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BOOK REVIEWS

Agriculture in England. A Survey of Farming, 1870-1947. By JONATHAN BROWN. (Manchester University Press, Manchester, 1987.) Pp. 160, ISBN 0 7190 1579 9.

As the title indicates this is a survey of the experience of English agriculture over three-quarters of a century of major changes. The size of the subject and the length of the book necessarily limit the scope of the study.

It is essentially a survey of changes in the pattern of production and of methods of production in English agriculture which are related to changes in the market for agricultural products. The period of change under free-market conditions from the 1870s to 1914 occupies the first part of the book and the period marked by increased government intervention from 1914 to 1945 occupies the second part.

In general, the story told is the conventional one of a commercial agriculture in an industrialised economy hit hard in the last quarter of the 19th century by a combination of low-priced imports of basic agricultural commodities and some years of bad seasons. The response by some English farmers to the new market conditions in terms of changes in product and method are described, as are the problems and failures of those unwilling or unable to adapt to the new circumstances. The period from the 1890s to 1914 is dealt with in a fairly familiar way by a description of the extension of pasture, the decline of arable activity, the diversification of production and the declining share of the home market enjoyed by local producers.

The chapter on farming in the First World War illustrates the strategic consequences of the economic specialisation achieved by the British economy in the late 19th and early 20th centuries. The difficulties faced by government in reversing the pre-war trend away from arable are also discussed.

The second half of the survey deals with that period when the peacetime economic experience of English agriculture was increasingly influenced by government intervention in agricultural production and marketing. Government policy is largely discussed in terms of its effects on farm prices and incomes through the imposition of barriers to trade, subsidies and the reorganisation of production and marketing.

The survey concludes with some discussion of English agriculture in the Second World War. Here again the problems of reversing long-run trends in response to strategic need arose but were more easily solved through the pre-war planning by government and the greater efficiency of the means by which economic resources were mobilised for total war.

Although no framework of analysis is explicitly stated, the continuing and interdependent themes are those of changes in the market and of changes in patterns of production and production methods. The larger aspects of this relationship are often obscured behind the detailed descriptions given of products and method: since the views of the survey are from a producer viewpoint this may be unavoidable.

Some areas of particular interest arise in the discussion. Arguments of a degree of capital deficiency in English agriculture as a result of low prices

and bad seasons are advanced as a partial explanation of the failure of some producers to respond (adequately) to the changed market of the later 19th century. Low prices in the early 1920s are also held responsible for a capital constraint on change in product and method in inter-war agriculture in England although in this period the problem of costs of production, like labour costs, may have had a greater influence on the experience of agriculture. A recurring and well-handled issue in the discussion is the shift in principles of farm management towards methods which maximised return on labour and capital, a shift brought about by changes in the market over the period surveyed.

The most interesting aspect of the book for the general economic historian and economist is the description of the market mechanisms by which considerable and rapid adjustment under free-market conditions took place in English agriculture in the later 19th century. The description of price changes for agricultural output and for factors of production employed in the sector demonstrate in an almost classic way the means by which the market allocates productive resources. The significance of this for those interested in the place of agriculture in developed or developing economic societies is that the English experience of that period is the only recent example of adjustment in a major agricultural sector under free-market conditions. Some more extended discussion of change in the British economy overall and its relationship to change in English agriculture would be useful: for instance, how the fall in the price of basic agricultural commodities brought about by imports raised the real incomes of the British and presented opportunities to domestic producers willing and able to exploit them by shifting to superior agricultural commodities with a higher income elasticity of demand.

The length of the book prevents more extended discussion of English agricultural experience in a wider context. A modest increase in length or some reduction in factual information and detail would have allowed more coverage of some wider issues such as the role of agriculture in structural change in the British economy over the period or the relationship of agricultural policy to economic policy overall in the inter-war period.

The title suggests a survey from 1870 to 1947 but coverage finishes in 1945. The immediate post-war period in English agriculture would have been of interest given the economic aims of the Attlee Labour Government and the general changes evident in economic attitudes by the mid-1940s.

The detailed information and some of the discussion in the survey make it of interest to the specialist but at a recommended retail price of \$80 in Australia it would be hard to recommend it for general purchase by economic historians or economists when many texts and monographs competently cover the same area.

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Australian Macroeconomic Policy: 1974-1986. By J. O. N. PERKINS. (Melbourne University Press, Melbourne, 1987.) Pp. 117, ISBN 0 522 84337 9.

Perkins examines the Australian macroeconomic experience between 1974 and 1985 (updated to mid-1986 in a postscript) and suggests several

lessons that 'need to be absorbed and used as a basis for future policy if the mistakes of that period are not to be repeated' (p. 3). This is an extension of an earlier book which covered the period 1960 to 1974. Perkins notes that there are certain important differences in the macroeconomic problems experienced since 1974 compared with the earlier period. In particular, he stresses the simultaneous occurrence of high rates of unemployment and inflation as a major concern in the recent period.

The first half of the book is devoted to the historical experience. The introductory section contains some background discussion of economic developments in the early 1970s and an overview of the 1974-85 period. Five sub-periods are discussed in somewhat more detail in subsequent sections. These include the economic recession of 1974-75, stagflation in 1977-79, the economic recovery and 'resources boom' of 1979-81, the recession of 1981-82 and the recovery in 1983-85. The length of these sections varies considerably, with the emphasis on the 1974-75 and 1983-85 sub-periods. Perkins sets out the main macroeconomic problems of each period, describes the fiscal, monetary and other policy measures adopted at the time, and points out the principal lessons to be learned from the experience of the period.

