on large and diversified properties.[2] The economic farm-type census in 1931/32 recorded 206 fruit holdings of which 121 had alternative interests. Many larger properties had taken up orcharding in the last years of the nineteenth century. These orchards were now past their prime, often producing varieties no longer suitable for export. It was relatively easy for these farmers to run down their orcharding interest and build up their cropping and fat lamb sectors. The districts that retained the greatest emphasis on apple orcharding tended to be areas with restricted options. A survey of one property near Bridgewater noted the basic dilemma.[3] This farm had fifty acres of good land; the balance was third class hill country. Two or three cows supplemented the income received from thirty acres of orchard. While it was possible to increase the number of cows, dairying could never be more than a sideline and the economic future of the farm depended on rehabilitating the orchard.

[2][AD9 712-47] file 3/15, no date.

[3][AD9 712-13] file 8S, 15 May 1931.



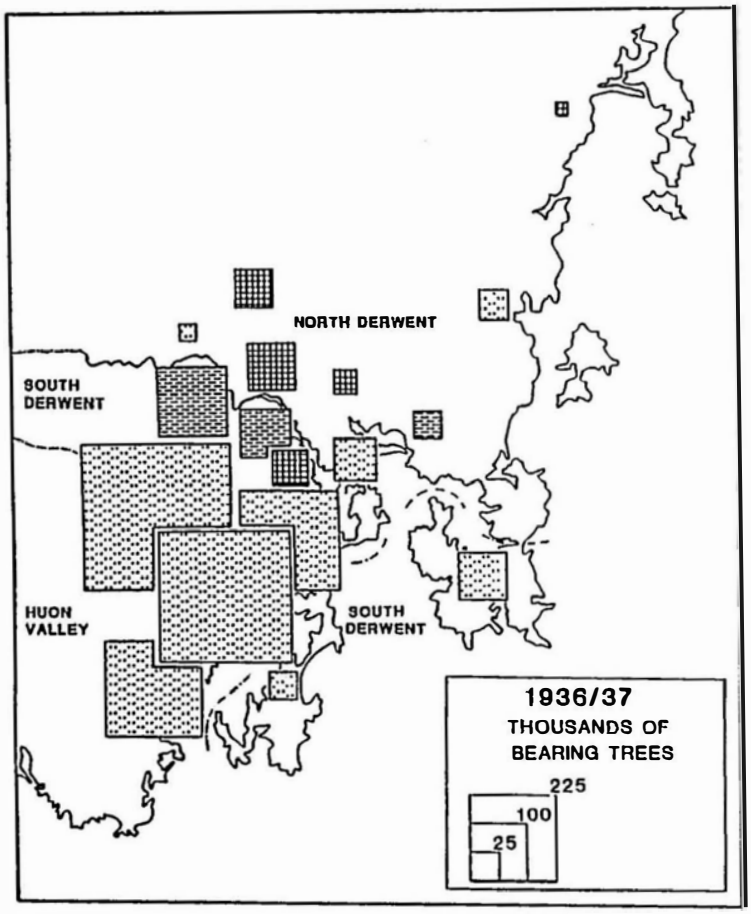


Figure 38 - Change in the Ratio of Bearing to Non-bearing Apple Trees in Southeastern Tasmania

The northern orcharding districts retained their share of state apple production. The Tamar lost 17.2 percent of its bearing trees; the Mersey lost barely 1.7 percent. These values were surprising. The Tamar was a district with a public record of major orchard reduction. For instance, the major Freshwater Point estate had reduced its original 300 acres of orchard to 120.[4] Furthermore, the Tamar was an area with a large number of neglected orchards. These had been planted during the boom before the Great War and virtually abandoned when profits failed to eventuate. A visiting southern orchardist was appalled at the state of many orchards in the north.[5] It was expected that the State's increasing use of its power to pull up derelict orchards would have had more impact in areas such as Cormiston and Legana where it was acknowledged that the problem was particularly acute.[6] Likewise, the Mersey was known to be an increasingly popular orcharding district during the 1920s.[7] It was also known to be a region poorly supplied with the necessary infrastructure, lacking an adequate cool store and with difficult arrangements for overseas export. Decline rather than stability would have been the expected response to the stresses of depression.

An investigation of the list of fruitgrowers published in the Tasmanian Post Office Directory revealed a confusing pattern of change between 1926/27 and 1936/37 (Figure 39). These data indicate a major expansion of orcharding in the North and Northwest. In 1927, orchards were located at 44 postal localities. Ten years later, there were 76 places mentioned and the number of individual fruitgrowers had increased by almost fifty percent. It would appear from the regional breakdown that the industry was stable in the critical West Tamar and East Tamar districts, increasing moderately in the Mersey, and undergoing dramatic growth around Launceston and along the Northeastern branch railway between Lilydale and Scottsdale. In some places, the pattern corresponds with agricultural census data. The Kentish district increased from 9 fruitgrowers with 16,255 trees to 15

[4]Examiner, 11 May 1938.

[5][AD9 712-57] file 9/51-4, 2 February 1934.

[6][AD9 712-57] file 9/51-4, 21 February 1934.

[7]Advocate, 7 January 1928.

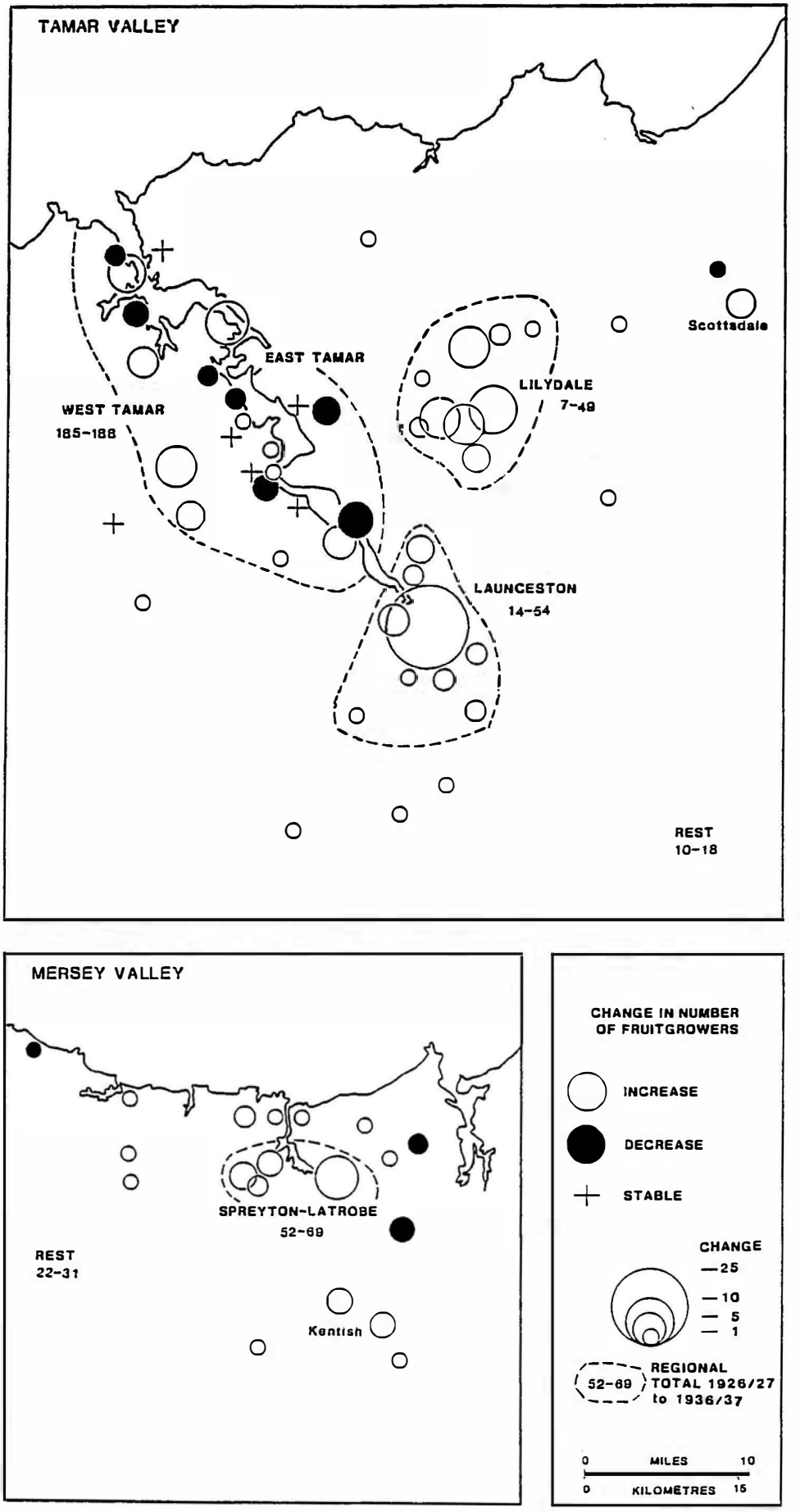


Figure 39 - Orchard Change in Northern Tasmania 1926/27 to 1936/37

growers with 21,113 trees. In other places, the two data sets are directly contradictory. The Post Office Directories suggest a large increase in Latrobe while the agricultural census measured declines in both fruitgrowers and bearing trees.

There were no contemporary references to any expansion of the fruit industry. The opposite was the case. It is almost certain that the Postal Directory data were contaminated. These were probably listings of fruit exporters rather than of orchardists. The locational data is also uncertain. Many of the large number of listings for Launceston in 1936/37 were for addresses in the central business district. One hypothesis that can reconcile known trends in the region and the regional data involved the growth of overseas exports from both the Tamar and the Mersey. In 1926/27, Beauty Point shipped 124,680 cases to external markets.[8] This was 33.8 percent of the Tamar trade. The overseas component a decade later was 480,650 cases and 70.0 percent of the trade. This increase could well have been focused on areas at some distance from Beauty Point. Places along the Tamar would always have had river steamers to carry the fruit to the overseas wharf at Beauty Point while inland districts had previously been limited to railing fruit to Launceston for shipping to Sydney. The widespread adoption of lorry transport during the 1930s gave inland growers the option of entering the overseas trade.

Regional shifts in production were only one aspect of the evolution of the apple industry during the depression. Other structural factors need to be examined. The two most important involved trends in the size of orcharding properties and in the efficiency of apple production at the orchard level. Unfortunately, the evidence for measuring changes in both these parameters was inadequate. For instance, detailed size breakdowns were available only at irregular intervals and were of unknown methodology while standard surrogates such as average size of orchard are open to misleading conclusions. However, there was no doubt that most orchards were of an uneconomic size. One opinion was that an efficient orchard should contain 15 to 20 acres of trees.[9] The State Fruit Advisory Board

[8]Mercury, 21 June 1937.

[9][AD9 712-64] file 15/9, 29 September 1932.

had data which revealed that 85.3 percent of 3,551 orchards were of less than fifteen acres.[10] This document was based on a survey whose date and methodology were not recorded and whose results cannot be linked to agricultural census data. Orchard size was highly skewed with 33.5 percent in the one to three acre category, 37.5 percent in the four to nine acre category and 14.3 percent in the ten to fourteen acre group. This pattern was confirmed by another survey that covered five southern municipalities.[11] These were discovered as undated, pencilled annotations on another document. The data probably refer to about 1935. This survey assessed 1,607 orchards in the heart of the apple district. The structure was similar to the state pattern discussed above though with fewer small orchards (23.1 percent in the one to three acre class) and fewer large orchards (only 9.6 percent were greater than fifteen acres). However, these data can give no indication of trends through time nor are the regional differences necessarily of much significance. For instance, the number of large orchards was greater in the north than the south. However, this was counterbalanced by regional differences in the spacing of trees. The twenty foot spacing used in the Tamar gave fewer trees per acre than the sixteen and eighteen foot intervals used in the Huon. Two identical operations in terms of number of trees would have different acreages.

A number of conventional ratios can be used to analyse change through time. Table 13 details several different measures of various aspects of orchard size and productivity. Any data involving yields were standardised for a three-year period to eliminate seasonal factors. In addition, the term "orchard" used as a base in several ratios refers to the number of properties with more than one acre of fruit. The agricultural statistics did not define the number of properties that were specifically apple orchards.

10 [AD9 712-55] file 9/25, 15 December 1931.

11 [AD9 712-120] file 29/7, "Approximate Number of Agricultural Bank Clients 1935".

Table 13 - Changing Scale of Orchard Operations

	1926/27	1936/37
Tasmania		
bearing acres of apples per orchard	6.43	6.67
bearing apple trees per orchard	887	908
standardised output in bushels per orchard	1,003	1,375
standardised output in bushels per tree	1.13	1.51
Huon Valley		
bearing acres of apples per orchard	not available	
bearing apple trees per orchard	1,229	1,264
standardised output in bushels per orchard	1,916	2,368
standardised output in bushels per tree	1.56	1.87

The above data supports three major arguments. Firstly, it is evident that orcharding was being conducted on an uneconomic scale. Details of one property near Gordon in the Channel showed the income that could be expected from a "typical" orchard.[12] This grower exported 1,360 cases to London in 1936 at an f.o.b. price of two shillings a bushel. This created a gross income of £134 7s 4d from which he had to pay £35 for cases, £2 for nails, £2 10s for woodwool and £12 10s for wrapping paper. This left £82 7s 4d for the costs of production and living. One would have to agree with his conclusion that it was "... a very poor living". While two shillings a bushel was an abnormally low price, higher prices would not solve the problem. His property, like two thousand others, would never be economic. The Department of Agriculture felt that an economic orchard required an output of 2,700 bushels of which two-thirds had to be high demand export varieties.[13] They concluded, as the depression waned, that many orchardists had been able to carry on only because they were receiving external income, usually a pension of one sort or another.

Table 13 also indicates that Huon Valley orchards were larger and more productive than the state average. A breakdown of the number of bearing trees per orchard gave values of 1,264 for the Huon and 712 for the rest of the state. It is unlikely that the difference was actually this great. The degree of concentration of "fruitgrowers" on apple production was regionally variable and would tend to favour the Huon where almost all farms had a strong apple orientation. However, the trend is undoubtedly real. The available municipal breakdown of orchards into size classes

[12][AD9 712-96] file 9/14-3, 2 October 1936.

[13][AD9 712-131] file 8, 14 December 1938.

revealed a median orchard size of eight acres in Huon and Port Cygnet, six acres in Esperance and five acres for the peripheral districts of Kingborough and Bruny.[14] It was also evident that orchard size changed only marginally during the depression decade. Increases in orchard production came through increases in output per tree. Ironically, the state result of 33.6 percent was much better than the experience of the Huon Valley with an increase per tree of only 19.8 percent.

One control on output was the age of the orchard. Some factors affecting the age of trees can be deduced from trends in tree planting as measured by the number and relative proportion of non-bearing trees. The non-bearing fraction was in decline throughout the 1920s. This partly reflected the lag between prewar planting and the orchard coming into production. A high percentage of young trees would tend to decrease yields, a trend accentuated by the neglect of many speculative orchards. A few years later, increasing maturity would raise the yield. This is a possible explanation for the relative performance of the Huon and the rest of the state. A more stable orcharding tradition and a generally older age of tree raised productivity in the Huon above the state average in 1926/27 and reduced the rate of increase in the following decade (Table 13).

By the early 1930s, orchardists had to face up to a new problem. Many trees were now too old to be efficient. There were two possible solutions to this problem. One could either abandon orcharding or undertake actions to renew the orchard. Many growers in the North Derwent Marginal zone opted for the first policy. The combination of high rates of orchard decline and negligible rates of new plantings was especially noticeable in the municipalities of Brighton, Green Ponds and Richmond (Figure 36). Different trends were observed south of the Derwent. In 1926/27, areas with low ratios of bearing to non-bearing trees were found in newly settled country such as Esperance or in speculative districts planted around Hobart. In 1936/37, low ratios were found everywhere. The recognition of the problem of the "old orchard" was of particular importance in revitalising the apple industry in Huon and Port Cygnet in the 1930s.

[14][AD9 712-120] file 29/7, "Approximate Number of Agricultural Bank Clients 1935".

The planting of new trees was also caused by Tasmanian orchardists attempting to respond to market realities. Most orchards produced too many varieties. This pattern was part of an orchard region evolutionary cycle. New orcharding districts tended to start off with a large number of varieties. For instance, one estate in the Tamar was originally designed to produce 23 different types of apple.[15] Eventually, each region would concentrate on perhaps half a dozen main types in order to gain economies of scale in packing and marketing with another half dozen secondary types needed for the efficient working of the orchard. Tasmania was just beginning to undertake the elimination process.[16] The rise of new plantings experienced during the early 1930s was partly caused by the need to replace varieties that were being phased out of production.

An apple tree census in 1926 gave an indication of the varieties produced in the middle 1920s (Table 14). However, the measurement of changes in the structure of the orchard relies on inference rather than direct measurement. Attempts by the State Fruit Advisory Board to update the census in 1934 were unsuccessful.[17] The only available data was a survey of the age of trees conducted in 1948. It must be remembered that the data may be distorted by the fact that these were the trees planted during each period and surviving in 1948. The actual structure of the producing orchard at any one date during the 1930s would be affected by differential rates of replacement.

[15]Examiner, 11 May 1938.

[16]Mercury, 1 December 1936.

[17][AD9 712-96] file 9/12-1, 21 May 1935.

Table 14 - Apple Varieties in Tasmania

	Producing trees at 1926 census	Trees in 1948 planted before 1918	Trees in 1948 planted 1918-1931	Trees in 1948 planted 1932-1940
Sturmer	23.6	25.0	15.2	9.4
Jonathan	13.1	15.6	17.2	17.0
Democrat	3.1	6.0	20.1	17.7
Granny Smith	1.2	5.0	10.5	17.4
Cleopatra	11.3	10.4	7.6	4.4
Delicious	1.1	3.4	5.5	10.9
Scarlet	13.1	8.2	3.5	1.6
Crofton	0.5	3.3	2.8	4.3
Coxs Orange	5.3	5.1	2.3	3.0
French Crab	5.8	5.2	0.7	0.2
Alfriston	1.8	2.0	2.8	3.9
Tasman Pride	-	0.6	2.5	5.4
G'ton Fanny	-	1.0	2.9	1.8
Others	20.1	9.3	5.5	3.2
top six varieties	72.2	70.4	76.1	77.8

sources:

"1926 census" from [AD9 712-14] file 9/25, 5 November 1931. "Trees in 1948" from White, L. and Bollen, G. "Tasmanian Apple and Pear Industry", Quarterly Review of Agricultural Economics, Vol. 2 (1949), 123-126.

Two features dominated the 1926 structure. One was the wide range of apple varieties. The census included a further seven named varieties that have been incorporated into the "other" category. These accounted for 9.4 percent leaving 10.7 percent to come from more than forty additional types of apple. The decline of this "other" category was one of the clearest trends of the 1930s. However, in 1938, Tasmania still exported 44 varieties of apples to overseas markets.[18] These included ten varieties with shipments of less than 1,000 cases. The second feature was the important role played by the four major types viz: Sturmers, Jonathans, Cleopatras and Scarlets. There were important regional concentrations in the production of these apples. Sturmers were the mainstay of the Tamar Valley while Scarlets were concentrated in the Derwent Valley.[19] Unfortunately, three of

[18] [AD9 712-132] file 9/14-2, 12 August 1938.

[19] [PD1-474] file 61/5/30, 20 February 1930.

the four were in declining demand. Data from the 1932-40 period has only the Jonathan improving its share of the Tasmanian crop. The other three were being pushed aside by the Democrat, the Granny Smith and the Delicious. Some varieties, like the French Crab, died easily. Others were affected by subtle market changes that were more difficult for the orchardist to accept. For instance, the Sturmer was an excellent apple. It was left stranded in the 1930s when public demand shifted towards highly coloured dessert apples, a trend that favoured the Jonathan and the Democrat. This left the Sturmer to compete with specialised cooking apples on a declining market for cooking varieties.[20] It was still a good apple and accounted for a quarter of the state's production.[21] However, its market appeal had been demolished by a shift in consumer taste.

It became possible in the 1930s for orchardists to respond more rapidly to changes in market preference. An orchard could be converted from unwanted varieties to those in demand by using the "working over" or "reworking" process. This involved grafting the new variety onto the leading branches of the old tree. This replaced the former system of cutting back to a basic stump before grafting and allowed the tree to be producing the new variety within three years. Over thirty thousand trees per annum were being grafted over to new varieties in the mid-1930s by officers of the Department of Agriculture.[22] The major types being replaced were the Ribston, the London, the Alexander, the Scarlet and the French Crab. The importance of this technology to increasing orchard flexibility can be seen by considering a list of desirable varieties prepared by English fruit importers in 1920.[23] It included three of the above plus the Sturmer.

One final aspect of changing orchard structure involved the organisation of packing, a problem on the boundary between production and marketing. The traditional view of the Tasmanian orcharding industry involved growers packing their own fruit. This had never been the case despite the existence of some two thousand packing sheds throughout the

[20]Examiner, 11 May 1938.

[21][AD9 712-135] file 9/33, "C.B.C.S. crop forecast 1937/38".

[22]Examiner, 10 May 1938.

[23]Mercury, 23 January 1920.

fruit districts.[24] There had always been growers who packed in a neighbour's shed or who used facilities provided by a fruit merchant or who delivered fruit to a co-operative packing company. There was little detailed information about the volumes packed by each method. One claim was that central packing was responsible for sixty percent of the crop.[25] The government had been fostering this trend by giving encouragement to co-operative companies in particular to assume the packing function. It was futile to develop an industry based on lines of ten or twenty cases. The importers wanted long lines of uniform quality which could only be obtained by central facilities handling the grading and packing of the fruit.[26] The financial interests of the growers, who could ill afford to lose the value of their family's labour in packing, would be protected in a co-operative system.[27] The profits from packing would still be retained by the orchardist. Co-operative packing expanded rapidly especially in northern Tasmania where the aim of the Tamar Valley Co-op was to establish a single brand for all Tamar fruit.[28] A network of seven packing sheds handled more than fifty percent of the crop in 1937.[29] In the south, co-operatives were less successful than the traditional export merchants in meeting the growing demand for central packing.[30] The firms worked on a charge basis though they would sometimes buy the fruit outright and ship it under their own label. The derelict apple shed became another sign of an industry that was undergoing a major transformation in the 1930s.

[24][AD9 712-95] file 9/8-2, 23 July 1937.

[25][AD9 712-54] file 9/15, 7 November 1934.

[26]Mercury, 9 December 1936.

[27]Mercury, 1 December 1936.

[28]Mercury, 15 January 1929.

[29][AD9 712-87] file 3/13, 14 June 1937.

[30]Mercury, 1 December, 1936.

7.2 Shipping the Export Apple Crop

The transport of apples to external markets contained a number of stages. First, the fruit had to be collected from the packing sheds and delivered to the wharf. Then, the fruit had to be loaded onto ships which would carry it to the overseas markets. Finally, the fruit had to be unloaded, delivered to wholesale merchants, and then to the retail fruiterer. Each stage contained problems. Some were amenable to change while others proved intractable. Considering that freight and associated handling charges made up more than half of the value of a case of apples landed in Britain, it is important to examine the transport system in order to point out inefficiencies and note the places where change was occurring.

The movement of apples from the packing shed to the dockside was changing as motor lorries replaced the river boats that had traditionally brought the fruit to Hobart. In 1930, 100 lorries had thirty percent of the trade and the fleet of 23 river boats handled sixty percent.[1] The balance came by rail or cart. The situation was totally reversed by 1934 with seventy percent carried by lorry and only twenty percent by river steamer.[2] Road transport was cheaper than river. Freight from the Esperance district to Hobart by road was 2d to 3d per case; by water it was 3d or 4d.[3] Handling was also reduced. Apples could be picked up at the orchard and delivered directly to the export pier. The river boats were loaded at local jetties and unloaded at any available space in Hobart, not necessarily at an export pier. Reduced handling was believed to minimise the damage to the fruit. However, the roughness of the road journey was often blamed for bruising.[4] Excessive speed over bad patches of the Huon Road was specifically noted as a major cause of damaged fruit.[5]

Ironically, the flexibility of road transport increased one of the chronic problems of the interstate trade. Growers were now more able than

[1] Advocate, 25 September 1930.

[2] [AD9 712-55] file 9/25, 16 June 1934.

[3] Mercury, 17 March 1938.

[4] [AD9 712-56] file 9/41, 6 February 1933.

[5] [AD9 712-53] file 9/9, 27 July 1933.

ever to leave delivery to the docks to the last minute in order to avoid inspection and to ensure that their fruit was placed at the top of the hold. The Port Inspector at Launceston described how the "Koranui" sailed at 9 a.m. with 5,449 cases.[6] Four thousand of these had been received on the last day, mainly after 6 p.m. The fruit had to be loaded directly onto the boat with bad light and confusion hindering the inspectors. This problem was not unknown to the overseas trade. Shipping companies appearing before the Royal Commission on Fruit Export pleaded for more control on access to the wharf at Beauty Point.[7] This would prevent growers coming in after hours with excess fruit and dumping their loads on the dock. This fruit often had to be loaded onto the ship in order to get it out of the way.

Hobart was the main port for the overseas apple trade shipping more than two million cases in forty to sixty steamers each season. Facilities in Hobart were barely able to handle a trade of this magnitude. At times, the confusion and congestion on the wharves created serious problems. Riverboats, lorries and rail wagons brought cargo to the export piers. Unloading and reloading would take place in congested conditions which increased costs. The Commercial Motor Users' Association, for instance, complained about having to wait for three hours for trucks to be unloaded.[8] Likewise, the late delivery of cargo and the general confusion forced wharf labour to work up to 24 hours at a stretch.[9] The night rate was 5s 10d per hour compared with a day rate of only 2s 11d. Finally, stacks of apple cases eventually flowed out of the sheds and across the docks blocking access to port facilities as well as exposing fruit to damage by weather and rats.[10] These stacks were rarely orderly or stable. The variety of cases in use and the height of the stacks, up to seventeen cases against a recommended maximum of ten, presented obvious risks.[11]

[6] [AD9 712-13] file 9/4, 14 March 1930.

[7] Advocate, 13 September 1930.

[8] Mercury, 5 March 1938.

[9] Advocate, 6 September 1930.

[10] [AD9 712-83] file 2/2, 27 July 1937.

[11] Mercury, 8 July 1929.

More efficient methods on the wharves were necessary. One simple proposal was for the various fruit exporting firms to have common stacks for each ship. It would have cleared some space and may have avoided the situation where fruit was shipped by the wrong boat or to the wrong market. One of several complaints on this problem received by the Royal Commission on Fruit Export came from F. Harrison of Cradoc who described how one lot especially booked for Hamburg went to Hull on another boat.[12] Wharf congestion was specifically mentioned as a cause of why so much fruit was mis-shipped. Although common stacks were strongly advocated by the State Fruit Board, no action had been taken along these lines by the mid-1930s.[13]

There were some attempts to reduce costs. The Hobart Marine Board had been upgrading facilities to allow for more rapid loading of the fruit ships.[14] Tractors were introduced to the wharves in 1928 to move fruit to the slings. A pair of petrol "mules" were installed the next year to haul wharf trailers. Another technique that was kept under review was the possibility of installing conveyor systems. Previous experiments by the Marine Board with these systems had not proven successful owing to the need to continually adjust the conveyors for changes in hold levels. This reduced the loading rate to half of that obtained from conventional slings.

One important technique in shipping apples was virtually unused in Hobart.[15] This involved the pre-cooling of fruit in a dockside cool store. This allowed the export ship to rapidly reduce the hold temperature to 35°F as the fruit would have been put aboard at a low and uniform temperature. The prevailing system of storage, often in the open, meant that fruit was put into the hold at a variety of temperatures. The ship's engineer then had to choose a course of action that would not freeze the outer layers but still prevent the inner cases from becoming overripe. The practice of pre-cooling was widely used in New Zealand and was regarded as a major factor behind the better reputation of New Zealand apples.[16] Tasmania had a total

[12]Advocate, 2 September 1930.

[13]Mercury, 18 July 1935.

[14]Mercury, 8 July 1929.

[15]Mercury, 6 September 1930.
Mercury, 8 September 1930.

[16][AD9 712-14] file 9/45, 15 July 1930.

coolstore capacity of 648,000 cases in 1930 including the large (300,000 case) facility at Henry Jones and Co. on the Hobart waterfront.[17] However, these were fully utilised for the interstate trade. More dockside coolstores were clearly required if only to avoid letting apples sit for weeks on the wharves when they missed the steamer for which they had been booked.[18]

The problems of congestion at Hobart could be overcome by fostering alternative ports. Hobart's dominant role in the overseas trade can be seen in the 1929/30 port returns.[19] Hobart handled 92 percent of the overseas trade as well as 27 percent of the shipments to the mainland. Beauty Point in the north and Port Huon in the south handled the balance of the overseas trade. Details of shipments and the relationship of the ports to the apple producing regions are shown in Figure 40. It is evident that there was room for some decentralisation.

Port Huon was established in the 1920s as a replacement for the decaying facilities at Port Cygnet. While an occasional steamer would load cargo for Britain, its prime function was to service the Sydney trade. Its position in the heart of the apple growing district offered orchardists a saving of 4d per case over taking the fruit to Hobart by river boat.[20] Orchardists began to agitate for the turning of Port Huon into an export port.[21] In 1932, the Overseas Shipping Committee decided to schedule regular steamers for Port Huon inaugurating a permanent trade with the United Kingdom.[22] Five vessels were booked the first year. Irregular data for the rest of the decade suggest overseas shipments were in a range of 230,000 to 280,000 cases per annum. By the end of the 1930s, Port Huon was handling about ten percent of the overseas trade.[23] Most southern fruit

[17] [AD9 712-16] file 9/56, 18 February 1930.

[18] Mercury, 25 July 1928, (Report A. J. Villiers).

[19] [AD9 712-14] file 9/45, 15 July 1930.

[20] Tasmanian Fruitgrower and Farmer, 1 April 1932.

[21] Advocate, 16 September 1930.

[22] Tasmanian Fruitgrower and Farmer, 1 April 1932.

[23] [AD9 712-83] file 2/2, 27 July 1937.

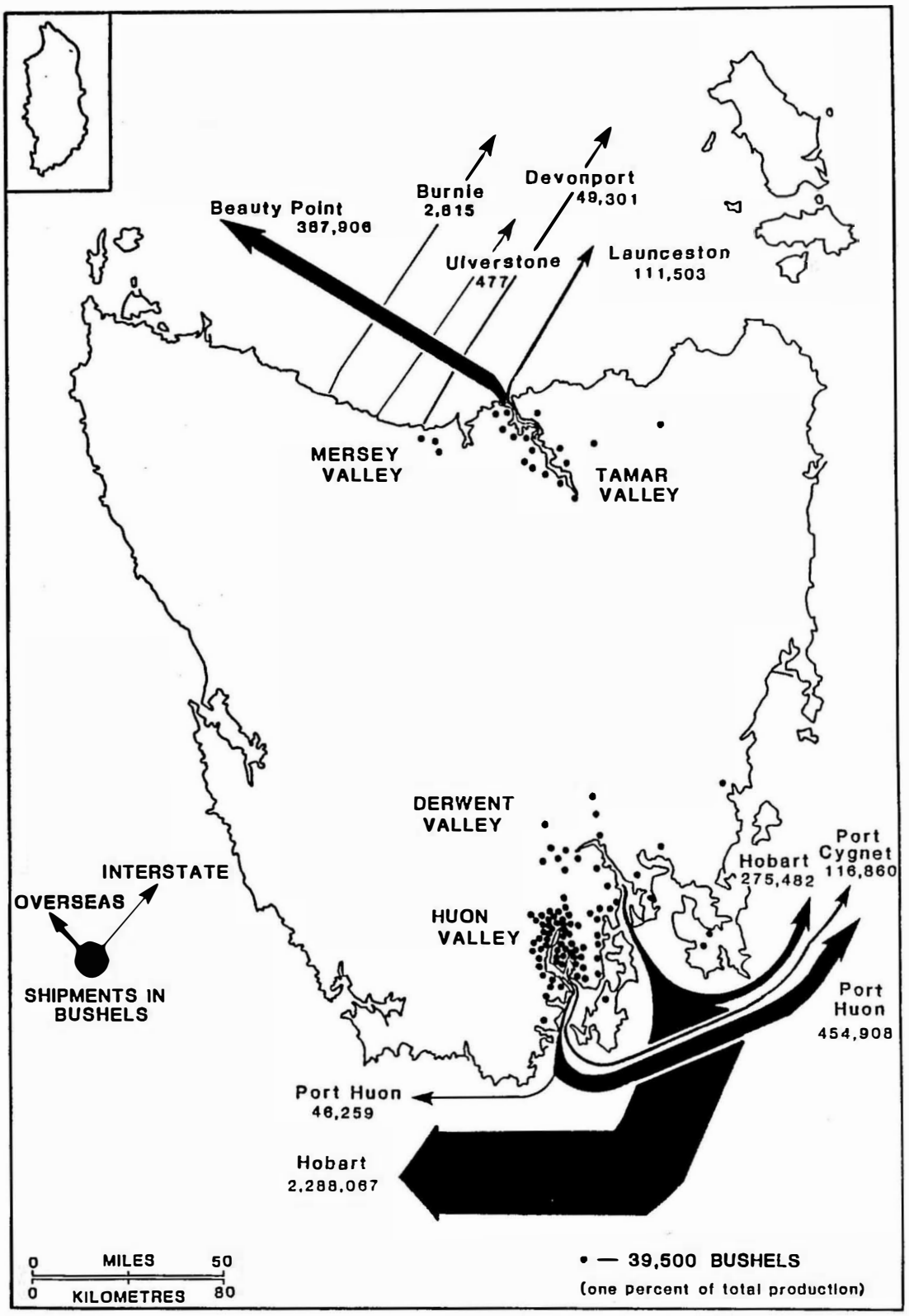


Figure 40 - Apple Production and Shipping
1929/30

still had to be brought up to Hobart where it would pass through the congested Hobart waterfront. This added to the costs paid by the grower. Local opinion believed that the growth of the port was unduly hampered by the attitude of "certain interests" in Hobart who wanted Port Huon to fail.[24] The Esperance Council in 1938 objected to the attitude of the Overseas Shipping Committee in failing to allocate more steamers for the port. They also claimed that some of the vessels assigned to Port Huon were tramp steamers with dubious reputations.

The problems in the south were minor compared to those of the Northwest. Orchardists at the Mersey had to ship fruit to Beauty Point or even to Melbourne or Hobart for overseas collection. The Advocate noted the case of one ship that called at Devonport but was unable to collect cargo sitting on the wharf due to the "machinations" of the Overseas Shipping Committee.[25] The same fruit was picked up at another port. Of the 125,000 cases exported from the Mersey that year, 93,000 had to be railed to Hobart at a cost of 7½d to growers. Lesser amounts went through Beauty Point, Burnie and Melbourne. Devonport regarded itself as the obvious export port for the growing apple and pear industry of the Mersey Valley. This anomaly continued throughout the 1930s with only irregular overseas shipments from Northwest Coast ports.

