soil fertility (which has very little discussion on the importance of nutrient re-cycling within the farm) were disappointing to this reviewer.

David Younie

Going Organic: Mobilising Networks for Environmentally Responsible Food Production. By S. Lockie, K. Lyons, G. Lawrence and D. Halpin. Wallingford, UK: CAB International (2006), pp. 256, £49.95. ISBN 1-84593-1342-7. doi:10.1017/S0014479707005108

This book sets out to examine what is really going on in the organic sector and to explore whether the experiences can be utilized to transform the way in which we distribute and consume food. It covers the whole organic food chain including global organic markets, production, why consumers buy organic food, coverage in the media, and the development of standards and regulations. It critically examines with a fresh perspective the concepts of 'conventionalisation' and 'bi-furication' that have dominated the social science literature on this subject in the last few years.

The authors come from 'down under' where the sector developed largely without government intervention and they deal with a number of common misconceptions about consumers and producers of organic food. They are social scientists and encourage the reader not to simply blame newcomers and large-scale corporations for any undesirable developments associated with recent growth. A number of challenges that the organic industry faces in coming to terms with recent growth are identified – for example the focus on input restriction and the absence of social values of many standards – as well as strategies how to deal with it. The book is based on material from Australia, but the authors demonstrate familiarity with developments in other continents and have extensively used references including many very recent publications. The book is well written as one book rather than a collection of papers and provides an interesting introduction to social and political aspects of organic farming, both for newcomers and those that are more familiar with the topic.

Susanne Padel

Agricultural Sustainability: Principles, Processes and Prospects. By S. Raman. Binghamton, NY, USA: Food Products Press (2006), pp. 494, US$69.95 (paperback). ISBN-13: 978-1-56022-310-1. doi:10.1017/S001447970700511X

Two decades after the Brundtland Commission wrote their remarkably enduring definition for sustainable development, sustainability in agriculture has become a norm. It is easy to say that everyone is in favour. Who would argue for unsustainable systems? Yet such a widely used term needs clear principles, concepts and exemplars, as well as understanding of contradictions and trade-offs. This is a largely descriptive book that addresses some of these concerns well. The early chapters cover the history of agriculture and the contextual nature of agricultural sustainability. Part II is thematic, with separate chapters focusing on natural resources, land management, soils, water management, biodiversity, energy and measurement indices and frameworks. Part III then contains four chapters that focus on global challenges, rural livelihoods and future sustainability. There is little to disagree with here – the structure, contents and presentation are easy to follow.

But there are problems. This breaking apart of sustainability into sectors is rather conventional and lacks synthesis and critical analysis. There are few cases where the complexities of restoring or developing sustainable systems are explored with human detail or scale. Even more importantly, for a book published in 2006, it is a surprise to see almost no references after 2002. Important recent literature is therefore missing, and some debates suffer. Important international initiatives such as the Millenium Ecosystem Assessment are missed, as well as debates on the values of environmental goods and services. This book is a collection that stands more as a summary of ideas to the turn of the century rather than of potential futures in the 21st century.

Jules Pretty OBE

Handbook of Sustainable Weed Management. Edited by H. P. Singh, D. R. Batish and R. K. Kohli. New York: Haworth Press (2006), pp. 892, US$99.95 (hardback), US$139.95. (hardback). ISBN 13: 978-1-56022-957-5/ISBN 10: 1-56022-957-8. doi:10.1017/S0014479707005121

This substantial text comprises 25 chapters, by 49 authors, and includes topics ranging from weed-seed predation to weed-suppressive rice cultivars, from bioherbicides to herbicide-resistant crops, and from the management of weeds in forestry, to turf grass and pastures. There are four chapters on cover crops in different cropping systems

and others on rotations, tillage, mowing, parasitic weeds, herbicide resistant weeds, and on allelopathy and potential allelochemicals. The last two chapters focus on considerations and practicalities for the development of integrated weed management strategies and on the implementation of these through learning groups. The editors have done an excellent job of drawing together authors that provide a wide range of subjects which emphasize cultural, mechanical, biological measures, rather than chemical control, such as is rarely found under a single cover. The book is well laid out with references at the end of each chapter, a combined subject and author index at the end, and there is ample use of tables, plates and figures to illustrate the text. The authors are largely based in North America which, perhaps inevitably, reflects in the examples being mainly drawn from that continent. This may frustrate some readers, who may in particular seek more information from the tropics, but does not detract unduly from the book's overall value. This compendium is a fine source of ideas, approaches and insights into a wide range of topics that will be of considerable value to teachers, agronomists, weed scientists and practitioners.

David E. Johnson

Handbook of Potato Production, Improvement, and Postharvest Management. Edited by J. Gopal and S. M. P. Khurana. Binghamton, NY, USA: Haworth Press (2006), pp. 605, US$79.95. ISBN-13: 978-1-56022-272-9. doi:10.1017/S0014479707005133

As the world's fourth most important food crop the potato is economically very important. Improvements through breeding or biotechnology must be based on a thorough knowledge of potato genetics. This book covers a number of important areas in relation to genetic resources, their utilization, the genetics of the potato at both 4x and 2x levels, many aspects of assessing and breeding improved germplasm and reviews a number of disease and quality traits. Within individual chapters of the book, newer technologies of molecular markers and their application to the genetics of potato, its pathogens, as well as gene isolation and genetic transformation, are all addressed to varying degrees. English is not the first language of some authors, and the volume would have benefitted from more rigorous editing. The subject matter is comprehensively covered with a minor degree of duplication between chapters. The book content is wide ranging, though the important nematode pests, e.g. the root knot nematodes and potato cyst nematode, warrant more detailed review. The chapter on viruses and viroids is comprehensive, while quality traits are thoroughly discussed in two chapters on quality improvement and processing and value addition.

Written by authorities from the UK, USA, Canada, Peru, Netherlands, Germany, India, Mexico, Morocco and Poland, this reference work adds to the comprehensive *Potato Genetics* (CAB International, 1994) edited by Bradshaw and Mackay, and brings the readers up-to-date with recent advances. The book will be a useful reference source for students, teachers and research workers in plant genetics, conservation, breeding, biotechnology and production in relation to the potato crop.

Finlay Dale

Physiology of Crop Production. By N. K. Fageira, V. C. Baligar and R. B. Clark. Binghamton, NY, USA: Haworth Press (2006), pp. 345, US$49.95. ISBN 1-56022-289-1. doi:10.1017/S0014479707005145

The cover of *Physiology of Crop Production* states that it provides cutting-edge research and data for the complete coverage of the physiology of crop production. The book is lacking on both accounts. Less than 3 % of the references dating from 2000 onwards can hardly justify the claim as cutting edge, and with examples primarily from cereal and grain legume crops and a focus on inceptisols and oxisols of Brazil, the content may interest only a section of the intended readership.

The writing style is inconsistent throughout. Contributions from the three authors quite clearly stand apart and there is little cross-referencing between chapters. The text gives the impression of still being in a draft form, with numerous grammatical and textual errors evident to a perceptive reader. The reproduction of most of the figures is of poor quality – dot-matrix generated legends do not do justice to the data presented. Line spacing is inconsistent, especially on pages with figures and tables. Incorrect usage of some statistical terminology and units will send mixed messages to students amongst the intended readership. Sections repeated, at times verbatim, will be annoying to those who read the complete text.

To its credit, the chapter on Carbon Dioxide and Crop Yield is well written, but it is short. Although much published information has been compiled throughout the text, the book on the whole fails to