

A wide range of topics is covered in 37 chapters of this book by about 100 eminent scientists from about a dozen countries. The editor is to be congratulated for bringing together international leaders in legume biotechnology. Most chapters deal with transformation protocols and genetic engineering topics. In my opinion, genomics have not been adequately covered, but it is difficult to cover all the topics of legume biotechnology in one volume. The subject index at the end of the book is a big plus, as it is easy to browse a topic of interest.

This volume will serve as a good reference book for the legume community in general and young researchers who are entering the field of legume biotechnology to understand the current status of new technologies for the genetic improvement of legumes.

Rajeev Varshney

*Health Benefits of Organic Food. Effects of the Environment.* Edited by I. Givens, S. Baxter, A. M. Minihane and E. Shaw. Wallingford, UK: CABI Publishing (2008), pp. 319, £85.00. ISBN 978-1-84593-459-0 doi:10.1017/S0014479709007650

This book is the result of a multidisciplinary workshop, which met in 2008 to address three key questions: Are there quantifiable effects of organic rather than conventional produced food on human health? How might the environment impact on these possible health benefits? How do the public perceive these benefits?

As such it is an interesting and timely snapshot of our understanding of these issues with well-written articles from respected authors in many areas relevant to human health ranging from the effect of n-3 fatty acids to dietary flavonoids to selenium (both as a benefit and a threat) to contaminants in foods.

I found Stockdale and Watson's article describing what constitutes organic farming very interesting and of great value, especially for students, as a summation of the current views. Also, the excellent articles on the effects of flavonoids on human health (Spencer *et al.*) and on the effects of the environment on the regulation of flavonoid accumulation (Jenkins *et al.*) are of immediate and long-lasting value for my own research. Although the book is necessarily limited by the set-up of the original workshop, the choice of authors and the breadth of topics explored are excellent. As such, I would recommend this book to research institutes and university departments involved in relevant research fields. I have one slight quibble. The title surely requires a question mark as the overwhelming message from the contributors is that there is little current evidence for the assumption that organically produced food is healthier than conventionally produced foods.

Gordon J. McDougall

*Innovation Africa. Enriching Farmers' Livelihoods.* Edited by P. C. Sanginga, A. Waters-Bayer, S. Kaaria, J. Njuki and C. Wettasinha. London: Earthscan (2009), pp. 409, £29.95 (paperback). ISBN 978-1-84407-672-7. doi:10.1017/S0014479709007662

Innovation deals with interactions among all stakeholders. It is highlighted in this book about new developments in agricultural innovation systems. Contributions by some 100 authors of 25 chapters trace the conceptual and methodological roots of the innovation systems thinking, examine various forms of social capital in agricultural innovation systems, discuss institutional change, policy and indigenous innovation. The chapters originate from selected papers from an international symposium in Kampala, Uganda, in 2006. One chapter provides a comprehensive overview of how the concept of innovation has developed over the last half century. Contrasting the linear transfer of technology model, the innovation systems research recognizes the complexities by focusing on social and economic components.

The papers present progress and weaknesses of pilot-interventions, mainly from Africa. Useful details describe participatory processes and action research, farmer innovators, empowerment, improved social status of farmers and how the new concept can enrich livelihoods. There is little information on how the innovation systems approach works at larger scales. Some contributions confine themselves to interactions between only two or three groups of stakeholders. Less attention is devoted to the potential of the private sector and sustainability issues. The book also carries messages on how formal training programmes can be modified. The new approach requires interdisciplinary, intercultural teams with social skills, personal ethos and a culture of reflection. Another message calls for general changes in agricultural research in strengthening rural innovation capacity. Implications for policy change might have been spelled out more explicitly. The book is strongly recommended to agricultural scientists, university teachers, agricultural research managers and extension staff.

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