The Overseas Shipping Committee had justification for continuing to encourage the dominance of Hobart in the south and Beauty Point in the north. These ports were preferred by the shipping companies. One survey conducted by the Development and Migration Commission in the late 1920s showed that only five of the 34 ships calling at Hobart were interested in Port Huon becoming an export port.[26] One of the major inefficiencies of the Tasmanian apple trade from the viewpoint of a shipowner was the need to spend several weeks collecting cargo from two or three ports. This problem would be increased by opening more minor ports as it was unlikely that sufficient cargo would be available at any one time to fill the ship. Even Port Huon could only offer sufficient cargo to work two hatches

[24] Mercury, 17 March 1938.

[25] Advocate, 4 September 1933.

[26] Development and Migration Commission "Investigation into the Present Position of Tasmania: Fifth Interim Report (Internal Transport)", Commonwealth of Australia Parliamentary Papers, (Session 1929, Vol.2), p. 1761.

compared to five in Hobart.[27] There was no possibility that Port Huon could load a 100,000 case ship nor could it offer general cargo to fill up any unused space. Growers were also not interested in holding back apples to meet ships scheduled for a local port as there were dangers in having too large a fraction of their crop on a single vessel. It was better to spread shipments over a number of steamers and receive an average return. This was the great benefit of shipping through Hobart. However, one can understand the complaints of orchardists in areas remote from Hobart or Beauty Point in having to bear the costs that made the entire industry more efficient.

Apple exports were also hindered by the high freight rate. Freight consumed a larger portion of the value of the good than did shipping charges for other refrigerated cargoes. H. McEwin, an orchardist from the West Tamar, worked out that freight in 1936 came to 4s 2d per box while the price averaged over the entire crop was about 7 shillings.[28] Farmers, he concluded, were working for the shipping companies for eight months of the year. It was not unknown for the freight to exceed the value of the cargo in times of depressed demand. The blame for the high cost of sea transport was placed on the Commonwealth government. Its actions in legislating for a monopoly for the Conference Lines in 1930 was believed by many to be the main factor in discriminatory freight rates against apples. McEwin's was not the only voice that was calling for the "scuttling" of the Conference.

However, the ratio of freight to the value of a case of apples compared with a box of butter was more the result of the low value of the apples than to the existence of a biased rate structure. Calls by the State Fruit Advisory Board for the reduction of freights to prewar levels were unrealistic. Shipowners faced problems that increased their costs at a time when apple prices were declining. The devaluation of the Australian currency was only partly passed on to exporters; that is, an 18 percent rather than a 25 percent exchange. In addition, the Australian policy of import restriction led to increases in indirect costs. The normal problems of a seasonal trade in positioning vessels were compounded by the decrease

[27][AD9 712-132] file 9/14-2. 28 June 1938.

[28]Examiner, 26 September 1936.

in inbound cargo caused by import control. The export trade had to pay for more empty voyages out to Australia.

These were problems of high policy and beyond local control. However, some local problems could have been tackled and perhaps could have led to marginal reductions in freight costs. For instance, there was the problem of irregular case sizes. Not only did "...odd cases and dunnage adjustments shut out other men's fruit", it also meant that a ship would carry less cargo than her rating.[29] This particular citation refers to the "Comorin" which sailed 3,000 cases short with a loss of £618 in freight revenue. While greater income for shipowners may not have meant a reduction in freight for the exporter, the common problem of ships leaving without full cargo, even in mid-season, was a direct loss to the industry.[30] If a boat was filled to its allotment, the shipping companies would offer a rebate of 2d per case. The loss of this rebate, when the next boat would be swamped with fruit, was indicative of the lack of organisation in the apple export trade.

There were other problems with shipping. The vessels in the fruit trade were not always satisfactory. Some had inadequate cooling systems. Inadequate refrigeration was a common problem when a heavy crop required the last minute booking of extra steamers. For instance, meat ships required extra ventilation of the refrigerated holds in order to carry fruit. Others were slow with voyages lasting up to three months. In many cases, one problem compounded the other. The case of the "Viking Star" can be used as an example.[31] It arrived in Britain with its cargo in poor condition. The insurance assessors placed most of the blame on inadequate refrigeration over a long voyage. There were 87 days between the loading of the first apples in Port Huon and the discharge of the last in Liverpool. However, they noted the comments of the ship's engineer who attributed the problem to delays in loading. The boat had spent three weeks on the Tasmanian coast being delayed by the Anzac and Easter holidays.

[29]Mercury, 5 April 1937.

[30][AD9 712-55] file 9/25, 16 June 1934.

[31][AD9 712-97] file 9/14-4, 15 July 1936.

Slow ships often had large cargoes and the problems of a lengthy passage were increased by the longer times required to load cargo and the need to call at multiple ports in both Australia and Europe. These issues were recognised by many in the trade. The Agent-General complained from London about the schedule of the "Tasmania" in 1935.[32] This boat was booked to load 170,000 cases at Beauty Point, Port Huon and Hobart in the middle of April. It would then proceed to the mainland to load general cargo and would not be expected to leave Australian waters until mid-May. Its probable date of arrival in Liverpool would be the last week of June with the final discharge in Hull during the second week of July. This was clearly too large a cargo for one vessel especially as it would arrive late in the season and could easily glut the market if another fruit ship was in port. At least there was no mention of reopening the refrigerated holds to take on apples in Western Australia. This was a common practice of many large ships.[33]

The trend was towards larger ships. The normal prewar steamer took 40,000 to 60,000 cases. Some boats now carried 180,000 to 200,000 cases.[34] Forty-four ships were used in the 1937 export season. Eleven carried more than 100,000 cases accounting for 53.9 percent of the cargo picked up in Tasmania.[35] Additional fruit would have been loaded at mainland ports. Thirteen vessels took more than fifty days to reach England with a tendency for the larger ships to take the longest times.[36] Overall voyage times had probably increased during the late 1930s if only by the fact that more shipping was taking the longer route via Cape Town to avoid "war danger" insurance surcharges on journeys via Suez.[37] It is debatable whether the economies of scale derived from using larger ships outweighed these disadvantages.

[32][AD9 712-98] file 9/19, 20 February 1935.

[33][PD1-458] file 20/7/29, 5 September 1929.

[34]Examiner, 26 September 1937.

[35][AD9 712-97] file 9/14-5, F. B. Moore and Company, London "Australian and New Zealand Apples and Pears: Review of 1937 Season".

[36][AD9 712-97] file 9/14-5, 14 October 1937.

[37]Examiner, 10 January 1936.

The last link in the transport of fruit involved the landing and distribution of the apples in Britain. One major problem previously mentioned concerned the simultaneous arrival of several fruit ships at an English port with a resulting fall in prices. This problem continued to plague the Tasmanian apple trade. For instance, the 1932 season started off well. Prices held firm until the end of May when "... the sky seemed to rain apples".[38] Ten steamers discharged 712,400 cases of apples in fourteen days at three British ports. Other supplies from New Zealand and the mainland helped bring prices down to five shillings. Following this debacle, the English importers suggested that the Overseas Shipping Committee should charter their vessels only from lines that had a reliable record.[39] This would facilitate the publication of a schedule of arrivals which could help hold up the market. Unfortunately, the tonnage committee was slow to learn from experience. May 1936 saw 38 fruit boats in British ports.[40] Six arrived on one day. The market was destroyed when early apples shipped on slow boats arrived at the same time as late season apples shipped on fast boats. Only at the very end of the 1930s was this problem tackled with success. In 1938, only 57.5 percent of Australian fruit arrived in the peak months of May and June.[41] This compared to the previous year, one of the worst on record, when 74.8 percent arrived at the peak. The trade, according to the Agent-General, was impressed with "... the regularity and even spacing of arrivals from our state".[42]

The other problem at the British end of the Tasmanian apple trade involved allegations that the trade was too concentrated on London. Table 15 shows the landings at each port for two years at the beginning and two years at the end of the 1930s:

[38]Examiner, 13 December 1932.

[39]Examiner, 3 January 1933.

[40]Examiner, 26 September 1936.

[41]Mercury, 24 October 1938.

[42][AD9 712-132] file 9/14-2, 24 August 1938.

Table 15 - Landings of Tasmanian Apples by Port[43]

	1931	1932	1937	1938
London	68.9	63.9	61.6	63.3
Liverpool	18.9	21.1	20.4	17.4
Hull	7.7	10.7	11.7	12.6
Glasgow	3.2	1.0	1.3	0.8
Southampton	-	-	1.6	2.6
Avonmouth	-	-	0.4	0.4
Newcastle	-	-	0.1	0.1
	100.0%	100.0%	100.2%	100.1%
cases	1,923,672	3,282,505	2,411,573	2,460,272

London often received two-thirds of the fruit sent from Australia. Other ports received less than their hinterlands consumed. This degree of concentration was a feature unique to the Australian and New Zealand trade. London in 1932 handled only 40.3 percent of total British apple imports.[44] The large trade across the North Atlantic was divided into three equal parts covering London, Liverpool and the minor ports. This emphasis on London was believed to cause congestion on the London docks, to increase the cost of distribution within Britain, and to depress the price when large quantities were passing through Covent Garden. Against this, it was argued that port centralisation introduced economies of scale into the trade and allowed

[43] [AD9 712-14] file 9/30, 4 July 1931.
[AD9 712-57] file 9/51-2, 21 November 1932.
[AD9 712-83] file 2/2, 27 July 1937.
[AD9 712-132] file 9/14-2, 12 August 1938.

[44] Imperial Economic Committee Apples and Pears: A Survey of Production and Trade in British Empire and Foreign Countries, (London, 1938).

London, the ideal distribution centre, to ship apples to regions where the market was strongest.[45]

It is difficult to separate fact from propaganda in the above controversy. Many of the minor ports were lobbying for a greater share of the trade while London fruit merchants and port authorities were interested in defending an entrenched position. London did have some problems as a port even if fruit was handled efficiently on the dock. One practice in particular aroused concern.[46] Not all fruit would be moved to the fruit merchant's store by van. Some would be loaded onto barges for transport to warehouses along the Thames where it would be sorted and delivered to agents. This was the method used by many small agents as the barging companies would provide seven days free storage, a bonus for a merchant without his own facilities. The fruit would often be damaged as it was removed from a refrigerated hold at 40°F and put into a steel barge at temperatures up to 90°F.[47]

It is also arguable whether London was the "perfect" distribution centre.[48] Fruit merchants in the Midlands complained that it took a fortnight to move fruit from London into the interior. It would become stale and unattractive during this time. It was also noted that Britain was not one market but several with distinct regional preferences for particular varieties and sizes of apples. For instance, southern England preferred small apples (less than 2½ inches) while Scotland and the north had a bias towards large apples. A policy that shipped small apples to London or Southampton and large apples to Manchester, Liverpool or Glasgow would provide the right apple for the right market, save on internal freight, and limit the amount of cargo that passed through the "bottleneck" port of London.[49]

These points were put forward by port interests in Manchester,

[45]Examiner, 10 May 1938.

[46]Examiner, 10 December 1936 (McKinley Report).

[47]Mercury, 16 December 1937.

[48][AD9 712-97] file 9/14-3, 9 July 1936.

[49]Examiner, 9 May 1938.

Glasgow or Southampton and have to be taken cautiously.[50] London was a great selling centre for fruit and Britain was a small country. Fruit could be railed by overnight train to any point where apples were in short supply. The reputed savings on transport costs cited by other ports varied so widely that their accuracy must be suspected; for example, London to Cardiff 2s 6d, London to Manchester 9d. In addition, it was important for the trade to have active bidders for fruit. Most provincial firms were represented in London. Auctions in other centres would attract only local firms, a system that might collapse if two ships arrived within a short period. The port propaganda was fairly specific on the fortnightly cargo that the local trade could absorb eg: Manchester 50,000 and Southampton 20,000. Many felt the best policy was to deal systematically through a limited number of large London firms.

Throughout this section, there has been an interplay of one allegation against another. It is not possible from the type of data consulted to test whether one port or many ports would be the least cost/highest profit solution for the loading and discharge of Tasmanian apples. The same applies with the large boat/small boat controversy. What is however clear from the discussion is that the trade needed to become more organised. Even small achievements like clearing space on the Hobart docks or ensuring that large apples went to Scotland would have been important but many elements in the trade seemed uninterested in reform. What progress there was in important matters like scheduling arrivals and improving the type of ship in the trade were byproducts of the monthly export quotas imposed by Canberra. These prevented the local trade making last-minute charters to uplift whatever cargo was offering.

[50]Mercury, 24 February 1927.
Examiner, 9 May 1938.

7.3 Marketing the Tasmanian Apple Crop

Access to markets became an increasingly critical issue during the depression. Improvements in cool storage technology and the development of new orcharding districts meant that the ability of Tasmania to hold, much less to expand, its traditional trade with Britain and New South Wales was in doubt while the trade barriers associated with the 1930s decimated markets in Europe. The rise of apple production in Tasmania also meant that a larger crop had to be sold. This was not always possible. In 1937, the Chief Horticultural Officer stated that 500,000 cases of good quality fruit had been left to rot on the trees.[1] For 1938, the prospect was for a wastage of at least a million cases. This prompted the Chairman of the State Fruit Board to declare that the situation "... simply means the survival of the fittest. We must fight to improve our position on the world's markets".[2] This section examines the development of the marketing problem. It then assesses the attempts to find a solution by controlled marketing, by opening new markets, and by processing surplus apples into manufactured products.

The British market was the most important factor in the international trade in apples. The problem from the Tasmanian perspective focused on the breakdown of its dominance of the spring market. At one time, the first steamers from Tasmania landed apples on a fruit-starved market. This was no longer the case. North American and British suppliers were encroaching upon the Australian apple season from one direction; other southern hemisphere producers were challenging for market share during the main season; and alternative fruits were becoming more competitive throughout the year, especially towards the end of the apple export season.

Improvements in cool store technology were allowing American apples to arrive in May at the peak of the Tasmanian season.[3] However, their impact on the market this far beyond their normal selling period was negligible. Of more significance was the improved quality of North

[1] [AD9 712-131] file 9/12, 12 January 1938.

[2] Mercury, 17 February 1938.

[3] Examiner, 1 September 1932.

American fruit sold in January and February which devalued the impact of the first arrivals from the southern hemisphere. The first boats had always been the most profitable, a fact that had encouraged growers to ship as early as possible. There was a lot of immature fruit in these early consignments.[4] J.O. Sims, a London fruit broker, was of the opinion that rushing fruit from Tasmania in February was a mistake.[5] Tasteless, immature fruit from Tasmania did not stand up against the improved American cool store fruit and acted against the marketing of the main shipments despatched in March and April.

Furthermore, Tasmania had little chance against other southern hemisphere producers in this early trade. Apple production was increasing in early districts on the mainland and more of the crop was destined for export. New foreign rivals were also appearing on the English market. South Africa increased shipments from 20,000 to 1,500,000 cases during the depression.[6] The Argentine was another potential competitor with large areas currently being planted out in orchard. The Agent-General in 1932 warned about the threat that these orchards could pose to the Tasmanian trade.[7] The harvest in Argentina was in advance of Tasmania's and they were only nineteen days distant from London. The export infrastructure was already in place with three refrigerated vessels leaving Buenos Aires each week on a regular run to the United Kingdom.

Total British demand for apples was static. Consumption had increased from 15 pounds to 25 pounds per capita during the 1920s but remained at this level throughout the 1930s.[8] This stagnation was partly due to reduced purchasing power caused by unemployment and short time, but it was also partly due to increased competition from alternative fruits. Bananas and oranges were increasingly successful in gaining market share.

[4][AD9 712-53] file 9/9, 27 July 1933.

[5][AD9 712-97] file 9/14-4, 15 April 1936.

[6]Mercury, 28 September 1938.

[7][AD9 712-61] file 13/6, 31 August 1932.
Examiner, 1 September 1932.

[8]Imperial Economic Committee Apples and Pears: A Survey of Production and Trade in British Empire and Foreign Countries, (London, 1938).

In the mid-twenties, apples made up 23.9 percent of the total value of fruit imports into Britain. By the mid-thirties, apples had declined to 20.9 percent. The market for Tasmanian apples was being weakened during the main season by the wider consumption of tropical and sub-tropical fruits.

Another factor came into play during the last months of the southern hemisphere season. Soft fruits began to appear on the market in June. Tasmanian apples which had been in store for several months had to compete against fresh fruit. Any attempt to land Tasmanian apples any later than July was now regarded as economic suicide.[9] Conditions were made worse in the early depression by the dumping of Continental soft fruits on the British market. It was hoped at one stage that the Horticultural Emergency Duties of 1932 would block this competition and indirectly support the sale of Tasmanian apples. Although these duties reduced British imports from 175,772 cwt during the first six months of 1931 to 10,521 cwt in the corresponding period of 1932, the anticipated effect on apple sales did not occur.[10] Perhaps the untimely arrival of 750,000 cases of Tasmanian and 174,000 cases of New Zealand apples during a ten day period in late May could have blunted the market.

The British market was being overloaded with fruit of all varieties. In these circumstances, attempts to ship larger quantities of apples were bound to fail. Exports from Tasmania had only twice exceeded two million cases before the depression (Figure 41). Exports in 1930 were 2,616,000 cases with 2,300,000 shipped in 1931. Overseas shipments then rose to over three million cases for 1932, 1933 and 1934 with a larger proportion destined for British ports as other European markets began to close. The results were predictable. For instance, the 1933 season was one of the most disastrous that had ever been experienced. The arrival of a million cases in June led to a loss of two shillings on each case sold.[11] Growers were left owing the shipping agents hundreds of pounds as the return did not cover the costs of export.[12]

[9] [AD9 712-13] file 9/10, "Report of Agent-General on 1930 Fruit Season".

[10] Examiner, 3 January 1933.

[11] Advocate, 1 September 1933.

[12] Mercury, 1 October 1934.

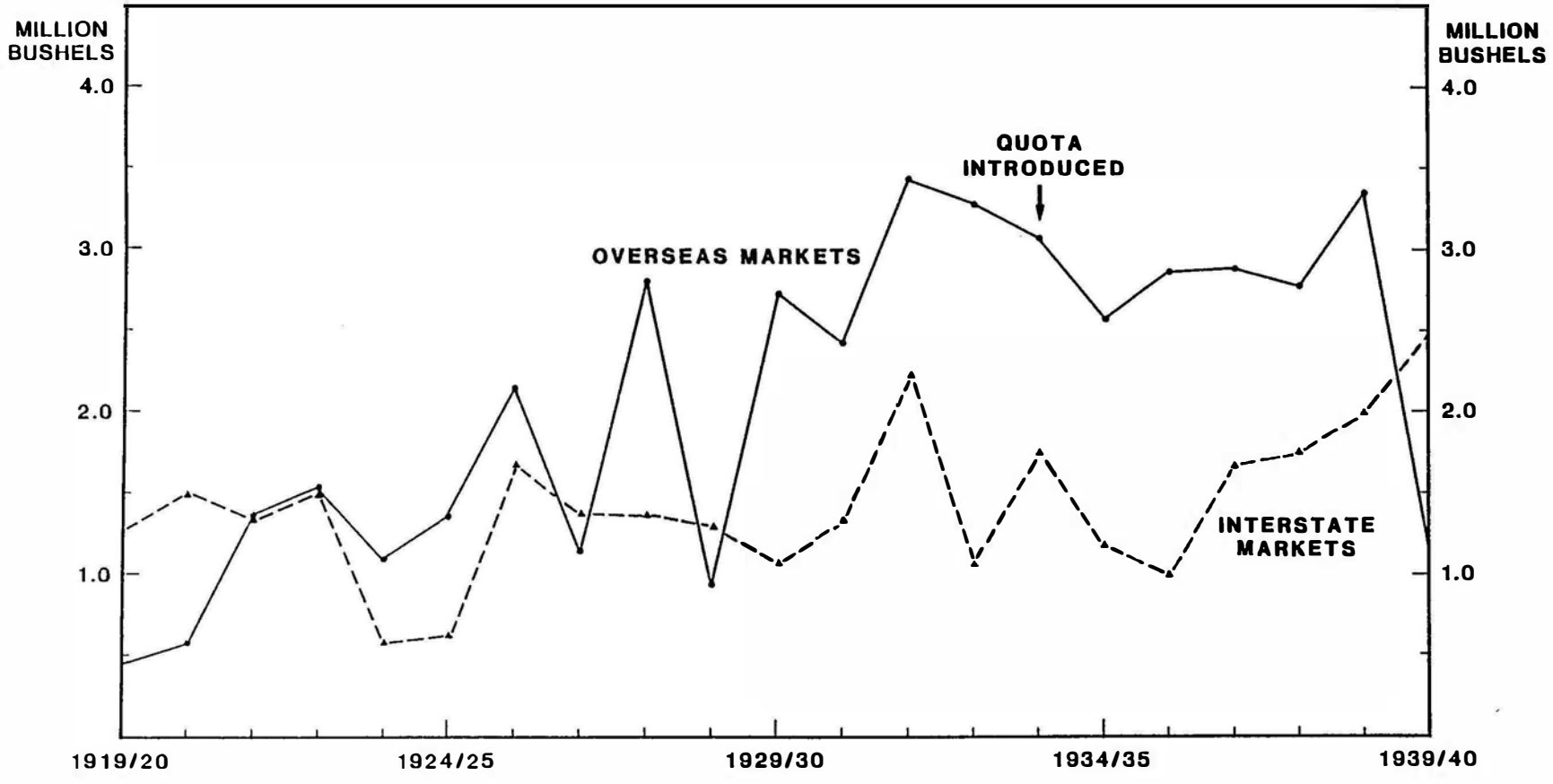


Figure 41 - Apple Disposals 1919/20 to 1939/40

One justification for the scale of these shipments was the anticipation that Imperial preference would give Australia a larger share of the British market. After all, the Empire connection had been pushed in publicity before the depression. Advertising slogans like "Eat Australian Apples: British to the Core" had been placed on billboards around London.[13] The beginning of the 1932 season was marked by the belief that the new British tariff on foreign apples (10% ad valorem) combined with the devaluation of sterling against the American dollar would offer significant advantages for the Australian exporter.[14] In the event, these did nothing to reduce the arrival of American apples. More restrictive duties were brought in following the Ottawa Conference of October 1932.[15] A duty of 4s 6d per hundredweight on "foreign" apples increased the proportion of "Empire" apples entering Britain from 48 percent in 1931 to 78 percent in 1933.[16] However, the main beneficiary was Canada which moved into the market share previously held by the United States. Imperial preference also offered nothing against increased exports from South Africa, New Zealand and the mainland during the southern hemisphere season. Nor could it stop the growing feeling that the home market belonged to the British orchardist as long as domestic apples were available. This feeling had serious effects on the Australian apple trade.[17] Canadian exporters lengthened their season to accommodate the British attitude thereby moving into direct competition with the start of the Australian season. Australian exporters also had to appease the British orchardist. Late season exports that would have conflicted with the start of the English season were eliminated and the export of cooking apples was reduced. These could now be obtained from gas storage plants that had been constructed in the main English apple districts.[18]

[13] Mercury, 23 July 1928.

[14] Examiner, 13 December 1932.
Tasmanian Fruitgrower and Farmer, 1 May 1932.

[15] Advocate, 14 October 1932.

[16] [AD9 712-55] file 9/21-4, 7 June 1934.

[17] [AD9 712-55] file 9/21-4, 4 June 1934.
Mercury, 25 December 1934.

[18] Mercury, 8 December 1936.

Markets in Europe offered no solution as they had been reduced by restrictions placed on imports of non-essential goods. These varied from prohibitive tariffs and quotas to exchange controls and trade agreements. Germany had been the second most important market for Tasmanian apples. Large quantities were sent directly to Hamburg and Bremen with additional apples arriving indirectly from London, Hull and Rotterdam. In 1932, Germany moved to increase tariffs on goods imported from countries with which it did not have a trade agreement. This would have increased the duty on Australian apples to a prohibitive level of RM60 per 100 kilograms (roughly 14s 6d per bushel).[19] Canberra managed to avert the threat by convincing the German government that German goods were under no disadvantage relative to other non-empire imports into Australia. However, the respite was brief as German foreign exchange was eventually exhausted. Eventually, apples could only be imported into Germany against compensatory exports of German goods.[20] Direct trade between Tasmania and German ports in 1934 was 421,259 cases.[21] Australian apple exports to Germany in 1935 once these restrictions became effective were down by 78 percent. Trade continued at low levels for the remainder of the 1930s.

The export disasters of the 1931, 1932 and 1933 seasons led to Commonwealth intervention.[22] The Apple and Pear Export Council decided to regulate access to the British market. One method involved the imposition of stricter standards on export fruit. The export of plain grade apples was prohibited in 1934 despite pleas from Tasmania to allow shipment of plain grade fruit due to hot weather and severe bushfires in orcharding districts.[23] More stringent restrictions followed on the sizes and varieties that could be exported. The introduction of colour grading marked another escalation of the factors that made an "export" apple. The aim was to restrict exports to the best fruit in order to eliminate the market drag caused by inferior apples. In conjunction with these regulations were

[19][AD9 712-56] file 9/51-1, 17 March 1932.

[20][AD9 712-57] file 9/51-5, 19 November 1934.

[21][AD9 712-53] file 9/9, 21 July 1934.

[22][AD9 712-55] file 9/25, 16 June 1934.

[23]Examiner, 14 February 1934.

attempts to improve conditions in the orchard and at the packing shed. The diversion of some Commonwealth aid to the industry away from "per case" bounties into apple packing instructors was one example. The Department of Agriculture strongly advocated the crown packing system developed in North America. The impact of the instructors was soon noticeable. In 1937, English importers were commenting favourably on the increase in net weight of the Tasmanian pack.[24] Previously, the attitude in the trade had been that most cases of Tasmanian apples could have easily held another ten or a dozen. The Mercury claimed that full weight cases meant an extra 3d per bushel or £25,000 for the export crop.[25]

The second method of regulating the British market involved a monthly export quota. This limited the total amount of apples sent to Britain and spaced out arrivals at British ports. Quota systems always generated endless debate. There were problems in allocating market shares to the various states and New Zealand given trends in production, differential access to local markets, and seasonal conditions. There were problems in allocating shipping space to the individual growers within the state quota. Finally, there were debates about the overall effectiveness of the system. The English importers were in favour as it introduced a degree of reliability into a previously erratic trade.[26] However, a director of Henry Jones and Company, a major exporter of Tasmanian apples, claimed that the system worked to the disadvantage of Tasmania.[27] There were two specific complaints. One involved the reduction of Tasmanian shipments at the same time that Canada, South Africa and South America were increasing exports. The second involved the inequitable allocation of market share between the states. In particular, New Zealand was often unable to fill its quota but the Apple and Pear Export Council would not transfer the unused component to Tasmania. It had the attitude that the shortfall of New Zealand fruit

[24] [AD9 712-97] file 9/14-5, F.W. Moore and Co. "Australian and New Zealand Apples and Pears: Review of 1937 Season". Mercury, 9 December 1937.

[25] Mercury, 16 December 1937.

[26] [AD9 712-132] file 9/14-2, 11 October 1938.

[27] Mercury, 10 April 1937.

helped to keep up prices.[28] The negative impact that these apples would have on the domestic market was not considered.

Commonwealth export statistics and state agricultural statistics were examined for three years (1931-1933) before the quota and for three years after the quota (1936-1938). It was not possible to reconcile the details of these two data sets. The export statistics revealed that total Australian exports to Britain increased by 4.3 percent but with direct shipments from Tasmania declining by 6.3 percent. The mainland obtained a larger proportion of the export trade especially once the allocation moved away from historic export volumes towards production levels. This was in spite of the increase in apple production in Tasmania being more rapid than on the mainland. The Commonwealth price statistics make little sense as exports were valued at local prices rather than export prices. However, the Tasmanian primary production statistics gave the return at the port of shipment for both the overseas and interstate trade. The value of apples shipped overseas increased by 25.6 percent. This was an increase in the unit price of 34.5 percent. It is not possible to conclude whether the quota increased the returns for Tasmanian apples beyond what would have occurred on an open volume market. Detailed statistics on the wholesale price trends in Britain of apples imported from a variety of countries would be required.

The situation on the domestic market was complex. The value of the interstate trade fell by 3.7 percent with the unit price showing an insignificant increase. It was being argued at the time that the quota had forced extra Tasmanian fruit onto the Sydney market thereby depressing the price. The Tasmanian Government Marketing Officer, giving evidence before the New South Wales Royal Commission on Fruit Marketing, claimed that a million extra cases were being sent interstate.[29] Data submitted to the Commission actually showed a decline of 93,000 cases or -6.2 percent. Tasmanian apple industry statistics showed a decline of -4.6 percent for interstate shipments. Nevertheless, the Sydney market was still important with a total annual demand for slightly more than two million cases.[30]

[28][AD9 712-97] file 9/14-4, 7 May 1937.

[29][AD9 712-134] file 9/23-2, 28 September 1938.

[30][AD9 712-104] file 13/11-3, 16 September 1937.

Tasmania provided almost half (48.7%) of the supply during a five year period during the early depression. Rural New South Wales (34.0%) was the second major source with Victoria a distant third (10.6%). However, the market was virtually static with consumption squeezed between the high retail price of apples and the low wages of the consuming public.

This is no evidence of any systematic increase in Tasmanian shipments to Sydney. The continuing low prices on the Sydney market after the depression must raise some concern whether the quota system was having a negative impact on the domestic market. On the other hand, Tasmania was at a growing disadvantage relative to orcharding districts on the mainland. New centres, like Stanthorpe in Queensland, could produce the high profit early varieties and also use the railway network to make regular deliveries. It must also be noted that the Sydney market was still more profitable than the overseas trade. The weakness of Tasmanian apples on the Sydney market was probably due more to these structural factors than to the quota. Only one factor can be directly blamed on the quota system. Much fruit was being sent to Sydney solely because it had been banned from the overseas trade. While some minor varieties and the larger sizes of apples would find ready sale, a lot of the remainder failed to meet the specific prejudices of the Sydney consumer. This could have reduced returns from the interstate trade.

The British and Sydney markets had increased dramatically in the first years of the depression but then fell off. The German market was moribund. Attempts to revive the German trade ran into restrictions imposed by Canberra. For instance, a Tasmanian firm in 1938 received an order for 90,000 cases of Democrats and Sturmers with the conditions that payment would be in Reichmarks and shipment in a German flag vessel.[31] The contract could not be filled as the Apple and Pear Export Council refused to sanction the use of a non-Conference vessel.[32] Local fruit interests were outraged. There were no significant alternative outlets for fresh fruit. The lack of realistic opportunities was perhaps reflected in the attention paid by the State Fruit Board in testing the small and difficult Indian

[31]Examiner, 4 May 1938.

[32]Examiner, 6 May 1938..

market.[33]

The real problem could only be solved by developing manufacturing outlets for the apple crop. As well as the large amounts of fruit being left on the tree, there were also increasing amounts of fruit being dumped in the bush. On average, about ten percent of the crop had been unsuited for sale as fresh fruit.[34] Seasonal conditions could see this value rise as high as twenty-five percent. There were established systems for turning this part of the crop into dried apples, canned apples, apple jelly and apple cider. There were even outlets for apple peels and cores which were shipped to Belgium for the extraction of pectin and acetone.[35] More rigorous export standards increased the number of apples available for processing. Tasmania was steadily moving towards the American situation where thirty to forty percent of the apple crop was routinely culled for manufacturing.[36]

The opinion of P.H. Thomas, the Chief Horticultural Officer, was that Tasmania lagged behind the United States and Canada in the disposal of the cull crop.[37] He specifically cited the urgent need to develop the cider and apple juice industry. At this time, cider production was partly in the hands of private orchardists and partly in the hands of proprietary companies. The output of the orchardists ranged from nearly an apple vinegar through to an apple liqueur with its main merits being in offering the "... maximum result with minimum expenditure".[38] The high alcohol content and the low price saw the demand for this type of cider increasing during the depression. However, Thomas was really advocating the development and national marketing of a standardised commercial product. A low-alcohol sweet cider was produced by several companies in Hobart. None had been successful in selling its product on the mainland and the local

[33][AD9 712-97] file 9/14-5, 23 October 1937.

[34][AD9 712-100] file 9/36, "Byproducts of the Tasmanian Apple Industry 1935".

[35][AD9 712-57] file 9/51-4, 3 January 1934.

[36][AD9 712-14] file 9/38, 31 December 1930.

[37]Mercury, 1 December 1936.

[38][AD 712-59] file 9/38, 2 October 1933.

market had declined during the depression. One firm, the Tasmanian Cider Company, manufactured only 140 gallons of cider in 1933/34 using 80 bushels of apples.[39] There had been no point in even processing this amount as it still had 6,800 gallons of stock on hand.

Another traditional outlet for cull apples was the evaporating plant. The Development and Migration Commission had examined the dried apple industry in 1929 and made a series of recommendations for the upgrading of manufacturing facilities. None of these proposals had been put into effect by the middle 1930s.[40] In fact, the number of factories had declined from thirteen to eight. Plant closures in Launceston, New Norfolk and Bridgewater saw the industry confined to the Huon and Channel. These eight plants had the capacity to handle 70,000 bushels but production was nowhere near this level.

All of the factories were out of date. They used the kiln drying method in spite of its disadvantages of a large labour input and a second rate product. The Development and Migration Commission had reported that the industry could be expanded if capital was invested in new plant.[41] The basis for this conclusion was unsound. New batch-type dehydrators cost £600 and the industry could not support such expenditure. Tasmania may have produced ninety percent of the Australian output of dried apples but the market was in decline. Sales were increasingly confined to outback districts as the cities had substituted tinned apples for the dried product. In addition, the apple evaporating and cider industries shared a fatal flaw. The use of a cull crop was often uneconomic. The manufacturer had no guarantee of supply and was reluctant to invest in new technology. Nor could the grower rely on a remunerative price for cull apples. The conditions that produced a large crop inevitably reduced the price for this type of fruit.

[39] [AD9 712-100] file 9/36, "Byproducts of the Tasmanian Apple Industry 1935".

[40] [AD9 712-100] file 9/36, "Byproducts of the Tasmanian Apple Industry 1935".

[41] [AD9 712-100] file 9/36, "Byproducts of the Tasmanian Apple Industry 1935".

Large, regular amounts of cull apples or of apples grown specifically for manufacturing were required to build up the type of infrastructure that existed in Canada. Not only could Canadian orchardists supply a large domestic fruit juice market, there was also a growing export trade in apple juice concentrate for use in the British cider industry.[42] In Tasmania, cull apples were often dumped in the bush as the low prices (6d to 9d per bushel) in the traditional manufacturing sector would not pay for the costs of picking over the apples and transporting them to the factory.[43] Only one line, tinned apples, seemed to offer potential for development.