In section 7, the largest section in the book, some broad implications of the macroeconomic experience between 1974 and 1985 are drawn. There is a discussion of such issues as the conduct of monetary policy in a deregulated financial environment, the case for official intervention in the foreign exchange market, a comparison of government taxation and outlays as policy instruments, the role of wages policy and the use of several indicators or intermediate targets in the achievement of the basic macroeconomic objectives of high employment and low inflation.

Perkins argues that no single indicator adequately measures the setting of monetary policy. However, he does suggest that both monetary growth rates and post-tax real interest rates indicate monetary policy was relatively loose in the early 1980s and was tightened in the mid-1980s. Perkins calculates the post-tax real interest rate by adjusting the nominal interest rate by the applicable tax rate and subtracting some measure of the expected inflation rate. On this basis, the post-tax real interest rate increased, and became positive, in 1984 and 1985. While the post-tax real interest rate is an appropriate measure, Perkins does not consider the possibility of the presence of a time-varying risk premium which may bias this estimate.

The monetary aggregates increased much more rapidly in 1984-85 than in earlier years, although interpretation of these figures was difficult as they were distorted to some degree by the deregulation of the financial system. In February 1985, monetary targeting was abandoned. Around this period, there was also a marked increase in the public sector borrowing requirement and a deterioration in the current account deficit. Under these circumstances, it is possible that increased uncertainty regarding Australia's economic outlook resulted in foreign investors demanding a risk premium when purchasing domestic assets, placing upward pressure on domestic interest rates and downward pressure on the Australian dollar.

In the final section of the book, Perkins summarises the main lessons learned from the historical macroeconomic experience. Briefly, official operations in government securities is a more reliable and effective instrument of monetary policy than direct bank and foreign exchange controls.

The use of a 'checklist' of indicators to assess the appropriateness of the macroeconomic policy mix, although potentially difficult to interpret at times, is an improvement over the use of a single indicator. The emphasis in recent years to provide a medium-term budgetary framework through the 'trilogy' of commitments was a major advance from earlier short term 'fine tuning' efforts. The commitment of the government since 1983 to target unemployment and inflation simultaneously was also a step forward.

The main problem of the recent macroeconomic policy mix, designed to lower both unemployment and inflation, was the substantial increase in Australia's external debt. Perkins also points out the need for much greater wage restraint, arguing for large tax cuts to achieve this outcome.

Overall, the book is highly readable. It is particularly recommended for those interested in a clear non-technical discussion of some key issues relating to macroeconomic policy in Australia. A main criticism is the lack of references for those wishing to pursue a particular issue in greater depth.

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Drought and Hunger in Africa: Denying Famine a Future. By MICHAEL H. GLANTZ (ed.). (Cambridge University Press, Cambridge, 1987.) ISBN 0 521 32679 6.

The 1982-1984 African drought described by Rasmusson (this volume) as 'the most significant climatic event of modern times' (p. 3), has emphasised again the fragility of many African economies and the vulnerability of their agricultural sectors. This volume of readings based on presentations at a colloquium held in Colorado in 1985 largely draws on the experience of the 1982-84 drought. It includes papers which outline drought conditions, the environmental and social dislocation caused and alternative means of addressing these. Political-economic analyses of the underlying conditions which lead to famine form a second major theme.

Whether the contributors are dealing directly with drought and famine response, or the structure of affected economies, the call is for African nations to increase their self reliance. In some papers this is interpreted as increasing food self sufficiency, in others as moving away from external adjustments designed to increase access to foreign exchange. All these analyses reflect a deep concern with the increasing marginalisation of African economies. At the same time, therefore, a need is expressed for programmes specifically aimed at eliminating destitution, a state into which, Baker (this volume) argues, a growing proportion of Africa's population is falling.

Thus, papers concerned with formulating an effective strategy for dealing with environmental destruction and for anticipating and responding to periodic threats of large-scale food shortages emphasise avoiding both national and local dependency. Only one author, McMillan, proposes re-settlement as the only possible solution to production uncertainty in drought-prone areas.

At a national level the examples given are those of Kenya (Cohen and Lewis), India (McAlpin) and China (Li) where crises were either avoided or dealt with efficiently without the kinds of permanent structures experts

typically call for. Cohen and Lewis emphasise that separate structures are difficult to maintain in the long run and what are needed are functional stand-by strategies within existing governmental organisations.

Local-level dependency is discussed in various ways. In accounting for the level and extent of destitution and environmental destruction, Watts emphasises that peasant practice and knowledge have been overridden. This argument is echoed in a paper by Horowitz and Little discussing pastoralism. They advocate allocating real control over rangelands and pastoral water sources to traditional pastoral users and creating discrete areas of range that can be administered and managed communally by those users: the 'localisation' (p. 77) of tenure and management decisions. Whether indigenous systems break down under extreme stress is considered by Torry. He concludes from a detailed review of traditional food rationing systems, that 'social storage reciprocities might stave off temporary setbacks threatening the fortunes of single households, but would not produce that salutary effect in a general scarcity persisting for many months' (p. 333).

Like Torry, most authors agree that relief is essential once drought is generalised. Nevertheless, dependency issues can still be addressed. Although as Li points out, food relief is essential once people are gathered into camps, immediate food relief can also play a key role in helping vulnerable groups re-establish themselves by enabling them to remain in their home areas. On the issue of the re-establishment of production systems post-drought, McCann and McAlpin discuss the extent to which drought can increase 'capital dependency' of households. They advocate that relief programmes address this issue as well as immediate food requirements.

