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CHAPTER 31

AGRICULTURE, FORESTRY, FISHERIES AND VITICULTURE

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THE ASPECTS of Australian economic life treated here form part of the primary industries other than mining. It is not claimed that the subjects treated in this chapter completely cover Australia's rural industries but they do provide an overview of this important aspect of Australia's economic experience. The importance of land-related primary industries, and of fisheries, for the Australian economy has long been recognised and the literature related to these topics is substantial. References in this survey have been restricted to essential titles but readers should also note that some closely related material will be found in chapter 24.

AGRICULTURE AND FORESTRY

European settlement in Australia has, from the beginning, been intimately linked with agricultural production, forestry and fisheries, and interest in wine making occurred very early in the young settlement. Initial concern was directed to feeding and housing the local population but, from early in the nineteenth century, export of agricultural products was pursued by the free settlers. At the end of the first hundred years of European settlement, the Australian wool industry had grown to be the biggest in the world; today Australia also exports wheat, sugar, meat and other agricultural products. Agriculture has retained a critical role in generating export income and our industries are recognised as among the most efficient in the world.

The first settlers had to grapple with an alien climate and harsh environmental extremes. Flood, fire, drought and disease all took a heavy toll. Diseases of both crops and livestock, and the need to develop appropriate husbandry techniques, led to the formation of agricultural colleges and government departments of agriculture in the second half of the nineteenth century. Later the establishment of university faculties in agriculture, forestry and veterinary science, and the creation of the Council for Scientific and Industrial Research (later CSIRO) and other research organisations gave further impetus to scientific research and development and to a better understanding of the Australian environment.

Particularly with regard to forest management we can trace a change in attitude and techniques in a progression from exploitation of a seemingly limitless resource to an increased concern for better conservation. A growing community interest in bush recreation and in the preservation of native species has led to a new awareness of the value of our limited resources of natural forest. Multiple use and an emphasis on native species are replacing early views of native forest as a resource to be exploited and replaced.

During the first century of settlement both agriculture and forestry were largely exploitative in nature, with new areas being continually opened up, cleared and developed. However, drought, slumps in market prices and severe degradation of some areas lead to a contraction of cropping away from semiarid areas and a growing interest in the development of production systems that could be sustained in harmony with the environment. Much of the literature on agriculture and forestry describes the remarkable advances that have been gained in both sustained output and efficiency during the twentieth century. Many production systems and innovations have been recognised and adopted in other parts of the world and Australia now contributes many consultants to agricultural and forestry projects in developing countries.

Changing market structures, preferential tariff agreements and other economic and political constraints have led to dramatic and often painful adjustment from one enterprise to another and successive waves of closer settlement and amalgamation of farm units. The history of Australian agriculture and forestry can thus be viewed in at least three perspectives. Firstly, the history of land settlement and agricultural regions; secondly, the development of unique husbandry and management practices to complement the Australian environment; and thirdly, the economic context within which the industries have grown and changed over time. The reading lists—all three sections—reflect these historical developments.

A number of historical studies of regions or industries have been included with emphasis on those that offer insights to the way of life of the pioneering years. Anecdotal and historical studies have been included so that both contemporary and retrospective aspects can be appreciated.

The second perspective relates to management practices and both current classic texts and a range of selected historical material on the major enterprises of Australian agriculture have been included. The substantial serial literature has not been listed. There are a number of established scientific journals that report Australian research and also many technical journals, magazines and series of pamphlets published by government departments and other organisations for the producers and their service industries. State government departments are responsible for extension and advisory services and they would generally be the most appropriate source of further information.

Finally, a range of texts has been identified that encompasses many of the major issues relating to government policy and the economics of production.

The reading list on forestry does not include works on botanical studies of trees; such titles will be found in chapter 11 of this volume. Further reading on Australian forest resources and their exploitation will be found in the two main journals in the field: *Australian forestry*, 1936– , and *Forest and timber*, 1963– . There is also L.T. Carron's comprehensive *History of forestry in Australia* (ANUP, 1985).