At the beginning of the 1930s, the production of canned apples took place as a sideline to the fresh apple trade using high quality culls. Three canneries were found in the Huon (Cygnet, Grove and Port Huon) and one at Hobart.[44] Prices received by the orchardist for pie apples were low. The attitude of the processors was that pie apples were a means of disposing of unsaleable apples and that prices would never cover the cost of production. In fact, they even suggested that the growers were digging their own graves selling apples for cheap pie packs which would displace their fresh fruit from the market.[45]

However, fresh cooking apples were being displaced from the market. The commercial sector - restaurants, boarding houses and bakeries - had almost completely converted to canned apples by the end of the thirties. Changing urban lifestyles would soon attract the housewife, still a negligible factor, to the merits of tinned apples. The sales of tinned apples made by Port Huon Co-op doubled within three years during the late 1930s.[46] The demand for cooking apples was falling rapidly and more attention had to be paid to producing specifically for the canning trade. Growers responded to the low prices paid by processors with plans to take over manufacturing. A large public meeting at Cygnet was promised government aid to set up a

[42][AD9 712-56] file 9/38, 22 February 1933.

[43]Tasmanian Farmer, February 1938.

[44]Mercury, 21 December 1937.

[45]Tasmanian Farmer, February 1938.

[46][AD9 712-136] file 9/36, 6 January 1938.

growers co-operative.[47] This led to the opening of a new cannery in Cygnet in May 1938 with the capacity to handle 50,000 cases. The detailed history of this factory is an interesting example of the interventionist role of the Ogilvie Labour government in rural matters.

In retrospect, the depression years had a number of positive impacts on the marketing of Tamanian fruit. Even the disastrous years of 1931, 1932 and 1933 managed to put Tasmanian export shipments on a new volume level. Reductions after the introduction of the Commonwealth quota shaved only a fraction off the gain and probably assisted in the fruit obtaining a higher return. Certainly, the quota system and other restrictions improved the quality of the export pack. However, many difficult problems were recognised but left untouched. The multiplicity of fruit exporters in Hobart was one; the vast armies of fruit importers in Sydney and London was another.

47Mercury, 21 December 1937.

Restructuring the Hop Industry in Depression Tasmania

The removal of intercolonial tariffs in 1901 had allowed Tasmania to replace Victoria as the main centre of the Australian hop industry. By the 1920s, the industry was practically confined to Tasmania with less than 200 acres on the mainland. Local acreage had peaked at 1,545 in the 1922/23 season. At this time, the hop industry was a tremendous success. Prices averaged over three shillings a pound in the years immediately after the war and several seasons had a gross value of production in excess of £300,000. Most of the credit for these large returns belonged to the Tasmanian Hopgrowers Pool. This body was formed in 1918 to market the entire output of Tasmanian hops. The specfic intention was to encourage high prices by limiting supplies to market capacity. The disintegration of the pool was seen in the immediate reduction of the price to levels below two shillings. In 1926/27, the average price was 1s 5d per pound which valued the crop at only £152,060.

Hop production in Australia was in excess of domestic requirements. Overproduction led to the accumulation of carryover stocks that further eroded weak prices. The market equation, that production plus imports must equal consumption plus exports, was out of balance. There were difficulties in all components. The basic problem was that the demand for hops was declining. There was a small reduction in the market for bakers hops due to the development of yeast substitutes but the main factor was the continuing improvement in technology that was reducing the demand for brewers hops. Fewer hops were required to produce a thousand gallons of beer. This amount fell by 2.7 pounds (-7.4%) between 1918 and 1924.[1] The change is seen in more dramatic terms when expressed as a contrast between states. Victoria with its modern plants used 33.3 pounds per thousand gallons in 1924. Tasmania with its smaller and older breweries required 54.8 pounds. It was unlikely that the new technology was specifically aimed at the hop industry as the cost of hops in the final price of beer was negligible. However, it weakened the hop market against any rise in beer consumption and accelerated the effect of any downturn.

[1]Commonwealth Official Year Book 1919, p. 539.
Commonwealth Official Year Book 1925, p. 856.

The Brewers Association in 1922 agreed to limit imports over a five year period to no more than 15 percent of total demand.[2] The aim of the Brewers Association in this action was to forestall the hop producers' claim for the total exclusion of foreign hops. The brewers justified imports on a number of grounds. The central factor was a proposition put forward by brewers in New South Wales that foreign hops were essential for brewing a mild beer.[3] Sydney brewers also complained about the general standard of Tasmanian hops claiming that even the best lines were ordinary in taste compared to overseas products and that bales from the lower end of the market were practically useless due to stalks and other rubbish mixed in with the hops.[4] These may have been irrational prejudices. Brewers in Victoria felt that the "English" or "straight" varieties from Tasmania were more than satisfactory for the production of mild beers.[5] They purchased hops from Tasmania for this specific purpose rather than using the Victorian production of "Californian" type hops. In addition, it was the responsibility of the buyer to select and store the hops. The brewers in New South Wales, it was argued, should buy with more care rather than surrendering some of the market to imports.

A fixed demand from the breweries set a ceiling on the amount of hops that could be marketed. Exports were virtually impossible. The Tasmanian Hopgrowers Pool had sent large quantities (about 40 percent of the crop) to London in 1923/24. The trade statistics valued these exports at £25 a bale, the same as local sales. They fetched nowhere near this price as it was essentially an exercise in dumping surplus production to preserve the local market. There was no hope for a regular, profitable trade. The Agent-General tried to find buyers but there was little interest.[6] It took until 1927 for the line to be cleared.[7] Tasmanian hops

[2]Mercury, 22 April 1927.

[3][AD9 712-5] file 3/8, 20 February 1930.

[4][PD1-452] file 118/14/28, 4 August 1927.

[5]Gunn, J. "Hop Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 2), p. 1454.

[6][PD1-419] file 118/5/26, 23 December 1925.

[7][PD1-436] file 118/11/27, 22 February 1927.

had to compete on a market where the trade was discussing the necessity of destroying English hops that had been held in store for several years.

Increased production in these circumstances was preposterous. However, the three good years at the beginning of the 1920s had led to an increase in acreage (Figure 42). Carryover stocks began to accumulate and prices began to decline despite the exercise in dumping. By 1923/24, the pool was disintegrating with many growers making private sales leaving the surplus to be carried by the remaining loyal growers.[8] The pool system had to be abandoned for the 1924/25 crop year. Some of the crop was sold by individual growers at a profit but much had to be sacrificed in order to obtain a sale. Prospects for the following season were grim.

There was a collective decision among growers in the Derwent Valley that production had to be reduced. A voluntary acreage reduction scheme was planned for 1925/26. Acreage and production were reduced by just over twenty percent which enabled the entire crop to be sold. However, the scheme was judged to be a failure and it operated for only one year. Apparently, most of the large growers complied with the scheme but others, including most of the small growers, reduced their gardens in a manner that had no significant effect on their production.[9]

The central issue was to find an equitable method of reducing production to market capacity. A second attempt was made through co-operative marketing. The defunct pool was resurrected in 1927 as Tasmanian Hopgrowers Ltd. All growers who joined were given a quota based on two parameters.[10] One factor was average production over a three year period in the early twenties; the other was an estimate of the probable demand from brewers. These two parameters were combined to establish the amount of the hops that would be accepted into the Number 1 account. These would receive payment at the domestic price. Any surplus production would be accepted into the Number 2 account. These hops would be sold outside Australia at whatever price could be obtained. The concept was to

[8][PD1-479] file 140/8/30, 5 August 1930.

[9][PD1-479] file 140/8/30, 5 August 1930.

[10]Gunn, J. "Hop Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 2), p. 1456.

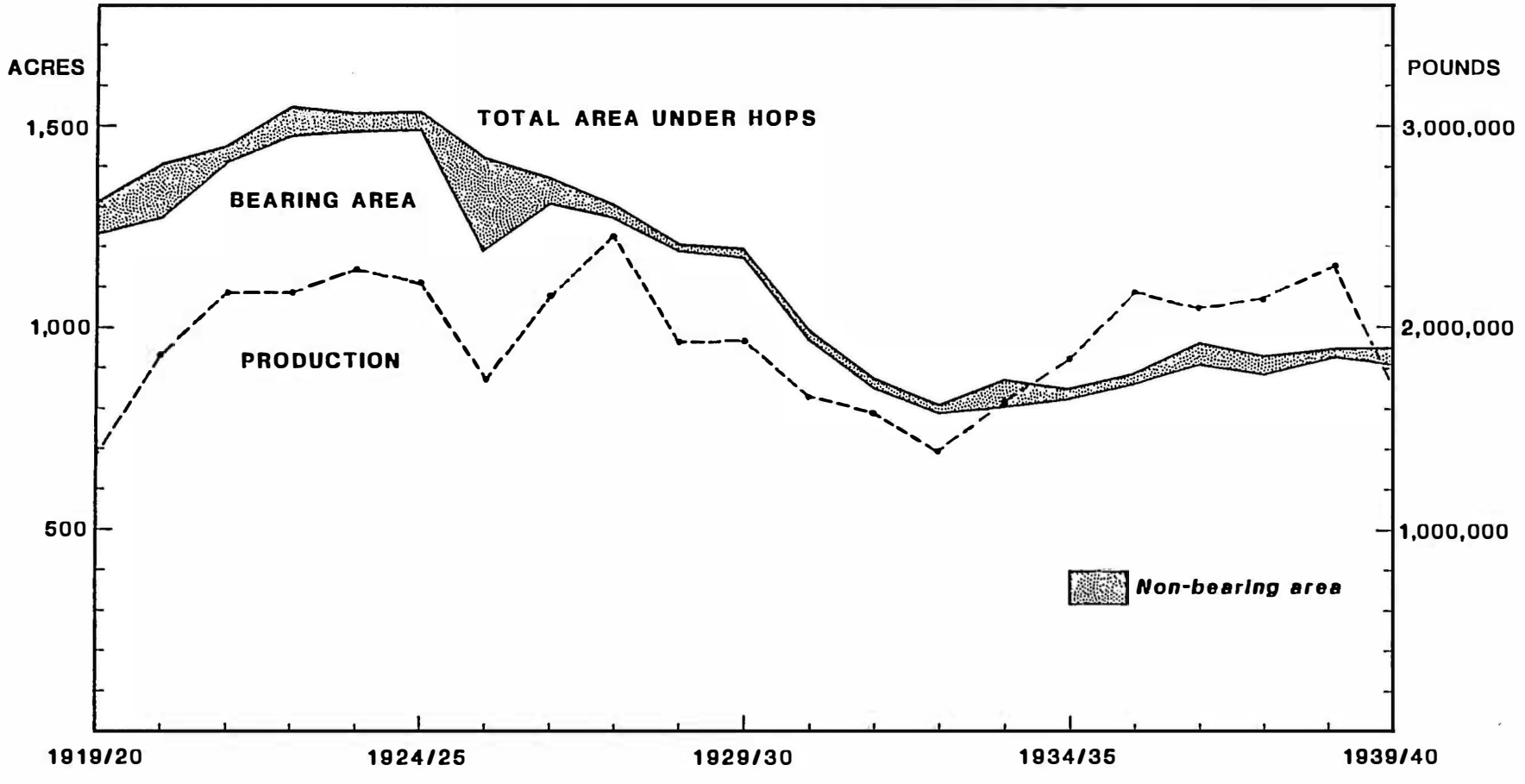


Figure 42 - Hops: Area and Production
1919/20 to 1939/40

eventually bring production into line with Australian demand. Export sales were unprofitable so surplus acreage would be abandoned. In theory, there was no bias in the acreage that was to be eliminated. Production levels during the 1922-24 base period represented the maximum of most individuals as well as the industry. All growers would be reduced in proportion.

The pool worked effectively at first. The articles of agreement required that 80 percent of production had to be within the pool before it would become operative.[11] The hop districts were canvassed and over 90 percent came into the pool. Bearing acreage was slowly reduced and eventually slid below the level reached in the voluntary reduction scheme of 1925/26. Many growers apparently converted marginal hopfields into orchards for apricots and pears on the strength of long-term contracts at fixed prices that were being offered by Hobart canneries during this period.[12] Production declines followed a similar trend with the exception of a record crop in 1927/28. Surplus production was exported according to plan. A large sale was made to Guinness in Dublin though the price of 8d to 10d a pound barely covered the cost of picking.[13]

Minimal returns from the Number 2 account enticed some growers into making secret sales at cheap rates.[14] These damaged the pool. In addition, some of the crop in the Number 1 account could not be sold to Australian brewers in 1928/29 and had to join the surplus dumped on the unprofitable overseas market. Brewers, factors, and growers were uneasy. Private arrangements became more common. The directors of the Tasmanian Hopgrowers Ltd. realised the futility of running a voluntary pool and tried to gauge grower opinion for a compulsory marketing board.[15] The discovery that the growers of 300 acres of hops had entered into private five-year contracts with the breweries made it apparent that it was useless to continue. A circular was sent out on October 30, 1929 stating that the

[11] [PD1-479] file 140/4/30, 20 May 1930.

[12] [AD9 712-14] file 9/28, 4 July 1929.

[13] Gunn, J. "Hop Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 2), p. 1455.

[14] [PD1-479] file 140/8/30, 10 June 1930.

[15] [PD1-479] file 140/4/30, 30 May 1930.

1929/30 season would be the last year of operation. After that, growers would be free to dispose of their crop as they wished.

This signalled the failure of the second attempt at orderly marketing and acreage reduction. It could not have come at a worse time as the depression had immediately reduced the sale of beer. In 1928/29, Australia produced 73.7 million gallons of ale and stout. In 1929/30, production was down to 66.6 million gallons.[16] Further contractions in beer consumption were likely, limiting the local market for hops. Exports were impossible. An offer of 2,000 bales to Guinness at a price of 6d per pound was refused.[17] Overproduction in Europe meant that sales were being made as low as 2d per pound. Surplus stocks began to build up in the hands of the pool and the breweries.

Henry Jones and Company was the leading hop factor in Tasmania. The company, anticipating the termination of the pool, arranged a contract with a consortium of major Australian breweries for the annual supply of approximately 7,000 bales.[18] It then selected 27 growers to provide the hops that could not be obtained from its own estates. A second factor made a similar contract with a group of smaller mainland breweries for the supply of 500 bales. About 120 growers were to be completely excluded from the domestic market.

The purpose of this cartel was to reduce acreage by forcing the small grower out of the industry. It was claimed that this action was both necessary and equitable.[19] Between 250 and 300 acres of hopfield had to be eliminated in order to bring production down to Australian demand. It would be better for the industry in the long run if the reduction was selective rather than by a pro-rata allocation. The equity of this action was based on three major arguments. One stressed the responsibility of the contracted growers for their employees. Large growers were probably

[16] Commonwealth Official Year Book 1931, p. 641.

[17] Commonwealth of Australia Parliamentary Debates 126, Senator Daly, 7 August 1930, p. 5384.

[18] Gunn, J. "Hop Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 2), p. 1459.

[19] [PD1-479] file 140/8/30, 10 June 1930.

responsible for 95 percent of the employment in the industry. The thirty large growers who met at Bushy Park in June 1930 had hopfields totalling 837 acres. They employed 156 permanent, 114 casual, and 3,096 harvest labourers.[20] Growers with less than five acres rarely employed any labour except during the picking season. A large grower who had to reduce his acreage would have to retrench labour, forcing families onto unemployment relief in the absence of alternative employment opportunities. A small grower, forced out of hops, would merely turn to other farming activities.

The second line of argument involved the relative quality of hops produced by large and small growers. It was alleged that the large grower produced a superior hop. This was attributed to the use of the Saaz method of drying. This technique was introduced into Tasmania from Bohemia in 1909 and was found on most of the large hop gardens of the Derwent Valley by the mid 1920s.[21] A low and even heat was used to gradually reduce the moisture content of the hops. Most of the small growers continued with the out of date open-hearth technology as they were unable to afford the investment in new fans and furnaces. It was virtually impossible using old-fashioned kilns to maintain an even temperature on the drying floor. Some hops would be underdried while others would be overdried. Small growers found a large percentage of their crop graded as suitable only for the export market.

The third argument involved a claim that production had only been marginally profitable on many of the smaller farms. There were 120 growers left without contracts according to one witness.[22] Of these, 75 were from farms with less than five acres of hops. Most had only one or two acres. The income received from hops would have been minimal in recent years especially as a large proportion of their output was graded into the overseas account. The elimination of the small grower who grew hops as a sideline or on a marginal holding would reduce carryover stocks in the most efficient fashion for the industry. To avoid distress, it was proposed to offer assistance to allow these growers to withdraw from the industry.

[20][PD1-479] file 140/8/30, 10 June 1930.

[21]Mercury, 4 April 1927.

[22][PD1-479] file 140/8/30, 31 July 1930.

Henry Jones and Co. drafted a plan by which the contract growers, the factors, and the Commonwealth would pay the owners of hopfields taken out of producion, the net profit that would have been derived from this land over the next three years.[23] The typical annual sum involved would have been £20 for 10 bales. This was indicative of the scale of many of these properties.

H.W. Shoobridge, the Chairman of Tasmanian Hopgrowers Limited, advised growers who failed to get a contract to turn their attention to alternatives for which there was a market.[24] This advice was not well received. Public meetings in the Derwent Valley called for Parliament to legislate for a compulsory hop pool in order to prevent the cartel from seizing control of the Australian market.[25] They also called for a complete embargo on imports and a royal commission to investigate the entire situation.

The Commonwealth set up an inquiry under the chairmanship of J. Gunn, the Director of Development. The small growers formed the "Hopgrowers Defence League" to argue the case for Commonwealth intervention. Evidence presented by the League was often more colourful than factual though a number of good arguments were put forward to counter points raised by the contract growers.[26] For instance, it was pointed out that not all of the excluded growers were small and inefficient. Some estates producing between 100 and 400 bales had not been offered contracts. It also noted that many excluded growers had always produced long runs of first quality hops. Others expressed concern about the grading systems used by Tasmanian Hopgrowers Limited and suggested that, in any new pool, impartial graders should be employed by the government. Finally, it was noted that the compensation of £20 for profit on production worth £200 gross was unrealistic. The Hopgrowers Defence League claimed it was primarily a case of the large growers using public money to buy out their

[23] [PD1-479] file 140/8/30, 14 August 1930.

[24] [PD1-479] file 140/8/30, 10 June 1930.

[25] [PD1-479] file 140/4/30, 20 May 1930.
[PD1-479] file 140/6/30, 26 May 1930.

[26] [PD1-479] file 140/8/30, "Defence Committee's Case", no date.

competitors. Furthermore, the sum was also unrealistic in the context of family labour. Besides, many of the farms were too small for any other crop. Hops were not a sideline but the main source of income despite the minute acreage.

Gunn accepted most of the arguments of the contract growers but nevertheless concluded that the arbitrary method used to reduce production could not be supported. Gunn recommended that the state and federal government pass complementary legislation to allow for the setting up of a hop marketing board.[27] The Hop Marketing Bill was duly introduced in Parliament. The Senate began its second reading debate at 2.20 a.m. on August 7, 1930.[28] Three hours later, at 5.25 a.m., the bill was defeated by a vote of 7-15. All Tasmanian Senators voted with the "Noes". The large growers, the factors, the Victorian growers, the brewers, and the McPhee government were all opposed to the concept of a Hop Marketing Board.

In 1929/30, the acreage of bearing hops was 1,167. The breakdown of the second pool, the introduction of the contract system, and the effects of the general depression on beer consumption forced acreage down to 792 in the 1932/33 season. More of the hop industry became concentrated in the New Norfolk municipality. Agricultural statistics put the decline in New Norfolk at 28.7 percent from an initial acreage of 987. This compared to a decline from 180 to 88 acres (-51.1%) in the remainder of the state.

The pattern of strong regional differences in the rate of decline is a Tasmanian example of "Harvey's Principle".[29] Miller has used Harvey's core-margin concepts to study regional relocation within the Tasmanian hop industry.[30] Miller divided the hop industry in the Derwent Valley into three

[27]Gunn, J. "Hop Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 2), p. 1461.

[28]Commonwealth of Australia Parliamentary Debates 126, "Hop Marketing Bill", 7 August 1930, 5384-5406

[29]Harvey, D.W. "Locational Change in the Kentish Hop Industry and the Analysis of Land Use Patterns", Transactions Institute of British Geographers, Vol. 33 (1963), 123-144.

Ilbery, B.W. "Harvey's Principle Reapplied: A Case Study of the Declining West Midland Hop Industry", Geoforum, Vol. 14 (1983), 111-123.

[30]Miller, C.L. Structural Adjustment and Regional Relocation in the

zones. The central focus of hop production was found at the confluence of the Tyenna and Styx Rivers with the Derwent. The alluvial terraces at Bushy Park, Glenora and Macquarie Plains contained the largest concentration of hopfields including the estates of Henry Jones and Co. In close proximity to the core were two districts that also contained large tracts of hops though production was generally on a less intensive scale. Fields of hops were planted on narrow and scattered alluvial flats. Many of the growers had only a few acres of hops. This type of production characterised the Westerway-Ellendale district upstream from the core (mainly in the Hamilton municipality) and the New Norfolk-Lachlan Molesworth complex downstream. These three zones contained over 95 percent of both the number of commercial hop farms and the area of hopgarden. Minor outliers of production were found elsewhere in southern Tasmania; the most important were at Margate in the Channel and around Ranelagh in the Huon.[31]

A list of hopgrowers appeared annually in the Post Office Directory. Miller used this information to examine trends in the distribution of hop farming between 1930 and 1935 at a finer level of detail than that allowed by the municipal grid.[32] He concluded that the Bushy Park-Glenora-Macquarie Plains core was the most stable region losing only four hop farms out of twenty-one. Higher rates of decline were found in both the New Norfolk-Lachlan-Molesworth district (58 to 32) and in the Westerway-Ellendale area (76 to 30).

Miller tabulated the Post Office Directory data for these three districts. Figure 43 presents a more detailed picture showing changes by postal locality. There were minor discrepancies between the two interpretations of the hopgrower listings. Changes in the core region have been revised to be from 21 to 16, in the New Norfolk-Lachlan-Molesworth

Tasmanian Hop Industry, MA thesis, Geography, University of Tasmania (1980).

Miller, C.L. "Structural Adjustment and Regional Relocation in the Tasmanian Hop Industry", Proceedings of the 10th New Zealand Geography Conference (Auckland, 1979), 180-184.

[31]Mercury, 12 March 1938.

[32]Miller, C.L. Structural Adjustment and Regional Relocation in the Tasmanian Hop Industry, MA thesis, Geography, University of Tasmania (1980), p. 79.

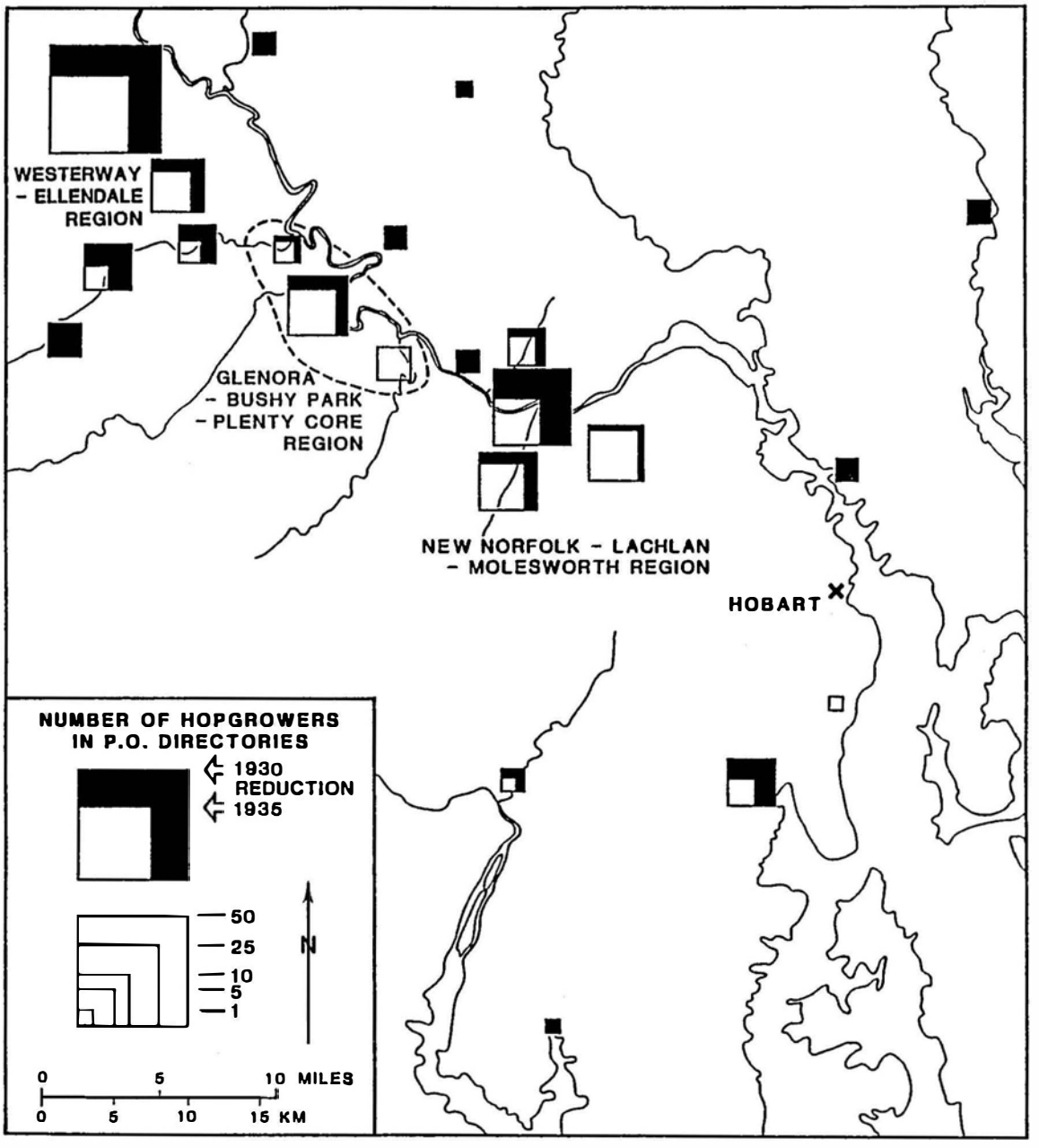


Figure 43 - Hopfield Relocation 1930 to 1935

complex between 58 and 34, and from 78 to 38 in the Westerway-Ellendale district. The trend was for the retraction of hop farming towards the core. Some outer areas abandoned hop farming completely. Its disappearance from Campania, East Risdon, and Cygnet was confirmed by the agricultural statistics as were declines at Margate and Ranelagh. The acreages involved were negligible. Decline was most extensive in the Westerway-Ellendale area where more than half of the properties disappeared from the post office listing. Locality data suggested that the most affected areas were along the Tyenna River (-72%) with a lesser rate in Ellendale and Fentonbury (-45%). The acreage data was confusing. Ellendale and Fentonbury comprised almost all of the hop country in the Hamilton municipality. Acreage by 1934/35 was virtually identical with that of 1929/30 having recovered from the 1932/33 slump.

Locality data also revealed hidden trends in the New Norfolk-Lachlan-Molesworth complex. On face value, the Molesworth district was virtually stable losing only one farm (-8%) with the largest declines in the vicinity of New Norfolk(-58%). It is not possible to suggest any reason why Molesworth should fare significantly better than the adjacent Lachlan Valley or why New Norfolk should be the most affected. There is no available acreage data.

Miller's hypothesis that the depression in the hop industry led to a contraction in production towards the core is supported by both the postal directory data and the municipal agricultural statistics. The pattern fits the plan of the contract growers to rationalise the industry by culling the marginal producers. The discriminatory marketing system reinforced the normal advantages possessed by the core region. However, the large hop farms also had to cut acreage. Contracts held by the grower were no guarantee that the contracted amount would be purchased.[33] The low acreage and production of 1932/33 probably reflects the production of only 49.8 million gallons of beer in the preceding year.[34] Apparently, the larger growers planted much of the land no longer required for hops with tobacco.[35]

[33]Mercury, 28 February 1932.

[34]Commonwealth Official Year Book 1940, p. 506.

[35]Tasmanian Fruitgrower and Farmer, 1 March 1932.

Hop production levels recovered with the economy. The production of ale and stout in 1938/39 was 89.2 million gallons. While this did little more than re-establish the per capita consumption of the 1920s, population increase more than counterbalanced the continuing decline in the amount of hops that were required to brew a thousand gallons of beer. The larger hop market allowed for increased production. Bearing acreage by the end of the decade stood at 921.

However, the details of the recovery period present a confusing picture. Miller argued for a return of the small grower in the peripheral areas.[36] It was thought that the central element in the revival of small grower production was the adoption of community drying. The first community kiln was established by Henry Jones and Co. at Bushy Park in 1936. The same firm built the Kingsholme kiln at Ellendale shortly afterwards. These were facilities operated by the factors for the small growers of the district. Other central kilns were co-operatives. For instance, fourteen growers combined to establish a community kiln at Lachlan in 1938.[37] It was built at a cost exceeding £5000. Co-operative kilns gave farmers access to modern drying facilities. This would allow them to save some of the investment (circa £1500 for a plant to handle 12 acres) that would otherwise be required.[38] Growers would be farmers of green hops. The specialised drying process would be handled by skilled labour. Growers would therefore receive higher returns by producing a higher quality product and by being able to make up large lots of a single grade.

The agricultural and pastoral statistics for the Hamilton municipality which includes the marginal Ellendale and Fentonbury districts showed that acreage was stable for the second half of the 1930s. Growers had clearly adopted the co-operative kiln system judging by the unlikely doubling of yield per acre between the middle and late thirties. Miller attributes this to the delivery of hops to a central kiln so that statistical returns incorrectly gave

[36]Miller, C.L. Structural Adjustment and Regional Relocation in the Tasmanian Hop Industry, MA thesis, Geography, University of Tasmania (1980), pp. 82-83.

[37]Mercury, 29 March 1938.

[38][AD9 712-87] file 3/8, 27 July 1937.

green weight rather than dry weight.[39] The stable acreage suggests that no new farmers came into the industry. This is possibly confirmed by the Postal Directories. Only two new hopgrowers from these northern districts appeared in the listings for 1937/38. This compared to five for the core region and seven for the New Norfolk-Lachlan-Molesworth area. Of the latter, six were from the Lachlan Valley. This distribution may be related to a fluctuating rise in hop acreage in the New Norfolk municipality. On the other hand, it may be related to unresolved difficulties with the Post Office Directory data. No source of the list of hopgrowers was cited and the pattern of annual entries suggested a procedure of minor annual amendments with periodical major revisions. A major revision was held in 1934/35. The data source used by Wises' to compile the new listing was almost certainly already out of date. Some of the patterns in Figure 43 suggest that the map really examined the position in the late 1920s before the pool collapsed and a year like 1932/33 when hops in districts like Ellendale were often left unharvested. Therefore, the hopgrower listings for 1937/38 may have similarly been a compilation for an earlier year, perhaps 1935/36 before there was any noticeable resurgence in small-scale hop farming. The dilemma worsened with the major revision undertaken for the directory of 1938/39. New criteria must have been used as the number of hopgrowers was fewer in every district. This recovery phase, and the changing relationships between the small hopgrowers and other elements within the industry, requires further study.

[39]Miller, C.L. Structural Adjustment and Regional Relocation in the Tasmanian Hop Industry. MA thesis, Geography, University of Tasmania (1980), pp. 82-83.

7.5 Small Fruit Farming in Depression Tasmania

Small fruit farming had always been one of the weakest sectors of Tasmanian agriculture. The berry fruit industry was the domain of small farmers with properties tucked away on the sides of hills and along valleys near the margin of settlement in southeastern Tasmania. These farms were almost always undercapitalised and the land frequently unsuited for any other activity. In spite of the meagre returns that they obtained, these holdings represented the life's work and livelihood of the families that lived upon them. The events of the 1930s must have been especially demoralising for these struggling settlers. Growers had survived many bad years during the 1920s but the downturn experienced in 1928/29 and 1929/30 brought ruin to many. Shortly afterwards, it looked as if success had been achieved with the Commonwealth undertaking to subsidise exports to foreign markets. However, these hopes, which had led to renewed plantings, were short lived as production beyond the capacity of real markets could not continue indefinitely.

Small fruit farming was located in the hill country to the south and west of Hobart. A survey of local councils in 1930 obtained an estimate that approximately 1,100 properties could be regarded as small fruit farms.[1] Most were within a two-hour motor journey from the complex of jam factories in Hobart.[2] The industry comprised the production of five major fruits viz: raspberries, currants, strawberries, gooseberries and loganberries, for manufacture into jams. Tasmania had almost a complete monopoly on the production of these fruits and the five major factories in Hobart produced most of the country's requirements of traditional berry fruit jams. Henry Jones and Company on the waterfront was the largest jam factory in Australia at this time. Limited, but increasing, amounts of fruit were being canned in syrup for direct consumption or canned as fruit pulp for manufacture elsewhere. Virtually none was sold as a fresh fruit.

In 1926/27, the area devoted to small fruit was 2,455 acres and the crop was estimated to have a gross value of £162,900. This was the highest return on record. Production figures for the various segments of

[1] [AD9 712-16] file 9/60, 15 September 1930.

[2] [AD9 712-100] file 9/33, 21 March 1935.

the industry are somewhat nebulous on two counts. Firstly, the returns submitted by the processors and the annual returns submitted by the farmers do not agree. This was attributed to a large proportion of the crop being grown by town gardeners or on small allotments from which agricultural returns were not required. Secondly, production statistics were highly erratic as the amount harvested would be related to the price. In many years, a lot of the fruit would be left on the bushes. This was not unexpected as picking costs, according to an estimate made by the Glen Huon Agricultural Bureau, were £36 per acre.[3] All other costs of production were £24 10s. Picking effort would change production levels without any change in area.

In broad terms, raspberries and currants were the predominant crops in 1926/27. Raspberries accounted for almost half (49.6%) of the value of the berry crop at the factory gate while currants were valued at a quarter (26.6%). These values were lower than normal due to an abnormally large throughput of blackberries in this particular year. These blackberries were not cultivated but gathered by families throughout the state from road verges and the banks of streams. Blackberries, gooseberries, strawberries and loganberries shared the remaining quarter (23.7%) of the crop value. The Bureau of Census and Statistics estimated that 92.0 percent of the berry crop was delivered to the jam factories. The remainder was sold as fresh fruit. However, most of this would have been used to make home-made jams rather than consumed fresh as dessert fruit.[4]

A map of regional production (Figure 44) for the four main berry fruits reflects the intermixture of fruit at the municipality level if not on the farm. Raspberries were fairly ubiquitous throughout the small fruit districts while currants were most prominent in the Glenorchy, New Norfolk and Hamilton municipalities. It is possible that strawberries were concentrated in the Kingborough municipality though it must be remembered that only 39.0 percent of the estimated production of strawberries was included in the stock and crop returns. Contemporary opinion held that most growers produced several varieties on their properties though there were

[3][AD9 712-16] file 9/16, 22 September 1930.

[4][PD1-474] file 61/27/30, 18 November 1930.

