

This book is timely as there has been a great increase in interest in berry crops due to the potential health benefits of these crops and their important role in horticulture and rural economies. As the popularity of these crops increases, challenges are present in growth and environmental sustainability.

This book covers all the main berry crops, including blueberries, cranberries, raspberries, blackberries and strawberries with chapters from experts in their respective fields. In each crop, the book comprehensively covers basic plant information, economic impact and germplasm resources through to progress to date in traditional breeding. It then goes on to update the reader on recent exciting developments in the field in each crop. Linkage mapping and map development, as well as marker-assisted breeding through to transcriptomics are covered appropriately for each crop. This book is very up-to-date and is an excellent reference for students, researchers, breeders and industry stakeholders with any interest in berry crops.

I have no hesitation recommending this book to colleagues and students.

Julie Graham

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Sustaining Soil Productivity in Response to Global Climate Change: Science, Policy, and Ethics. By T. J. Sauer, J. M. Norman and M. V. K. Sivakumar. Chichester, UK: Wiley-Blackwell (2011), pp. 243, £130.00. ISBN-13: 978-0-470-95857-5.

This is one of those rare books – a conference publication that is full of pleasant surprises. The sub-title is the real indicator of the content of this book as the 16 chapters encompass multiple perspectives of the science of climate change and the value of soils; it is not a recipe book of how to manage soils in a changing climate. The early papers contain fascinating accounts of different views of soil ranging from the two predominant ethical views of soil (first, by virtue of its use in procuring or producing goods, e.g. food; and second, as a component in systems that encompass the process of valuation, e.g. a constituent of human personality or culture) to the pre-cursors of the current concepts of ecosystem services embodied in the work of Leopold. He wrote, 'A healthy (soil) system had a complex structure with multiple channels of energy flow and hence the capacity for self-adjustment and revival following disturbance' – an early exposition of the current pre-occupation with soil resilience. Given this complexity, it is perhaps not surprising that the later chapters describing the effects of global environmental changes, such as climate, atmospheric CO₂, soil organic carbon and biogeochemical cycles on soils and the biological processes that occur in them, are tentative in their conclusions. In summary, this is a thought-provoking publication, which reinforces the notion that soils confer real biophysical limits to the expansion of the market economy.

P. J. Gregory

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Fifty Plants that Changed the Course of History. By B. Laws. Cincinnati, OH, USA: David and Charles (2011), pp. 223, £12.99. ISBN 978-0-7153-3854-4.

It is over 50 years since the publication of P. J. Faulks' book *An Introduction to Ethnobotany* (Moredale Publications, London, 1958). Since then much has changed and this book by Bill Laws highlights the inter-relationships between humans and plants by focusing on 50 plants (actually species or genera) that have purportedly changed the course of history. The cultivation of some of these plants has had both positive and negative consequences. Interestingly, wine grape (*Vitis vinifera*), common wheat (*Triticum aestivum*), potato (*Solanum tuberosum*), tea (*Camellia sinensis*) and sugarcane (*Saccharum officinarum*) are each accorded most pages (eight). As the search for new sources of food, fuel, industrial products and pharmaceuticals intensifies and climate change poses problems, there is much to be learned from this book.

While the author is correct in emphasizing that Upland cotton (*Gossypium hirsutum*) is now the dominant force globally in the world of commercial cotton, the diploid lint bearing species *G. herbaceum* and *G. arboreum*

were important crops in the history of India and Pakistan as was the long staple tetraploid *G. barbadense* in the West Indies, Egypt and the Sudan.

The informative text is well supported by coloured and black and white plates, photographs, ‘information’ boxes, an index and a list of useful websites. There is also a list of books for further reading. This is an enjoyable book for the general public and is recommended particularly to agriculturists, botanists, chemists, historians, horticulturalists and socio-economists. It is excellent value at a price of £12.99.

N. L. Innes

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Wild Crop Relatives: Genomic and Breeding Resources. Plantation and Ornamental Crops. Edited by C. Kole. Heidelberg, Germany: Springer (2011), pp. 303, £135.00. ISBN 978-3-642-21200-0.

The editor’s ambitious objective is a comprehensive reference book on the selected genera, showing the potential contribution of wild relatives to the improvement of the crops themselves. Thirteen genera are included in this book of a 10-volume series: *Antirrhinum*, *Camellia*, *Coffea* (including *Psilanthus*), *Cola*, *Digitalis*, *Elaeis*, *Euphorbia*, *Gladiolus*, *Lilium*, *Nicotiana*, *Petunia*, *Rosa* and *Theobroma*. The chapters are variable in length and coverage. The reasons for this include the varying economic importance of the crops, and so the research that has been done, for example *Cola* has received little attention compared to say *Coffea* or *Elaeis*, some crops being more amenable than others to inter-specific approaches. Thus, inter-specific hybridisation has as yet to contribute to the genetic improvement of *Theobroma cacao*, and perhaps most importantly, the 64 authors have different interests. There are up to nine main paragraphs on each genus, with most genera including descriptions of basic botany, genetic and genomic resources, conservation of genetic resources, the role of genetic resources in classical breeding and application of molecular methods, ‘dark sides’ (plants becoming invasive) and recommendations for future actions. *Camellia* is limited to introduction, botany, *in vitro* culture, employment of markers, genomic resources and future thrusts. The better chapters adequately discuss the available knowledge, but some are written from a narrower perspective than the editor’s objective requirements. Overall, the book would have benefitted from editing for content of individual chapters and in some cases copy editing.

Rob Lockwood

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Top 100 Exotic Food Plants. By E. Small. Boca Raton, FL, USA: CRC Press (2011), pp. 708, £57.99. ISBN 978-1439856864.

A book to own and enjoy, yet with some niggling features. It does not go into the details of taxonomy and cultivation that Pursglove’s *Tropical Crops* (Longman, UK 1968) provided for many years. Not a cookery book: rather an excursion into ethnobotany. The author impresses from the outset with those who want to take issue with the title (what *does* constitute ‘exotic’ and ‘food?’) and gets away with a list that includes stimulants and barely edible plants. The illustrations – drawings from early sources – are a delight.

The list exceeds 100 by including both close relatives and even groups of plants such as ‘cacti’ and ‘Japanese vegetables’, but each choice can be read separately, making it an easy book to dip into. Copious explanations on the etymology of common and scientific names risk making the reader a smug pedant. Possibly as a result of sourcing from a vast number of references, this list would benefit from the removal of repetitious and overly obscure information. Emphasis on the ‘typical height’ of a species rather than the maximum height would be more realistic.

I suspect that the author, an eminent botanist, enjoyed compiling this information. Not a cheap book, but highly recommended.

Ian Martin