

At last, a book that focuses on banana breeding. Not only are *Musa* breeding techniques, strategies and philosophies detailed in ways not done before, but there are also comparisons made with breeding three other clonally propagated tropical crops and the lessons they can teach banana scientists. In addition, there are chapters by various authors covering such topics as *Musa* genetic resources, morphology, pests and diseases, fruit quality, propagation and dissemination of hybrid cultivars, as well as the latest developments in biotechnology and genomics. They complement one another and point the way forward to the development of new cultivars with disease and pest resistance, while satisfying consumer expectations.

The chapters reflect the personal and practical experiences of the authors and the editors are to be congratulated on compiling an excellent new resource on bananas and banana breeding. This book provides basic as well as advanced information for those interested in learning more about banana, as well as those pursuing further research in the crop. Excellent bibliographies in many chapters provide a valuable documentation of the diverse research activity that has taken place in the past few decades and should be of use to serious scholars. I recommend this book to all interested in the genetic improvement of tropical crops, particularly those interested in banana breeding and production.

Mike Smith

*Expl Agric.* (2011), volume 47 (4), © Cambridge University Press 2011

doi:10.1017/S0014479711000615

*Barley: Production, Improvement and Uses.* Edited by S. E. Ullrich, Chichester, UK: Wiley-Blackwell (2011), pp. 637, £170.00. ISBN 978-0-8138-0123-0.

This book aims to present the current 'state of the art' in all aspects of barley from DNA sequences associated with key traits for breeding, cultivation and utilization, and biotic and abiotic threats. Chapters are provided by expert individuals or groups, ensuring accurate and up-to-date information, but generating some problems not fully overcome, e.g. considerable repetition of some themes, such as applications of molecular breeding techniques, across several chapters. This demonstrates a generally limited cross-referencing between chapters, although the linking between malting and brewing and both endosperm mobilization and other end-uses is effective. Good overviews, with references for the expert to access more detail are, as indicated by one contributor, appropriate for a book of this type, but there is some variation, in depth and detail, between chapters.

The book is aimed at an academic rather than a general readership and should achieve wide approval amongst barley scientists, although familiarity with techniques and terminology may be necessary for some specialist areas. The geographical subdivision of chapters on breeding and agronomy will enhance international appeal, although extension of this approach to food and feed uses would have been a useful addition. Information on varieties and products from less-developed countries, where barley remains an important food crop, would balance the emphasis on improving nutritional quality, or reducing diffuse pollution, in developed areas. Overall, therefore, the book is not without flaws, but it remains a comprehensive source of information and a valuable addition to the literature on a hugely important crop species.

J. Stuart Swanston

*Expl Agric.* (2011), volume 47 (4), © Cambridge University Press 2011

doi:10.1017/S0014479711000627

*Sesame: The Genus Sesamum. Medicinal and Aromatic Plants – Industrial Profiles.* Edited by D. Bedigian. Boca Raton, FL, USA: CRC Press (2011), pp. xxiii + 532, £82.00. ISBN 978-0-8493-3538-9.

Medicinal and aromatic properties of sesame do not spring to mind before, or indeed after, perusal of this volume. Nine chapters discuss seed chemistry, six review cultivation in various countries and four concern topics such as genetics of yield and molecular biotechnology. There are also six chapters by the editor.

Currently, medicinal interest centres on sesame lignans, antioxidants responsible for the keeping qualities of sesame oil, which reportedly reduce plasma cholesterol and curb development of some cancers. However, several chapters conclude that more work is needed before extrapolating laboratory results to humans.