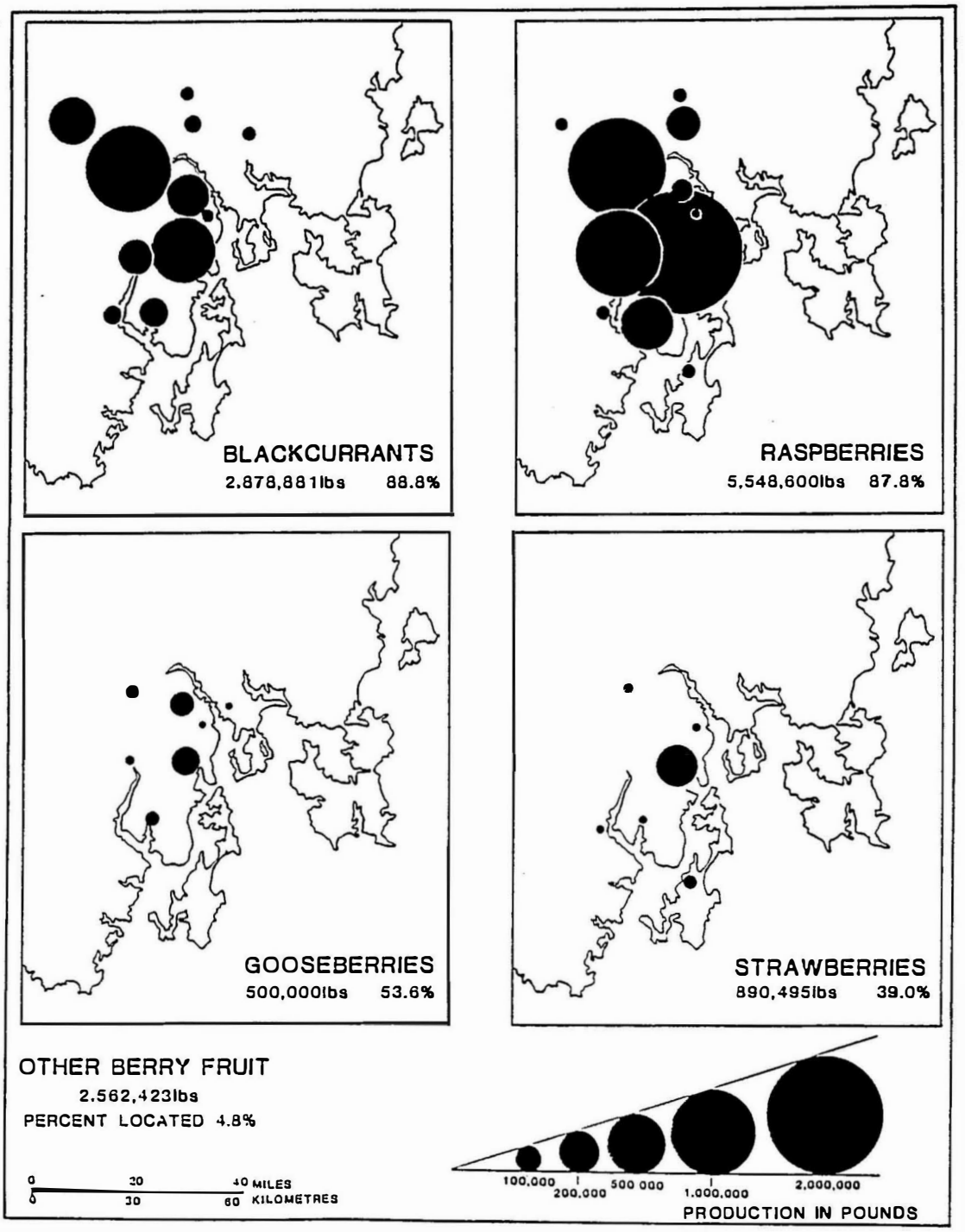


Figure 44 - Location of Small Fruit Production in Southeastern Tasmania 1926/27

some local concentrations. One was an emphasis on blackcurrants in the Collinsvale and Ellendale districts.[5] A reply to a circular letter sent to local councils by the Development and Migration Commission noted that 23 out of 108 growers in the Glenorchy municipality, which includes Collinsvale, had currants only and 26 had currants and gooseberries. Fifty of the 58 growers in the Hamilton municipality, almost all located near Ellendale, had currants while only six had raspberries. Another regional emphasis was on raspberries and gooseberries in the Longley, Lower Longley and Allens Rivulet districts of the Kingborough municipality.[6]

One of the simplest indices of change in the berry fruit industry is the total acreage under crop. This basic figure can be supplemented by trends in production and in gross value in order to define cyclic periods of expansion and contraction (Figure 45). However, the data are subject to revision. The 1938/39 acreage value was almost certainly an error. Not only did it lie beyond any realistic trend line, there was also no mention in any other source of a massive increase followed by a decrease. Production statistics, and through these the gross value of the crop, were also tainted by varying procedures in treating "unreported" production. In spite of these deficiencies, the acreage data indicates three distinct periods in the evolution of the small fruit industry between the wars. The first covered the middle and late 1920s beginning in 1923/24 and ending with a peak of 2,764 acres in 1928/29. The period was marked by a general increase in acreage, a value of production in the order of £130,000, and an increase in all four of the defined berry crops. However, the rate of increase was greater and more regular in gooseberries and strawberries than in the main activities of raspberries and currants. The second period occurred in the early depression with a sharp fall in acreage from the 1928/29 peak down to a minimum of 2,078 acres in 1931/32. The collapse of acreage was matched by falls in production and gross value. The gross value reached its minimum of £59,200 in 1930/31 though it averaged £88,000 over the three years. The currant sector was virtually annihilated with lesser declines in raspberries and strawberries. The third period began in 1932/33 and ran

[5][AD9 712-16] file 9/60, 15 September 1930.
[AD9 712-16] file 9/60, 6 November, 1929.

[6]Mercury, 6 January 1938.

through to the end of the decade. The 1928/29 peak was passed in 1936/37 and acreage continued to rise towards the 3,047 acres reported in 1939/40. However, the gross income statistics picked out recessions in 1934/35 and 1937/38. These two years are marked by distinct downturns in production (Figure 45).

The crisis of the early thirties actually made its first appearance in the summer of 1928/29. Record production of gooseberries, raspberries and strawberries contributed to a high gross value for the berry crop of £149,500 but there were signs of stress in the currant sector. Jam companies began to limit the amounts that they would accept from growers. One claim was that three-quarters of the blackcurrant crop was left unpicked.[7] While this claim cannot be substantiated from the production statistics, it is evident that difficulties in obtaining sales forced currant production down by over a million pounds (-33.6%) compared with the previous season. In 1929/30, the crisis in the blackcurrant industry deepened with output falling by another 675,000 pounds. Sales, when made, were also at a lower price of 2.5d per pound rather than 3.0d. This left little margin for the grower. One estimate of production costs for blackcurrants was 2.1d per pound for cultivation and harvesting costs alone.[8] The raspberry and strawberry sectors were also in decline though the gooseberry sector not only increased production but also obtained a higher average price.

The situation on many farms was desperate. One grower described his problems in a letter to the Premier.[9] T.J. Green of Franklin argued that small fruit growers were "... in a very sad plight". His only source of income was his berry fruit, which might produce seven tons at the most. In 1928/29, the factories had only accepted three tons and this year were limiting him to just under two. "How is a man to battle along and pay his way on such a quota as that?" was the question he put to the Premier. He asked McPhee to visit the district to see for himself the "... poverty that we have to endure".

[7] [PD1-474] file 61/27/30, 18 November 1930.

[8] [PD1-474] file 61/27/30, 18 November 1930.

[9] [PD1-474] file 61/1/30, 7 January 1930.

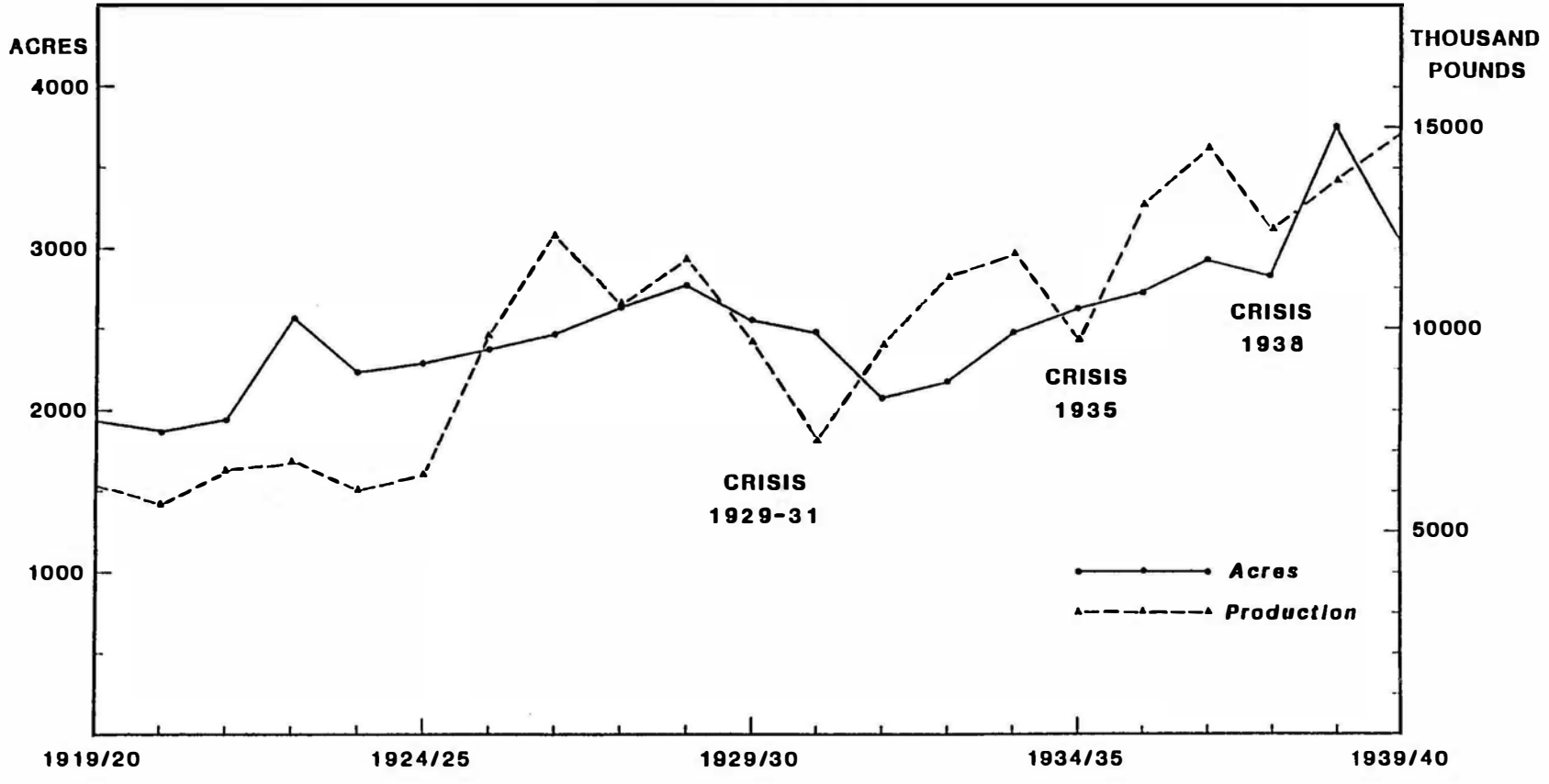


Figure 45 - Trends in Small Fruit Production
1919/20 to 1939/40

The difficulties of 1929/30 were intensified in 1930/31. Gross value of production was down to £59,200. Production of all berry fruits were significantly below the averages set between 1926/27 and 1928/29. The currant industry was virtually destroyed with production at 48.6 percent of the pre-depression level. The regional pattern of decline was erratic (Figure 46) but only the Glenorchy district showed any resistance to the collapse of the blackcurrant industry. Raspberries at 73.5 percent and strawberries at 70.0 percent were also seriously affected. Gooseberries, at 92.4 percent, were only down slightly though the pre-depression standard in this case was unrealistic because of the large increases that had occurred in the late 1920s. The underlying trend was of decline and was very similar to those for raspberries and strawberries.

Many farmers were on the verge of leaving the industry. Four hundred acres went out of production following the disaster of 1930/31 (Figure 45). More would have gone if there had been any alternative. A.E. Bennett of Crabtree described the dilemma of many growers who depended on small fruit and maybe a cow or two for their living.[10] Their farms would not allow them to "... grow anything else away in hills and gullys, rocks and stones". The problem was intensified with the closing down of many bush sawmills which had previously provided some off-farm employment. It appeared to Bennett that small fruit farmers had no alternative to being "... turned out onto the road to starve". These circumstances could perhaps explain the futile reaction of many farmers who grubbed out their blackcurrant bushes and replaced them with raspberry canes.[11] Some immediate income would result but the problems of overproduction would soon be transferred to the raspberry sector.

F.H. Peacock, Managing Director of Henry Jones and Company, described the problems of the berry fruit industry in evidence given to the Sugar Inquiry of 1931.[12] Peacock thought that the crisis was more than a temporary reaction to the current depression. The jam industry was being

[10] [PD1-474] file 61/32/30, undated letter to Premier.

[11] [AD9 712-98] file 9/21, 6 June 1935.

[12] "Report of the Sugar Inquiry Committee", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 3), p. 71.

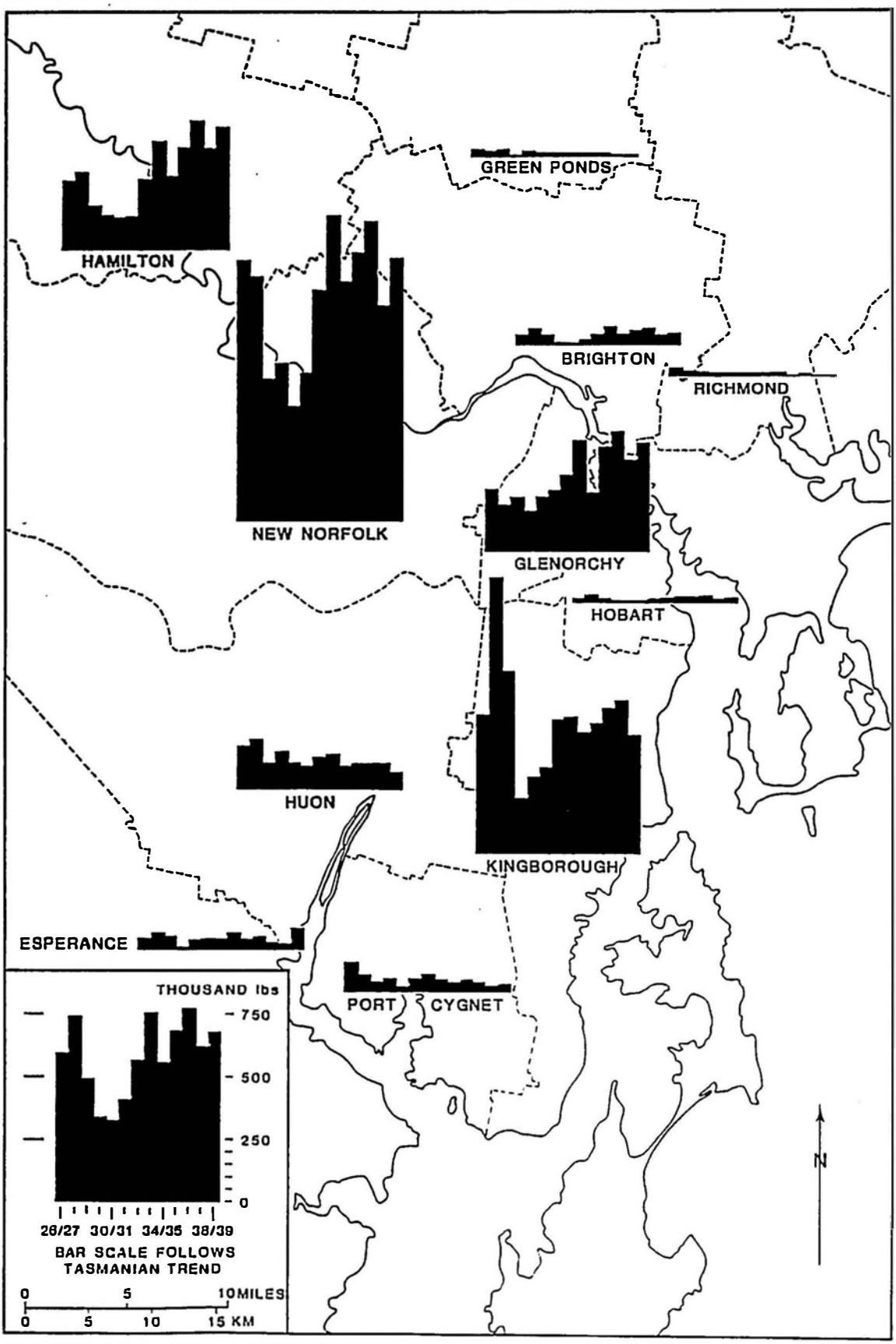


Figure 46 - Blackcurrant Production Cycles in Southeastern Tasmania

squeezed between two opposing trends. On the one hand, there was rising production of jam and canning fruit on the mainland with the soldier settler blocks in the Murray Valley beginning to produce vast amounts of apricots and peaches. On the other hand, there was a long term decline in the Australian consumption of jam. Per capita consumption had declined from 18 pounds prewar to 11.5 pounds in the late 1920s. Other products, both jam and non-jam, were competing with the traditional berry fruit jams of Tasmania.

Peacock saw no solution in exports claiming that Tasmanian growers were unable to compete in Britain against low cost Belgian and Russian production. It had been the dumping of European supplies on the English market that had set off the crisis of the early 1930s.[13] Tasmanian factories had been unable to clear stocks and had to introduce quotas to restrict the buildup of unsaleable inventory. In Peacock's opinion, berry fruit production should be reduced to bring it into line with market demand.

However, the popular cry was for a bounty on exports and a reduction in the price of sugar.[14] The two concepts were interrelated. The purposes of the Commonwealth (i.e. the White Australia policy) maintained a price for Queensland sugar that was well in advance of the world price. Tasmania with its large jam and chocolate industries was seriously affected by the policy. One witness appearing before the Sugar Inquiry claimed that the sugar users of Tasmania were paying the sugar growers of Queensland an annual dole of £300,000.[15] Berry fruit jams were sixty percent sugar by weight. While the jam industry had access to Queenland sugar at a "concessional" price of £30 6s 8d per ton, it would have only been £12 11s 1d if sold at export parity.[16] Rival jam producers in Britain, South Africa and New Zealand had access to sugar at a far cheaper price than the Tasmanian factories. Small fruit growers were

[13] [PD1-474] file 61/27/30, 18 November 1930.

[14] Mercury, 3 January 1929.
[PD1-474] file 61/27/30, 19 November 1930.

[15] [PD1-476] file 87/4/30, 12 January 1931, statement of F.W. Heritage.

[16] [PD1-476] file 87/4/30, 12 January 1931, statement of Hobart Chamber of Commerce.

certain that the high cost of sugar was the main reason why 2,000 tons out of a crop of 6,000 tons had been wasted in 1930.[17]

The increasingly serious position in the Goulburn Valley orchards of Victoria and the southern Tasmanian small fruit farms led to further concessions for sugar used in the fruit industry. A system of rebates were arranged to compensate the jam and canning industries for the sugar content of any product that was exported. The level of assistance given to the industry can be gauged by comparing the value of sugar compared to the value of fruit used in the Tasmanian jam industry. In the two years before the concessions, sugar costs were 85.5 percent of the value of the fruit. This was reduced to 51.0 percent in the following two years.

Fruitgrowers benefited from a requirement that manufacturers would receive the concession only if they paid a fixed price for the berries.[18] These prices were set by the Fruit Industry Sugar Concession Committee. Prices for blackcurrants and raspberries were raised by 1/2d per pound (+25%) between the 1931/32 and 1932/33 seasons.[19] This was sufficient to return production to the levels experienced in the late 1920s. No longer did growers have to let fruit rot on the bushes. They could harvest and manufacture all their processing grade fruit as manufacturers were apparently protected against a loss on any export contract. In addition, the domestic market was made firmer by the dumping of the surplus on the British market.[20] In theory, everyone should have been happy. The grower with increased returns, the pickers who would otherwise have been unemployed, and the manufacturers who could reduce unit overheads with greater throughput. Even the British consumer should have been contented paying a lower price for an Empire product.

The sugar concessions reversed the decline in acreage, production and income. However, the Chief Horticultural Officer sounded a cautionary note

[17]"Report of the Sugar Inquiry Committee", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 3), p. 70.

[18]Examiner, 14 December 1932.

[19]Examiner, 14 December 1932.

[20]Examiner, 23 November 1933.

warning that periods of boom in the small fruit industry were inevitably followed by overproduction and glutted markets.[21] The collapse came in the summer of 1934/35 with the realisation that growing British production made exports increasingly uneconomic. A large harvest of raspberries in Scotland saw prices for pulp plummet from £35 to £10 a ton.[22] Tasmanian growers required a minimum of £23 (2.5d per pound) to barely carry on, plus another £10 for the costs of manufacture and export. The Federal government concluded that exports had only been possible through the assistance of the Fruit Industry Sugar Concessions and even with these, manufacturers had still lost money during the previous season.[23] Unsold stocks had also accumulated. It was decided that Federal subsidies had to be limited to amounts for which there was an assured market.[24] Production above these levels was to be a local responsibility though an emergency grant of £5,000 was advanced to assist distressed growers of raspberries and gooseberries.[25] The industry was warned that this was the end of Federal aid.

The belief held by growers that the sugar concession scheme meant that all of their crop would be purchased at a fixed price proved to be unfounded.[26] They were forced back onto quotas imposed by the jam companies, being informed of how much fruit would be required just before the harvest. In 1934/35, the manufacturers accepted all of the contracted fruit plus a fraction (30%) of any uncontracted fruit produced by regular suppliers. Small growers without contracts, large growers who had increased production above contract levels, and growers who had entered the industry during the brief boom were left in a difficult situation. The Kingborough Council felt that many local growers would have to apply for the dole in order to survive.[27]

[21] [AD9 712-59] file 9/60, 8 November 1933.

[22] Mercury, 18 December 1934.

[23] Mercury, 20 December 1934.

[24] Mercury, 27 December 1934.

[25] Mercury, 20 December 1934.

[26] Mercury, 14 December 1934.

[27] Mercury, 4 December 1934.

One grower pleaded for assistance in a letter to the Premier.[28] The personal circumstances of A.J. Clark of Dysart illustrate several important themes. Clark had started on a small property in 1931 in order to make a living for himself, his wife and child. He had planted three acres of raspberries which were now coming into full production. He had also arranged a verbal contract with J.H. Turners Pty Ltd for the whole of his crop. Now, Mr Turner had refused to accept his fruit "... saying 'Things have altered since' and walked into his office and slammed the door in my face". No other factories would accept fruit from new suppliers. Clark informed the Premier that unless he could sell at least one of his three tons to meet major liabilities, he would have to walk off the property. Henry Jones and Co. eventually acceded to the Premier's request and offered to take half a ton.[29] The other jam companies had merely restated their policy towards new suppliers in their replies to a letter from the Premier. This little story markedly illustrates the plight of the small grower, the scale common in the industry, and the power of the fruit merchants.

The worst effects of the collapse of 1934/35, according to a forecast by Henry Jones and Company, would be on the raspberry and gooseberry sectors.[30] The export of these fruits as jam or pulp would be impossible but they foresaw a good future for loganberries and strawberries with currants at a reasonable level. This opinion was supported by the Chief Horticultural Officer who noted that raspberry areas were being grubbed out and planted with blackcurrants.[31] These were often the same fields that had gone the other way during the early 1930s. However, the production statistics show almost identical falls for raspberries, gooseberries and currants. They also show good recoveries in the following years. Record production levels were set for raspberries in 1935/36 and again in 1936/37. Overseas shipments of jam and pulp, the main factor in the recession, were back to normal levels.

In the middle and late thirties, about thirty percent of the value of processed small fruit products was sent overseas and seventy percent

[28][AD9 712-98] file 9/21, 10 December 1934.

[29][AD9 712-98] file 9/21, 8 January 1935.

[30]Mercury, 20 December 1934.

[31][AD9 712-98] file 9/21, 6 June 1935.

consumed locally. The Australian market was relatively stable once the country recovered from the Great Depression. However, the British market was increasingly recognised as unstable and difficult and it was no longer regarded as being the simple solution to the problems of the Tasmanian berry industry. Enquiries were made by the Agent-General in November 1937 to assess the prospects for the 1938 export season.[32] The replies illustrate the difficulties of serving this market. Firstly, there was no reliable knowledge about stocks of raspberry pulp on hand in Britain. Crosse and Blackwells, jam manufacturers, claimed that it was impossible to estimate the amount in store though they noted that Scottish pulp preserved in barrels with SO_2 was on offer for £17 per ton. This was a low price but no business was being done. Secondly, competition between different types of fruit inputs into jam had to be considered. Large quantities of Dutch strawberry pulp were on offer at the lowest (£13 to £15) quotes for many years and a large harvest of British plums saw much plum pulp available at a heavily reduced price. There was also a glut of marmalade. Buyers had bought up oranges from many sources in the belief that normal supplies from Seville would be cut off by the war in Spain. The Spanish oranges eventually arrived and were swamping the market.

Prospects for the season were limited. The jam companies accepted that the overseas price for raspberry pulp would be £17.[33] Exports of 530 tons would be possible only given the £15 per ton subsidy from the Sugar Concession Committee. This would be about a third of the normal level of exports and could be fully met from the 800 tons of carryover stock from the previous season. The companies once again put growers on a quota accepting only 30 percent of the raspberry supplies offered by growers without contracts.[34] Large growers almost always had contracts. It was the small growers who were left to watch most of their crop rot on the bushes. F.A. Bennett of Crabtree described the situation in his district:

"... in these way back gullies we depend on small fruit alone to keep us the twelve months with a few months work if we can get it. It will be a happy Xmas to watch our crop fall off that we depend on to pay

[32][AD9 712-98] file 9/21, 24 November 1937.

[33][AD9 712-133] file 9/22, 6 January 1938.

[34]Mercury, 6 January 1938.

our way".[35]

Bennett and other growers were agitating for Commonwealth assistance. Two contradictory claims were put to Canberra. One was for aid to cover losses caused by a hot November; the other was for a scheme to allow manufacturers to purchase an extra thousand tons of raspberries which could be stored until the export situation improved.[36] Earle-Page, the Commonwealth Minister for Commerce, did not see any need for aid. He believed that the weather losses in November had been made up by favourable conditions in December and that the factories were in fact accepting more raspberries than normal. The first allegation was true. The second was debatable. Quotas had been imposed and the factory statistics showed that deliveries were down by 17.5 percent. However, the amount paid for the smaller volume was marginally higher and the export statistics show no dramatic changes in shipment values or volumes.

The mildness of the recession probably helped the Commonwealth maintain its hard stand against any aid. Earle-Page claimed that the proposal to process an extra thousand tons was futile. Not only would it further reduce prices in 1938; the carryover stocks would depress prices in 1939 as well. He also noted that the grant of £5,000 in 1934 had been conditional upon Tasmania reducing production. Instead, the acreage of berry fruit had increased.

The main problem of the small fruit industry was overproduction. The traditional market for jam and pulp in Australia was static forcing more fruit onto the British market where returns were unpredictable. The government and the companies, especially after 1934/35, were adamant that production should be reduced. However, there was no rational policy of acreage reduction. The Commonwealth continued to subsidise the export of fixed quantities of berry fruit products through the sugar concession scheme and also promoted a fixed price for berries delivered to a factory. This was taken by the small growers as a signal to increase production of jam grade fruits. The opinion of the factories was that the policy was mistaken, in that the fixing of a payable price merely promoted an increase

[35][AD9 712-98] file 9/21, 17 December 1937.

[36]Mercury, 24 December 1937.

in production, while at the same time the higher domestic price for jam caused a decline in consumption.[37]

The Small Fruit Advisory Committee opposed rationalisation through methods like the extension of the contract system or the establishment of a marketing board.[38] Large growers were in favour of both but the interests of hundreds of families with no other means of support had to be considered. Unfortunately, no assistance was given to the small grower to diversify within the berry industry. A new market was being developed for fresh fruit on the mainland. Almost all government attention was focused on the technology of shipment. Likewise, the market for fruit canned in syrup was steadily increasing. This trend was virtually ignored. In any case, few small growers were capable of investing in the new varieties of berries that were required for these trades or of carrying the other extra costs of producing high quality fruit. The companies provided no incentive having even abandoned the price margin for canning grade fruit at the start of the 1937 season.[39] A policy of promoting excellence in production, rather than across the board price supports and export subsidies, would have had important long term impact on the future of this strife-torn industry.

[37] [AD9 712-133] file 9/22, 6 January 1938.

[38] Mercury, 2 March 1937.
[AD9 712-133] file 9/21, 10 October 1938.

[39] Mercury, 1 December 1936.

CHAPTER EIGHT - DEPRESSION AND THE SEARCH FOR NEW CROPS

8.1 Tobacco - Two Booms, Two Busts

Tobacco was not a new crop in Australia having been widely grown throughout the eastern colonies during the nineteenth century. However, the early promise of the crop was not fulfilled and production was severely curtailed as manufacturers began to turn away from dark "plug" tobaccos towards the lighter leaf imported from America. Production retreated to the old goldfields of New South Wales and Victoria where limited amounts continued to be grown by Chinese smallholders. Tasmania followed the national trend. Tobacco had been widely grown until the 1880s, mainly for use as a dip to control scab in sheep. This use declined following the introduction of the bluestone treatment but a few Chinese gardeners continued to produce a limited amount of tobacco for sale to benevolent institutions. The leaf was sun-cured with a reputation for strength rather than quality. The tobacco boom of the depression years was a separate phenomena. It involved the creation of a modern new industry that retained few links to nineteenth century antecedents and involved major regional shifts as one district after another strove to become "... the potential Virginia of Australia".[1]

The boom of the early 1930s was based on the actions of the Commonwealth government. A Parliamentary report in 1930 argued that an increase in Australian tobacco production was required to replace the large amount of leaf imported from the United States.[2] Domestic production would also solve problems of rural unemployment and land use as well as saving foreign exchange. The immediate policy reaction was to increase the tariff from 3s to 5s 6d per pound.[3] In case this degree of protection, which

[1]Tariff Board "Report and Recommendations on Tobacco", Commonwealth of Australia Parliamentary Papers, (Session 1932-33-34, Vol.3), p. 1312.

[2]House of Representatives "Report from the Select Committee on the Tobacco-Growing Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol.2), 2371-2705.

[3]Advocate, 9 September 1933.

doubled the landed price of American tobacco, was insufficient, the manufacturers also agreed to purchase 7.5 million pounds of local tobacco at a fixed average price of 2s 3d per pound in order to guarantee a market.

This policy stimulated production in every State. Australian tobacco acreage increased from 3,665 in 1930/31 to 20,266 in 1931/32. It peaked the following year at 23,037. Half the crop was found in Victoria with twenty percent in each of New South Wales and Queensland. Tasmania was only a minor element within the national plan for establishing self sufficiency in tobacco products. However, some of the arguments justifying Australian tobacco production had special relevance to Tasmania. In particular, it was believed that tobacco was a useful crop for diversifying farming systems especially where small land holdings or inferior soils placed severe constraints on the alternatives that could be considered. The first concern was to find a viable substitute for hops in the Derwent Valley. The hop cartel had wiped out the entire market for the small hop grower in 1931. Tobacco, as it was an intensive crop with high returns per acre, seemed to offer a solution. The experience in Victoria was that growers grossed £100 to £150 per acre and there was no reason why Tasmanian tobacco could not be as successful.[4] Tobacco would easily fit into the economy and environment of the Derwent Valley. The Select Committee had argued for small farms.[5] A farmer-son team could handle up to four acres while properties growing up to the ten acre maximum recommended in the report could utilise some of the displaced hopfield labour force. Most of the hopfields forced into restructuring were in the family operation range. Furthermore, the Derwent Valley hopfields were already provided with irrigation and with kilns that could be converted for tobacco curing.[6]

The first plantings in Tasmania were promoted by W.E. Shoobridge M.H.A. who arranged for Yates' Seed Farm in the Derwent Valley to plant

[4][AD9 712-5] file 3/2, "Report on Trial Tobacco Crops 1931/32".

[5]House of Representatives "Report from the Select Committee on the Tobacco-Growing Industry in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol.2), p. 2409.

[6]Tasmanian Fruitgrower and Farmer, 1 March 1932.

out seed beds. Some 15,300 plants were distributed from this nursery to 320 interested persons. They were located in every part of the state though 45 percent were in the south and 25 percent in the southeast.[7] Ninety parcels were returned for curing. These included several different varieties in varying stages of maturity.[8] Surprisingly, these experimental plantings proved a commercial success. The whole "crop" was sold regardless of quality. Many growers obtained a return in the vicinity of £140 per acre suggesting that a local industry could be as viable as the Victorian.

The Chief Executive Officer of the C.S.I.R. Tobacco Research Division warned Tasmanian farmers at the end of this experimental season about the perils of "tobacco planting fever" though he doubted "... whether words of caution will receive much attention".[9] The experience on the mainland was that there was too much emphasis on growing tobacco for the sake of getting into a potential boom crop. More attention should have been paid to the evaluation of soils and climate for selecting the most appropriate areas. Tasmanian farmers were no different from their mainland counterparts. The success of the 1930/31 experimental crop induced a small boom. One company even announced an intention to plant 100 acres of tobacco.[10] The agricultural statistics (Figure 47) put the 1931/32 crop at 72 acres yielding 51,520 pounds of leaf. There were no regional details but tobacco was widely spread around the state though the main commercial concentration was in the Derwent Valley.[11]

Plantings increased to 171 acres in 1932/33. One problem limiting the expansion of the crop in its second commercial season was the shortage of seedlings and 200,000 plants had to be imported from Narrandera N.S.W. to assist Tasmanian sources meet the demand.[12] However, an outbreak of

[7][AD9 712-5] file 3/2, 6 January 1931.

[8][AD9 712-5] file 3/2, "Report on Trial Tobacco Crop 1930-31".

[9][AD9 712-5] file 3/2, 10 July 1931.

[10][AD9 712-5] file 3/2, 16 June 1931.

[11]Tasmanian Fruitgrower and Farmer, 1 March 1932.

[12]Mercury, 17 January 1933.