Differences in the types of forests found in various Australian regions led of course to the creation of substantial local accounts of forest resources. Some of these accounts appeared in the journal literature—notably in the two periodicals referred to above—but state forestry departments have also helped to promote better information on these important resources. For details it would be best to enquire from these departments.

There exists as yet no comprehensive bibliography of Australian agriculture and associated enterprises, but *An Australasian bibliography of agricultural economics 1788–1960*, by J.L. Dillon and G.C. McFarlane (Sydney, Government Printer, 1967) is a major and helpful survey of one aspect of the field. Though now somewhat dated it lists a vast range of titles, including government reports, in a classified sequence.

FISHING

The Australian fishing industry, although ranking well behind the major rural industries in value of output, is one of the oldest. It has traditionally been dominated by coastal fisheries, but the growth in export trade, the recently proclaimed 200 nautical mile exclusive fishing zone, and the nature of the industry itself are leading to rapid changes.

In the nineteenth century, fishing was a small industry principally carried out in the coastal

estuaries, lakes and ocean beaches which were very fertile compared to the coastal and offshore grounds. Since the 1930s the industry has changed dramatically. The Danish seine method of fishing, introduced in March 1933 in the waters off New South Wales, spread throughout the southeast region of Australia. In the last ten to fifteen years there has been a further shift to the deeper offshore waters—the outer parts of the continental shelf and the slopes of the shelf itself.

The export market has grown rapidly since the 1950s and has created a number of new fisheries, such as the western rock lobster fishery in Western Australia, the prawn fishery in the Gulf of Carpentaria and the abalone fishery in Victoria, New South Wales and Tasmania. The proclamation of the 200 nautical mile exclusive Australian fishing zone has enabled the fishing industry to begin exploring new grounds and new fisheries.

A dominant theme in the development of the Australian fishing industry has been the exploration of the resource base. When the colonists arrived, they came with a predetermined environmental model, based on their experiences in Europe and the Americas. For example, a dominant theme of the writers of the nineteenth and early twentieth centuries was criticism of the industry's failure to exploit the offshore fisheries. Based on experience in the North Sea, they believed that the Tasman Sea was very fertile, although its fish resources are actually poor.

The process of learning about the fish resources of Australia has dominated the literature related to the fishing industry. This genre has a long tradition. It started in the nineteenth century with A. Oliver's *Fisheries of New South Wales* (Sydney, Government Printer, 1871) which was in fact a listing of commercial species. It was even thought necessary to preface the report of the royal commission into the state of the fisheries of New South Wales in 1880 with a similar listing. This approach has been continued in the twentieth century with texts such as Roughley (1966).

In fact, little has been published, in accessible form, on the history of the fishing industry. Like most groups who use the sea, fishermen were not given to leaving extensive records of their activities: in some ways it can be said that many of them went to a great deal of trouble to ensure that there were no records of their activities. Because the industry has been structured on an individual rather than corporate level, there are few company records.

Thus the sources for the history of the fishing industry are primarily government records. These are of two types: the records of the departments concerned with the administration of the industry which consist mainly of catch figures, regulations, the development of new fishing grounds and technologies; and the reports and minutes of evidence of government inquiries, of which there have been a number at both commonwealth and state levels since the 1860s.

The commonwealth, since 1941, has published a newsletter and later a journal. These have provided fishermen with information on new regulations, fishery management plans, discoveries and innovative technology. *Fisheries news-letter* and its successors including the present journal *Australian fisheries* (1945–) have traced the development of the industry through the most dramatic changes in its history.

Some enterprising mariners earn their living by hunting and processing marine mammals—mainly whales and seals --and have made important contributions to the Australian fishing industry for almost two centuries. The literature is not very extensive but the importance of this industry has been stressed by G.J. Abbott and N.B. Nairn, *Economic growth of Australia 1788–1821*, (MUP, 1969) and earlier by G. Greenwood, *Early American–Australian relations. . .*, (MUP, 1944). Pearlery and trepangery also play a significant part in marine-based industries. The few references that have been thought useful in this context have been incorporated with the references to fishing proper.

