BOOK REVIEWS

cross-link, especially the drought and cold chapters, as these two stresses have molecular control pathways in common; nevertheless they do provide excellent and readable summaries of the current state of knowledge. It is clear from this book that plants adapt to stress in a multi-factorial way, and stress induces huge responses in terms of altered gene expression, which have a metabolic cost to the plant. In drought histidine kinase has been identified as the osmotically activated trigger that cascades the expression of the stress responsive genes, but for temperature the environmental sensing mechanism has yet to be elucidated. Chapters also examine nutrient stresses including aluminium and phosphate and review the potential for improving nitrate use efficiency.

Rather oddly the book concludes with two chapters that are much more general than the rest and maybe the editors should have thought about putting these at the beginning of the text.

Each of the authors of the chapters has done a good job in reviewing the relevant literature and in a field that is constantly moving forward their efforts will be very welcomed by postgraduate students and plant physiology lecturers as excellent current overviews, but it is rather less readable for the other target audiences of agronomists and horticulturalists. Overall this is a reasonable text on genes for abiotic stress resistance suitable for postgraduate students, researchers and academics.

Mick Fuller

Expl Agric. (2010), volume 46 (3), © *Cambridge University Press 2010* doi:10.1017/S0014479710000153

Insect-resistant Maize. A case study of fighting the African stem borer. By J. Burgi. Wallingford, UK: CABI (2009), pp. 278, £45.00 (paperback). ISBN 978-1-84593-569-6.

The book is a case study of a complex and ambitious project for the development and biosafety testing of Bt maize in Kenya. The basic idea was to develop testing facilities and methods for GM crops, adapted to a developing country, to reduce pest losses in maize. The topic of the book is interesting and pertinent, given the growing concerns for food security in Africa.

The book, structured by annual reports of progress, is written by an involved but independent journalist with reasonable knowledge of the science and politics, using 'participatory observation'. His aim was to give an example of 'an outstanding example of development policy from which lessons can be learnt'. I expected to be quickly interested in the book; unfortunately this wasn't the case. The author spends too much time describing and re-describing in great detail the rather tedious local procedures for running meetings, flawed decision-making processes and local politics rather than discussing scientific experiences and lessons. Too much attention is also given to describing local personalities involved in running the project, rather than key lessons that were learnt at each stage over the 10-year project.

The most interesting chapter entitled 'An Exemplary Project and its Lessons' is certainly useful. However, it quickly concludes that the project was unsuccessful and finally had to be terminated for political, financial and scientific reasons. This leaves the reader wondering what exactly was exemplary about the project. The lessons are there to be extracted, but these need to be highlighted more clearly for the general reader.

A. N. E. Birch

Expl Agric. (2010), volume 46 (3), © *Cambridge University Press 2010* doi:10.1017/S0014479710000165

Biofuels. Production, Application and Development. By A. Scragg. Wallingford, UK: CABI (2009), pp. 237, £39.95 (paperback). ISBN 978-1-84593-592-4.

With increasing fuel costs, diminishing fossil fuel reserves and climate change, there is much interest in biofuels. Alan Scragg's book makes an invaluable contribution to understanding the problems and the possible solutions.

Eight chapters cover Energy and Fossil Fuel Use, Consequences of Burning Fossil Fuel, Mitigation of Global Warming, Biological Solid Fuels, Gaseous Biofuels, Liquid Biofuels to Replace Petrol, Liquid Biofuels to Replace Diesel, and The Benefits and Deficiencies of Biofuels. An excellent list of references and a detailed index follow.

The casual reader will find much of interest but this technically detailed book is of greatest value to professionals. The science of biofuels and their development is one of almost daily change. Nevertheless, this is a very up-to-date publication.