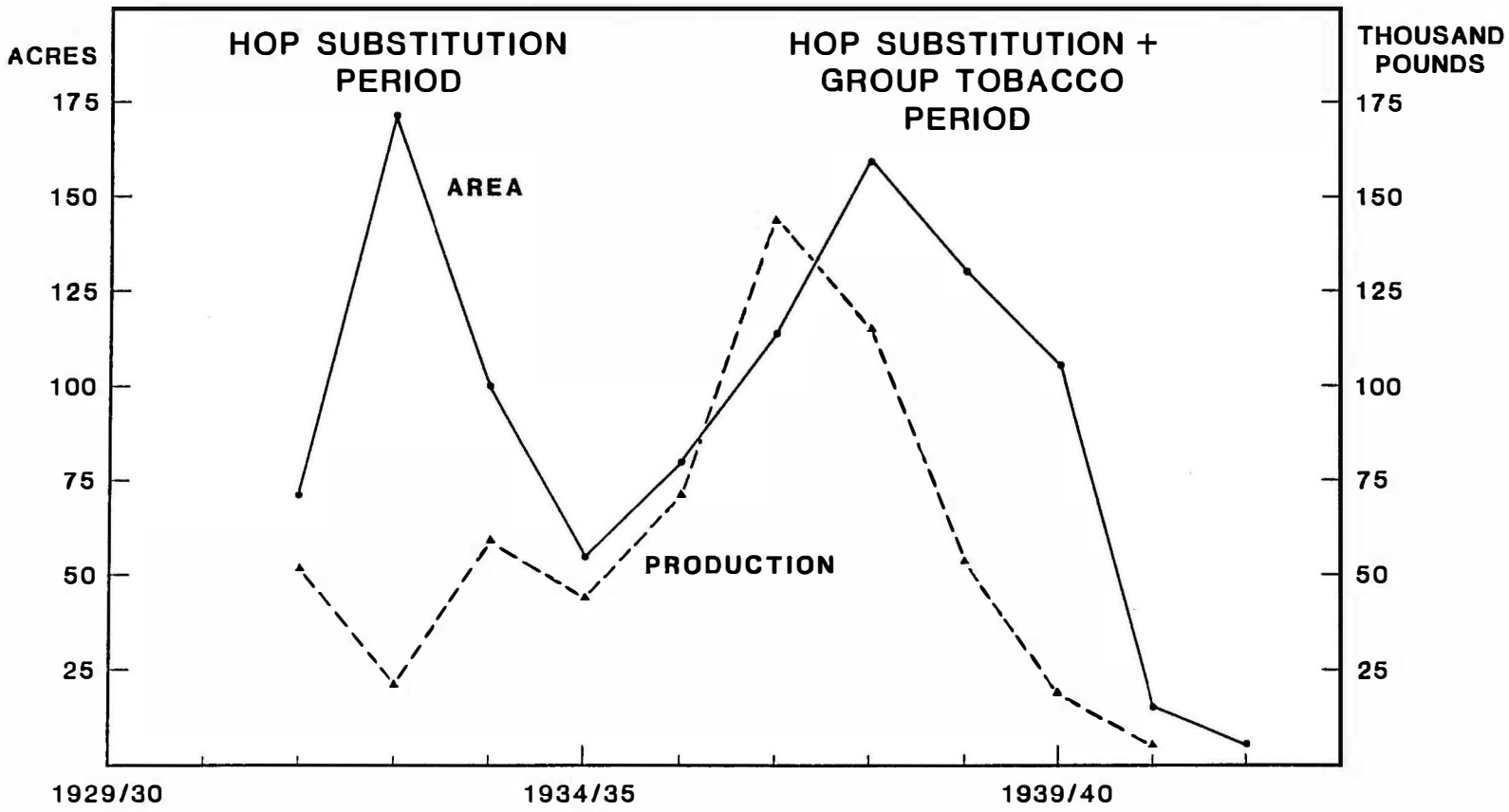


Figure 47 - Tobacco Production in Tasmania

blue mould reduced the yield to only 22,624 pounds. This disaster took most of the gloss off the crop especially as Tasmania had been touted as a disease free environment. Plantings were down in 1933/34 and reached a minimum of 55 acres in 1934/35. This decline parallelled the Australian pattern. Crop disease was not the only problem. Other factors included the low quality of the Australian product and the declining significance of the price advantage over American leaf. As the worst of the depression passed, consumer preference for the quality product from Virginia rather than the poorly cured product of inexperienced Australian growers again became an important factor in the marketing of tobacco products.

Australian tobacco acreage fell rapidly from the 1932/33 peak. It was reduced to 13,026 in 1933/34 and 8,961 in 1934/35. Most of the decline was in Victoria. Acreage fell in Queensland but its share of the national total increased from 17.3 percent to 34.7 percent. Another Federal committee recommended additional aid to the industry in order to protect the national goal of having all base tobacco eventually produced within the country. Imports would be limited to blending tobacco.[13] This aid took the form of an annual grant of £20,000 to subsidise tobacco research and to place tobacco farming on sounder lines.[14] Tasmania's share of the grant was £1,250. This modest sum was responsible for the resurgence of the industry after 1935. Tobacco acreage increased to 159 acres in 1937/38 (Australia = 10,551) with commercial operations appearing in new areas of the state and with some areas organised in a novel manner.

The first cycle in the Tasmanian tobacco industry had focused on the hopfields of the Derwent Valley. In theory, tobacco was to provide an alternative for small growers forced out of the hop industry. In fact, large growers were more active. New concerns were present after 1935. One involved the concept that tobacco was a crop suited for poor sandy soils. Apparently the best leaf was believed to come from nearly sterile sands located at some distance from the sea.[15] There were vast tracts of this type of country in Tasmania that could be developed. The second involved

[13]Mercury, 24 March 1938.

[14]Commonwealth Official Year Book 1940, p. 407.

[15][AD9 712-87] file 3/2-2, 13 April 1937.

the decline of other intensive industries such as apple orcharding in the Northeast. The high returns per acre were attractive if methods could be developed to assist the inexperienced grower overcome the problems of expensive infrastructure and lack of specialised skills. These matters attracted the attention not only of the bureaucrats in the Department of Agriculture but also of the politicians in the Ogilvie Labour Government.

The policy goal was to try to develop a permanent industry of about 500 acres.[16] This would be in line with the long standing policy of the Department to promote farm diversification. Tobacco would be a sideline crop with growers producing about five acres each.[17] Time and land would be left for other activities. It would also assist in solving the problem of rural unemployment. Five acres of tobacco would require 15 men for each of five pickings for a total of 75 man-days per year. Family labour could only meet a fraction of the requirement. An alternative Labour party proposal for a large scale (i.e. 80 acre) unemployed-youth tobacco growing project was abandoned in favour of the more practical scheme of working though practising farmers.[18]

The Department assisted and promoted tobacco growing. The federal grant was used to support a full-time officer (D.H. Malcolm) on tobacco duties. Soil testing and trial crops were only part of his duties which seemed to evolve increasingly towards a tobacco propaganda function. Malcolm was sent to Victoria and subsequently to the United States and Canada to study tobacco culture. A major monograph was prepared following the North American trip.[19] He also produced a film to be shown to gatherings of farmers and presented frequent radio talks to try to stimulate interest in the crop. However, the main thrust of the Department's programme was through the organisation of the Scottsdale group tobacco scheme.

Group tobacco farming involved the government providing the infrastructure required for a group of approved farmers to take up tobacco

[16][AD9 712-87] file3/2-2, undated Labour Party policy statement.

[17][AD9 712-127] file 3/2-1.1, 18 March 1938.

[18][AD9 712-127] file 3/2-1.1, 5 August 1937.

[19]Malcolm, D.H. "Report on the Production of Bright Flue-cured

farming.[20] The Department of Agriculture ran the nursery beds and sold the seedlings to the farmers. The ripe leaf was then delivered to a central facility where it would be cured and graded. The aim was to provide maximum assistance to farmers unskilled in tobacco growing. The government provided the expensive buildings (circa £2,000) and the critical skills in curing and grading. Growers were also assisted by advisory services and the provision of crop finance through the Agricultural Bank. Furthermore, by limiting the scheme to approved farmers, the Department had checks on the suitability of both the farmer and the land. In effect, the group tobacco scheme had many of the features of contract farming.

The first group tobacco scheme was set up at Scottsdale during the winter of 1937.[21] It consisted of seven farmers with 27 acres. The original intention had been to utilise the poor soils on granites found in the district. These had been noted as potentially the best tobacco soils in Tasmania back in 1929.[22] Trial crops had been grown on one of the properties for the previous two seasons. This tested the soils and provided some local experience.[23] However, the seven initial growers were widely scattered with different local environments.

The Scottsdale scheme was watched with interest by farmers elsewhere in the state. Tobacco acreage increased once again in the Derwent Valley while requests to form group schemes were received from Edith Creek in Circular Head, from Exeter in the West Tamar and from Lilydale in the East Tamar. The Edith Creek proposal actually got started in an ad hoc fashion with five growers and 10 acres of tobacco and received some asistance from the Scottsdale depot.[24] The other two proposals were put forward by farmers seeking an alternative to unprofitable orchards.[25] Unfortunately,

Tobacco", Journals and Printed Papers: Tasmania, (1938), Paper 36.

[20] [AD9 712-87] file 3/2-2, 6 July 1937.

[21] [AD9 712-87] file 3/2-2, 6 July 1937.

[22] [AD9 712-5] file 3/2, 21 October 1929.

[23] Examiner, 6 March 1937.

[24] [AD9 712-87] file 3/2-2, 21 June 1937.

[25] [AD9 712-116] file 26/6-3, 23 May 1937.

the 1937/38 season in Scottsdale was unsuccessful. Blue mould destroyed much of the crop and sales of the remainder were unprofitable as the principal buying company had unilaterally raised its standards. Statewide, a few growers averaged a reasonable price of 2s 6d but the amount of unsold leaf was very large.[26] Growers were dissatisfied. Some blamed the British-Australian Tobacco Company for manipulating the market in order to abort the development of a superior Tasmanian tobacco industry that would compete against their American holdings.[27] Others accepted that the Tasmanian tobacco had an unpleasant flavour and that the Company had to buy the leaf that the smoker wanted.[28] Disappointed growers began to leave the industry. The State invested a further £500 for extensions to the Scottsdale depot but made no attempt to recruit new farmers or to spread the scheme into other areas.[29] Gradual decline turned into total collapse following the outbreak of war. The industry was extinct in Tasmania by the 1942/43 season.

While the tobacco industry by itself was insignificant, it illustrates two important themes. One involved the role of government in stimulating agricultural developments. As well as the obvious interplay of tariff policy and Federal grants, there was the less obvious role of political propaganda and ideology. The tobacco industry came out of the hop crisis of the early 1930s. The Labour Party in opposition were behind the small growers and the Hopgrowers Defence League.[30] This was the group which was supposed to be the main factor in the first cycle. Upon taking office in 1934, the Labour Party was attracted to the concept of guiding developments within primary industry. A new industry, like tobacco, allowed more scope than any of the old due to the absence of entrenched interests. There is no doubt that the group farming scheme was in some ways a political artefact reflecting tenets of Labour ideology.

[26] [AD9 712-87] file 3/2-2, 9 January 1939.

[27] [AD9 712-127] file 3/2-2, 12 December 1938.

[28] Mercury, 15 July 1938.

[29] [AD9 712-125] file 2/6-7, "Explanatory notes: Public Works Execution Act 1938/39".

[30] [PD1-479] file 140/8/30, 4 July 1930.

There is also no doubt that aspects of the group tobacco scheme reflected the desire of many farmers to change their status from independent producers to contract employees. The Hop Pools, the Barley Growers Association, the shift to f.o.b. apple sales and even many aspects of the co-operative dairy factory movement also showed evidence of this trend. The grower was responsible for the crop between planting out the seedlings and harvesting the leaf. The government was responsible for the expenses of producing the seedlings and of drying and grading. These costs were recouped from the grower. If a crop failure should occur, the growers liability was restricted to the expenses already incurred with no obligation for overheads down the line. Financial risks were reduced. In addition, there was an assumption that the price for domestic tobacco would always be profitable. Australian consumption vastly exceeded Australian production. While there was only one significant purchaser on the market, it was believed that the price advantage of the local product over the duty-paid imported leaf should ensure a reasonable price. It seemed a secure, regular market if the grower could produce a crop that met a particular standard. While it is not formal contract farming, it is another example of this tendency that was developing within Tasmanian agriculture during the 1930s.

8.2 Flax - Company Speculation and Agricultural Development

The attempt to establish a flax industry during the late 1920s offers a number of insights into the interaction between speculative capitalism and agricultural development. Flax was a crop typical of many that have been suggested through the years as ideal for Tasmanian conditions. In theory, the production of this crop offered benefits for both town and country. Flax offered farmers in cropping regions an opportunity to diversify their income through a stable contract crop. Eventually, local production would generate urban employment through a canvas manufacturing industry. The scheme was ably promoted by an enthusiastic company director who foresaw production in Tasmania growing in rapid increments towards an eventual total of 60,000 acres.[1] All of these theories proved unfounded. Not for the first time, nor for the last, were farmers left poorer but wiser when the scheme collapsed in the face of economic and agricultural reality.

Flax had been grown in Tasmania on a limited scale before the First World War but the current problem dates from 1926/27. In this year, a commercial enterprise began to promote the growing of true flax (real annual flax or linseed) as a broad-acre cash crop. The "Tasmanian Flax Syndicate" under its director, Mr J. Moore-Robinson, sponsored the experimental planting of 18 acres of flax.[2] The industry was now on its way. A professional publicity campaign began to promote the merits of this "new" crop using two main arguments to attract growers. One was based around the fact that flax was to be a standard price crop. It was noted that Victorian flax mills had been paying £5 per ton for many years and the Tasmanian promoters promised the same price with a five shilling bonus for shareholders.[3] This price was guaranteed f.o.b. at the nearest railway station. It was also argued that flax was a cheap crop to grow. There was little handling and no threshing or bagging. These factors made it an attractive proposition for farmers harassed by low and fluctuating returns for grain and potatoes.

[1]Tariff Board "Flax and Linseed - Production in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 3), p. 1857.

[2]Mercury, 4 July 1927.

[3]Mercury, 23 July 1930.

The second line of argument pursued the concept of an unlimited market. Australia imported linseed for oil from India and manufactured flax products, mainly canvas, from the United Kingdom. It was estimated by the Tariff Board that complete substitution of imports would require the flax output of almost 150,000 acres.[4] Furthermore, there were hints of a potential export market. Belfast linen merchants obtained raw material from the Soviet Union and the Baltic States but stated they would prefer to purchase from within the Empire.[5] To this end, the Belfast firms arranged to send seed for 15 acres along with instructions to the Department of Agriculture to assist the Tasmanian venture. None of the publicity mentioned the factors behind the decline of the Victorian industry from its 1919/20 peak of 1,611 acres. In 1926/27, the Victorian industry was reduced to 388 acres around Colac.[6] Nor did it discuss the real prospects for an export trade in light of the obliteration of large wartime production in England, Ireland, Canada and Kenya by competition from the Baltic.

The 1927/28 season was the first year of commercial production. The Tasmanian Flax Syndicate had predicted that up to 400 acres would be planted.[7] Crop statistics showed that 115 acres were harvested. There was a strong bias in production towards a North Midlands core zone (Figure 48). This region contained 87.8 percent of the crop with most of the remaining acreage in the Northeast. No flax was grown in the Northwest or the South. It is probable that this distribution reflected the basing of the Flax Syndicate in Launceston. The promoters worked the countryside looking for contract growers, often attending local meetings of the Agricultural Bureau to publicise their crop.[8] Proximity to Launceston allowed greater contact between the promoters and the growers. It is also probable that the traditional grain orientation of the North Midlands was a consideration. Flax in Australia was grown like a grain crop. It was worked with the same

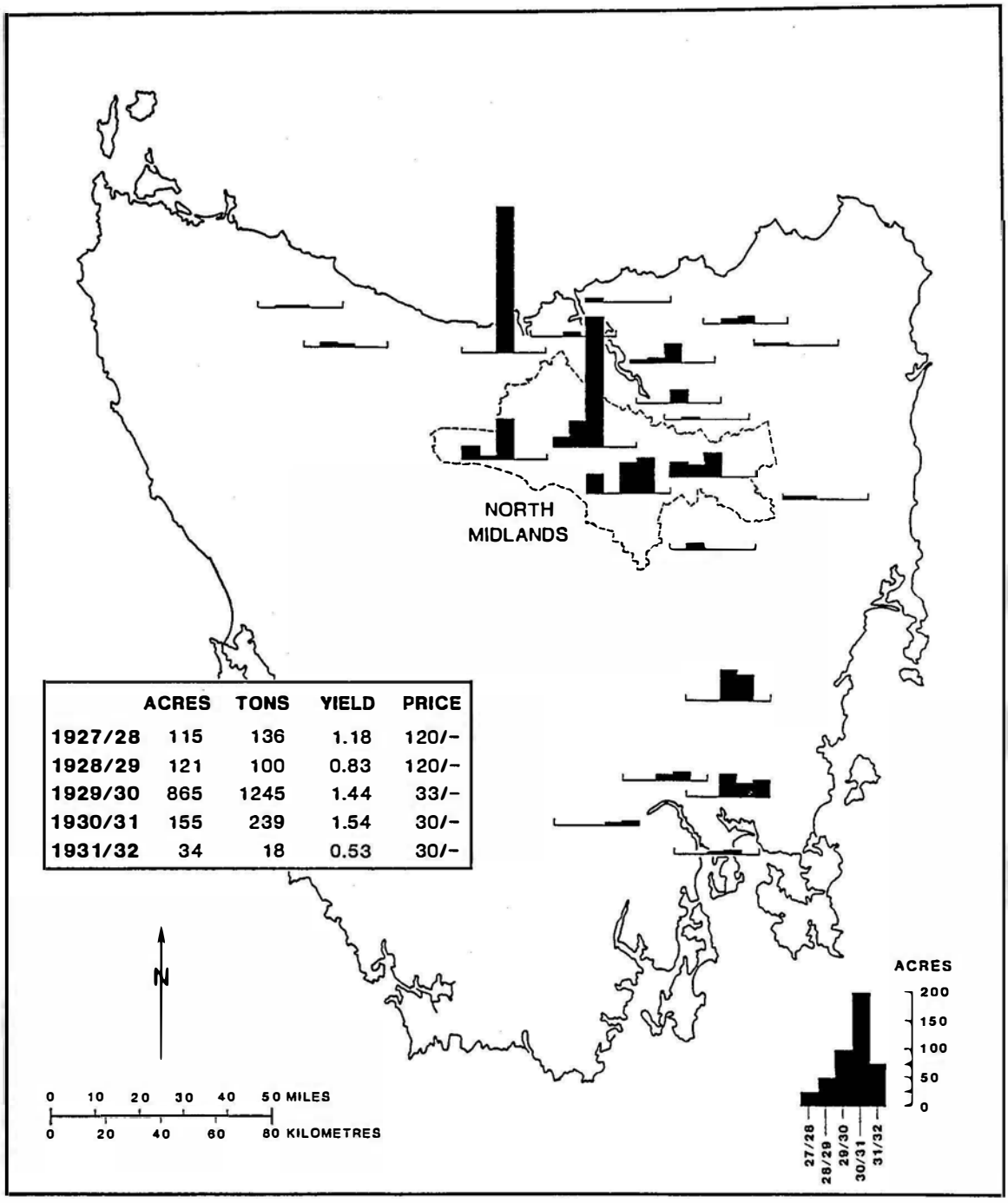
[4]Tariff Board "Flax and Linseed - Production in Australia", Commonwealth of Australia Parliamentary Papers, (Session 1929-30-31, Vol. 3) p. 1857.

[5]Mercury, 26 July 1927.

[6]Commonwealth Official Year Book 1928, p. 714.

[7]Mercury, 4 July 1927.

[8]Mercury, 4 July 1927.



	ACRES	TONS	YIELD	PRICE
1927/28	115	136	1.18	120/-
1928/29	121	100	0.83	120/-
1929/30	865	1245	1.44	33/-
1930/31	155	239	1.54	30/-
1931/32	34	18	0.53	30/-

Figure 48 - Flax Production in Tasmania

machinery. This allowed a considerable cost saving over traditional European hand-pulling methods.

The acreage in 1928/29 was static at 121. The company had contracts for 400 acres but an abnormally wet season had prevented most of this land being planted out in flax.[9] The spatial pattern was also stable. The North Midlands core zone retained 79.3 percent of the acreage though farmers in Deloraine and Longford had virtually abandoned the crop. Growth within the core was limited to the Westbury district which increased its acreage from 18 to 47. Minor plantings were found scattered throughout the Northeast while trial crops appeared in the Northwest in the Table Cape and Emu Bay municipalities. No flax was grown south of Campbell Town.

The 1929/30 season represented the zenith of the flax industry in Tasmania. The Tasmanian Flax Syndicate had absorbed the Tasmanian Flax and Canvas Company to emerge as the "Flax Corporation of Australia". Company propaganda was reinforced by the announcement of a bounty of 15 percent on the market value of flax produced within Australia.[10] The Flax Corporation rode the crest of the boom letting contracts at £6 per ton plus a 6 shilling bonus for shareholders.[11] Contracts were held for 1,600 acres though the company expected that another wet season in the north would reduce actual plantings. The distribution of the harvested crop (Figure 48) showed that flax had now spread beyond the North Midlands. Only 46.6 percent of the 865 acres of flax were within the core region. Large areas were found in the Latrobe municipality (30.1%) and in the South Midlands (12.6%). The enthusiasm for a fixed price crop swept into areas where potatoes, grain and hay were in decline. The interest in flax in the Coal River Valley had been specifically linked by the press to the uncertain state of the grain and chaff market.[12]

The Department of Agriculture was sceptical about the merits of flax

[9][AD9 712-5] file 3/1, 27 August 1929.

[10]Commonwealth Official Year Book 1932, p. 670.

[11]Mercury, 23 July 1929.

[12]Mercury, 23 July 1929.

in Tasmania.[13] It was a cash crop in a period when the strategy for development formulated by the Department was to discourage cash cropping. Ward was especially critical having had first hand experience with the linen flax industry of Canterbury, New Zealand. He disbelieved many of the claims put forward by the promoters. For instance, he doubted the practicality of farming flax for both fibre and oil. The dual industry overseas had been a failure. In Canterbury, the fibre was burnt after the linseed had been extracted. Ward also noted that most (i.e. 89%) of the crop grown in Tasmania had failed to reach the minimum height required for processing and that yields had never approached the three tons per acre promised by the company's propaganda.

In many ephemeral industries, the collapse is even more rapid than the rise. Prices for flax in the first two years were at the level promised by the company. However, the flax factory in Launceston amounted to nothing more than a small plant for extracting seed for shipment to the mainland.[14] In 1929/30, the system began to collapse. The promoters had promised £6; the actual payout was 33 shillings. The Flax Corporation of Australia crumbled into a sea of debt and was eventually placed into receivership. Farmers were left exposed to the perils of dabbling in the sharemarket. Many farmers had taken out shares in the Flax Corporation in order to sell their crop. These were partly paid shares at 2s 6d in the pound. The farmers' understanding was that the balance of the share price would be gradually taken from their flax returns. Other creditors of the Flax Corporation pressed for the shares to be fully paid to cover the debts of the company.

It was argued that if the liquidator demanded the payment of the balance, many farmers who had been involved in flax would be ruined.[15] The crisis was raised in the adjournment debate in the Legislative Assembly where letters from stricken farmers were read to the House by Mr

[13][AD 712-46] file 3/1, Ward F.E. "Flax Growing in Tasmania", no date. Advocate, 12 September 1930.

[14]Advocate, 12 September 1930.

[15][AD9 712-46] file 3/1, undated and unsourced newspaper clipping reporting debate in Legislative Assembly.

Campbell.[16] One letter alleged that "... some of the farmers were deliberately taken down by a representative of the Flax Company". The company had apparently canvassed the district pointing out the merits of flax to the farmers. It went on to report the plight of men who were "... struggling to cloth and feed their families. They have been summonsed and have had to sell their cows and horses to keep a roof over their wives and children". The debate was concluded by Premier McPhee who claimed that this situation was "... but another instance of men who were allowed to roam the state selling shares".

However, the collapse of the company did not require fraud. The premises upon which the flax industry was based were unsound but the company promoters were victims rather than scoundrels. They were not the only persons deluded by the prospects of flax. The Commonwealth government through the Flax and Linseed Bounties Act (1930) and the associated publicity must share the blame. A bounty had been rejected by the Tariff Board but the government had ignored its advice. The bounty was subsequently blamed for encouraging farmers in Tasmania to take up flax without considering the full economics of the undertaking.[17]

The returns from flax in 1929/30 were 33 shillings per ton. Yields were only half of the level promised in the propaganda. The company was virtually bankrupt. Farmers, in these circumstances, were unwilling to plant the crop for the 1930/31 season despite claims by Moore-Robinson that the industry in Tasmania was now fully proven.[18] Total acreage declined to 155 with only Longford in the entire northern half of Tasmania retaining any production (Figure 48). The focus of production had now switched to the Oatlands-Richmond municipalities. This strange lag in the South Midlands was again visible in 1931/32 with the last remnants of the flax industry found in the Richmond district. The Flax Corporation was in liquidation so a market can only be surmised as being one of the Victorian mills. The flax industry in Tasmania was extinct by 1932/33.

[16] [AD9 712-46] file 3/1, undated and unsourced newspaper clipping reporting debate in Legislative Assembly.

[17] [AD9 712-46] file 3/1, 11 January 1933.

[18] Advocate, 12 September 1930.

While farmers were no longer interested in the crop, the files of the Department of Agriculture noted continuing activity by speculators and government. One line of interest involved New Zealand flax (Phorium tenax); the other involved attempts to resurrect the linen flax industry. In 1931, the "New Zealand Flax Development Company of Tasmania" called for a maximum effort to be made to establish this plant in Tasmania.[19] The government limited its involvement to leasing 3,300 acres of scrub land near Southport to the company.[20] Further requests for assistance to bring it into production were ignored. The arguments for New Zealand flax were similar to those put forward for linen flax. It was claimed that there was a massive Australian market for hemp and also prospects for a profitable export trade to Britain. Information received from across the Tasman drew a different picture.[21] The price of New Zealand flax was below the cost of production and most of the country's mills were closed. However, even reputable local firms made tentative enquiries about the prospects for this crop. Henry Jones and Co. sought the opinion of the Department on the suitability of Flinders Island for New Zealand flax.[22] Ward replied that success would be unlikely given the inaccessibility of the site, the nature of the soil, and the depressed state of the market.[23]

While linen flax did not re-emerge as a crop in Tasmania, this was due more to the sad experience of growers with the Flax Corporation than to any wisdom in government policy. The bounty paid between 1930 and 1935 was one example of a series of schemes dating back to before the Great War to promote flax in Australia. None of the schemes was successful. The 1930 bounty was phased out following a report by the Tariff Board in 1933.[24] However, only a few years were to pass before the federal government once again began to consider plans to extend the flax industry.

[19][AD9 712-5] file 3/1, 19 October 1931.

[20][PD1-492] file 179/1/31, 21 January 1931.

[21][AD9 712-5] file 3/1, 24 July 1931.

[22][AD9 712-46] file 3/1, 20 June 1932.

[23][AD9 712-46] file 3/1, 4 July 1932.

[24]Mercury, 1 March 1937.

Defence considerations as well as import substitution were put forward as reasons. In 1936, the C.S.I.R. set up a vegetable fibre section at the request of the government.[25] This was used by private enterprise as a signal to increase production. Victorian flax acreage, which had shot up from 179 acres in 1928/29 to 1,216 acres in 1930/31 under the bounty scheme, had fallen off to 509 in 1932/33. It once again began to expand so that, in 1938/39, flax in Victoria had returned to 1,358 acres. Tasmania was monitoring the situation with the Minister of Agriculture pointing out to the Australian Agricultural Council in 1938 that the potato industry required a million new sacks each year.[26] This was a potential market worth £30,000. Proposals for a new Tasmanian industry began to be aired in the press. However, it was not an easy industry to promote in country districts. One promoter claimed that, despite Tasmania's "obvious" superiority over Victoria in production and the important defence role of the industry, if anyone mentioned flax in certain districts "... he was liable to be shot on sight".[27]

[25] Commonwealth Official Year Book 1939, p. 658

[26] [AD9 712-141] file 15/2-1, September 1938.

[27] Examiner, 23 May 1939.

8.3 Poultry Farming - The Folly of Unrealistic Expectations

Poultry farming in Tasmania was a minor activity whose commercial potential was virtually undeveloped. The typical producer ran a few hens as a sideline while a limited number of commercial operators struggled against the factors that made the saying "every hen dies in debt" a fair though bitter appraisal of the status of their industry.[1] However, in spite of its modest size, the poultry sector was important to the evolution of Tasmanian farming in the 1920s and 1930s. It was widely believed that Tasmania had the potential to become a major producer of eggs. This belief was based more on the perceived benefits that poultry farming could introduce into the beleaguered rural economy than on a rational analysis of the facts. The contrasts between expectations and realities, the operation of newly evolving marketing systems, and the attempts to establish an export trade are themes that are examined in this section.

The poultry industry existed at three levels of operation. The first level involved the specialist poultrymen and contained the three subcomponents of breeders, fatteners and "utility" poultry farmers. There were very few breeders in Tasmania as farmers would rarely pay for high quality stock. Likewise, the fattening sector was limited as the market for table birds was totally undeveloped. Consequently, the commercial sector was centred on the "utility" poultryman and the production of eggs. The production of eggs in commercial quantities was a recent development in Australia. It depended on the use of incubators and breeding equipment. The fully commercial sector was believed to produce about five percent of the Tasmanian egg supply.[2] The commercial farms, none of which were large operations, were generally found in or around the major urban centres.[3]

A few Tasmanian operators were earning a living by managing good quality stock in an efficient manner but most were in difficulties. Poultry farming was a business with many failures. Poultrymen had to combine

1[AD9 712-112] file 19/2-1, 14 June 1937.

2[AD9 712-112] file 19/2-1, "Report on Poultry", no author, circa 1937.

3[AD9 712-72] file 19/2-1, 30 May 1933.

farming skills with commercial talent and, as well, face the special handicaps of poultry production in Tasmania.

At the centre of the problem was the belief that poultry farming was an industry that could be entered by the enthusiastic amateur with a modest capital base. A small farmer on a subeconomic holding or a townsman seeking to become self-employed could easily be enticed into setting up as a poultryman. Cases of inexperienced people rushing into the industry and losing money were not infrequent. The "modest" capital was generally underestimated. One report in 1930 estimated that a specialist 800 bird operation would require an investment of £800 for birds, buildings and equipment.[4] Another source gave a lower estimate of £631 for a larger flock of 1,500 birds.[5] However, it also stressed that two years of setting up costs had to be met before any return could be expected. Aspiring poultrymen without these sums could only cut back on the size and quality of their flock. It was not surprising that many lived on the margin of disaster with many operations earning little more than the cost of the feed.

Tasmania also faced special problems in terms of production costs. The general quality of hens was low. One estimate of average production in the state was 85 eggs per hen per year. A commercially viable operation needed a production in the range of 150 to 180 eggs per hen. Furthermore, the cost of grain was high given freight charges from the mainland. To move into full scale commercial egg production, a region would need access to both cheap grain and an organised market for eggs and meat. Neither condition existed in Tasmania so the commercial potential was extremely limited.

It was unfortunate that the government had promoted poultry farming. In the pre-depression years, it had even advertised in Britain for poultry farmers.[6] The aim was to try to attract retired army officers to settle in Tasmania. Even during the depression, the Poultry Husbandryman was publicly stating that a 500 bird flock, well housed and economically fed,

[4][AD9 712-5] file 3/3, 2 July 1930.

[5][AD9 712-112] file 151/2-1, "Report on Poultry".

[6]Mercury, 1 January 1929.

would return a liveable profit of 18 shillings a bird.[7] A more senior officer in the Department challenged the claim arguing that profits would be more like 2s 6d.[8] He was also on record as questioning the morality of promoting poultry farming at a time when experienced men were making the barest of livings.[9]

The second level of the industry involved the mixed farm. About twenty percent of egg production came from farms where poultry was a significant sideline (i.e. where there were more than 150 birds) while thirty percent came from holdings with a minor poultry interest.[10] The major sideline farms were largely in the orcharding districts. Hens formed a useful complementary activity as a free ranging flock could control weeds and fertilise the orchard. Farms with a minor interest in poultry were more widely scattered and included large numbers of general and dairy farms. The Northwest Coast, particularly around Ulverstone, was often noted as a major area of egg production.[11] Given the disadvantages of the fully commercial sector, it was believed that the most appropriate developmental strategy for Tasmania would be to expand sideline poultry farming.[12] Expansion of production would not be easy. Firstly, a solution would have to be found for the low quality of the flock in order to increase production per hen. Secondly, any increase in the total size of the flock in the sideline sector would be difficult in the absence of commercial incubators and brooding equipment on these properties.

The remaining forty-five percent of egg production came from the backyard sector where ten or twenty hens were kept for household use though any surplus eggs would enter into a barter trade. Not only did the backyard sector comprise virtually every farm in the state, it was also widespread in urban areas. One estimate in 1927 claimed that there were

[7] [AD9 712-72] file 19/2-1, 9 June 1932.

[8] [AD9 712-72] file 19/2-1, 8 July 1932.

[9] [AD9 712-72] file 151/3, 11 May 1932.

[10] [ADS1 712-112] file 151/2-1, "Report on Poultry".

[11] [ADS1 712-147] file 151/2, 31 August 1933.

[12] [ADS1 712-112] file 151/2-1, "Report on Poultry"

60,000 hens in the two cities.[13] This compared to the only recorded farm total of 308,984 (1930/31). The scale of backyard production accentuated one of the key problems of the industry - the lack of orderly marketing. It was impossible to organise any system where there were such a large number of producers, most of whom lacked a serious commitment to the industry.

The marketing situation was chaotic. The total demand for eggs was put at about 25 million.[14] Half would be consumed fresh and half would be used by pastrycooks. One estimate of annual production was no less than 46 million.[15] This figure was unlikely. The number of hens multiplied by average production gave a value of around 30 million. This was a much closer balance between production and consumption especially after taking into account interstate and overseas trade. The Mercury in 1934 put exports at 3.6 million eggs and 48 tons of pulp.[16] The pulp would convert to another million eggs. However, there were clear seasonal problems of oversupply and undersupply. A surplus of eggs would hit the market between August and November and prices would be reduced to an unprofitable level. By Christmas, eggs would be in short supply and the resultant high prices would discourage consumption and even permit the import of chilled eggs from South Australia.[17]

It was difficult to organise an efficient marketing system in a situation where almost every farmer produced some poultry products. Most eggs were bartered at country stores and were then sold locally or passed on to urban wholesalers. Others were sold directly by the producer to hotels, boarding houses and town shops. Only a small fraction of the trade passed through commercial auction houses or the co-operative "egg floors". The "egg floors" were nominal co-operatives of poultry farmers which had developed in the early 1930s at Launceston, Ulverstone and Hobart. These

[13][AD9 712-72] file 19/2-1, 30 May 1933.

[14]Mercury, 12 September 1934.

[15][AD9 712-72] file 19/2-1, 30 May 1933.

[16]Mercury, 12 September 1934.