The literature reflects the practical concerns of an industry continually developing and expanding. It should be noted, however, that books related to fishing as a sport are listed in chapter 48 of this volume, though attention is drawn here to two special works which represent borderline cases. The scientific nature of the cultivation of salmon in Australian inland waters has been the subject of two books by Sir Samuel Wilson: *The Californian salmon* (Melbourne, Sands & McDougall, 1878) and *Salmon at the antipodes* (London, E. Stanford, 1879). These are classic accounts of the introduction and breeding of this species.

VITICULTURE

The introduction of grape growing into Australia as a commercial undertaking occurred within the first decade of European settlement. The issue of the *Sydney Gazette* dated 5 March 1803 contains the first of three articles entitled 'Method of preparing a piece of land for the purpose of forming a vineyard'. Little did the early vignerons dream that the industry would in the 1980s produce close to 375 million litres of wine from 70 000 hectares of land.

Though the early centre of winegrowing was, quite naturally, the Parramatta valley and then the Hunter valley, the Barossa valley in South Australia and the Yarra valley in Victoria became at least equally famous and began production in the 1840s. Small vineyards came into production in Tasmania at about that period, and farmers in Queensland and Western Australia soon followed suit.

In 1875 the Australian wine industry suffered its greatest disaster as *Phylloxera vastatrix*, the grapevine louse, began to affect seriously almost all vineyards except those in South Australia. The damage lasted for several decades but has now been repaired and the insect controlled.

Writing on wine and winemaking continued in the 1820s, with James Busby producing the first Australian wine book (1825; facs, 1979). It aimed to show how to produce wine and thus give value to tracts of land which otherwise 'would in all probability remain for ever useless'. Busby also compiled Australia's first *Catalogue of vines in the Botanic Garden, Sydney, introduced into the colony of New South Wales in the year 1832* (Sydney, Government Printer, 1842), which contains a brief evaluation of listed grape varieties. Busby's opinions still direct winegrowing in Australia.

George McEwin's *The South Australian vigneron and gardeners' manual* (1843; facs, Adelaide, LBSA, 1962), written when South Australia was barely seven years old, is the most important of at least three books that appeared in 1843. Based on practical experience in the colony, it was to counteract the inappropriate and misleading advice proffered by English armchair authorities. Another contemporary account was William Macarthur's *Letters on the culture of the vine, fermentation, and the management of wine in the cellar* (Sydney, Statham & Foster, 1844) which appeared under the pseudonym of 'Maro'.

From the late 1850s until the end of the nineteenth century there was a proliferation of Australian publications on wine, both original works and translations, containing descriptions on vineyards in Australia and overseas. Among the forty or so monographs published in the last four decades of the century the writings of Dr Alexander Charles Kelly (1861, 1867; facs, 1980), Hubert de Castella (1979) and Ebenezer Ward (1862; facs, 1979) were arguably the most important, and have the most to say to today's student of winegrowing and oenography.

South Australia seems to have been better served than other Australian vine-growing areas with specific books on individual vineyards and vignerons, including the Coonawarra Estate, Seppeltsfield and others. General overviews like O.L. Ziegler's *Vines and orchards of the garden state: South Australia's fruit growing industry* (Adelaide, Mail Newspapers Ltd, 1929) reflect the interest that made South Australia the principal wine-producing state.