The dramatic increase in food aid both during and following drought is certainly one aspect of relief which raises concerns about self reliance. Given that food relief is essential, an important decision to be made, which has implications for long-term self reliance, is the quantity of food that should be provided. In the Kenya case, enough food was imported to meet production shortfalls, rather than providing enough food to 'remain healthy', which could have created unsustainable expectations and a loss of self reliance.

Morse, in his foreword, reminds the reader of the differential impact of drought both within and between communities and McCann notes that drought increases the manipulative power of households which control scarce remaining resources. Relief programmes can be targeted to reach structurally disadvantaged groups and the landless and jobless (described by Baker as falling out of the system altogether) who increase in number during drought. McCann describes an Oxfam America-funded relief programme in northern Ethiopia which attempted to do this by directing relief at households with a high ratio of consumers, and women. Bratton provides data from Zimbabwe to show that farmers organised into groups were in a better position to withstand the effects of drought than individuals. The ability of organisations to mediate between the household, the state and the market accounts for the greater sustainability of their production systems. Watts emphasises that it is also necessary to understand the social and economic phenomena that transcend the local herder-household for instance, such as the organisation of the grain trade, and the operation of markets and traders as a whole, in order to design effective programmes.

Appropriate development policies are crucial to any programme denying famine a future. Liebenow provides the example of Malawi to show how effective 'internal' perspectives have led to food self sufficiency. Nevertheless, he bemoans the persistence of traditional attitudes towards cattle and land tenure arrangements which he feels act as disincentives to innovation. The structure of the agricultural sector itself is the major target for discussion in most papers and almost all authors acknowledge the long-term neglect of the food production sector and emphasis on commodity exports, the external perspective. Baker reminds the reader that this neglect is tied to the need for foreign currency. Few authors take the more conventional position of Lofchie who emphasises poor internal economic incentives and concludes that price reforms are the first priority. Most authors emphasise the detrimental impact of externalities: Cummings notes simply that the plans for Africa were made within the framework of colonialism while Baker goes further and notes that social and economic disorder have been apparent on the continent since the 14th century. He argues that all who came later were bent on introducing unidirectional change, rather than on understanding.

Regardless of what specific programmes are initiated to deal with famine and its underpinnings, Cohen and Lewis (Kenya), McAlpin (India) and Li (China) all emphasise the need for government commitment to success. Li goes so far as to argue that the emphasis on economic development may be misplaced and that what is more important is political development.

The principal theme of this volume, that of the increasing marginalisation of African economies and societies, is not new. In Amin's volume (1976) on *'Unequal Development'* he argues that accumulation on a world scale tended to siphon-off surplus from peripheral areas of the world economy, keeping African labour cheap and relatively unproductive in agriculture and outside it. The writers in the volume being reviewed maintain that this situation persists and that further dependency may be created through the international response to drought and famine. However, the internal and external perspectives discussed are not always easy to distinguish and, as Berry (1984) remarks, the debate as to whether Africa is suffering from excessive international influence or not is a sterile one. She argues that withdrawal from the world market is neither a practical panacea, nor a satisfactory intellectual solution to Africa's agrarian problem (p. 64). Certainly, few can argue against placing the means of production into the hands of producers, and therefore, access issues are vital for maintaining or establishing self reliance. However, as Baker (in this volume) argues, development models often by-pass the poor, and few relief programmes are organised in such a way as to target structurally disadvantaged groups. Clearly, none of the issues of famine and its underpinnings can be dealt with outside a political framework and there are conflicting policies within the donor community. This makes it even more crucial that national governments take control.

While some authors are unable to resist reciting the usual list of problems, for example, the population explosion (Cummings), environmental degradation (Morse), and constraints in indigenous systems, especially land tenure (Liebenow), the majority are concerned with understanding the complex internal, external and exchange processes which have led to the present situation. Readers may disagree with the arguments,

which at times read like political slogans, but there is plenty of food for thought and provocative proposals for action.

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References

Amin, S. (1976), *Unequal Development*, Monthly Review Press, New York.

Berry, S. S. (1984), 'The food crisis and agrarian change in Africa: a review essay', *African Studies Review* 27(2), 59-112.

Land Degradation: Problems and Policies. By ANTHONY CHISHOLM and ROBERT DUMSDAY (eds). (Cambridge University Press, Cambridge, 1987.) Pp. 404, ISBN 0 521 34079 9.

Land degradation is one of the most serious, persistent, problems of agriculture in Australia today. Landholders, rural communities and whole regions of Australia suffer the impacts of degraded land. Politicians and public servants now closely monitor the problem, and are presently formulating policies to combat it. Indeed, the state soil conservation services have been intensively involved for many years. Land degradation now has a high media profile, and biologists, economists, political scientists and professionals of all disciplines are closely involved in many capacities. This book attempts to present and synthesise the degradation issues relevant to these many groups.

The book originated in a 1985 workshop at the Centre for Resource and Environmental Studies at the Australian National University. The goals of the workshop were to provide a conceptual and institutional perspective to the problem, and to analyse in depth some of the issues in a policy-oriented manner. The book then focussed primarily on social and policy aspects of land degradation, and so developed two of the workshop's specific objectives: to determine the socially-important elements of the problem, and to present ways of pursuing land management in the national interest while recognising legal, economic, social, political and organisational issues.