[17]Mercury, 18 December 1936.

firms handled all the export trade and much of the larger-scale local trade. To some extent, they tried to manipulate the market. The Ulverstone egg floor with 75 members controlled half the commercial sales along the Northwest Coast and shipped eggs to the West Coast mining towns or to Launceston as the marketing situation required.[18]

The informal nature of much of the trade meant that standards were low. There were no regulations for the sale of eggs. While the egg floors would grade and candle all eggs, the farmers would sell small and dirty eggs along with the rest. Serious poultrymen and retail grocers were united in calling for the protection of the consumer. A deputation from the Grocers Association to the Minister of Agriculture noted that most packages contained a number of pullet eggs and criticised the common habit of speculators selling cool store eggs as fresh.[19] Another deputation, this time of producers, noted that infertile eggs from incubators were being placed on the market.[20] The Launceston Weekly Courier, in commenting upon Parliamentary inactivity on the issue, concluded that the egg business was "... one of the last strongholds of the dishonest trader".[21]

The theory was that compulsory grading would encourage Tasmanians to consume more eggs. It was argued that the per capita consumption stood at 100 eggs per year.[22] This was compared with Canada where an egg a day was the norm. Canadian consumption had apparently increased from 200 to 357 per person between 1920 and 1927 as a direct result of a policy to drive the "bad" egg from the market.[23] A similar result was expected in Tasmania. However, proposals for compulsory grading ran into problems. The easy route to compulsory grading through amendments to the Pure Food Act imposing basic regulations on size, cleanliness and age did not have a high legislative priority.[24] Action was postponed from session to session.

[18][AD9 712-112] file 19/2-1, "Report on Poultry".

[19][AD9 712-72] file 19/2-1, 27 May 1932.

[20][AD9 712-72] file 19/3-1, 14 September 1933.

[21]Weekly Courier, 1 December 1932.

[22][AD9 712-72] file 19/3-1, 14 September 1933.

[23][AD9 712-72] file 19/3, 10 October 1933.

[24][AD9 712-72] file 19/3-1, 1 September 1933.

Unfortunately, the grading issue became linked with broader concerns of markets and marketing organisation. Some egg producers were in favour of a scheme similar to that in New South Wales where the Egg Marketing Board controlled the sale of all eggs within the state and also organised the export trade. Deputations of poultry farmers in favour of similar legislation called on Wardlaw, the Nationalist Minister for Agriculture in 1933 and Cosgrove, his Labour successor in 1934.[25] These delegations pointed out the plight of the industry and called for the government to regulate the marketing of eggs. The two tenets of the poultrymen's plan were a compulsory pool for the urban market, and the expansion of egg consumption through grading. Neither Minister was enthusiastic noting the probable opposition of the small producers and the difficulty of obtaining the approval of the Legislative Council.

The problems of the poultry industry would be of limited interest if production had been strictly confined to the local market. Broader issues arise through the arguments put foward in various reports that poultry farming was capable of being developed into a major export industry. This hypothesis was based on three observations. Firstly, there was the existence of a highly developed trade in eggs in northwestern Europe. The English market for imported eggs alone was reputed to be worth £17 million.[26] Britain imported eggs, not only from nearby areas like Ireland, northern France and the Low Countries, but also from distant sources like South Africa and China. Australia and New Zealand had recently begun to export. Here was a market into which Tasmania could move. Secondly, the British demand for eggs had been increasing throughout the 1920s. The United States was traditionally to the forefront in the change towards a lighter diet. Britain was following the same trend but with current egg consumption well below the American standard.[27] Thirdly, there were the examples of countries that had successfully entered the export trade. The Mercury in 1931 cited the case of Belgium which had expanded its egg export trade from £10,000 to £2,000,000 inside a decade.[28] If Tasmania

[25][AD9 712-72] file 19/3-1, 14 September 1933.
Mercury, 24 August 1934.

[26]Mercury, 19 June 1931.

[27][AD9 712-112] file 19/2-1, "Report on Poultry"

[28]Mercury, 19 June 1931.

could do the same, the economy of many small holdings could be transformed.

The Cameron Report had recommended the fostering of an export egg industry.[29] The report was received by the Government on January 22, 1926. Shortly afterwards, there was an attempt to export eggs from Tasmania. Commercial interests from New Zealand had pioneered the trade and had opened depots in Sydney and Melbourne to tap Australian supplies. A branch of the Melbourne operation was established in Launceston.[30] This firm offered 1s 4d a dozen for export eggs with the hint of a bonus if London sales proved better than expected. This price was above the prevailing local rate though the company was somewhat hampered by the low quality of supplies. Many eggs were dirty or underweight. However, the scheme was short lived and closed half-way through the egg season having exported 14,000 dozen eggs. The English general strike and a poor London market were alleged to be the main factors behind making profitable exports impossible.

The next attempt to establish an export egg trade was a joint venture between the Development and Migration Commission and the Department of Agriculture.[31] The "Tasmanian Egg Company" was formed in July 1927 with government backing and some funding. An organiser was appointed to work up the trade and sell shares in the company to producers.[32] The share selling campaign was not very successful and the Tasmanian Egg Company was forced to wind up operations in May 1929 with accumulated losses of £1,698.[33] However, it had managed to double egg exports to Britain and had done valuable work in organising the large scale supply of egg pulp to pastrycooks in Hobart and Launceston.

The onset of depression created a crisis in the egg industry. The usual trend in the 1920s was for low prices in one year to be followed by

[29][PD1-419] file 118/3/26, Dr S.S. Cameron "Report on Agricultural Production in Tasmania", p. 10.

[30]Illustrated Tasmanian Mail, 3 November 1926.

[31][PD1-438] file 146/2/27, 19 October 1927.

[32][PD1-438] file 146/2/27, 10 September 1927.

[33][AD9 712-29] file 19/21, 5 July 1929.

reduced output in the next.[34] This self-regulatory mechanism broke down in the 1930s as farmers tried to maintain income by producing without regard for markets. The problem was accentuated by the entry of more people into the industry. Local demand was reduced and the mainland markets were swamped. Once again, the egg industry turned towards exports. The failed "Tasmanian Egg Company" was restructured into the "Tasmanian Egg Floor Co-operative Society".[35] Depots in Launceston, Ulverstone and Hobart collected eggs for the export trade. Exports by this firm were 17,000 dozen in 1933, 32,000 dozen in 1934 and 43,000 dozen in 1935.

Tasmania was only a minor part of the growing Australian trade in shell eggs. Australia became the sixth largest source of imported eggs on the British market following a fivefold increase in shipments between 1929 and 1935. Australian exports in 1934/35 were over 21 million dozen with a total value of £1,148,254. The roots of this trade lay in the seasonal difference between southern hemisphere and northern hemisphere production. Its expansion to these levels depended on a number of artificial factors: the Ottawa Agreement which placed a duty on foreign eggs; the 30 percent exchange premium; and the willingness of New South Wales producers to subsidise exports with a levy on domestic sales.

It had become evident through experience that the profits in export came not so much from the value of the exported product but from the maintenance of the local price at a higher level. Exports balanced the seasonal cycle of glut and undersupply. Removal of the surplus eggs in the four month period of peak production not only increased returns for eggs sold on the local market during the egg season but also prevented their release from a local cool store to blunt a rising market in the following summer.[36] This was used to justify calls for a levy on domestic sales to raise the return on exported eggs. The Egg Board in New South Wales was able to pay 1s 2d per dozen for exports, 3d of which came from a levy. The Nationalist Government would not legislate for a levy. Its reasons were partly ideological, partly political and partly practical. The practical

[34][AD9 712-1] file 2/2-2, draft of Annual Report for 1931.

[35][AD9 712-72] file 19/3-2, undated.

[36]Mercury, 19 June 1931.

involved an opinion that the profits from these schemes came from the exchange, a rate that had only recently broken with sterling and which could come down.[37] Tasmania supplied less than one percent of Australia's exports. Surprisingly, the state had managed to acquire a reputation for a quality product. A buyer from Selfridges explained that a first prize at the Empire Dairy Show of 1934 and a good mixture of colours were the main factors behind the price premium for Tasmanian eggs over Australian.[38]

The egg-in-shell trade was also notoriously unreliable. British consumption was highly sensitive responding rapidly to changes in prices and incomes. The depression checked the rise in per capita consumption that had occurred in the 1920s. The decline in the total market was reflected in egg imports. These fell by 20.3 percent between 1929 and 1935. While Empire sources were increasing exports, the market for eggs was in decline.[39] Although Australian exports were slightly buffered from this effect by supplying the high-price, off-season market; it was evident that egg shipments were only marginally profitable in good years and completely unpayable when British domestic production was larger than normal.

Serious expansion of the export egg trade required moving from shell eggs into the pulp trade. Manufacturing requirements in Britain could provide a stable market for large quantities of egg pulp. New South Wales began to export pulp in 1929. The trade from Tasmania began in 1932 with the shipment of seven tons on the steamer "Port Auckland".[40] By the end of the year, exports in four shipments totalled 49 tons.[41] The pulp was prepared by W.D. Peacock and Company in Hobart and involved packing frozen pulp (8° to 10°F) into tins. From the beginning, there were doubts about whether Tasmania could effectively compete in this trade. Fifty tons was approximately one million eggs. A commercially viable factory required

[37] Mercury, 19 June 1931.

[38] [AD9 712-112] file 19/3, 27 September 1935, "Report on Egg Trade to England".

[39] [AD9 712-112] file 19/3, 27 September 1935, "Report on Egg Trade to England".

[40] [AD9 712-72] file 19/3-1, 12 October 1932.

[41] [AD9 712-72] file 19/3, 1 March 1933.

a throughput of 2,000 tons.[42] This would require more than Tasmania's total egg output. In addition, Britain obtained most of its egg pulp from China. Attempts to compete against Chinese production costs were futile. Nor could Tasmania compete against the scale and organisation of the Chinese-British trade. A report from the Agent-General described how the Chinese combines were able to sell pulp to large users at 6.75d per pound duty-paid.[43] Smaller users would pay 7d. Delivery was from dedicated cool stores scattered around Britain. The Tasmanian product arrived in small quantities and was handled by merchants. The 1932 exports fetched a price of 6.5d per pound, less than half the value predicted before the venture began.[44]

Egg pulp exports from Australia continued in small amounts for the rest of the 1930s. Shell eggs were sent in far larger amounts until the war though the trade was in decline after 1934/35. The Cameron Report had argued the need for an expansion of the poultry sector. The Development and Migration Commission had commissioned further reports and initiated some action. However, Tasmania was never able to become a major part of the trade. The concept that the poultry industry could be developed on a wide base to provide supplemental income to several thousand, frequently uneconomic, holdings was fundamentally flawed. The scale of operations required to be efficient was beyond the scope of the sideline producer. Instead, it required production from a fully specialised egg farming system. However, in Tasmania, specialised egg farms would be handicapped by the high cost of feed. Exporting and manufacturing systems would also have had to be appropriate to be efficient. Tasmania would have to work through Victoria. Bass Strait freight on eggs was 2d a dozen. As shown, the Australian trade was marginal and based on artificial factors. Given these factors, the trade from Tasmania could never have succeeded. A rationalisation and improvement of the local market would have been a far more effective policy for the 1930s.

[42] [AD9 712-29] file 19/1, 25 April 1929.

[43] [AD9 712-72] file 19/3, 16 March 1933.

[44] [AD9 712-72] file 19/3, 1 March 1933.
Mercury, 19 June 1931.

8.4 Land Settlement - Traditional Palliative to Depression

The history of Australia contains numerous examples of the interaction between land settlement and the economic cycle. Periods of economic stress have repeatedly seen governments turn to the land in a search for solutions to problems that developed in both urban and rural environments. Examples could be cited from various times and places, but two, from what was then the recent past, were the co-operative village settlement at Southport during the 1890s and the closer settlement estates developed in the years immediately before the Great War. These were Tasmanian applications of standard themes in Australian land settlement policy. This section examines the role of land settlement as a palliative for depression during the 1930s. As opportunities for effective settlement were limited, much of the discussion concentrates on attitudes and policies. However, the 1930s depression saw the implementation of some major swamp drainage projects in the Circular Head region. These are examined in some detail.

Land settlement policies of the 1930s flowed on from the policies of the preceding period. Like other areas of Australia, the 1920s in Tasmania were dominated by the problems of soldier settlement with a subtheme involving the desire to involve the state in the attempt to settle the surplus population of Britain on farms in the Australian bush. The soldier settlement schemes achieved limited success.[1] Problems were apparent even before the end of the war. Allegations of inexperience, drunkenness, and the abandonment of land after the sale of all moveable assets were brought against many soldier settlers.[2] Their response was to complain about being dumped on marginal properties without adequate training or resources and with an unbearable burden of debt. In any case, abandonment of farms was commonplace. The Tasmanian Royal Commission into the Returned Soldier Settlement Department found that 1,200 out of 2,000 original settlers had left their holdings by 1926.[3] Four hundred of the remainder were in

[1]Powell, J.M. "Soldier Settlement in the Dominions the Debt of Honour 1915-1940", Journal of Australian Studies, Vol.8 (1981), 64-87.

Beresford, Q. "The World War I Soldier Settlement Scheme in Tasmania", Tasmanian Historical Research Association, Vol.30 (1983), 90-99.

[2]Mercury, 14 January 1920.

[3]Mercury, 25 November 1926.

arrears with payments. Many of the abandoned holdings, along with all their problems, were taken up by civilian settlers. By the end of the 1920s, there were 1,637 farms under the control of the Returned Soldier Settlement Department. Barely forty percent were occupied by returned servicemen and the accumulated losses totalled over £1 million pounds. Only the Yambacoona estate on King Island with 57 farms could be regarded as a significant advance in rural settlement.[4]

Tasmania also missed out on plans drawn up during the 1920s to redistribute the population of the Empire. The Empire Settlement Agreement between Britain and Australia foresaw the shift of 450,000 people from overcrowded Britain to Australia.[5] However, a state that was losing population at an annual rate of 3,430 (1922 to 1928 average) was hardly an appropriate destination for large numbers of immigrants. Several attempts were made to fund rural infrastructure projects with loan money from the "£34 million" scheme. This was the popular name for the Empire Settlement Agreement. These were invariably rejected as links between a project such as a cool store at Port Huon and British settlement were too tenuous to be seriously considered. Specific action was limited to advertising Tasmania's potential for individual settlers with private means. Some of this advertising was linked to the proposed establishment of community poultry settlements near Hobart and Launceston.[6]

The failure of soldier settlement was partly a symptom of the larger problem of population loss from established rural areas. Between 1911 and 1921, rural municipalities experienced a net loss of 13,259 persons. Thirty-two districts showed a migration loss which in 14 municipalities was sufficient to cause an absolute decline. Rural depopulation had probably accelerated during the 1920s. At the very least, soldier settlement had speeded up the cycle between arrival and abandonment. Concern about the drift from rural areas was expressed in many quarters. The Hon. H.A. Nichols M.L.C. told the annual general meeting of the Tasmanian

[4]Farmer, R.S. The Geography of Migration in Tasmania 1921-1961, Ph.D. thesis, Geography, University of Tasmania, (1968), p. 102.

[5][PD1-415] file 55/8/26, 21 January 1925.

[6][PD1-444] file 22/24/28, 4 July 1928.
Mercury, 1 January 1929.

Farmers, Stockowners and Orchardist Association about the situation in the Northwest. Even in the fertile Leven district, he would have been able to ". . .show them places where homes used to be but were now gone".[7] It was similar in the southeast. W.L. Clennett in a letter to the Mercury noted that a traveller would ". . . see homes abandoned and hundreds of acres of good grazing land, orchard and small fruit growing land rapidly going back to bush".[8] In the same vein, W.E. Shoobridge M.H.A. complained that there was less arable land, less production and fewer farmers than there had been before the great settlement campaigns opened up the forested country in the late nineteenth century.[9]

Shoobridge expressed his concern for the future of farming in Tasmania in terms of rural population. It is probable that Shoobridge played an important role in formulating Labour's farm policy for the 1928 election. While mainly based on continuing the agricultural reforms already instituted, it also called for land settlement schemes to be undertaken with migration money.[10] The Lyons government had already previously appealed for £500,000 of federal funding for closer settlement in the Midlands and set up the Crown Lands Examination Board to assess the waste lands of Wellington and Dorset counties.[11] These were respectively the northwestern and northeastern extremities of the island.

The Crown Lands Examination Board was abolished by the incoming McPhee Nationalist government.[12] Popular attention became even more fixed on schemes to intensify rural settlement in the Midlands. The anomaly of a railway passing through flat, apparently fertile country devoted to sheep grazing had been attracting comments since at least the 1880s. In 1929,

[7]Advocate, 1 September 1927.

[8]Mercury, 27 June 1929.

[9]Advocate, 10 September 1927.

[10]Examiner, 26 May 1928.

[11]Lyons, J.A. "Outline of Proposals for Development, Appendix 17 to 'The Case for Tasmania'", Journals and Printed Papers: Tasmania, (1925/26), Paper 52.
[PD1-428] file 28/4/27, 15 November 1927.

[12][PD1-444] file 22/25/28, 30 November 1928.

E.A. Counsel, a retired Surveyor-General, reopened the debate with an article in the Mercury.[13] This proposed an intensification of settlement in the Midlands based around the development of a wheat-sheep economy assisted by irrigation from Lakes Sorell and Crescent.

Counsel's proposal received mixed support from three Midland graziers interviewed by the Mercury.[14] Mr C. Fisher of "Wallace", Oatlands, thought that every effort should be made to develop a bold plan to settle the Midlands. Fisher was a member of the Closer Settlement Board and claimed that the main cause of Tasmania's economic stagnation and loss of population was the failure of young men to find land of their own at a reasonable cost. In the Midlands, this was due to the unreasonable enlargement of pastoral estates. Smaller farms were possible and he specifically cited the success of a private closer settlement scheme on the "Waverly" estate near Oatlands. These opinions were partly supported by N. Nicolson of "Tigleston", Campbell Town, and F. Burbury of "Hilly Park", Parattah. Nicolson noted the success of the prewar closer settlement estates at York Plains and Mt. Pleasant while Burbury not only backed the plans to divert water from the Central Plateau into the Midlands, he also argued that local groundwater supplies could be sufficient for extensive irrigation. However, both argued that the present costs of land acquisition, building and mortgage finance would probably lead to failure if large grazing properties were broken up into smaller units.

The basic premise that the Midlands was suitable for wheat production had been supported by the Cameron inquiry.[15] Cameron had wanted to incorporate Tasmania into the wheat belt that was then marching relentlessly across the mainland. Cameron believed that the higher yields in Tasmania should cover the extra costs of production. Counsel was another wheat fanatic citing yields of 40 to 60 bushels off large acreages near Campbell Town and claiming that there were tens of thousands of acres of similar prime wheat country throughout the Midlands. Other Midland settlers were

[13] Mercury, 25 June 1929.

[14] Mercury, 2 July 1929.

[15] [PD1-419] file 118/3/26], 22 January 1926, Cameron, S.S. "Report on Agricultural Production in Tasmania", p. 16.

less enthusiastic and were quick to attack these proposals in the letter columns of the Mercury. Mr. J. Oldmeadow of "Lowes Park", Woodbury, pointed out that the concept that the Midlands was prime wheat country had been around since he was a lad.[16] Although large crops had been grown in the past, it was at a time when prices were four or five times the present levels. Oldmeadow also questioned the practicality of irrigating the Midlands claiming that mainland experts had investigated the scheme before the war and had found it impractical. Other correspondents drew similar conclusions.

In many ways the debate was academic. The McPhee Nationalist government was not philosophically attuned to a policy of estate subdivision. Besides, any strategy based on wheat farming became impractical once global overproduction threw the Australian wheat industry into chaos. However, it does illustrate the major lines of thought during the late 1920s. The onset of the Great Depression revived community interest in schemes that would put ". . . unused land and unemployed labour into closer touch".[17] At times, the proposals verged on the insane. In 1931, the Mayor of Launceston called for the single unemployed to be settled in camps where they could grow their own food.[18] What this policy would achieve beyond removing the unemployed from the towns was not explained. At least another proposal put forward by a Nationalist candidate for Darwin, Mr H.H. McFie M.H.A., during the 1934 election campaign had some potential.[19] This was for small farmlets to be established around mining towns on the West Coast. The unemployed would be hired to clear the land, with families eventually settled on small blocks. A shack, a horse, a plough and a cow were to be provided. This plan was apparently based on a Queensland precedent. Agriculture in areas like Granville Harbour, Surprise Creek and Corinna would never be economic but subsistence farming with some local marketing in the nearby towns could be an alternative to mining on tribute for workers stranded by the collapse of company mines.

[16]Mercury, 3 July 1929.

[17]Examiner, 1 January 1931.

[18]Examiner, 7 January 1931.

[19]Advocate, 8 May 1934.

The McPhee government before its defeat in 1934 developed two policies that had promise for significant development. One was the Unemployment (Assistance to Primary Producers) Relief Act. This provided low interest development loans to farmers. One aim of this scheme was to increase the productive capacity of the state; another was to keep small farmers on their properties by providing paid work in country districts rather than having them leave their farms in order to take part in town relief work.[20] Seven thousand men were employed at one time or another under this scheme with 50,000 acres of land reported to have been cleared.[21] This was a significant increment to the improved land resources of the state. Unfortunately, most of the farmers whose income was derived from only a small part of their own holdings were employed clearing and draining land on larger, well-established properties.

The second policy was to push ahead with several projects that would eventually create new and economically viable farms. There was little actually "new" about these projects. Land settlement work under government auspices can be traced back at least thirty years in both the Forester River area of the Northeast and the swamp country of Circular Head. The Great Depression merely acted as an incentive to proceed with more vigour. The Circular Head scheme was by far the more important. The swamp settlements were found in a band of country running west from Smithton towards Marrawah and Redpa (Figure 49). Mowbray Swamp was the most accessible, lying only three miles southwest of Smithton. It was also the most developed having been converted into dairying and cropping country before the war. The real swamp country was to the west of Christmas Hills where Brittons, Montagu, Dismal and Welcome Swamps separated the Marrawah-Redpa district from the other developed lands in Circular Head. Travel across the swamplands was by the Marrawah tram. A road link with an alignment south of the tram was still under construction in 1931.[22]

Twenty-five thousand acres of the swamp country had been set aside for closer settlement in 1922. Some work had been done on the western

[20]Advocate, 11 January 1932.

[21]Advocate, 8 May 1934.

[22]Advocate, 2 September 1931.

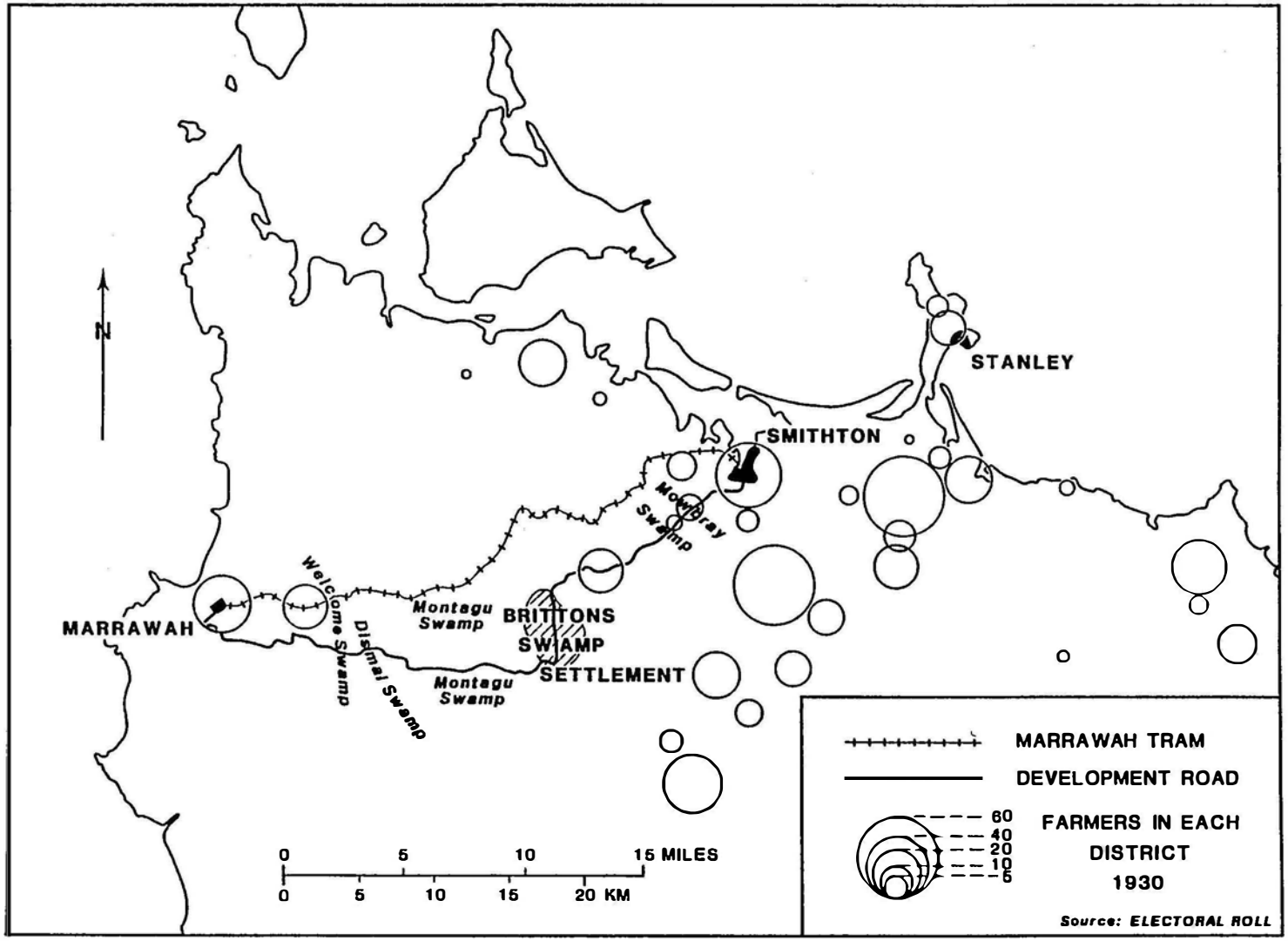


Figure 49 - Swamp Settlement in Circular Head

margin of the Welcome Swamp at this time and settlers had moved into the district. However, much of the work had been bungled by the contractor appointed by the Closer Settlement Board to design the scheme.[23] Although the Royal Commission appointed to enquire into allegations of mismanagement accepted that there would always be a difference between a "farmers" drain and an "engineers" drain, it still urged that careful planning and the coordination of various government departments would be essential in any future development. The same argument was made by L.R. East in a 1930 report prepared for the Tasmanian government.[24] East was a Victorian expert on swamp reclamation and he argued that a full survey of all the swamplands of Wellington Country should be made so that development could proceed in a planned fashion. He also urged that the Department of Agriculture should become involved in the planning process so that schemes would be seen in an agricultural context as well as from the viewpoint of the drainage engineer.

The Director of Development recommended that work should begin with Brittons Swamp.[25] In his opinion, any larger project would be beyond the financial resources of the state especially in a time of depression. East had nominated Brittons Swamp as an excellent prospect for drainage at a reasonable cost. It was an obvious prospect being closest to Smithton and lying along the route of the federal development road to Marrawah (Figure 49). The swamp had a catchment area of 4,250 acres of which 2,000 were densely covered with ti-tree.[26] Costs of drainage and roading were estimated at 19,989. The scheme received the approval of the Public Works Committee early in 1932.[27]

The Department of Agriculture prepared a plan which proposed to divide the land into 100 acre farms.[28] Half of each farm would be on the

[23]"Royal Commission on Welcome Swamp Reclamation", Journals and Printed Papers: Tasmania, (1923/24), Paper 58.

[24]Advocate, 8 March 1930.

[25]Advocate, 2 September 1931.

[26]Advocate, 2 September 1931.

[27]Mercury, 4 January 1932.

[28][AD9 712-22] file 15/13, 1 July 1929.
[AD9 712-22] file 15/13, 17 July 1931, "Report on Brittons Swamp".

swamp proper. The remainder would be on nearby, though not necessarily adjacent, hill country. Each farm would be capable of supporting 35 dairy cows. These would earn two-thirds of the farm income. The balance would be made up by swine and beef cattle. After ten years, it was estimated that these farms would have a gross income of £520. Grassland farming was preferred by the Department of Agriculture. One obvious reason was that grassland farms were cheaper to establish. Clearing to a ploughable state was at least 75 percent more expensive than laying out a pasture amongst the stumps. Another factor was transport costs. Crops from Brittons Swamp would have to carry a freight of £1 per ton to the port at Stanley while the butter factories absorbed the costs of collecting cream. Finally, dairying should be highly profitable. Farms in Welcome Swamp were carrying two cows to three acres. The Department anticipated that the stocking rate on Brittons Swamp would be higher with three cows to four acres.

Gangs of unemployed labour were used to construct the main drains, clear the land, erect simple dwellings and sow the pasture. By 1934, pressure was beginning to mount for blocks to be allocated to settlers.[29] Local opinion held that there would be at least three applicants for every block. The selection of settlers would involve a basic policy decision. The scheme had already involved the State in a substantial expenditure of public capital from which both economic and social returns should be expected. The Department of Agriculture had argued from the inception of the project that it would only work if farms were allocated to men with capital or with sufficient credit to develop their block.[30] The Director of Agriculture restated this position at a meeting of the Brittons Swamp Advisory Committee in December 1934.[31] Ward noted how problems had developed in the past by putting men on land with insufficient resources in the hope that they would eventually carry out improvements.

The Chairman of the Mowbray Drainage Trust felt that the ideal settler would be a young married man with some farming experience. In his

[29][AD9 712-88] file 3/23, 13 December 1934.

[30][AD9 712-22] file 15/13, 17 July 1931,"Report on Brittons Swamp".

[31][AD9 712-88] file 3/23, 13 December 1934.

opinion, the blocks should be filled with some of the many young share farmers in the Circular Head Municipality. Most would have some experience with swamp farming. However, few would have the necessary assets, which he defined as ten cows, to earn a bare living. To pay rent as well, he thought that twenty cows would be required. In the end, the Brittons Swamp Advisory Committee decided that applicants must have £150 in cash or stock.[32] The economic climate was hardly appropriate for demanding more.

Within a year, the problems of this policy were apparent. The District Agricultural Officer commented in October 1935 that the settlers on Brittons Swamp were ". . . almost without exception without capital".[33] It was suggested that the government would have to put the settlers on a maintenance allowance to allow them to work on the farm. Otherwise, they would have to obtain off-farm work in order to survive. It was also realised that settlers had been put into the area too soon after initial clearing and draining and that not enough preparatory work had been done.[34] Farmers were not able to construct the cross drains at a pace sufficient to keep ahead of the regrowth of sags and rushes. The clays beneath the thin surface layer of peat were so efficient in retaining water that at the height of summer when the drains were dry, there would be only five inches to the watertable at points only twenty yards away from the drain.[35]

The Brittons Swamp project was the only significant attempt at organised land settlement during the depression years. It would eventually turn out to be a success though the prediction of the District Agricultural Officer that the settlers would face many years of ". . . heart breaking struggle" was easily fulfilled.[36] Government assistance had to be continued with farmers receiving sustenance payments in winter and with gangs of unemployed relief workers continuing with land clearing and drain

[32][AD9 712-88] file 3/23, 13 December 1934.

[33][AD9 712-128] file 3/22, 18 October 1935.

[34][AD9 712-88] file 3/23, 3 June 1937.

[35][AD9 712-128] file 3/22, 3 February 1937, Stephens, C.G. "Preliminary Soil Map and Report: Brittons Swamp".

[36][AD9 712-124] file 2/2, "Circular Head District Agricultural Officer's Annual Report 1937/38".

maintenance during the summer. Despite the small number of new farms created, Brittons Swamp has an important role in land policy history. Lessons learned in the swamp country of Circular Head were to be applied in the numerous soldier resettlement projects that followed the Second World War. There were to be no more schemes like that at Welcome Swamp where the settlers were given a block and a poorly designed main drain. There was no money for land development or drain maintenance so that the 1930s were marked by widespread abandonment of land and the return of the swamp.[37] Brittons Swamp, in spite of its many problems, was an attempt to establish a new norm in settlement planning, with professional surveys before development, government responsibility for breaking in the land, and continuing aid as the settlers became established.

37[AD9 712-94] file 8, 29 June 1937.

CHAPTER NINE - CONCLUSIONS

9.1 Patterns of Agricultural Change 1926/27 to 1936/37

The five preceding chapters have examined the reactions of individual sectors of the Tasmanian rural economy to the Great Depression. The discussion within each chapter has focused on issues relevant to the specific industry. The aim has been to develop a deeper understanding of the particular sector rather than to examine linkages between the sectors. These were discussed only when events in one industry were directly related to events in another. It is now necessary to bring the separate strands together in order to evaluate the overall impact of the 1930s upon the evolution of Tasmanian farming. The appropriate point at which to begin this task is with the agricultural regionalisation of Tasmania in 1936/37 in order to assess the changes that had occurred to regional structures over the previous decade.

The concept of notional net income was used to standardise the data contained in the crop and livestock statistics. It involved the partitioning of total net farm income between fourteen activities assuming that the relationships between areas, yields and prices were constant at the levels established over a ten-year averaging period. These fourteen activities were then reduced to ten by merging wheat, oats and barley into a grain category and fruit, hops and market gardening into a horticultural grouping. The income derived from these ten activities formed the basis of the agricultural regionalisation of 1926/27. Furthermore, the notional net income structure can be used as a measure of agricultural change by comparing the total state structure across whatever time span is deemed to be of interest while the changing structure of any local district can be examined between the three, five-year cross sections.

The notional partitioning of state farm income for the three cross sectional years appears in Table 16. It must be stressed that these data do not refer to the actual distribution in the specific year. Nor do they account for changes that may have occurred in the relationships between activities after 1932/33 when the official statistics stopped reporting net income at the activity level. Gauging from trends in gross income, these did occur and, in particular, would have limited the decline of the orcharding

sector to a value significantly less than that suggested by the notional analysis. The distortion was caused by production gains in orcharding being unrelated to area. They came mainly from the ageing of trees with a minor contribution from improved methods of pruning, spraying, and fertiliser application. However, the concentration of this industry within a few districts and the concentration of acreage decline within even fewer, meant that this problem was of limited importance. For example, the shift in Brighton away from fruit towards sheep reflected a decline in fruit acreage from 1,589 to 796 and an increase in sheep numbers from 40,258 to 48,825. These trends were far more important in explaining the changing agricultural structure of the Brighton district than the effect of any over-estimation of the economic value of sheep with respect to fruit.

Table 16 - Distribution of Notional Net Income 1926/27 to 1936/37

	1926/27	1931/32	1936/37	Agchange
potatoes	10.2	10.8	10.1	-0.1
turnips	0.5	0.6	0.6	0.1
grains	4.8	2.3	3.0	-1.8
pease	2.0	2.3	1.7	-0.3
hay	3.3	2.7	2.7	-0.6
horticulture	22.2	20.2	18.7	-3.5
dairy	13.7	16.3	17.3	3.6
beef	10.8	9.1	10.1	-0.7
sheep	29.2	32.0	32.8	3.6
swine	3.3	3.5	3.1	-0.2

Agchange = (percentage 1936/37) - (percentage 1926/27)

$$\frac{\Sigma|\text{Agchange}|}{2} = \frac{14.5}{2} = 7.3\ \%$$

A Weaver classification of the percentage distribution of notional net income for 1936/37 selects five significant activities. These were the same five that had been identified a decade earlier but the structure was critically, if modestly, different. Sheep farming now accounted for almost a third of notional farm income. It had continued to pull away from the horticultural sector and had become firmly established as the predominant agricultural activity of the state. The decline in orcharding and hops had been matched by an upswing in commercial dairying. Horticulture and dairying now formed a second tier of major activities with each accounting for a sixth part of notional net production. Finally, there were the potato and beef sectors forming a third tier. These were relatively unchanged.