Towards the end of the century, handbooks specifically designed to assist winegrowers in defined areas included: G. Searle, 'The grape-vine and its cultivation in Queensland' in A. Midgley, *Queensland guide for the use of farmers, fruit-growers, vignerons and others* (Brisbane, Government Printer, 1888); F. de Castella, *Handbook on viticulture for Victoria* (Melbourne, Government Printer, 1891); G. Sutherland, *South Australian winegrower's manual...* (Adelaide, Government Printer, 1892); J. Despeissis, *Handbook of horticulture and viticulture of Western Australia* (Perth, Traylen, 1895); and F.B. Kyngdon, *Wine culture in New South Wales* (Sydney, NSW Agriculture Department, 1899). They are evidence of awareness that the age of generalisation about Australian winegrowing had passed.

With some exceptions, mainly of a technical nature, the publication of books on Australian wine and viticulture seemed virtually to cease for the first 50 years of this century. The exceptions included two influential books by the founder of the Australian Wine Research Institute, J.C.M. Fornachon. His *Bacterial spoilage of fortified wines* (Adelaide, Australian Wine Board, 1943) and *Studies on the sherry flor* (Adelaide, Australian Wine Board, 1953) established applied

biology in Australian wineries: nineteenth-century wine science contained in such books as Dr Kelly's was largely applied chemistry.

At about this time the first books appeared of a very different wine writer, Walter James, whose numerous volumes were fetchingly entitled and were intended for the fashion-conscious dilettante and for the general reader with an interest in the history and appreciation of wine. Many of them were reprinted and formed the vanguard of the plethora of 'popular' wine books from which Australians have suffered for the last 25 years. Another boost came from the doyen of wine writers, André Simon, whose well-illustrated book, *The wines, vineyards and vignerons of Australia* (Melbourne, Lansdowne, 1966), written after a visit to Australia, was one of the first to attempt a description of the history and current production of all Australian wine-growing areas.

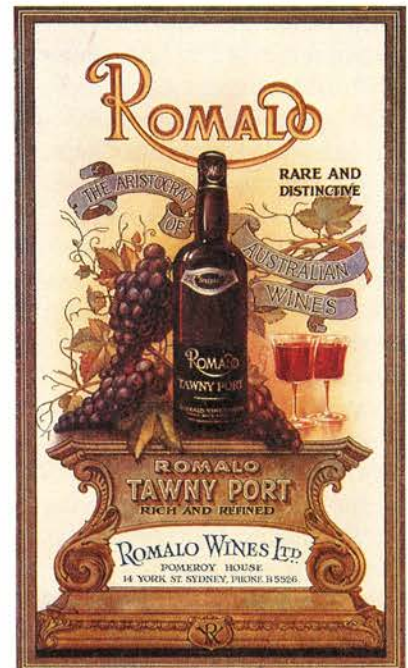
On the crest of the 'new wave' of popular wine writers, the most noticeable have been such sometimes dictatorial taste-shapers as Len Evans, James Halliday, Max Lake and Dan Murphy. Their accounts of winegrowing areas, wineries, particular wines and specific vintages of particular wines have, however, helped to increase awareness and appreciation of our wines by the general public. Evans (1984) remains the most comprehensive and useful work of its type.

In the last 30 years many books and pamphlets on specific winegrowing areas and their wineries have appeared. These range from public relations exercises with selective information, to serious attempts at family, industry and area histories. Firms such as Penfold (1951), Hardy (1953, 1978), Saltram (1959), Chateau Tahbilk (1960) and Mildara (1980) have attempted to explain their histories and their aspirations to the public.

James Halliday (1983) has probably produced the exemplar of the attractively presented wine area studies, of which Bryce Rankine's *Wines and wineries of the Barossa Valley* (Brisbane, Jacaranda, 1971), W.S. Benwell's *Journey to wine in Victoria* (1978) and Halliday and Jarratt (1979) are other examples. Two volumes of architectural studies by Katrina McDougall, *Winery buildings in South Australia, 1836 to 1936*, (Adelaide, University of Adelaide, Faculty of Architecture & Town Planning, 1980, 1983) form a useful survey which could well be emulated for other areas.

Today's Australian wine writing is directed more to wine consumers than to the winegrowers who were the primary audience of our earliest wine literature. The writers of the past were anxious to encourage the enthusiasm of a few, the actual and potential winegrowers. Today's wine writers are trying to satisfy a national enthusiasm.