The Hon. John Kerin, the Minister for Primary Industry, introduces the book. The scene is set in Part I by the Chartres' chapter on land resources at risk, followed by Burch, Graetz and Noble on biological and physical phenomena, and by Wasson's chapter on detection and measurement of degradation processes. The commentary and overview to Part I is by Webb.

Economic contributions begin in Part II, *Social costs*, with Blyth and McCallum on on-site costs in agriculture and forestry, Upstill and Yapp on off-site costs, Woods on pressures from non-agricultural land uses, and an overview by Greig. Important economic contributions also occur in Part IV, *Behavioural causes, economic issues and policy instruments*, with Quiggin's chapter on behavioural causes, Kirby and Blyth's perspective on government intervention, Chisholm's discussion of regulations versus incentives and Edward's final synthesis.

Legal institutional and sociological factors are discussed in Part III by Bradsen and Fowler (legal issues and institutional constraints), Young (land

tenure), Rickson, Saffigna, Vanclay and McTainsh (social bases of farmer responses), and by Barker who comments on the chapter by Bradsen and Fowler.

Pressure groups, public agencies and policy formulation are the subject of Part V. Ballard analyses the role of pressure groups in general, Robb of the National Farmer's Federation assesses the role of non-government organisations, Mosley reviews the problem from the viewpoint of the Australian Conservation Foundation, and Junor and Watkins of the New South Wales Soil Conservation Service review the interaction and effectiveness of policy agents. Paterson presents the overview and commentary to Part V.

The concluding section (Part VI) is entitled *Towards more effective policies for controlling land degradation: an overview*. The potential contribution of the biophysical sciences is assessed by Robertson, and the potential role of the social sciences is reviewed by Dumsday. Davis then assesses the practicalities of policy solutions.

The three appendixes all seem too important to be subsidiary, post-overview additions. Indeed, Chisholm's material on economic approaches to environmental issues (Appendix A) could well have introduced Part II. Davidson's commentary (Appendix B) on the opening biophysical contributions of Chartres and Burch/Graetz/Noble raises the very issues that set a biophysical assessment in a policy context. Thomas (Appendix C) reviews the kind of information that is useful for policy, and this would sit well with the material of Part VI.

Land degradation results from many causes, and this is usefully acknowledged in the first sentence of Chapter 1, '. . . land degradation can result from any causative factor or combination of factors . . .', but emphasis on the physical concept of damage has long hindered debate and this concept is highlighted in the rest of this first sentence '. . . which damage the physical, chemical or biological status of the land and which may also restrict the land's productive capacity . . .'. Fortunately, the range of causes and the policy relevance of biophysical status are addressed by other writers. Quiggin, for example, argues that degradation is essentially the result of human actions which speed up natural processes.

The book sets out to provide a conceptual and institutional perspective and analyse '. . . in some depth . . .' the issues and policy solutions. It is therefore surprising that no empirical economic analysis is discussed while an empirical sociological analysis (commissioned after the workshop) is included.

While empirical economic analyses of degradation problems in Australia are still few, there have been sufficient to warrant discussion. They include Abelson's Eppalock case study, Bennett and Thomas on salinity in Western Australia, Dumsday and Oram on salinity in Victoria, Penman on the net benefits of cases in New South Wales, and King and Sinden on the impact of soil conservation on land values.

The major issues in the debates over land degradation are raised by Davidson.

- (a) Is the productivity of the land actually declining given the improvements in farm practices and technology? If productivity has not declined, then degradation may not necessarily be a major problem. If it has declined, then degradation may well be a problem.
- (b) If there is a degradation problem, how serious is it? In a cautionary vein, Davidson notes that agricultural production has doubled in Aus-

tralia over the last 30 years, almost all of the increase coming from land which has been farmed for over 30 years.

(c) Do the benefits of restoration of degraded land exceed the costs?

The potential contribution of the social sciences in addressing these issues is taken up by Dumsday. After reviewing the interdisciplinary claims about ways of measuring the impact of degradation on society, he notes that there are few case studies of the problem, few evaluations of conservation programmes, and no evaluations of national or state programmes. Little is known, he argues, about degradation in ways that will help formulate policies to combat it. We cannot therefore assess whether rates of degradation are excessive in any welfare sense.

Some contributors argue that degradation problems were more serious in earlier decades. And today, farmers manage their land rather than exploit it; therefore, problems are more amenable to resolution. The discussion of policy options to resolve degradation problems covered regulations, taxes, land tenure, research and co-ordination of policies. These standard but somewhat repetitious arguments are likely to be new to some readers.

The Editors and contributors to *Land Degradation: Problems and Policies* clearly set themselves a large task, complicated by the constraints of origin (the multidisciplinary workshop) and authorship (multidisciplinary chapters). To satisfy some of these constraints, they have presented modestly the potential economic contribution and presented at some length sociological, institutional and biological issues. They have maintained the general relevance of the discussion by omitting analysis of specific problems and policies.

The specialist, or individual interest group, will not therefore find a full analysis of his particular area. But most readers will find this book an interesting source of material, and all readers will find this an informative, useful and highly readable book.

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Weed Control Economics. By B. A. AULD, K. M. MENZ and C. A. TISDELL. (Academic Press, London, 1987.) Pp. 177, ISBN 0 12 068278 8.

The book is devoted to discussing the impact of weeds on farm production and the methodology for assessing the economic costs and benefits of weed control strategies. As such, it fulfils a very real need, as the information in it is not readily accessible elsewhere. Farmers, government agencies and herbicide manufacturers are all faced with making decisions about measures for weed control. However, because of the complexity and difficulty of estimating the costs of weed infestation, decisions are often taken without any objective assessment about the economic impact of weeds on agricultural output.

