BOOK REVIEW

Farm Business Management: Analysis of Farming Systems

Peter L. Nuthall

This book itself is a masterful achievement, but as the third in a Farm Business Management series, all published in 2010 and 2011 by this author, it represents the culmination of a wide-ranging comprehensive and thorough treatment of this field of human endeavour. It completes an impressive statement of the knowledge, skills and insights that the author has accumulated over his academic career. The companion volumes are *Farm Business Management: the Core Skills* (CABI2010) and *Farm Business Management: the Human Factor* (CABI 2010). Brief mention of these two texts is warranted, as background to the volume being reviewed.

Farm Business Management: the Core Skills deals with the core important skills required by successful farm managers. Based on research within farming communities, it covers broad topics including observation, anticipation and risk management, with thorough developments of each of these, and a concluding section devoted to assessing and improving managerial ability. It is therefore a book about what things farm managers do, which of these are important, and how execution can be improved. The second title, *Farm Business Management: the Human Factor* addresses in an accessible format the individual psychological aspects that underlie human behaviour and the expression of farm management skills in managerial ability. Both books provide a valuable resource for students of agriculture or agribusiness, farm managers, consultants, researchers and other agribusiness professionals to better understand the complexity of what makes each individual unique.

With that background established in the first two books, this third volume is designed to focus on the science of management – the identification and exposition of the techniques and skills needed to analyse and improve farm systems. There are 16 chapters. The introduction sets out the main premises of the book – that farm management is essentially about seeking to optimise a farm system, that optimising requires identification of problems, and that there are 6 essential steps in the optimising process: formulating the problem; constructing a model to represent the problem situation; testing the model; deriving a solution; testing the modelled solution; and fully implementing the solution. This framework provides the structure for the chapters that follow.

As observed in Chapter 1, much of the material that follows is quantitative in nature, seeking mathematically optimal solutions. Consequently, the book contains much of the material common to management science and management economics texts. It has strong underpinnings of economic principles, and takes the reader clearly and logically through many of the topics and techniques developed for framing, constructing and executing problem analyses. However, there is acknowledgement that in some situations, problems cannot be addressed quantitatively, because of lack of information, and that qualitative approaches may be usefully employed in these situations. Useful advice is provided for such situations.

Chapter topics move in a somewhat unconventional sequence, for a management science text – but this is not just a management science text, and the sequence has sound internal logic. In Chapters 2 and 3, fundamental economic principles are established, such as decision making under uncertainty, probability, utility and so on. This continues in Chapter 4 (description of cost-benefit analyses techniques) and Chapter 5 (more on decision making and utility). Chapter 6 departs from this theme to provide a comprehensive overview of approaches to gathering farm survey data that can be used with validity for developing farm system models.

The remaining chapters then provide cogent coverage of the conceptual issues, tools and techniques required to use data to construct useful farm system models, whether complete or partial, for a range of optimising purposes. Topics of budgeting, linear programming, dynamic programming, systems simulation, and part-of-farm analyses follow in sequence. In addition to text material there are four appendices providing supporting information on production economics, farm analyses outputs, and different aspects of linear programming.

Farm Business Management: Analysis of Farming Systems focuses clearly on the farm business, and offers coverage of a wide range of analytic techniques that have potential for providing guidance to managers and other on ways in which outcomes may be improved or optimised. This reviewer was impressed with not only the mastery of topics but also the succinct effective coverage of the material. This book will have wide appeal to many different readers. As a text for undergraduate and postgraduate coursework students it will provide an excellent reference for one or several themed courses on farm business management. It will provide a comprehensive resource for research students, not only for the clear exposition of analytical techniques but also on important issues of survey design for a wide range of data acquisition purposes. It will be of much value to practising farm managers and agribusiness consultants, and also for policy makers. It is a very good book.

Reviewed by Donald Cameron[1]

[1] Senior Lecturer and Research Postgraduate Coordinator, University of Queensland, Australia