J.C. Williamson Ltd. magazine, 1927. *Romalo Wines Ltd* believed that its 'rare and distinctive' tawny port, 'the aristocrat of Australian wines', would appeal to the elite among theatre patrons.
BOOROWA PRODUCTIONS



AGRICULTURE

AGRICULTURAL policy, issues and options for the 1980's: Working Group report to the Minister for Primary Industry, September 1982. AGPS, 1982. xxii, 167 p, illus, maps.

Major statement of policy options usually referred to as the Balderstone report after its chairman, J.S. Balderstone.

AITKEN, Y. *et al*, *Agricultural science: an introduction for Australian students and farmers* (Metric edn). Melbourne, Cheshire, 1975. 297 [15] p, illus, maps.

Textbook for schools dealing with broad issues of agricultural biology, the farm environment, plant and animal production.

ALEXANDER, G. AND WILLIAMS, O.B. eds, *The pastoral industries of Australia: practice and technology of sheep and cattle production.* SUP, 1973. 567 p, illus, maps.

Major text including chapters on environment and history, sheep and cattle industries, productivity and future prospects.

ANDERSON, R. *On the sheep's back.* Adelaide, Rigby, 1967. 268 p, illus.

Survey of the major issues facing the wool industry in the 1960s.

AUSTIN, H.B. *The merino, past, present and probable.* Sydney, Grahame Book Co, 1943. 247 p, illus.

Historical review of Merino breeding in Australia up to World War II. New edition published in 1947.

AUSTRALIA. Dept of Primary Industry. *Agricultural extension services in Australia.* AGPS, 1980. 121 p, maps.

An analysis of each state department of agriculture and of the agriculture advisory services it provides. The roles of the private sector and the federal government are also described.

AUSTRALIA. Dept of Primary Industry. *Agricultural research services in Australia.* AGPS, 1980. 173 p.

An overview of the organisation of agricultural research and of the services of federal, state and educational institutions.

AUSTRALIA. Dept of Trade and Resources. *Australian farming systems.* AGPS, 1982. 7 vols, illus, maps.

An excellent directory divided into seven small volumes with distinctive titles such as the tropics, the subtropics, the temperate region, the arid and semiarid region, and irrigation.

AUSTRALIA. Division of National Mapping. *Atlas of Australian resources.* Vol 3. *Agriculture.* 3rd series. Canberra, The Division, 1982. 24 p, illus, maps.

Reference volume including maps and textual material on the distribution of pastures, livestock and crops.

AUSTRALIA. Working Group on All Aspects of Rural Policy in Australia. *The principles of rural policy in Australia: a discussion paper.* AGPS, 1974. 390 p, in various paginations.

The Working Group (Convenor: S. Harris) reviewed all aspects of rural policy with emphasis on government involvement, financial measures and structural issues.

BARNARD, A. ed, *The simple fleece: studies in the Australian wool industry.* MUP in association with Australian National University, 1962. 640 p, illus.

Interdisciplinary studies based on a seminar held over three years and involving many specialists.

BAXTER, P. *Growing fruit in Australia.* Melbourne, Nelson, 1981. 200 p, illus.

Practical text written for the non-commercial grower.

BEATTIE, W.A. *Beef cattle breeding and management.* Sydney, Reed, 1980. 279 p, illus.

Written in non-specialist language on all aspects of beef cattle management in Australia. First published in 1954.

BELSCHNER, H.G. *Pig diseases.* A & R, 1976. 257 p, illus.

An authoritative volume on the most important diseases of pigs. First published in 1967.

BELSCHNER, H.G. *Sheep management and diseases* (10th edn). A & R, 1976. 838 p, illus.

Standard text on sheep husbandry and diseases. First published in 1950.

BILLIS, R.V. AND KENYON, A.S. *Pastures new: an account of the pastoral occupation of Port Phillip.* Melbourne, Macmillan, 1930. 272 p.