In the two introductory chapters, basic concepts concerned with weed taxonomy, biology and control are discussed. Particularly useful are the sections dealing with weed reproduction and dispersal. What is frequently ignored in many economic assessments is that weeds tend to be persistent, reproducing themselves from seeds buried deep in the soil. Therefore, it is insufficient to merely consider the immediate effects of any weed

control measures. These chapters are followed by a succinct introduction to basic economic concepts, which are employed later in the book.

The real strength of the work lies in the in-depth examination of procedures for assessing the economic gains from weed control in various contexts. In each case, theory and practice are neatly bridged, using examples, involving both standard and non-standard problems. Chapter 4 is concerned with estimating the immediate benefits from controlling weeds. Specific issues addressed include the relationship between crop yield and weed density and the effect of weed contamination on product quality. The subsequent chapter extends the analysis to include considerations on the long-term impact of control measures, the effect of risk and uncertainty and the impact of weeds on grazing animals.

In chapters 6 and 7, the focus of attention is widened from the individual field to the farm and the region. Particular attention is given to the goals and objectives of farmers and how these may influence their perception of weed control measures. The authors rightly stress the need to take account of the whole-farm situation in assessing the impact of weeds. Failure to do this in the past partially accounts for the low adoption of research findings by farmers. The concluding chapter of the book contains a valuable discussion of the welfare implications of weed control from the viewpoint of society. This contains useful discussions on externalities, the divergence of social and private benefits and the reasons for state intervention.

The book should provide agricultural scientists, advisers and students with a better appreciation of the economic losses arising from weed infestation and of methods for estimating these losses. For agricultural economists, it will provide both an agronomic background and an economic framework for tackling issues in weed control and research.

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Sustaining Agriculture Near Cities. By WILLIAM LOCKERETZ (ed.). (Soil and Water Conservation Society, Ankeny, Iowa, 1987.) Pp. 295, ISBN 0 935734 17 1.

The photograph on the front cover of this book shows a typical American farm in the foreground and, not more than 15 kilometres distant, the high-rise buildings of a large city. This economist's immediate reaction was: 'Why is land so close in devoted to farming? Surely it has more valuable alternative uses?' Unfortunately, as its title indicates, this book omits any systematic examination of the benefits and costs of urban fringe agriculture. Its basic premise is that fringe farmland should be preserved. Thus, the focus is on the constraints on agriculture near cities, and on private strategies and public policies to promote and protect this form of land use.

The book contains a selection of papers presented at a conference of the same name, held in Boston in November, 1986. The 22 papers are grouped under four headings: Adapting to the Metropolitan Environment, Political and Social Issues, Changing Uses of Land and Water, and Farmland Preservation Strategies. They are of four types: reviews of particular issues, including metropolitan land-use changes, pesticide spillovers,

competition for water and policy trends; studies of agricultural adjustment in particular urban areas; studies of perceptions of agriculture and agricultural life; studies of the impact of particular preservation policies.

Lockeretz' preface sets the tone: 'many people view the conversion of land from agriculture to suburbia with regret' . . . 'near-city agriculture must be helped to thrive rather than merely preserved' . . . 'farming near a city has advantages as well as disadvantages'. However, he fails to provide a review or commentary to help the reader to relate and assess the diverse papers which follow. It is not clear whether the papers included are representative of North American research on urban fringe agriculture and farmland preservation policies. Also, the other side of the argument, the opportunity costs of farmland preservation, only arises in this volume in the guise of problems such as pesticide spillovers, high housing prices and the high costs and limited success of voluntary preservation programmes.

Australian readers with a continuing interest in urban-fringe land-use and farmland preservation can consult this book for recent information about the North American scene. The general reader is advised to give it a miss.

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Economic Efficiency in Agricultural and Food Marketing. By RICHARD L. KILMER and WALTER J. ARMBUSTER (eds). (Iowa State University Press, Ames, 1987.) Pp.315, ISBN 0 8138 0533 3.

Any volume whose table of contents has the names of Just, Rausser, Gardner, Pope and Roe among its authors should whet the appetites of agricultural economists keen on keeping abreast with developments in their profession. This book is able to satisfy the appetite by providing a smorgasbord of material in 15 chapters divided into three courses. As the title implies the book is concerned with the analysis of economic efficiency, which according to one of the authors, is 'the premier growth industry' among economists today.

The first part of the book considers the concepts, issues and limitations involved in measuring welfare changes. The papers are extremely valuable at a conceptual level and are perhaps the most useful part of the book. For example, Rausser, Perloff and Zusman discuss a number of problems encountered in applying efficiency criteria in a second-best world and conclude that the general framework should be dynamic and allow for uncertainty, imperfect information and a host of other transactional problems and costs. They also warn that the constraints imposed by the political system, existing institutions and equity considerations should be clearly delineated and, if possible, endogenised. Milon, in a provocative paper which examines, among other things, the assumptions and value judgments inherent in conventional analysis of production, allocative and economic efficiency, concludes that '. . . narrow economic concepts and considerations . . . are not likely to be decisive on matters of policy' and that 'Quite simply, an artistic economist must also be a good social philosopher' (p. 83). This paper thus touches on some of the issues raised by the 'new' political economy writers (Inman 1987).

The somewhat discouraging picture which emerges from this first section is that while the conceptual methodology for the analysis of a complex, dynamic, uncertain, multimarket world has been developed (see, for example, Just, Heuth and Schmitz 1982), empirical work still has a long way to go.

