terraces in Friuli, figure 2.11, loses an opportunity to lift the spirit of a flagging reader: Friuli (in Northern Italy) might just as well be Huddersfield. If Friuli looks like Huddersfield, then what hope does the reader have in gaining any insight from photographs of smaller items? An example, figure 2.7, says that it 'shows the effect of compaction', but it just doesn't. Figure 4.6 could be the moon and, like the picture of 'Mushroom fungi growing in a litter layer', is of such poor quality that it would be better omitted altogether. The reader deserves fewer and better photographs, and so does the author. However, it is an excellent reference book to which I, as the co-owner of a vineyard in Cornwall, will continually refer.

Bob Lindo

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Rangeland Degradation and Recovery in China's Pastoral Lands. Edited by V. Squires, X. Lu, T. Wang, Q. Lu and Y. Yang. Wallingford, UK: CABI (2009), pp. 264, £85.00. ISBN 978-1-84593-496-5.

The rangelands of Northern China were exploited by traditional grazing systems for centuries and their vegetation remained sound, but over the past 60 years they have become seriously degraded, often to desertification. Conversion of rangeland by incomers, often unsustainable, greatly reduced the available area. Redistribution of grazing rights, collectivization, decollectivization and allocation of small family units broke up old management systems and blocked herd mobility. Emphasis changed from rangeland condition to output of livestock products.

This book concentrates on the rangeland users' perspective, while recognizing the wide environmental and social impact of these vast ranges. The final three chapters discuss: Land tenure arrangements, property rights and institutional arrangements; Monitoring and evaluation as tools in rangeland management; and How can the next degradation episode be prevented?

Case studies on the degradation and recovery of eight areas provide the background, covering the breadth of China and a wide altitude range. They describe alarming and serious degradation with little on successful recovery. Technical means of rehabilitation have had very limited success because of structural problems, including population pressure.

The book has been only lightly edited. Botanical names are often given with the genus as an initial only: many names are mispelled and some are fantastical. Some maps contain spelling mistakes and in one chapter the summary contradicts the text as to the location of the site.

This is a valuable addition to pastoral literature, bringing together rich, but scattered, information on China's rangelands in a form accessible to international readers. It should be in the libraries of institutions dealing with traditionally managed drylands, not only in China.

J. M. Suttie

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African Indigenous Vegetables in Urban Agriculture. Edited by C. M. Shackleton, M. W. Pasquini and A. W. Drescher. London: Earthscan (2009), pp. 298, £24.95 (paperback). ISBN 978-1-84407-715-1.

This book has been written by 21 authors who are all connected in some way to the IndigenoVeg network. There are nine chapters covering : Urban Food Systems and African Indigenous Vegetables; Urban and Peri-urban Agriculture in African Cities; Biodiversity of African Vegetables; Nutritional Contributions; Production and Harvesting Systems; An Analysis of Case Studies from Benin, Kenya and South Africa; Marketing along Urban and Peri-urban Supply Chains; Integration into Urban Agriculture and Spatial Planning; and a concluding review, by the editors, of Recurring Themes and Policy Lessons for the Future.

The IndigenoVeg network was established in 2006 to promote indigenous vegetables, principally in urban and peri-urban areas. With the rapid growth of urban areas in the African continent, urban consumers are an increasingly important target group. The book seeks to bring together these areas of interest, to discuss synergies and to explore important areas for future research. All chapters contain valuable information in key fields of interest, but perhaps the most revealing are the ones on biodiversity and nutrition. These chapters point to

the richness of the species mix (about 1000 species) in vegetable origins and production systems and the close connections with culture and history. Some important vegetables were originally introduced and have been adapted to local needs and tastes. The main regions exhibit differences in the relative importance of different vegetables and the ways in which they are prepared. Undoubtedly, they are of great importance nutritionally, particularly for children, as they are often minor accompaniments to a carbohydrate dominated dish in many diets.

David Gibbon

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Physicochemical and Environmental Plant Physiology. 4th edition. By Park S. Nobel. Amsterdam, Academic Press (2009), pp. 582, £54.99, ISBN 978-0-12-374143-1.

This is an update of a classic text first published in 1970 as *Plant Cell Physiology: A Physicochemical Approach*. Although it has since changed its name, there have been minimal changes since the first edition (published in 1991). Nevertheless, the book remains a rigorous and reliable text covering many aspects of the basic biophysics of plant physiology and of plant interactions with the environment, with its well-recognized emphasis on a quantitative approach.

Notwithstanding its merits, it is unfortunately now showing its age. I was disappointed that this new edition, or should I say reprint, hardly acknowledges the substantial advances in both techniques and understanding that have been made in recent years, and which are important in much agricultural research. Although references to some recent papers have been included, these mostly do not appear to be referred to in the text. A few additional figures and minor clarifications have been introduced, but there is no, or limited, coverage of important developments in fields such as the use of stable isotopes, and the use of chlorophyll fluorescence or thermal imaging as diagnostic or phenotyping tools. Similarly, there is unfortunately limited analysis of the problems of scaling up gas exchange and energy balance to canopies, or even further. Coverage of important topics such as global climate change appears to have been limited to the addition of a couple of pages.

Although all those interested in a rigorous approach to plant biophysics should have a copy of one of the editions, there seems little reason to buy this new edition rather than seeking out a second-hand earlier edition, which would be better value.

Hamlyn G. Jones

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Crop Protection. From Agrochemistry to Agroecology. By J-P Dequine, P. Ferron and D. Russell. Enfield, NH, USA: Science Publishers (2009), pp. 190, £55.00. ISBN 9-781578-086528.

Although the title implies that broad aspects of crop protection will be covered, the authors focus on the difficulties and progress over a 50-year period in the management and control of major insect pests of cotton in different countries. Bacterial, viral and fungal diseases of cotton are mentioned only in passing, without providing key references, and they are not even listed in the index, though weeds are featured to some extent. To be fair to the authors, they admit to this bias in the Preface.

The book is arranged in seven chapters, each presented in essay-style, with only a few references after each chapter. Chapter 3 'Stepping off the pesticide treadmill' gives a good historical account of the evolution of chemical resistance in target pests treated repeatedly with insecticides, and the effects this has often had on secondary insect pests and their predators. Later chapters deal with the concepts of integrated control, biological control, optimizing varietal selection and the introduction of genetically modified crops carrying entomotoxins from *Bacillus thuringiensis* with varying specificities. There then follow the concepts of ecologically based management of insect populations by natural predators, leading to agro-ecosystems that need to be economically and environmentally sustainable.