A description of the development of the sheep and cattle industries in Victoria. Facsimile edition, Melbourne, Stockland, 1974.

BOWMAN, F.T. *Citrus-growing in Australia.* A & R, 1956. 311 p, illus, maps.

A reference book for orchardists, students and small-scale growers.

CALLAGHAN, A.R. AND MILLINGTON, A.J. *The wheat industry in Australia.* A & R, 1956. 486 p, illus, maps.

A history to the end of the 1940s.

COLE, C.E. ed, *Melbourne markets, 1841-1979: the story of the fruit and vegetable markets in the City of Melbourne.* Melbourne, Melbourne Wholesale Fruit and Vegetable Market Trust, 1980. 196 p, illus, maps.

Traces the sources of produce, control, development and politics of the fruit and vegetable trade in Melbourne.

CRAWFORD, J.G. *et al*, *Wartime agriculture in Australia and New Zealand, 1939-50.* Stanford, California, Stanford University Press, 1954. 354 p, maps.

One of a series on the issues of food and agricultural production during World War II, with considerations of manpower and critical supplies.

CULLITY, M. *A history of dairying in Western Australia.* UWAP, 1979. 465 p, illus, maps.

A history of the development and subsequent contraction and consolidation of the dairy industry in WA.

DAVIDSON, B.R. *European farming in Australia: an economic history of Australian farming.* Amsterdam, Elsevier Scientific, 1981. 437 p, illus, maps.

Presents an historical analysis of the attempts to establish a European type of agriculture. Bibliography.

DAVIDSON, B.R. *The northern myth: a study of the physical and economic limits to agricultural and pastoral development in tropical Australia.* MUP, 1966. 283 p, maps.

Controversial study outlining a number of issues affecting agricultural developments in tropical Australia. First published in 1965.

DUNCAN, R. *The Northern Territory pastoral industry 1863-1910.* MUP and Monash University, 1967. 190 p, maps.

A description of the effect of distances and a harsh environment on the cattle industry in the NT.

DURACK, M. *Kings in grass castles.* Melbourne, Currey O'Neil, 1981. 395 p, illus, maps.

A story of pioneering in the cattle industry in western Qld and the Kimberley region of WA in the second half of the nineteenth century. First published in 1959.

EASTERBY, H.T. *The Queensland sugar industry: an historical review.* Brisbane, Government Printer, 1933. 226 p, illus.

A review of the first seventy years of sugar production in Qld.

FARQUHAR, R.N. *Agricultural education in Australia.* Australian Council for Educational Research, 1966. 322 p, (A.C.E.R. Research series, 80).