The second part of the book examines a number of the conceptual problems for examining efficiency. Each of the chapters, therefore, deals with separate pieces of what was shown in the first part to be an extremely complicated puzzle. The topics discussed include X-inefficiency, the objective functions of firms, contestable markets, and the relationship between market structure and the pricing behaviour of firms. The most interesting chapter in this part is the analysis by Antonovitz and Roe on the impact of information on the pricing system. The approach they follow is Bayesian and is similar to that outlined in their 1986 paper published in the *Review of Economics and Statistics* (Antonovitz and Roe 1986). It enables them to develop measures of the value of information to consumers and producers, which they then estimate using the US beef market as an example. This work is important since a large quantity of public and private resources is devoted to providing information to help accomplish an efficient allocation of resources.

The final part of the book consists of a series of case studies. These cover commodity grades and standards, commodity storage, futures markets and marketing orders. The material in the chapters is interesting and informative, and because each chapter is supplemented by an extensive list of references (so too are the earlier chapters), they provide a good starting point for researchers planning on entering these fields.

The lack of definitive answers is lamented over by several of the authors. Bockstael, for example, concludes from her paper that 'grading and standards can be potentially beneficial, but they also can be used to accomplish socially undesirable ends' (p. 248).

A shortcoming of the book is that there should have been more discussion of international effects of different food marketing arrangements. For example, state trading organisations are numerous and through their control over imports and/or exports clearly have the potential to affect the efficiency of resource use in the country with such organisations and also in that country's trading partners. Similarly, the vertical integration by firms in a food deficit country into the agricultural industries of food surplus countries (witness the activities of Japanese firms in the Australian beef industry and in the US citrus industry) is an important though little-researched topic. Finally, quality and health standards are useful non-tariff barriers to importing countries wishing to protect particular industries in that they are easily saleable to consumers and are difficult for exporting countries to negotiate. A chapter on international aspects of food marketing arrangements would have rounded the book off nicely.

As with many edited volumes, the level of rigour and the approaches (mathematical versus non-mathematical) taken by different authors vary. Nevertheless, this book with its blend of theory and empirical analysis should stimulate the interest of readers from varying backgrounds and be a useful addition to the university library.

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References

- Antonovitz, F. and Roe, T. (1986), 'A theoretical and empirical approach to the value of information in risky markets', *Review of Economics and Statistics* 68(1), 105-14.
- Inman, R. (1987), 'Market, governments and the new "political economy" ' in A. J. Auerback and M. Feldstein (eds) *Handbook of Public Economics*, Vol. 2, North-Holland, New York, pp. 647-769.
- Just, R. E., Heuth, D. L. and Schmitz, A. (1982), *Applied Welfare Economics and Public Policy*, Prentice Hall, Englewood Cliffs, NY.

New Directions for Agriculture and Agricultural Research: Neglected Dimensions and Emerging Alternatives. By KENNETH A. DAHLBERG (ed.). (Rowland and Allanheld, Totowa, New Jersey, 1986.) Pp. 436, ISBN 0 8476 7417 7.

In a time when specialisation is the norm, agricultural research (like other areas of research), is characterised by fragmentation, narrowness of vision, and disjointedness. Perhaps because of this, large problems exist in agriculture. These problems include the lack of sustainability of present forms of agriculture (with issues such as effects on the environment, human health and non-renewable resources) and social aspects of rural life.

A group of people collaborated on an interdisciplinary project, inquiring into issues such as hunger, poverty, energy, resources and environmental problems. The work was funded by the Ethics and Values in Science and Technology Program of the National Science Foundation and the National Endowments for the Humanities. After two workshops, papers were presented at a symposium, and collected in a book.

Specific neglected dimensions and alternatives are discussed in the second half of the book. The first part is used to set the general scene: ethical and value issues, historical trends, and past and present goals and priorities in agricultural research. The neglected dimensions to which specific chapters are dedicated include an excellent exposé on the effects of agricultural production on human health, social externalities, a critique of conventional cost-benefit analysis, and energy used in agriculture.

A pleasant surprise is the inclusion of a chapter on 'alternative' agriculture (also known under names such as organic, ecological, biological and chemical-free). Although this alternative has been practised by some farmers in many western countries for a long time, it was not taken seriously by most people involved with agriculture and agricultural economics until recently. In a second chapter in the section of 'emerging alternatives and their implications', issues arising from the new direction in agricultural research (biotechnology) are examined.

For those who do not believe in an interdisciplinary approach, two chapters might be of interest. In both, the approach of analysing the world solely with the aid of neoclassical economic theory is queried. De Janvry and LeVein discuss convincingly the consequences of historical forces on the structure of present world agriculture. The present situation, they argue, is not the result of 'free-market' forces, espoused by neoclassical economists. The second chapter with a pure economics content is in the section on 'neglected dimensions'. As this is a chapter in which a number of specific issues within neoclassical economic theory are criticised, a somewhat detailed review seems appropriate here. In it, Madden expands on the value judgements and assumption (implicit value judgements, which are not recognised as such) present in the different tools of analysis used

by neoclassical economists (such as the analysis of consumer and producer surplus, regression analysis and mathematical modelling). The thrust of the paper is that the use of these tools does not necessarily lead to a socially optimal type of agriculture. This is because, in assuming these tools to be 'objective means', value assumptions are made. The most common consequence of these assumptions is that external costs and other externalities are treated as immeasurable or insignificant, and that renewable resources are valued at current market prices. These factors can, conceptually at least, be included in neoclassical economics but generally are not. Other values not so easily handled include equity, rationality and purchasing power as reflection of needs. Madden points out that, although 'objective economics' can never be achieved, the denial of the presence of value judgements and assumptions in neoclassical economics increases the degree of subjectivity. Assuming that economists have influenced the direction of agricultural research in the past to some degree, it seems likely that the neglect of some dimensions in agricultural research is due to shortcomings in the tools of economic analysis. It is refreshing to see these points discussed. An intriguing question is why the only two chapters on economics included in this book were written by economists who can clearly not be counted as neo-classicists. Is it because some neglected dimensions of agriculture have never been dealt with satisfactorily in neoclassical theory?

