

## Book review

**Organic Agriculture: A Global Perspective.** By Paul Kristiansen, Acram Taji and John Reganold (eds.). Ithaca, New York: Cornell University Press, 2006, 449 pp., ISBN 978-0-8014-4524-8

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*Organic Agriculture: A Global Perspective* is a comprehensive compilation of papers brought together in an attempt to produce an all-encompassing resource covering pertinent issues facing organic production systems in today's global environment. With 51 contributors, the book draws upon a wealth of experience and expertise from a diverse range of globally situated researchers who are rarely drawn together in such a way. The book's 18 chapters, each dealing with a significant aspect of the organic sector, are grouped in four sections focussing on production systems, regulatory and management issues, beyond the farm gate, and knowledge and capacity building. Five special topics are illustrated in detail to underscore the complexity of issues and challenges the organic industry faces with respect to the arguments raised throughout the volume. As an interdisciplinary endeavour, it provides a useful collection of resources covering the main areas of research involving organic agriculture and thus resembles the holistic systems approach advocated by organic philosophies.

A key strength of this volume is the first section, which focuses on organic production systems. The collected papers review relevant literature and present the pertinent arguments on soil fertility, crop agronomy, plant protection, plant breeding, livestock husbandry, animal health and animal welfare. Davis and Abbott, in Chapter 2, consider issues of sustainability in relation to

soil fertility highlighting the need for organic farming systems to take into account specific practices and local knowledge of soil and environmental conditions. Crop agronomy in particular, crop rotations, and cultural strategies for farm management are reviewed by Fragstein und Niemsdorff and Kristiansen in Chapter 3. Chapter 4, by Morse and Creamer, provides an interesting analysis of crop protection methods adopted by organic producers and contextualised in relation to methods used by conventional agricultural producers. In Chapter 5, Letourneau and van Bruggen discuss plant breeding and seed production, with particular focus on the need to develop better-adapted varieties for organic farming and the possible ecological and ethical approaches that could be undertaken. Bernhard Hörning identifies the need for further research on organic animal husbandry in Chapter 6 and discusses the problems associated with organic animal housing and breeding in detail. Animal health is reviewed in Chapter 7 by Vaarst et al. presenting a number of case studies to address the issue of disease management. The organic production section concludes with Lund's interesting analysis of organic animal welfare and ethics in comparison to conventional animal welfare and ethics, and raises the question is "natural living" a precondition of good animal welfare?

The remaining three sections are considered in the second half of the book. Section 2, regulatory and management issues, contains reviews on organic standards and certification, with Courville highlighting the increasingly involved system of organic regulation and the resulting loss of ownership and meaning by the organic movement itself. In Chapter 10, Wyneen presents a restatement of the main issues facing organics by contrasting the economic returns of conventional and organic systems, while Lockie et al. (Chapter 11) present an overview of the arguments with regard to consumer preferences for organic produce and highlight the changing consumer values in relation to organic agriculture. In Special Topic Three, Ikerd raises the spectre of conventionalisation by examining the growing contradictions between the historic principles of organic farming and the drive for productivity.

In the third section, "Beyond the Farm Gate," Kasperczyk and Knickel, (Chapter 12) use an analytical framework for assessing environmental impacts of agriculture to argue that organic agriculture is indeed less environmentally harmful than conventional systems. In Chapter 13, Brandt posits that organic systems are well

suited to producing high quality foods but that the issue is, again, how to conserve these practices in the face of pressure to increase productivity. By summarising the literature on the health impacts of organic foods, Brandt claims that research on this issue is generally poorly designed and thus inaccurate. Social responsibility in organic agriculture is reviewed by Pyburn et al. who, in Chapter 14, argue that as social responsibility is further incorporated into organic production systems, it needs to be embedded within all levels of the supply chain using standards and regulation to ensure that core values are replicated.

“Knowledge and Capacity Building,” the final section of this volume, covers issues of research and education. Watson et al., in Chapter 15, summarise the development of organic research in both public and private sectors reiterating the importance of further support and the need to refine research methods and approaches. Education and training with a holistic, interdisciplinary and interactive approach is recommended by Srikandarajah et al. in Chapter 16 and this is complimented in Chapter 17 by Seppänen and Francis who examine farmer education and training and recommend the use of multiple educational tools where knowledge acquisition also leads to knowledge generation.

In conclusion, the editors, Kristiansen, Taji and Regonold, argue that they were driven to compile this volume in order to not only document and review current knowledge but to also identify the strengths and weaknesses of organic production literature in order to apply this to immediate challenges. They conclude that a key message from the book is that principles of organic production systems need to be balanced with commercial pressures in the face of the complexities of all important standards and certification procedures.

The overall structure of the book is good, setting out chapters into discrete sections, which cover the key research areas in organic agriculture and the authors draw upon an extensive range of references in presenting their key arguments. *Organic Agriculture: A Global Perspective* will undoubtedly be a valuable asset for undergraduate students, providing an important text on the world of organic agriculture, its issues, opportunities and challenges, particularly the organic production section, which agriculture students will find useful. Postgraduate students will benefit using this volume as an entry point into the world of organics and the issues raised will make worthy reading for policy makers.