- Based on a survey in the mid-1960s by the ACER, the study covers secondary and tertiary education.
- GARDNER, J.A.A. AND DUNKIN, A.C. eds, *Australian pig manual*. Canberra, Australian Pig Industry Research Committee, 1979. 191 p, illus.
- Covers management, marketing, feeding, housing and other topics.
- HEWITT, A.C.T. *Feeding farm animals in Australia*. A & R, 1953. 260 p, illus.
- Compilation on the food requirements of various classes of livestock and the feed value of various foodstuffs available.
- HILL, E. *Water into gold*. Melbourne, Robertson & Mullens, 1937. 328 p, illus, maps.
- The story of irrigation on the Murray River and the rise of the dried vine fruit industry. Revised edition, 1965.
- HOLT, A.J. *Wheat farms of Victoria: a sociological survey*. Melbourne, School of Agriculture, University of Melbourne, 1946. 179 p, illus, maps.
- A sociological study of the living and working conditions of farming households during the early 1940s.
- JENKINS, J. *Diary of a Welsh swagman 1869-1894*. Abridged and notated by W. Evans. Melbourne, Sun Books, 1977. 216 p, illus, map.
- A picture of rural life in Victoria during the later part of the nineteenth century. First published in 1975.
- JOYCE, A. *A homestead history, being the reminiscences and letters of Alfred Joyce of Plaistow and Norwood, Port Phillip, 1843 to 1864*. Ed by G.F. James. MUP, 1942. 200 p, illus, map.
- Describes pioneer pastoral life in central Vic. New edition published in 1963.
- KELLY, W.S. *Rural development in South Australia*. Adelaide, Rigby, 1962. 160 p.
- Historical review of agricultural settlement and development in SA from the 1830s to the 1950s.
- KING, C.J. *The first fifty years of agriculture in New South Wales*. Sydney, Government Printer, 1950. Unpaged.
- Although not particularly original, contains valuable information on the spread of settlement. First published in *Review of marketing and agricultural economics*, Aug 1948-Dec 1949.
- LAMP, C. AND COLLET, F. *Field guide to weeds in Australia* (rev edn). Melbourne, Inkata, 1979. 376 p, illus.
- A handbook of plants treated as weeds in the agricultural context. Simple descriptions that avoid technical botanical terms. First published in 1976.
- LAZENBY, A. AND MATHESON, E.M. eds, *Australian field crops*. Vol 1. *Wheat and other temperate cereals*. A & R, 1975. 552 p, illus, maps.
- Textbook on the physiology and production of wheat and other cereal crops. See also Lovett & Lazenby (1979).
- LEEPER, G.W. *Introduction to soil science*. MUP, 1948. 222 p, illus, maps.
- A standard work for readers with a general science background. New edition published in 1964.
- LEEPER, G.W. *The Australian environment*. CSIRO in association with MUP, 1949. 183 p, illus, maps.
- The history and early post-World War II development of agricultural industries. Revised edition, 1970.
- LEIGH, J.H. AND NOBLE, J.C. eds, *Plants for sheep in Australia: a review of pasture, browse and fodder crop research, 1948-70*. A & R, 1972. 402 p, illus, maps.
- An extensive compilation by numerous authors. Bibliography.
- LOVETT, J.V. ed, *The environmental, economic and social significance of drought*. A & R, 1973. 318 p, illus, maps.
- A review of the occurrence and impact of drought on agricultural production in Australia.
- LOVETT, J.V. AND LAZENBY, A. *Australian field crops*. Vol 2. *Tropical cereals, oilseeds, grain legumes and other crops*. A & R, 1979. 328 p, illus, maps.
- Textbook on production of maize, sorghum, rice, sugarcane, cotton, sunflower and other crops. Companion volume to Lazenby & Matheson (1975).
- MAKEHAM, J.P. et al, *Coping with change: Australian farming since 1970*. Armidale, NSW, Gill Publications, 1979. 211 p.
- An analysis of the impact of recession on Australian farmers providing an introduction to current issues affecting rural policy.
- MOORE, R.M. ed, *Australian grasslands*. ANUP, 1970. 455 p, illus, maps.
- Survey of Australian grassland ecology, regions and factors affecting productivity.
- MUNZ, H. *The Australian wool industry*. Melbourne, Cheshire, 1964. 237 p, illus, maps.
- A general survey first published in 1950.
- NORTHCOTE, K.H. et al, *A description of Australian soils*. Melbourne, CSIRO, 1975. 170 p, illus, map.
- Comprehensive and systematic.
- NOWLAND, W.J. *Modern poultry management in Australia*. Adelaide, Rigby, 1978. 384 p, illus.
- Basic text for farmers, their advisers and students.
- PRENDERGAST, M. *A guide of keeping goats in Australia*. Melbourne, Nelson, 1981. 143 p, illus.
- Deals with the selection and management of small flocks of goats.
- REID, R.L. ed, *A manual of Australian agriculture* (rev edn). Melbourne, Heinemann, 1981. 850 p, illus, maps.
- More than 100 contributors make this an authoritative reference source. Bibliographies. First published in 1961.
- ROBERTS, S.H. *The squatting age in Australia 1835-1847*. MUP, 1935. 455 p, illus, maps.
- A key reference on the history of the occupation of land for pastoral production. Revised edition, 1964, reprinted in 1970.
- ROBERTSON, D.S. *Australian farm management*. Sydney, Murray, 1979. 319 p, illus, maps.
- A practical manual for the farmer.
- ROLLS, E. *A million wild acres: 200 years of man and an Australian forest*. Ringwood, Vic, Penguin, 1984. 465 p, illus, maps.
- A classic history of the occupation and use of the Pilliga forest in NSW. Bibliography.
- ROLLS, E. *They all ran wild: the story of pests on the land in Australia*. A & R, 1984. 546 p, illus, map.
- A major statement on the impact of various animals and birds introduced into Australia, with emphasis on the rabbit. First published in 1977.
- RUSSELL, G. *The narrative of George Russell of Golf Hill: with Russellania, and selected papers*. Ed by P.L. Brown. London, OUP, 1935. 469 p, illus, maps.
- Story of an early squatting family in western Vic, based on extensive correspondence.
- SILLCOCK, K.M. *Three lifetimes of dairying in Victoria*. Melbourne, Hawthorn, 1972. 182 p.
- A history of the dairying industry from 1834 to 1970, with a list of source material.
- SIMPSON, G. AND SKELSEY, W.C. eds, *The Queensland Merino*