Two chapters on emerging alternatives are both informative about their areas and raise a number of important questions. Lockeretz's exposure of the different (and sometimes mutually exclusive) goals within alternative agriculture is an excellent introduction to this kind of agriculture. Although rapidly increasing in significance in many western countries, some problems clearly still need to be resolved within alternative agriculture. This rapid change might account for the fact that the issues involved in marketing, an area which has especially developed in recent years, have not been discussed systematically and clearly in this chapter. However, a number of interesting points are made under this topic and under 'consumer and governmental support for organic methods'. It is not clear why the author does not consider certain issues related to the last topic to be related to 'marketing'. The section on 'localised food production' (that is, restricted trade) is not very convincing.

Buttel gives an excellent picture of the historical development of biotechnology. He then continues by analysing the 'actors' who influenced the direction and size of past research as compared to the changes which can be expected with the progress of biotechnology. After pointing out that biotechnology is a potentially neutral technology, he states that a change in actors '. . . might result in a situation like the 50's, where there was little information on, and understanding of, the impacts of new agricultural technologies. This would be especially tragic with regard to biotechnologies, since there is a strong likelihood that their impacts will be neither neutral nor benign.' (p. 334).

As there was a consensus amongst the authors that neglect of externalities (affecting human health, environmental degradation, social inequalities) have characterised agricultural production in the past, Buttel's thought should give plenty of incentive for creative thinking regarding the future direction of agricultural research.

Most chapters are well-written, and of a similar standard. The jewel I found to be one of the earlier chapters, on philosophy, by Aiken. He

gives a short and powerful exhibition of four views which determine the ranking and choosing of values and goals. In conclusion, Aiken discusses how to decide which perspective(s) to adopt when deciding on policy involving the future direction of agricultural research. This gave an insight into the practicalities of making decisions in situations where people's views might be diametrically opposed to one another. It is easy to imagine a situation where decisions are made about agricultural research, and how this is affected by value assumptions of researchers (including economists). The chapter gives a practical guide as to how best to deal with such situations.

The book gives the impression that the sequence of the chapters was carefully chosen. It is logical, although chapters are self-contained, and can be read independently.

The emphasis of the book is on American agriculture and agricultural research and on its effect mainly on developing countries. In most chapters this does not matter for Australian readers, as many aspects of research in Australian agriculture are similar to those in the US. However, two chapters did not fall into that category. The first one relates to the National Agricultural Research, Extension, and Teaching Act of 1977, and the second on the state agricultural experiment station system in the US.

This book will be most appreciated by those who favour interdisciplinary approaches to problems. The main merit of this book is that it broadens the basis on which to make decisions related to agricultural research. For those (and not only economists) who influence the direction of agricultural research the book should be obligatory reading.

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Imagination in Research: An Economist's View. By GEORGE W. LADD. (Iowa State University Press, Ames, 1987.) Pp. 146, ISBN 0 8138 0987 8.

Imagination and intuition are equated with unconscious mental processes. The latter are viewed as critical to (the formulative stage of) research. If inappropriate hypotheses are constructed, no amount of analyses will be able to compensate. Can the conscious be stimulated? It is quite unlike the systematic process involved in the use of most of the analytical tools used in economics. Ladd claims that imagination can be stimulated, but that imagination is more or less competitive with methodological analytical thought. Therefore, the focus on the latter in most teaching actually diminishes imagination. Thus, the book concerns temporally and logically prior issues (that is, prior to methodology application).

Imagination is linked to the term 'bisociation' coined by Koestler. Bisociation can be broadly defined as the link between things not formerly seen to be connected. Bisociation is seen as the essence of creativity.

The distinction between conscious and unconscious thought invokes another Koestler definition. 'Code' is a set of permissible actions. For every action permitted by a code, a multitude of actions are prohibited. The conscious is governed by codes. Any new way of thinking represents a departure from accepted codes. Thus, the more codified our thinking the less scope there is for unconscious thinking, or imagination. Koestler draws on biological and philosophical arguments to support these views. The

reader previously unexposed to Koestler would likely find those concepts enlightening and persuasive.

Clearly, time in which to have unconscious thoughts is a prerequisite to imagination. Given the increasing value of human time associated with economic growth (Lindner 1970), and the inevitable pressure which this places on time for unconscious thought, it may well be that society is less imaginative now than in the past. This problem is exacerbated by the apparent need people feel to be busy, seeming to equate business and productivity, or importance. The author argues that insufficient attention is paid to the creative processes of hypothesis formulation compared to methodological procedures.

Having convincingly expounded the importance of imagination in research, Ladd sets about to give ideas on how the unconscious can be aided. Most of the ideas are common sense type suggestions, such as setting aside periods of time for quiet reflection. However, it is not clear that the ideas are amenable to teaching in a formal sense.