Each accounted for just over ten percent of farm income. In total, the five significant activities accounted for 89.0 percent of notional net income. A decade previously, the five main activities accounted for 86.1 percent.

Profiles similar to those for Tasmania detailed above have been calculated for each of the 42 rural municipalities. These were grouped into agricultural regions following the procedure used for the regionalisation of 1926/27. Eight regions were defined on the Tasmanian mainland by the fifth cluster. The fifth cluster in each of the three regional surveys provided the clearest definition of major agricultural regions. The movement to the fourth cluster in 1936/37 merged four dairying municipalities with twelve mixed farming districts. This merger was not entirely without meaning though the former were mixed dairy/beef while the latter were mixed sheep/crop. However, it was not acceptable on technical as well as geographical grounds as it doubled the error statistic. The error sum of squares increased from 393.8 to 999.6. These were respectively 4.9 and 12.5 percent of the maximum.

The major regions were broken into "subregions" by the twelfth cluster in both the 1931/32 and 1936/37 surveys. This had happened with the eleventh cluster in 1926/27. There were no major breaks in the error term at these points, though there were noticeable changes in the slope of the plot of the error sum of squares. These levels were primarily determined by examining their impact on local-scale groupings. Particular attention was given to the role of the two municipalities in Bass Strait. In all three years, the next level of clustering would have merged one of the islands with a district on the mainland. The Bass Strait islands were automatically defined as regions in the same way that other long distance linkages were ignored (e.g. that of Beaconsfield with the fruit districts of southern Tasmania). The two parts of long distance linkages were regarded as "regions" in their own right.

This created the pattern shown in Figure 50 of ten major regions. Four of these contained subregions making a total of nineteen distinct areal units. This was one less major region than had existed a decade earlier. Eleven regions had also emerged in 1931/32. The "disappearing" region involved the linking together of the former East Tamar with the North Midlands. This area also pulled in Scottsdale off the Northeast and the Lower Mersey away from its former alignment with the Northwest Coast.

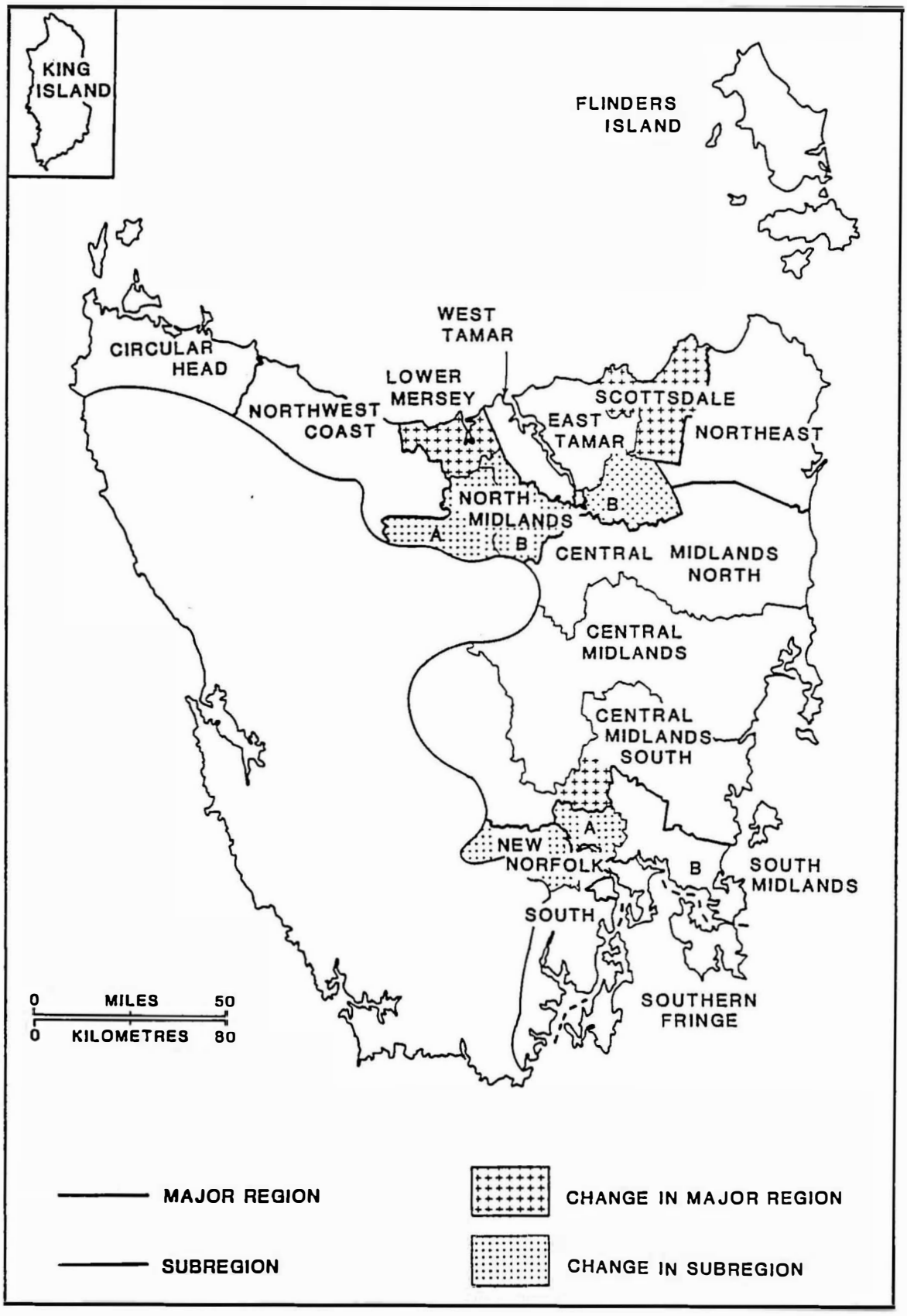


Figure 50 - Agricultural Regions of Tasmania
1936/37

However, these changes cannot be regarded as especially important as there was no central focus either to the structure of the region or to the manner in which it emerged. For instance, the Lower Mersey had broken away from the Northwest Coast in 1931/32 to form a region in its own right. This was on account of the decline in the potato industry. Further decline in the potato sector allowed fruit, sheep and dairying to become more important and, in 1936/37, helped to link the Lower Mersey with the East Tamar municipalities of George Town and Lilydale. This was the antepenultimate step in the clustering sequence. The penultimate step was to join the Lower Mersey-East Tamar grouping with the loosely associated arc of four municipalities located between Deloraine and Scottsdale. This formed what was essentially a region of subregions. The eight municipalities formed no fewer than five distinct subregions. They were all mixed farming districts but mixed in different ways.

The Midlands as a region was virtually unaltered. The only change involved the realignment of Green Ponds from the South Midlands to the Central Midlands South. This had been caused by raising the contribution of sheep farming to local farm income from 49.5 to 60.3 percent between 1926/27 and 1936/37. This had occurred sometime before 1931/32. The South Midlands split into two subregions - the Brighton district to the west and the Richmond and Sorell municipalities to the east. This was due to the role of fruit in the Brighton area. Although Brighton had experienced the state's second largest decline in fruit over the decade, it still derived a quarter (23.7%) of its income from the fruit sector. The proportion in the other two municipalities was less than ten percent. A similar situation arose in New Norfolk which had separated from the South to form a new subregion. A decline of 13.3 percent reduced income from the horticultural sector from the 80-plus level typical of the South, to the mid-60s level more commonly found in the Southern Fringe. The difference was accentuated by the local expansion of sheep farming to 16.2 percent of regional farm income. The typical value for sheep farming in areas south of the Derwent was less than two percent.

Weaver coding of the individual municipalities was the second step in the analysis (Figure 51). The codes point towards two major themes in agricultural change over the decade between 1926/27 and 1936/37. One trend was for continuity in agricultural structure. Twenty districts retained

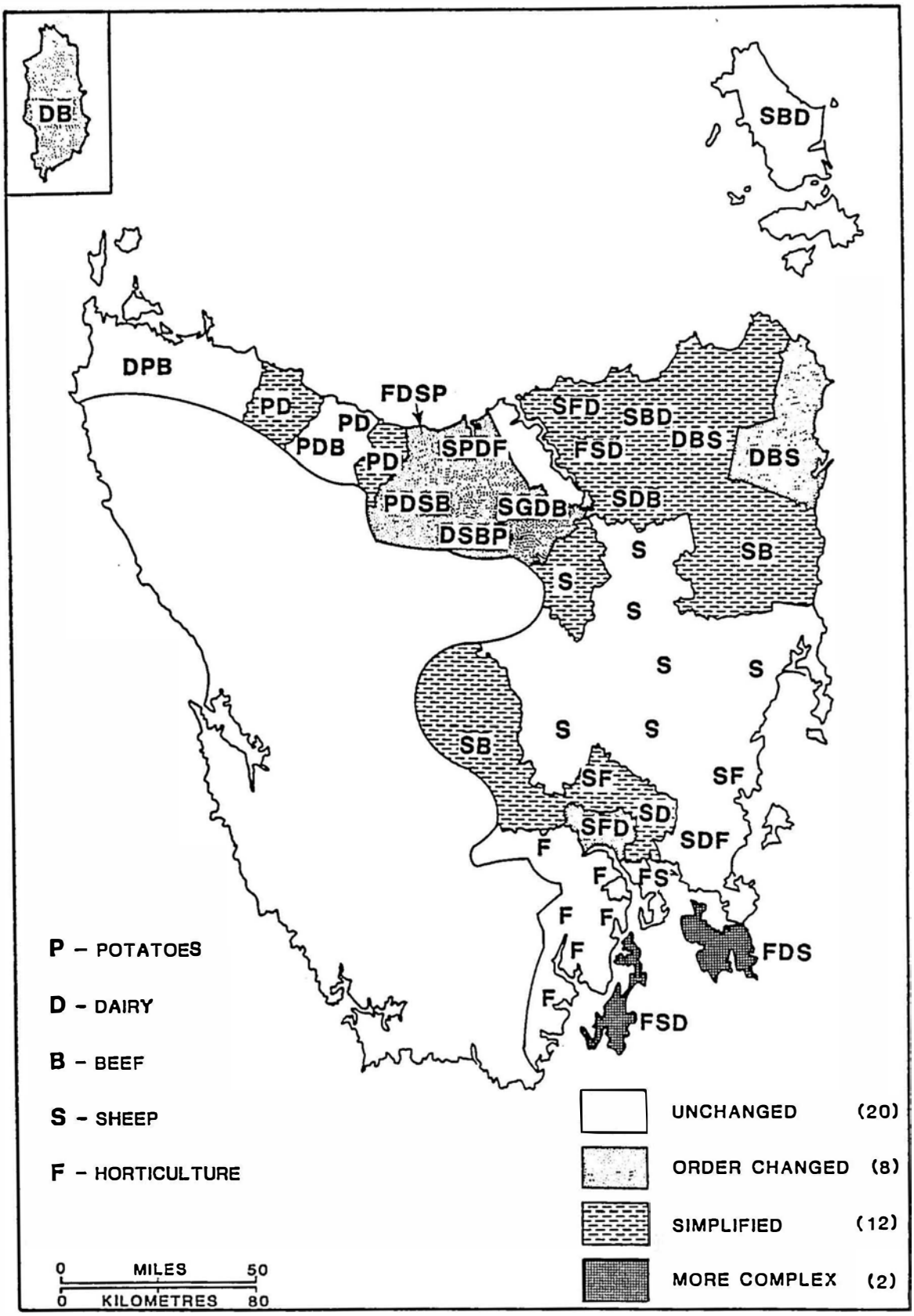


Figure 51 - Agricultural Classification of Tasmania 1936/37 (Weaver's Method)

the same coding as they had recorded in 1926/27. A further eight had switched in order only. The second trend was for simplification. Twelve districts lost one or more significant activities while only two, Tasman and Bruny, had become more complex.

The continuity factor could perhaps be overemphasised. The twenty districts with exactly the same coding included thirteen one-crop regions. Seven had a fruit orientation and six were pastoral districts in the Midlands. It would have been difficult for most of these areas to have changed structure given the effect of a high degree of single-crop dominance on the calculation of the Weaver code. It would be impossible for the code to change if the trend was towards increasing specialisation as was the case in the grazing district of Evandale where the share of income derived from sheep increased by 5.8 percent. Likewise, it would be difficult for anything but a catastrophic change to affect the code if the main activity was in decline. The case of New Norfolk was one example where the income derived from fruit and hops declined from 79.7 percent to 66.4 percent of local farm income without the decline affecting the Weaver code. If the initial value had been lower, similar to Bruny (65.7%) or Tasman (57.6%), then this decline may have brought in sheep as a significant activity. Furthermore, five of the districts that switched in order only, had agricultural structures that were extremely diversified. The first ranking activity sometimes accounted for less than a quarter of farm income in the region. In these circumstances, the Weaver method generates codes with long tails of dubiously "significant" activities. This could mask important changes in farming structure. Nevertheless, continuity is apparent. The average change in the other six fruit municipalities was -1.1 percent off a class mean of 80.2 percent in 1926/27. Changes in five of the six pastoral districts were also of this order. Continuity of rural structure was also apparent in the agricultural regionalisation (Figure 50). Eight of the seventeen areal units on the Tasmanian mainland retained the same boundaries.

The simplification theme is more accurately measured via the Weaver test. The most common structure in 1926/27 for the twelve districts that underwent simplification was a four-activity grouping. The most common structure for the same twelve districts in 1936/37 was a two-activity grouping. Seventeen codes were lost covering seven specialities with the

typical change involving an industry falling from 10.8 percent of local income in 1926/27 to 6.8 percent a decade later. In essence, the trend reflected the concentration of production into core areas. Fruit fell out of the Weaver coding for marginal districts like Hamilton and Richmond in the south and St Leonards in the north, while potatoes disappeared from Lilydale, Scottsdale and Ringarooma in the north and Richmond in the south. All of the districts in which potatoes formed part of the Weaver code were now to the west of Deloraine with first ranking status restricted to the five municipalities of the Northwest Coast potato/dairy region. Further evidence of centralisation was shown by grain crops. In 1926/27, grain cropping was a significant activity in seven municipalities straddling the boundary between the North Midlands and Northwest Coast. Ten years later, grain cropping had disappeared from Longford at one end of the grain belt, having declined from 20.5 to 9.9 percent of local farm income. Grain also disappeared from Leven at the other end. The decline in Leven was from 8.2 to 3.6 percent. Grain crops retained real importance only in Westbury (13.9%) where it was the second ranked activity. In four other areas, grains were ranked somewhere in the tail of "significant" activities. Paradoxically, grains were more important in Longford than in all but one of the municipalities that retained a grain code.

However, not all instances where a district's Weaver code was simplified indicated "real" agricultural change. On the surface, it appears that the dairy enclave around St Marys in the Fingal Valley had disappeared. In fact, the percentage of farm income derived from dairying was identical to the decimal place. Dairying had been forced out of the classification by very small adjustments to the share of income derived from sheep (-1.0%) and beef cattle (+2.3%). These minor changes turned what had been a marginal three-crop combination in 1926/27 into a similarly marginal two-crop combination in 1936/37. Another anomaly occurred in Table Cape where the income derived from swine actually increased from 6.4 to 6.9 percent but where swine fell out of the classification.

Problems with statistical artefacts such as those noted above suggest that patterns of agricultural change need to be examined directly as well as through their impact on the structure of agricultural regions. Direct agricultural change has been measured in terms of the difference between the pre-depression notional net income profile of 1926/27 and the post-

depression profile of 1936/37 for each activity (Table 16). This parameter has also been summed for the ten activities to form an index that measures the total amount of agricultural change (Σ Agchange). This index has the form of an Index of Dissimilarity or Gini Coefficient (i.e. it represents the percent by which one profile must be adjusted to bring it into equivalence with the other). The state value indicates that there had been a shift of 7.3 percent in the overall agricultural structure of Tasmania. There were gains of 7.3 percent spread between three activities and declines of 7.3 percent shared among seven. Locally, the degree of agricultural change varied from a negligible 1.0 percent in Campbell Town to 26.1 percent on King Island.

The statistical surfaces for agricultural change are more complex than those that measured agricultural intensity. They have been mapped for six of the ten variables (Figure 52). At times, adjacent municipalities have trends in opposite directions creating complex surfaces for statistical analysis. This irregularity in patterns of agricultural change had been noted by Weaver.[1] His explanation was that the physical factors that underlie the pattern of farming regions are more uniform than the economic processes that create patterns of agricultural change. A nearly identical comment came from Cowen and Lovingood who applied principal components analysis to absolute percentage changes in the farm income structure of South Carolina.[2] They obtained eight components with eigenvalues greater than unity from an input of sixteen variables. These were grouped into five clusters (regions) by Ward's algorithm. This represented two more components and one more cluster than occurred for the initial definition of farming regions.

Principal components analysis was applied to the agricultural change profiles of the 42 rural municipalities. In form, the input data (absolute percentage difference) was the same as those used by Cowen and Lovingood though slightly simpler with only ten variables. Four components were obtained with eigenvalues above unity (Table 17). It should be noted that a negative loading in Table 17 represents an increase in the activity while a positive loading represents a decline. The contribution of each component to the explanation of the total variance was fairly evenly balanced. This was

[1]Weaver, J.C. "The County as a Spatial Average in Agricultural Geography", Geographical Review, Vol. 46 (1956), p. 545.

[2]Cowen, D.J. and Lovingood, P.E. "A Multivariate Approach to the Analysis of Changing Crop-Livestock Regions", in Adams, W.P. and Helleiner, F.M. (editors) International Geography, (Toronto, 1972), pp. 709-710.

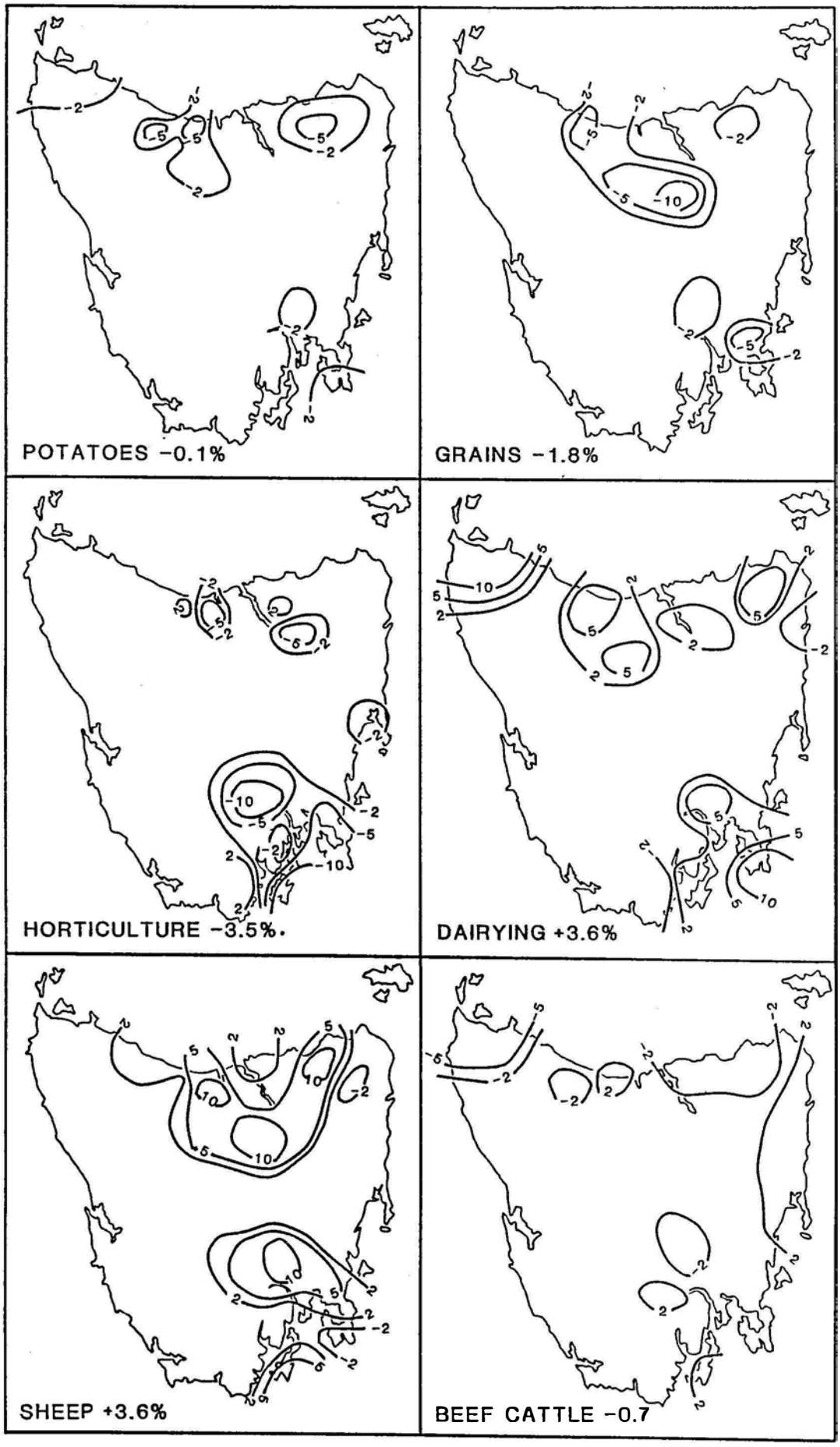


Figure 52 - Percentage Shift in Net Farm Income 1926/27 to 1936/37

somewhat unexpected given the relative geographical significance of the four components.

The first two components indicate the direction of agricultural change in a reasonably efficient manner. Component I is clearly identified via the nature of the component loadings and the distribution of negative scores, as areas in the North and South Midlands that were replacing obsolete crops (grains, pease, hay) with sheep. Statewide, there was a loss of 37,316 acres of the five grain-type crops between the two datum years. Most of the decline came from oats (-26,408 acres). There was simultaneously a gain of 426,097 sheep. In some districts, particularly in the South Midlands, the decline in cropping was augmented by the abandonment of orcharding. The positive scores have no significant meaning reflecting either marginal (circa 1%) increases in horticulture in districts such as Esperance and Kingborough or even more marginal declines in the local role of sheep in some Midlands municipalities. Perhaps these are, by default, a measure of agricultural continuity. If so, Component I defines the salient dichotomy between areas of major agricultural change in the North and South Midlands with areas of structural stability in the core pastoral and orcharding districts. Component II defines a replacement of beef cattle with dairying. This was an important process on King Island (-5.05) and to a lesser extent in Circular Head (-2.24). The reverse process was unimportant with only Portland having a positive score in excess of +1.0.

Table 17 - Principal Component Results: Agricultural Change from 1926/27 to 1936/37 (Varimax Rotation)

COMPONENT	I	II	III	IV
Potatoes	0.091	0.115	0.722	0.078
Turnips	-0.013	0.226	-0.008	0.719
Pease	0.491	-0.107	0.561	-0.017
Hay	0.727	0.048	-0.087	0.092
Grain	0.596	-0.153	0.343	-0.031
Horticulture	0.447	-0.027	-0.740	0.263
Dairy	-0.084	-0.908	-0.083	-0.216
Beef	-0.209	0.903	-0.001	-0.212
Sheep	-0.848	0.049	0.044	0.240
Swine	0.093	0.246	0.042	-0.849
Eigenvalue	2.254	1.799	1.552	1.308
Pct. of Var.	22.5	18.0	15.5	13.1

Components III and IV are more difficult to relate to significant geographical processes. Component III suggests an inverse relationship between horticulture on the one hand and potatoes, peas and grain on the other. In fact, this was observed only in the case of Devonport where an increase in fruit was reinforced by a decline in cropping. Devonport recorded the most extreme negative score (-2.671). Other districts with significant negative scores such as Kentish (-1.604), Deloraine (-1.369) and Penguin (-1.720), had unimportant fruit sectors. The positive scores reflect declines in fruit production in municipalities along the Derwent Valley. In most, there was a decline in cropping rather than the hypothesised increase.

Component IV represents a swine/turnip interchange. While this occurred, its impact was restricted to a few districts. For instance, Circular Head experienced a decline in turnips (-2.7%) and a rise in swine (+1.4%). These were sufficient to generate a component score of -3.727, the most extreme value in the state. The interest in swine can be explained by a peculiar local factor. Circular Head had the state's most economical prices for barley despite its distance from the barley growing districts in the North Midlands. Ketches carrying timber from Smithton to South Australia brought back barley as ballast, sometimes charging no more than out-of-pocket expenses.[3] In comparison, rail freight on barley used as pig food was 18s 4d per ton to Smithton from stations in the North Midlands.

[3][AD9 712-151] file 25/3, 29 June 1939.
[AD9 712-151] file 25/3, 3 July 1939.

general, the high price of barley and the lack of a properly organised bacon/pork industry was a disincentive for dairymen in Tasmania to build up their swine sector, a factor no doubt behind the high positive scores in Scottsdale, Lilydale and King Island. Many intermediate values were unintelligible. For instance, the second most extreme negative score on Component IV was Tasman (-1.508). This district experienced a minor rise in turnips (+0.2%) and in swine (+1.4%). The rise in turnips was against the trend expressed by the component loading and in any case represented an increase from 9 acres to 30 acres over the depression decade. Changes in swine were similarly inconsequential. One would be hesitant to describe either as an important element of agricultural change within the Tasman district.

Surprisingly, a cluster analysis applied to the four component scores defined in Table 17 was reasonably "effective" in identifying regions of change. However, "effectiveness" in this case has been gauged by comparing maps derived from five alternative principal components solutions with a map derived from the unadjusted data. It was believed that the raw data case provided the most easily understood solution. There seemed to be little point in adopting complex mathematical procedures when, as Johnston says, the results are nearly identical for the "easy" part of the clustering process and differ no more than any two alternative rotations in the "difficult" end of the clustering process.[4] The statements in favour of the use of principal components made by Cowen and Lovingood in the case of South Carolina and by Subbiah in the case of Tamil Nadu were again rejected.[5]

Cluster analysis of the unadjusted profiles of agricultural change produced seven groups (Table 18). Interestingly, the total extent of agricultural change was the most important factor within the clustering process. The first group contained twenty districts whose only common factor was a high degree of agricultural stability (Figure 53). It included the eight municipalities that formed the stronghold of the sheep industry in the Midlands and another six municipalities in which horticulture accounted

[4]Johnston, R.J. "Choice in Classification: the Subjectivity of Objective Methods", Annals American Institute of Geographers, Vol. 58 (1968), 575-589.

[5]Cowen, D.J. and Lovingood, P.E. "A Multivariate Approach to the Analysis of Changing Crop-Livestock Regions", in Adams, W.P. and Helleiner, F.M. (editors) International Geography, (Toronto, 1972),

for more than two-thirds of local farm income. The remaining six were an eclectic collection of districts scattered around the state. Total change averaged 5.0 percent and in all but two cases was less than the state average of 7.3 percent. The exceptions were Leven (9.1%) and Lilydale (11.9%). Neither appeared in the "stable" grouping in the most appropriate principal components grouping but they were replaced by districts with similar amounts of net agricultural change. Furthermore, only one district, Clarence, with an index of agricultural change less than the state average was placed within another cluster.

Table 18 - Average Values of Agricultural Change within Clusters

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
Potatoes	-0.3	-2.5	0.8	-5.5	-2.6	-0.6	0.0
Turnips	0.3	-0.6	0.2	0.2	0.3	-0.1	0.5
Grains	-0.7	-0.3	-1.8	-5.4	-6.3	-0.9	-0.1
Pease	-0.2	-0.1	-0.7	-1.8	-1.1	0.5	0.0
Hay	-0.3	-0.4	-2.4	-0.4	-0.3	-0.9	-0.1
Horticulture	-0. 3	-1.7	-5.7	0.7	-0.1	-14.5	0.2
Dairy	1.2	9.9	1.0	5.3	-0.1	4.3	25.1
Beef	-0.3	-3.6	-0.2	1.8	-1.0	2.8	-23.3
Sheep	0.9	-1.6	7.5	5.6	13.3	10.1	0.4
Swine	-0.4	-0.8	-0.3	0.5	-1.7	0.2	-2.5
districts	20	4	7	4	3	3	1
mean Agchange	5.0	11.1	12.6	14.7	15.1	17.7	26.1

Group 2 selected districts with a strong movement towards dairying but with the decline spread over different sectors. This was notwithstanding the apparently strong weighting in the aggregate to declines in potatoes and beef. These percentages were derived from different areas within the group. For instance, the decline of potatoes was important in Circular Head and Ringarooma but irrelevant to Flinders Island. Likewise, there was no beef factor in Tasman but a strong (-7.1%) decline in orcharding was evident. The expansion of dairying was also prominent in the creation of both Group 4 and Group 7. Group 4 selected factors that were dominant in the eastern half of the Northwest Coast such as the rise of dairying and fat lamb production in lieu of the traditional enterprises of potatoes and grain

pp. 709-710.
Subbiah, S.P. "Regionalism: A New Taxonomical Procedure Tested", Indian Geographical Journal, Vol. 53 (1978), 6-13.

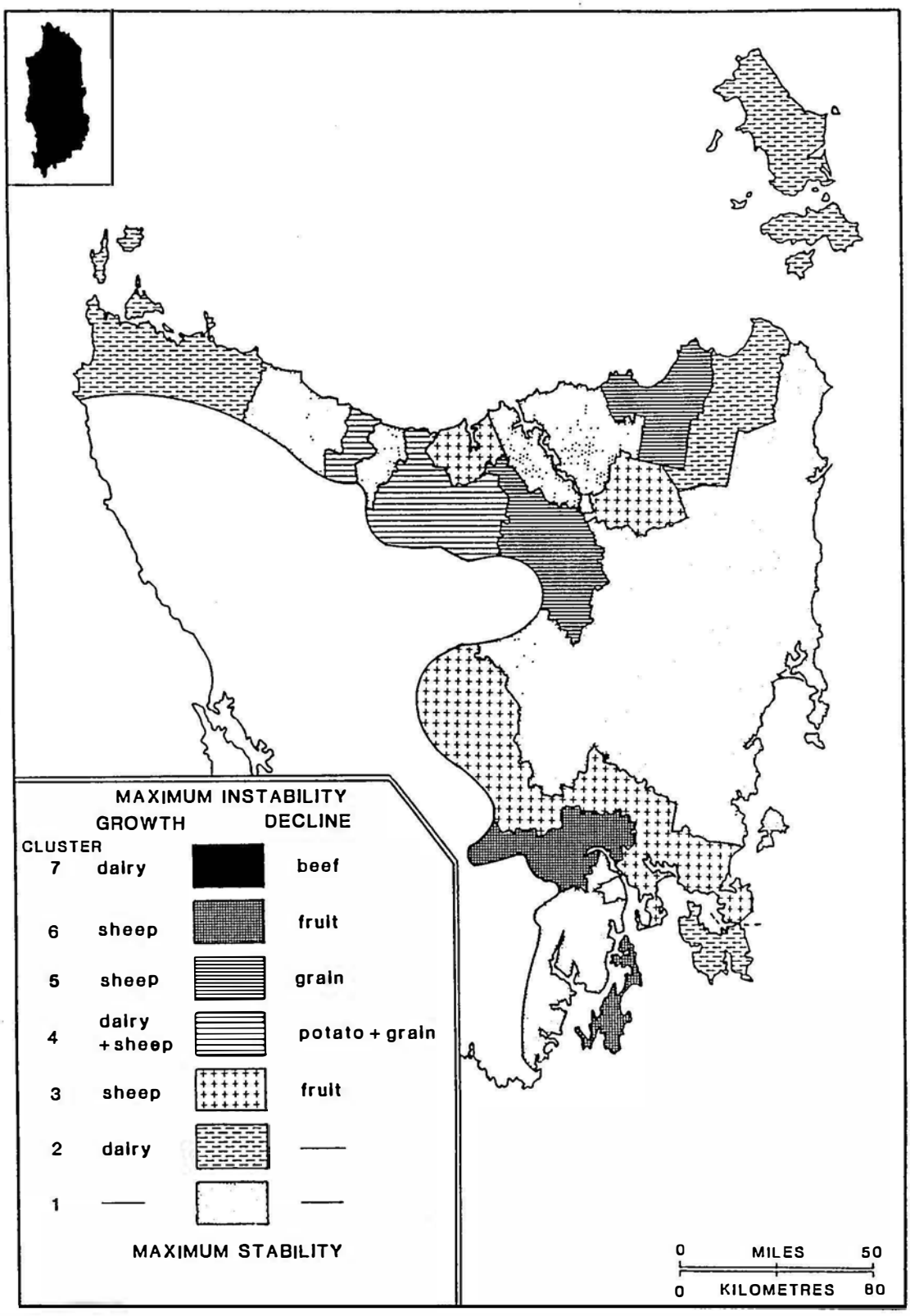


Figure 53 - Regions of Agricultural Change
1926/27 to 1936/37

cropping. The apparent anomaly of Leven, linked with Group 1 rather than Group 4, was due to its continued interest in potato farming. Otherwise, it shared the grain decline/dairy rise of its neighbours to the east and west. Group 7 was King Island. This area was isolated into a single municipality group by the scale of the interchange of beef cattle for dairying. The scale of restructuring on King Island was accentuated by several local factors acting in tandem with the general drift into dairying. These included problems with the native pasture on the extensive tracts of sandy coastal country. These had deteriorated and were no longer capable of fattening cattle.[6] In 1926/27, the economy of King Island had been centred on bringing in stock from the Tasmanian mainland for adding final condition prior to shipment to Melbourne. A decade later, it was primarily a dairying district.

Group 5 involved the shift from crops to sheep, the crops in question being grains in the case of Longford and Westbury, and potatoes in the case of Scottsdale. The final two groups were located in southeastern Tasmania and were essentially reflecting the same shifts from horticulture into sheep. They were distinguished in the clustering procedure by the difference in the scale of change. Group 3 had an average movement out of horticulture of 5.7 percent while Group 6 saw its fruit and hops sector decimated by a sectoral decline of 14.5 percent.

Interestingly, the eight municipalities that formed Groups 3 and 6 in southern Tasmania were also linked into two groups in the most relevant principal components analysis. The principal components solution placed Richmond, Sorell and Brighton into one category on the strength of increases in dairying (+5.5%, +4.4%, +8.8%) and declines in grain and hay (-7.2%, -9.1%, -4.9%) production. Far larger changes in fruit (-13.3%, -14.8%, -15.5%) and sheep (+8.9, +13.7%, +7.7%) were used to group New Norfolk, Brighton and Bruny into Group 6 of the raw data analysis. Richmond and Sorell were aligned with three other southern municipalities to form group 3, again on the basis of a decline in fruit and an increase in sheep (Figure 53). Dairy farming was not a factor in the formation of this group.