- Stud Sheepbreeders' Association 50th anniversary souvenir book*. Toowoomba, The Association, 1983. 175 p, illus.
- Deals with Australia's most famous breed of sheep, its history and management. Contains also a brief history of the association.
- SIMS, HJ. AND WEBB, C.G. *Mallee sand to gold: the Mallee Research Station, Walpeup, 1932-82*. Melbourne, Victorian Government Printing Office for the Dept of Agriculture, 1982. 187 p, illus, maps.
- A history of agricultural research in this region of Vic.
- SMITH, K. comp, *The settler's guide: a biased selection from the Agricultural gazette of New South Wales, 1890-1910*. Melbourne, Nelson, 1981. 176 p, illus.
- Articles covering a range of old-time skills and bush lore on building, management of livestock and other farming practices.
- STACE, H.C.T. et al, *A handbook of Australian soils*. Adelaide, Rellim Technical Publications for CSIRO and the International Society of Soil Science, 1968. 435 p, illus, map.
- Commemorates the 9th International Congress of Soil Science.
- STONE, C. *Running the brumbies: true adventures of a modern bushman*. Adelaide, Rigby, 1979. 144 p, illus.
- An account of itinerant life in the outback of Australia after World War II.
- SUTHERLAND, J. A. *Introduction to agriculture*. A & R, 1972. 366 p, illus, maps.
- Simple presentation of scientific principles for secondary schools. First published in 1962.
- TRIBE, DE. AND COLES, G.J.R. *Prime lamb production: the husbandry of crossbred and dual purpose sheep*. Melbourne, Cheshire, 1966. 239 p, illus, maps.
- A practical guide for farmers.
- VICTORIA. Dept of Agriculture. *Beekeeping in Victoria, 1981*. Melbourne, The Department, 1981. 139 p, illus.
- Deals with biology, management, diseases and other facets of the honey industry and agriculture.
- VICTORIA. Dept of Agriculture. *Honey flora of Victoria*. Melbourne, The Department, 1922. 148 p, illus.
- Excellent key to the identification and characteristics of Victorian eucalypts and other honey or pollen producing plant species. A sixth revised edition was published in 1973.
- VICTORIA. Dept of Agriculture. *Irrigated pastures*. Melbourne, The Department, 1970. 273 p, illus, maps.
- Covers topics such as soils, land preparation, pasture species, management, pests and diseases.
- WADHAM, S.M. *Australian farming, 1788-1965*. Melbourne, Cheshire, 1967. 156 p, maps.
- An important retrospect largely based on the author's wide experience on several key committees and commissions during the 1930s and 1940s.
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