Indeed, the author states that stimulating one's imagination is a personal matter and it is largely a question of what works for the individual. Ladd's ideas are useful in this regard, but the book may have greater value for the experienced researcher, in prompting a change in approach. The novice might find a limited research background a hindrance to integrating the ideas presented.

The conflict between imagination and the codification of thought processes was vividly demonstrated to me during the period in which the book was under review. A government departmental 'Office Procedure Circular' came across my desk. It was labelled 'Good Ideas Program' and offered cash for good ideas. Good ideas began swilling around in my unconscious. I read on. There were 28 major points plus 20 odd sub-points. Four categories of good ideas were described. Procedures for submission of ideas and adjudication rules were outlined. My imaginative good ideas faded into oblivion.

This book is pleasant reading and will assist in raising research productivity. It would be of value to any researcher, not only economists. It may be of less value to the target audience of graduate students than it is to experienced researchers for whom it would make an ideal gift.

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Reference

Lindner, S. B. (1970), *The Harried Leisure Class*, Columbia University Press, New York.

Food Policy: Integrating Supply, Distribution and Consumption. By J. PRICE GITTINGER, J. LESLIE and C. HOISINGTON (eds). (Published for the World Bank by The Johns Hopkins University Press, Baltimore and London, 1987.) Pp. 567, ISBN 0 8018 3500 3.

Conclusions of the 1974 World Food Council focused on possible enduring food shortages and plans to increase global food production. Today, total world food supply are more than adequate, yet chronic undernutri-

tion exists. The focus is now on the link between poverty and consumption, which puts the food policy debate squarely in the context of international trade, USA/EEC agricultural policies, exchange rates and the like.

While economic growth remains the primary means of overcoming undernutrition, targeted programmes on health and nutrition are now regarded as essential, irrespective of a country's economic growth. These are the broad themes of this Economic Development Institute (World Bank) book which reviews the state of the art in food policy. Some of the articles in the book are custom-written, but most are reprinted or abstracted from earlier publications. Overview statements are contributed by the editors. The book can be regarded as complementary to that of Timmer, Falcon and Pearson (1983).

No doubt followers of this literature will be familiar with much of the content, but the breadth of coverage is almost certainly beyond the knowledge of any individual. For the non-specialist economist, the scope of the book is pitched to provide a readable and comprehensive overview.

The lead (and longest) article is by Falcon *et al.*, who argue that the crux of food policy dilemma is the need to balance long-run higher prices to farmers for increasing production, with the short-run impact on consumers' food security. They suggest that long-run food price increases in developing countries *are* desirable, if buffered appropriately by targeted programmes for food security. EEC/USA policies are claimed to result in prices which are 'too low' for adequate encouragement of most developing country agriculture. However, insofar as these EEC/USA policy-influenced prices are 'real', should they be regarded as a subsidy for development and taken advantage of accordingly? The issue is whether agricultural growth is a prerequisite for development, as many empirical studies have implied, and as Mellor and Johnston suggest in this volume (on the grounds of the high marginal propensity of the poor to spend additional income on food).

Schuh's article repeats the now familiar theme of the internationalisation of capital markets and the importance of exchange rate fluctuations for commodity markets. These factors led to the irrelevance of a national perspective when dealing with food policy. The internationalisation of capital markets is forcing re-structuring (and more realistic exchange rates) in many countries. A country's exchange rate may be *the* most important price in its economy.

Increased crop yields resulting from improved crop varieties and associated inputs have been a major factor in the altered perspective for world food since 1974. However, have the yield increases been associated with increased production and price instability? Pinstrup-Andersen and Hazell claim that they have, but the evidence is not compelling. Indeed, statistics presented in Anderson, Hazell and Evans (1987) tend to refute the idea.

A series of articles in the centre section of the book broaden the perspective and include excellent short pieces on production increases for low-income farmers and the nutritional impact of agricultural policies, among others. The latter part of the book focuses more directly on nutrition. The four major nutritional deficiencies are stated to be protein and energy, iron, vitamin A and iodine. The latter three are more amenable to *specific* interventions than the first, both on economic and logistical grounds.

Three scientific advances in recent years have changed the focus of nutrition-related food policy:

- (a) development of an understanding that, when commonly consumed cereal-based diets are sufficient to meet energy needs, they usually meet protein needs as well;
- (b) more appropriate use is being made of anthropomorphic measurements to monitor human growth;
- (c) new techniques have been found to control parasitic infections and to treat diarrhoea with oral rehydration therapy.

Good overviews of national nutrition planning and education are included. The evolution of human nutrition policy and human nutrition as a field of study are described. Analyses of policies for certain regions (Africa, China) conclude the volume.

Food policy (of which 'food security' is one component) like the other fashionable? topic of 'farming systems reasearch', has a tendency towards being all things to all people. This book avoids the potential problem of amorphousness and leaves the reader with a clear grasp of the subject and its boundaries (compare Smits 1985).

In conclusion, the editors have made excellent article selections, excerpts and commentaries to provide an overview of food policy issues in the world today.

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References

- Anderson, J. R., Hazell, P. B. R. and Evans, L. T. (1987), 'Variability of cereal yields: sources of change and implications for agricultural research and policy', *Food Policy* 12, 199-212.
- Smits, A. P. (1985), Food security in developing countries. Kijkduin Seminar, Rawoo, The Hague, 28-29 March.
- Timmer, C. P., Falcon, W. P. and Pearson, S. (1983), *Food Policy Analysis*, Johns Hopkins University Press, Baltimore.