The difference between the two structures reveal central issues in the analysis of statistical arguments. Throughout this study, multivariate

[6][AD9 712-64] file 15/9, 19 January 1934.

statistical techniques have been evaluated alongside data derived from simpler statistical procedures. In most cases, the simpler system has produced the more "interpretable" results. These have been accepted in spite of the warnings in the literature about the methodological dangers of accepting preconceived regions merely on the basis that they "... are 'understandable' or 'explicable'".[7] The multivariate solutions developed during this study were not always discussed. When examined, they were mainly used to obtain a further insight into the details of the problem.

For instance, the major direction of agricultural change in southeastern Tasmania involved the major reduction of orcharding in municipalities north of the Derwent, marginal decline in districts immediately south of the river, and increased production of apples within the three municipalities of the Huon Valley. One orchardist, Mr G.W. Albery of Sandfly in the Kingborough Municipality defined the reasons behind the trend in an application for assistance from the Agricultural Bank made in May 1935.[8] He wanted to convert orchard into pasture, so "...as not to depend solely on cultivation for a living". In the preceding summer, he had only sold 9 of his 15 tons of smallfruit on account of the factory quota and not a single case of his 500 bushels of apples. This was a result of having an orchard comprised of obsolete varieties. This documentary evidence is supported by the cluster analysis of the original percentage shift data. Nevertheless, the cluster analysis of the principal components solution reveals a subset of the overall change - a movement towards dairying in areas such as Richmond, Sorell and Brighton that had the potential to supply the Hobart wholemilk market or the chocolate factory located in the city's northern suburbs.

While of considerable importance, the principal components solutions throughout this study have never achieved the commonly alleged aim of parsimony in the presentation of complex data sets. In most cases, they added extra detail to already complex situations. Further work in refining these techniques may be unproductive. The additional "accuracy" introduced by examining alternative clustering procedures or by testing of regional structures via discriminant analysis cannot overcome the initial deficiencies in the data and the constant subjectivity within the analytical process. For

[7]Clark, G. "The Meaning of Agricultural Regions", Scottish Geographical Magazine, Vol. 100 (1984), p. 38.

[8][AD35-1] file "Albery, G.W.", 7 May 1935.

instance, one must suspect that this analysis of agricultural change has been primarily controlled by the decision to use absolute percentage difference. An alternative study based on conventional percentage change might produce rather different patterns.

9.2 The Cycle of Rural Restructuring

The Tasmanian economy had been in a state of crisis in the mid-1920s. The central role of agriculture within the wider issue of the "problem of Tasmania" had forced the government of the day to become involved in setting up a framework for the agricultural restructuring of the state. Two major lines of development were identified. Initially, Dr S.S. Cameron had called for the expansion of commodities that had an assured market overseas and the running down of products that were being produced for a stagnant Australian market. The Director of Agriculture, Mr F.E. Ward and Dr G.F. Findlay of the Development and Migration Commission were given the task of implementing Cameron's plan. However, they stressed that agricultural development should focus on activities that, while being oriented towards overseas markets, were soil restoring in nature. Their strategy was to promote dairying and fat lamb on cropping properties in the North Midlands, the South Midlands and along the Northwest Coast.

The history of the Great Depression in Tasmania is essentially the history of the implementation of the Ward-Findlay plan. The principal trends were well established by October 1929. The number of holdings identified as specialised cropping by the economic farm-type census had fallen from 2,642 in 1926/27 to 1,622 in 1928/29. There were counterbalancing changes in both the crop/dairy and crop/dairy/pastoral groupings. This trend would continue into the depression years. In 1931/32, the last year of the economic farm-type census, the specialist cropping property was approaching extinction. There were only 664 remaining in the state and there was no longer a single district in which arable farming was the predominant activity.

Nevertheless, the pace of agricultural change had slackened. Figure 54 measures the annual rate of structural change in the rural economy by comparing the notional net income profile of each year with that of preceding year. On average, there was a 2.6 percent per annum shift in the agricultural structure of the state throughout the interwar period. Agricultural change clearly followed a cyclic pattern. The rate of change was greatest immediately following the Great War as wartime disruptions were being worked out of the agricultural economy. The rate peaked again

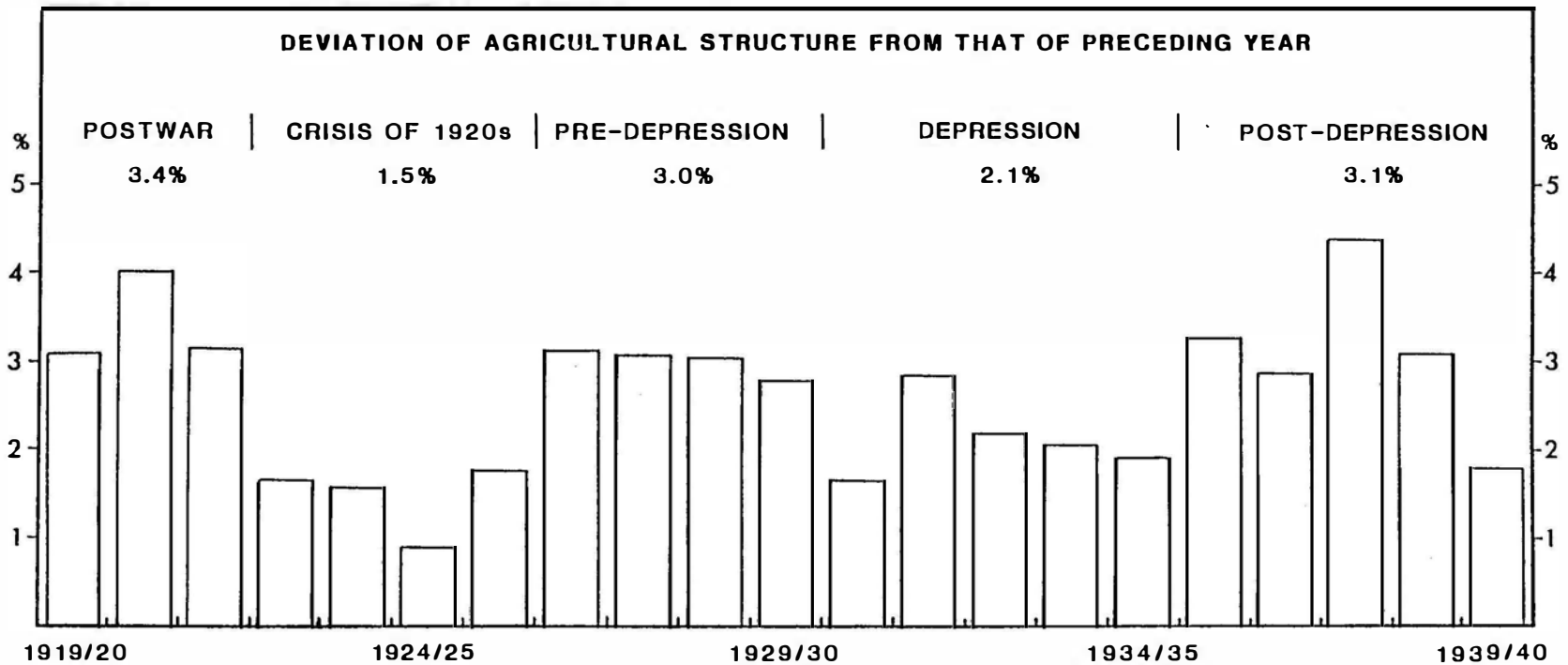


Figure 54 - The Cycle of Agricultural Change
1919/20 to 1939/40

during the late 1920s when the movement for reform was in full flood and again during the middle and late 1930s. Changes were minimal during the four years that marked the crisis of the 1920s and in the years between 1930/31 and 1934/35. These were the five worst years of the Great Depression.

Of course, structural change formed only one part of the index. The other was determined by normal season to season fluctuations in crop area and livestock numbers. Nevertheless, structural change was an important component of the index. The difference between the agricultural structure of 1926/27 and that of 1931/32 was 6.8 percent. Most of this change had taken place in the four years before the depression with the change accumulated by 1929/30 amounting to 5.5 percent. The change from the mid-depression cross section of 1931/32 to the post-depression survey of 1936/37 was only 3.2 percent. It is worth noting that a considerable portion of the 3.2 percent involved grain crops and beef cattle temporarily moving against their ten-year trend. This index is not additive. Therefore, the total change in the depression decade amounted to 7.3 percent with the components of change being as outlined in Table 16 of the preceding section. Further change after 1936/37 would take the total deviation in agricultural structure to 12.3 percent by 1939/40. This was attributable to the massive expansion of the sheep industry immediately before the war.

The normal course of a capitalist economy is cyclic.[1] Periods of boom will slowly generate problems. These are normally left unattended until they overwhelm the economy and force it into depression. Depressions play a precise role in the evolution of the economy. They provide the incentive for economic managers to identify the basic problems within the economy and to eliminate them from the system. In turn, this sets the stage for the resumption of economic growth. This is the type of analysis that has been applied to the economic problems of contemporary Australia. It was also widely recognised in the 1930s. For instance, the editor of the Advocate stated in 1936 that depressions "... serve the useful purpose of eliminating waste and inefficiency".[2] The implication of these statements is that

[1]Stillwell, F.J.B. "Capital Accumulation and Regional Economic Performance: the Australian Experience", Australian Geographical Studies, Vol. 20 (1982), 131-143.

[2]Advocate, 26 October 1936.

economic stress and economic restructuring should occur in some form of relationship. However, it need not be a direct relationship. An economic downturn as severe as that of the early 1930s is capable of setting its own timetable on the pace of agricultural change. Structural change of any scale requires certain preconditions. Most of these were absent during the worst years of the depression and only emerged as the economy improved.

Some of the factors behind this hiatus in agricultural development during the Great Depression are not unexpected. Others are specific to the time and place. One example of the first concerns the lack of capital. Farmers needed money to restructure their operations. Development along the lines proposed by the Ward-Findlay strategy was expensive. The plan was for the typical Northwest Coast cropping property to introduce 6 to 10 cows and 100 to 200 sheep while reducing the acreage of potatoes to no more than ten.[3] The farmer would have to cover the costs of buildings such as milking sheds and dairies, the costs of fencing for the small blocks needed for rotational grazing, the cost of grass seed for improved pasture, and the cost of livestock. At the same time, he would lose the income of the land involved in pasture formation for several years. It was no wonder that Ward in 1932 alleged that the hard times being experienced had retarded the rate of improvement.[4]

Even the maintenance of improved standards of farming was not without cost. There are numerous examples throughout the study of the impact that low prices had on farming practices. Some directly affected agricultural change. Even a fact as apparently trivial as the price of rabbit skins could have an impact. Landowners could not afford to pay directly for rabbit control. Instead, trappers were allowed onto their properties to earn their living from the sale of skins. A mild winter in 1932 and a low intensity of trapping combined to create a rabbit plague that imperilled the improved pastures that were being developed throughout the South Midlands.[5] This was evident within the statistical data. However, the dairyman who abandoned herd recording to save the fee, the orchardist who cut back on

[3]Advocate, 25 September 1937.

[4]Examiner, 9 December 1932.

[5][AD9 712-74] file 23/1, 7 November 1932.

protective packing, or the potato farmer who reverted to using farm-grown seed instead of buying in seed potatoes from specialist producers were not engaged in activities that would be picked up by the index of structural change.

In addition, a depression like that of the 1930s was not the time to pursue some aspects of farm improvement. There was widespread opposition to the introduction of techniques that could destroy employment. One example was seen in 1935 when an American firm proposed to bring an experimental mobile hop-picking machine to Tasmania in order to hasten its development.[6] They would be working in Oregon for half the year and in Tasmania for the other half. The large growers approached by the Department of Agriculture to assist with this venture were horrified by the request. They feared that labour troubles would erupt throughout the Derwent Valley if a picking machine appeared in the state. It was an indication of the improving economy that the next picking season saw growers call for the end of sustenance payments in order to alleviate labour shortages that had emerged as unemployment waned.[7]

The Great Depression saw the overwhelming majority of farms operate at a loss. The editor of the Advocate claimed in June 1933 that he had been informed by a landowner from one of the richest farming districts in the state that "... he could not point to one of his fellow farmers who had shown a profit on the working of his farm during the past three years".[8] The lack of immediate income was only one aspect of the problem. The above observer went on to note that "... in every case where interest or rent had to be paid, the man faced with the task was in difficulties".

Farm debt was estimated to total £7 million in 1935 of which £5 million was secured by mortgage.[9] The balance was unsecured debt. This had been accumulating as farmers borrowed money for working capital and living expenses during the depression.[10] The Mercury claimed an official

[6][AD9 712-87] file 3/8, 20 December 1935.

[7]Mercury, 1 December 1936.

[8]Advocate, 19 June 1933.

[9]Mercury, 27 July 1935.

[10][AD9 712-48] file 3/19, 23 November 1934.

origin for these statistics. Unfortunately, the source was not stated so that it was not possible to examine this information in greater detail. However, it was obvious that the level of debt was beyond the capacity of many farmers to repay. Their difficulties were increased by the deflation that had occurred since 1929.

Ward claimed in 1934 that the improving spirit was still around but that it was being stymied by the problem of debt piled on top of low prices and a scarcity of markets.[11] He may have been over-optimistic in this assessment. There were several indicators pointing towards a decline in farm morale. One was the loss of a viable strategy. Farmers had lost direction as old "certainties" about the relationship between the producer and consumer of agricultural products were overturned. This was particularly evident when it became apparent that the Ottawa Agreement was not going to forge the Empire trading block that many farmers had envisaged. The dairy sector was one that had been promoted on the basis of subsidised exports to Britain. Its stagnation following the collapse of the Paterson plan was probably inevitable. However, it would have taken a brave man to invest in dairying in the autumn of 1934 after the Australian High Commissioner in London had foreshadowed the future trend of the English butter market.[12] He predicted a further fifteen months of unprecedented price cutting. This would be followed by restrictions on Dominion imports as allowed by a clause in the Ottawa Agreement.

Another clear indicator pointing towards the decline in farm morale was the decay of the Agricultural Bureau movement. The Agricultural Bureau had played an important role in the dissemination of the idea of agricultural reform in the late 1920s. Membership peaked in 1931 when perhaps half of the farmers in the state were members.[13] There was then a rapid decline. The membership in 1934 formed a rump of about 1,000, dominated according to one critic, by "gentlemen farmers".[14] The average farmer was apparently no longer interested in the educational aims of the movement.

[11] Examiner, 2 June 1934.

[12] [AD9 712-106] file 15/1F, 20 April 1934.

[13] Examiner, 6 January 1931.

[14] [NS901-51] file "Agricultural Department", 24 August 1934.
[AD9 712-66] file 15/12-2, 20 December 1934.

Apathy had claimed most of the lost membership according to the Examiner, an opinion supported by a District Agricultural Officer from the North Midlands.[15] However, some farmers had left the Bureau in order to form the Farmer's Union. This organisation sought a political solution to rural problems. Interestingly, the Farmer's Union sprang from the same Northwest Coast districts that had fostered the first branches of the Agricultural Bureau a decade earlier.[16] Its political aims, to say the least, were confused. This was due in no small part to its leadership coming from both traditional rural conservatives on the right and supporters of Douglas Credit on the (Tasmanian) left. Nevertheless, along with claims for a £1 million grant for farmers, export bounties and minimum prices, were proposals directed against the agencies promoting agricultural change.[17] These included a call for a fifty percent reduction in the staff of the Department of Agriculture and opposition to the establishment of a research farm.

The intervention of the State in the process of rural development has been a major theme throughout this study. The cycle of rural restructuring can be as easily linked to the turnover of political parties in Hobart as it can to the economic cycle. The Lyons Labour Ministry had taken office in 1923. It had inherited, according to the Hon. J.A. Guy, Chief Secretary and Deputy Premier in the Lyons administration, a government that was on the verge of bankruptcy. Massive out-migration was one sign of the problems that had brought the State's bankers to request a reduction in its overdraft. Guy, while hardly an unbiased source, was correct in claiming that the desperate economic situation had been due to the "... ineptitude and incapacity of a series of anti-Labour Governments".[18] Labour's policy over the next five years was to place the economy of the state on a sound footing. In rural matters, it was mildly interventionist. Labour was responsible for reorganising the Department of Agriculture and giving it the mandate to pursue rural restructuring as its principal function.

[15]Examiner, 18 July 1935.
[AD9 712-42] file 2/2, 19 December 1932.

[16]Advocate, 18 May 1934.

[17]Advocate, 8 May 1934.

[18][CB19-1] file "Papers S.D.A.B. 1921-28", Mr Guys Speech 1928.

However, it was a one and a half term government. The Labour Party was torn apart by factional infighting and scandal, and the election of 1928 brought the Nationalist Party led by J.C. McPhee to power.[19] The Nationalists were to retain office until 1934. In theory, agricultural policy was non-partisan. Both parties supported the reorganisation of the Department and the fostering of the agricultural revival that the state was clearly experiencing during the election campaign of 1928. One prominent Nationalist candidate even called for increased spending on the Department of Agriculture in order to ensure a return from the money already invested.[20] However, there was a hint of future trends in a comment by McPhee in his major pre-election speech, that the rate of expansion of the Department would be slowed down if the Nationalists were successful on the hustings.[21]

One of the first actions of the newly-elected conservative government was to abolish the State Development Board. This was a body that the Lyons Government had nurtured from a voluntary body linking government and business into what had the potential to become the state's equivalent of the Development and Migration Commission. Another indicator of the incoming government's basic philosophical orientation lay in the manner in which it pursued the issue of re-introducing fees for state high schools.[22] Nevertheless, the Nationalist administration proceeded, if unwillingly and clumsily, with some agricultural legislation that had been under way when it had assumed office. The principal example was the State Meat Board Act that set up an organisation to export fat lamb. It also exempted the Department of Agriculture from the reductions and retrenchments that were its main response to the depression crisis. This was an expression of the common belief that Tasmania had to look to the land for relief from its economic plight.[23] Some additional low-cost initiatives such as the potato seed trials at Mt Barrow/Tewkesbury were also funded.

[19]Davis, R. Eighty Years' Labor: The ALP in Tasmania 1903-1983, (Hobart, 1983), p. 22.

[20]Examiner, 1 May 1928.

[21]Examiner, 3 May 1928.

[22]Advocate, 9 September, 1931.

[23]Examiner, 9 December, 1932.

The Nationalist Ministry proved unable to redefine the goals of the Department of Agriculture in light of the crisis that had overwhelmed the economic system in October 1929. It was not an unsympathetic government. Even the secret reports of the plain-clothed police who attended anti-eviction meetings in Hobart expressed support for the problems of the unemployed.[24] However, it was never able to adapt its "Chamber of Commerce" mentality to the new ideas about the role of government and the economy that were emerging in the 1930s. It was the return of Labour in 1934 that brought rural policy back to the forefront of the political agenda. It must be admitted that Labour's policy was made easier by the return of more normal trade conditions and the funding of rural rehabilitation by the Federal government.

Financial aid to farmers under the Nationalist government had been directed towards the employment of labour. Money was made available for creating new farmland through clearing bush or by draining swamps. This expansion of arable land may have had, as McPhee claimed, long-term benefits for the rural community.[25] However, it didn't meet the immediate problem and even the amendment of the Act to allow farmers to pay themselves a wage while working on their own property was of little significance. Aid was directed towards investment capital while the principal problem that inhibited rural restructuring between 1930 and 1934 was the lack of working capital. This was recognised by the Government as early as 1931 but it was believed that the non-party conservatives, who virtually owned the Legislative Council, would veto any attempt to follow the mainland states into providing general assistance to farmers.[26]

Labour adopted the farm credit policies that were current on the mainland following their victory at the 1934 election. This was not necessarily a Labour initiative as the legislation was a prerequisite for receiving the state's share (£360,000) of the £12 million that the Commonwealth had allocated for rural rehabilitation.[27] The Labour Party in

[24] [PD-521] file 84/7/34, 15 March 1934.

[25] McPhee, J.C. "Ministerial Statement of the Minister of Agriculture 1933", Journals and Printed Papers: Tasmania, (1934), Paper 8, p. 3.

[26] [AD9 712-22] file 15/11, 11 March 1931.

[27] Mercury, 1 August 1935.

Tasmania may be receiving credit for what was essentially a policy of the Country Party in Canberra. Nevertheless, it is interesting to note that the Nationalist Party in opposition, while professing support for the policy in general, had the Bill sent to a Joint Committee to ensure that there were no unexpected financial obligations for the State if the Federal offer was accepted.[28]

The Farmers Debt Adjustment Act allowed farmers to reduce the debt burden that had accumulated over several unprofitable seasons. Creditors were presented with two options if a farmer sought the protection of the Act.[29] Firstly, they could agree to the Board assuming the debt and accepting 7s 6d in the pound. This was not unreasonable as it was the sort of money that would be obtained by an unsecured creditor if the farmer had been "sold up". The typical farmer had unsecured debts of £774 adjusted under this clause.[30] This reduced his liability to £343 in the form of an interest-free loan granted by the Board. Alternatively, creditors could stand aside and await full payment though the interest was reduced to 4.0 percent. This also applied to secured debt which the typical farmer seeking assistance had to the sum of £1,095. The Farmers Debt Adjustment Board would receive all the income from the farm. Most would be returned to the farmer for the running of the property but some would be retained to pay the mortgage or rent.

The introduction of this scheme had critical implications for the evolution of Tasmanian farming in the second half of the 1930s. Firstly, it removed the fear of foreclosure that had been preventing farmers from developing their farms to their fullest extent. Farmers, according to the Board, had been reluctant to invest time or money on improvements without security of tenure as their efforts would have been wasted if their creditors had moved to foreclose on the property.[31] The legislation provided five

[28] Mercury, 2 August 1935.

[29] Mercury, 27 July 1935.

[30] "Farmers Debt Adjustment Board: Annual Report 1937/38", Journals and Printed Papers: Tasmania, (1938), Paper 31.

[31] "Farmers Debt Adjustment Board: Annual Report 1937/38", Journals and Printed Papers: Tasmania, (1938), Paper 31.

years security of tenure as long as the farmer met continuing obligations of the mortgage or lease. This removed the mental burden that had been inhibiting development. Secondly, it created a new class of state-indebted farmers whose operations could be directed by the State. The legislation restricted aid to farmers who had "... a reasonable prospect of carrying on farming".[32] Those whose cases were regarded as hopeless were allowed to fall into bankruptcy. Therefore, an application for debt restructuring would mean that the farming operations of the applicant would be examined by the Department of Agriculture. Assistance meant that the farmer would have to conduct his farming operations according to plans laid down by the District Agricultural Officer. These conditions were soon extended to other farmers who had financial obligations to the state such as "embarassed clients" of the Agricultural Bank and of the Closer Settlement and Soldier Settlement Departments.[33] This created the third factor, a large class of farmers whose survival was of direct financial importance to the State. Perhaps as many as four thousand farmers had some form of financial obligation to the government by the late 1930s.[34] The extensive aid given to the fat lamb industry was specifically linked to ensuring the viability of farms along the Northwest Coast in which the government had an interest.[35]

The second aspect of rural restructuring in which philosophical issues were important involved the marketing of agricultural products. The Lyons government had been timid on the issue. Proposals for compulsory marketing boards that were based on those set up by the Theodore government in Queensland had come out of the work commissioned by the Development and Migration Commission in the mid-1920s.[36] These were quietly shelved. Labour's farm policy at the 1928 election promised only to support co-operative marketing schemes that were devised and organised by the farming community.[37]

[32][AD9 712-128] file 3/23, 5 August 1937.

[33]Advocate, 2 October 1936.

[34][AD9 712-120] file 29/7, "List of Clients of Agricultural Bank", circa mid-1935.

[35]Examiner, 7 November 1936.

[36][PD1-436] file 118/21/27, 8 July 1927.
[PD1-427] file 27/13/27, 20 January 1928.

[37]Examiner, 26 May 1928.

The McPhee government represented the conservative element in Tasmanian society and despite a few gestures, was unwilling to act to establish controls on the free marketing of agricultural products. This was despite the growing clamour by farmers for any sort of system that would ensure more security in the marketing of their products. The popularity of the Barley Growers Association (1929) and the Tasmanian Pea Growers Co-operative (1932) provides some evidence of support for the concept of organised marketing. These were voluntary pools formed by farmers in the North Midlands. The crop was combined after grading and sold through one or two commercial firms acting as agents for the pool. This replaced the previous system of farmers selling individual lots through one of the two dozen firms that handled this type of product. Other evidence that shows the same trend was the growing popularity of f.o.b. apple sales and the private selling of wool. Like pools, these were risk reducing strategies.

The Ogilvie Labour government was interventionist. Its policy was to spend the state's way out of depression with an ambitious program of public works. It also wanted to address the obvious problems of the rural sector. One of its first acts upon obtaining office was to increase the rural dole by 30 percent in order to have one rate for the entire state.[38] Another was to make the Agricultural portfolio a full Ministry while a third was to send staff of the Department of Agriculture to Queensland to investigate the Commodity Boards that were in existence in that state.[39] These were the models that Lyons had rejected out of hand before the depression.

A Commodity or Marketing Board was a body set up by Parliament to control the production and disposal of a specific agricultural commodity. The initial establishment was usually dependent on a poll of producers seeking approval of the legislation and the Board would have a majority of members elected by the producers. As well, there would be regular polls seeking approval to continue with the Board. In Queensland, no poll of producers had ever rejected continuation.[40] Marketing Boards would also be more effective than the various voluntary pools that had arisen, and fallen,

[38][PD1-521] file 84/93/34, 10 October 1934.

[39]Examiner, 2 March 1935.

[40][AD9 712-87] file 3/7, 14 February 1935.

in the past owing to the legal powers that they would have to prevent individual growers from sabotaging the system. Secret sales had been the factor that had destroyed the hop pools of the 1920s.

The first Commodity Board legislation was introduced into the Assembly in October 1934. This was a proposal to change the structure of the existing State Fruit Board to more effectively control the growing of fruit (i.e. to grub out derelict orchards) and to allow it to co-ordinate the interstate trade in apples. Overseas shipments were beyond the scope of State legislation. However, marketing would remain in the hands of the existing agents in Hobart. The plan was to rationalise the trade in Sydney where almost a hundred firms received Tasmanian fruit.[41] Less than a dozen were in the trade on a reasonable scale. The others added to the cost of sorting on the docks and were financially incapable of withholding fruit to counter a falling market. The Mercury supported the bill, claiming that something must be done to put the orchardist's "... house in order, to protect them from their own stupidity and the dishonesty of others".[42] The Legislative Council agreed and the State Fruit Board was reformed.

Another bill, to establish a general framework through which any group of producers could establish a marketing board, was repeatedly rejected by the Legislative Council. This was in spite of the existence of similar legislation in at least three mainland states and support from leading spokesmen of the Tasmanian farming community.[43] As well, there was widespread support from farmers. The State Fruit Board Act of 1934 required a poll of orchardists after four years to determine whether it should continue in existence. The stipulated poll was held in February 1938. Growers in favour numbered 2,042, those against only 402.[44] Nevertheless, as the Marketing Bill went before the Legislative Council for the third time in October 1938, the Mercury reversed its position of 1934 and called for the rejection of the Bill. This was in order to protect farmers "... who do not want to become serfs of a socialist

[41] [AD9 712-133] file 9/23-2, 23 December 1937.

[42] Mercury, 5 October 1934.

[43] Mercury, 26 October 1938.

[44] [AD9 712-130] file 7/1, 1 March 1938.

government".[45] In consequence, only a handful of producer boards were ever established in Tasmania.

Some claim that Labour was lukewarm about its policy. After all, the Labour Party in Tasmania had opposed the 1937 referendum that had proposed to amend Section 92 of the Constitution in order to allow the Commonwealth to legislate on marketing. Strictly speaking, the State could only control the marketing of goods consumed within its own boundaries. In the case of Tasmania, this was nearly irrelevant as most farm production was for overseas or interstate markets. The Commonwealth controlled goods that were exported. Interstate trade was theoretically "free". A decision of the Privy Council in 1936 had brought the issue to the fore by invalidating many existing regulations that limited free trade between the states. The Ogilvie government had to face up to contradictory aspects of its policy. It favoured the rational marketing of agricultural products in order to raise the incomes of primary producers. In turn, this was dependent on extracting higher prices from domestic consumers, many of whom were no better off than the farmers. As well, the general interest of a small state was to protect its right to unrestricted interstate trade. In consequence, there had been an unlikely alliance between the conservative newspaper The Mercury and the Ogilvie cabinet against the new farmers' organisation established under the guidance of the government and the Lyons-Page coalition in Canberra.[46]

In spite of the failure to establish a general framework for organised marketing, many other improvements were made in the methods of disposing of rural commodities during the Great Depression. Both State and Commonwealth governments intervened to regulate the sale of farm produce. For instance, the overseas trade in apples was made more profitable by restricting the number of varieties that could be exported, by increasing the standard of an export apple, by teaching packers how to obtain a full-weight case, and by scheduling the departure and arrival dates of export shipping. More could have been done. The Tasmanian trade was often unfavourably compared with the more highly organised trade from New Zealand.

[45]Mercury, 27 October 1938.

[46]Mercury, 2 March 1938.
Mercury, 4 March 1938.

Furthermore, many of the problems discussed for the 1930s were still evident when the Tasmanian apple industry collapsed in the 1970s. In many cases, it was undeniable that the intervention of government was critical. Orchardists, if left to their own devices, would often act against the best interests of their industry. One example of self-destructive behaviour was seen in 1938 when the inspection of fruit destined for interstate markets was temporarily abandoned following a strict interpretation of the principal of freedom of trade between the states. The Cygnet Council was appalled by a tour of the local wharf. D-grade apples were being shipped. In the opinion of Councillor W.W. Gordon, a leading orchardist, they were so badly cracked, misshapened and blemished that "... no drying factory in the Huon would accept them".[47] However, other growers felt that the shipment of this type of fruit would serve their interests irregardless of the damage done to the wider interests of the Tasmanian trade.

In conclusion, agricultural restructuring began before the onset of depression. Nevertheless, it was within the context of a regional economy experiencing major problems. There were three objectives to the agricultural reform in the mid-1920s. One was to diversify the income structure of the individual farm. A second was to rehabilitate farmland depleted by decades of cropping without regard to the long-term future of the holding while the third was to promote efficiency in the production and marketing of agricultural products. The first two aims were pursued by the promotion of dairy farming and fat lamb production on farms along the Northwest Coast and in the North and South Midlands.

In 1928, the Advocate claimed that "... only in diversified farming does safety reside".[48] This maxim was to to be thoroughly tested over the next half-dozen years. The rural economy, recovering from the crisis of the 1920s, was plunged into a global depression. The details of the reactions of the Tasmanian farming community to the Great Depression have been analysed in detail within this study. The diversification theme was of central importance. Specialised farming, as measured by the economic farm-type classification, fell from 69.9 percent of all commercial holdings

[47]Mercury, 10 June 1938.

[48]Advocate, 10 February 1928.

in 1926/27 to 48.2 percent in 1931/32. Half of the specialised properties at this time were orchards. Diversification was impractical on most fruit holdings though not unknown. For instance, a fruit/fat lamb combination emerged on larger farms in the Tamar Valley.[49]

The rate of agricultural restructuring fell in response to unfavourable economic and political conditions in the early 1930s and rose again with economic recovery and political change after 1934/35. It has been argued the income structure of Tasmanian farming changed by 7.3 percent across the depression decade. Gains in dairying (+3.6%), sheep (+3.5%), and turnips (+0.1%) counterbalanced declines in more traditional cropping and horticultural systems. The regions of maximum change - the North and South Midlands and the eastern margins of the Northwest Coast - were areas where maximum flexibility was possible. Many other areas adopted diversification as a goal but began to revert to traditional regional specialities as the depression waned.

The economic effect of agricultural restructuring can be assessed by comparing notional net income per farm in 1926/27 with the state average in 1936/37. This measure values crop acreages and livestock numbers for both years through weights established over a ten-year averaging period. Notional farm incomes increased from 340 to 395 (+16.5%). There was a greater change in the first quinquennial period (+9.5%) than in the second (+6.7%). This information has not been mapped. Many of the deficiencies that restricted the analysis of patterns of depression intensity were evident within the above data set. These introduce an erratic factor into any analysis. For instance, the number of rural holdings declined by 650 (-5.3%). This decline was a statistical fiction. It was apparent that regional variations in the collection of stock and crop returns influenced the resulting pattern. Nevertheless, thirteen of the eighteen municipalities with above average rates of increase were located in the northern half of the island. These included five districts from the Northwest Coast where dairying was a major component of agricultural change. Another four municipalities with above average increases in per farm income were the grazing districts of Longford, Campbell Town, Fingal and Ross. Deloraine formed a boundary case between the two types of increase. In 1936, the Advocate described the decline of

[49]Examiner, 11 May 1938.

the once extensive potato industry in this municipality.[50] It noted that fat lamb and dairy cattle had combined to displace the tuber as the dominant factor in the local farm economy.

However, this increase in farm income had only begun to solve the problem of rural Tasmania. The scale of the problem was immense. Much had been done but much remained to be done. The Tasmanian Treasury in 1940/41 examined the income tax returns of 11,065 primary producers.[51] As well as cash incomes, the survey considered the value of farm produce consumed on the property and the benefits in kind traditionally paid to labourers on the pastoral estates of the Midlands. These were assigned a cash value. It was estimated that rural incomes - of farmers, managers and labourers - averaged 202. Urban incomes in the same year averaged 254. The elimination of this discrepancy was to become a major challenge facing government and society in the post-war years. The chief legacy of the 1930s was that farming practices began to close the gap that had existed between levels in Tasmania and standards on the mainland of Australia.

[50] Advocate, 10 October 1936.

[51] [NS901-54] file I "miscellaneous", 21 May 1943.

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PART C - ARCHIVAL SOURCES

Archives Office of Tasmania: Hobart

Public Records

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AD9 - General Correspondence.

AD7 - Oatlands District Agricultural Office (actually Campbell Town).

AD35 - Huon District Office (leases Agricultural Bank)

AD39 - Extension Service Photographs, Southeastern Tasmania.

Potato Marketing Board

AA295 - General

Premiers Department

PD1 - General Correspondence.

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PD7 - Trade Matters excluding Fruit.

Municipal Councils
MCC19 - Kingborough.
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Private Records
NS833 - J.G. Turners (fruit exporters) 1927-1960.
NS901 - Loney Papers (Tasmanian Farmers, Stockowners and Orchardists Association)

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1977/79/16 - Tasmanian Barley Growers Pty Ltd 1929-1932.

PART D - NEWSPAPERS

Sampled regularly
Hobart, Mercury.
Launceston, Examiner.
Burnie, Advocate

Sampled irregularly
Huonville, Huon Times.
Huonville, Tasmanian Fruitgrower and Farmer.
Huonville, Tasmanian Farmer.
Hobart, Illustrated Tasmanian Mail.
Launceston, Weeklty Courier.
Scottsdale, North Eastern Advertiser.
Smithon, Circular Head Chronicle.

Part E - MISCELLANEOUS

Census of Australia
Commonwealth of Australia Parliamentary Debates.
Commonwealth Official Year Book
Department of Agriculture : Annual Reports
Labour Reports
Official Year Book of New South Wales
Overseas Trade
New Zealand Statistics of Factory Production
New South Wales Statistical Register
Statistics of Tasmania