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Growth and Mineral Nutrition of Field Crops. 3rd edition. By N. K. Fageria, V. C. Baligar and C. A. Jones. Boca Raton, FL, USA: CRC Press (2011), pp. 560, £95.00. ISBN 978-1-4398-1695-0.

The success of the 'Green Revolution' has enabled agriculture to keep pace with the relentless growth of human populations through the development of semi-dwarf crops resistant to pests and pathogens, whose yield is maintained through the applications of agrochemicals, mineral fertilizers and irrigation. Food production must continue to increase into the immediate future if the world population is to continue to grow at a rate of 80 million people a year. This increase in food production must be achieved through increased yields from the same land area farmed today.

The 19 chapters of this excellent book cover many of the aspects of the growth and mineral nutrition of field crops that will be required to achieve sustainable, high-yield agriculture. It provides a general introduction to the mineral nutrition of field crops, environmental factors affecting crop production and the management of soils for sustainable crop production. Individual chapters describe in detail the growth and development, nutritional requirements and management options for the production of wheat and barley, rice, maize, sorghum, soyabean, common bean and cowpea, peanut, sugarcane, cassava and potato, cotton, forage and cover crops. The book will inform the next generation of academics, students, research scientists and extension workers on whose efforts the next 'Evergreen Revolution' will depend. I recommend that they not only read it carefully, but also swiftly put its messages into practice.

Philip J. White

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The Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture. Rome: Food and Agriculture Organization of the United Nations (2010), pp. 370, US$95.00, ISBN 978-92-5-106534-1.

This book and CD-ROM provides a comprehensive global review of the conservation, utilization and organization of plant genetic resources for food and agriculture. It represents a synthesis of reports from 113 individual countries and, in addition to extensive data tables, there are eight chapters summarizing the current situation regarding aspects of plant genetic resources management including *in-situ* and *ex-situ* conservation, usage, legislation, regional collaboration and access. The impact of major pieces of international legislation such as the International Treaty on Plant Genetic Resources for Food and Agriculture is picked up at various points throughout the book, as is the essential nature of plant genetic resource collections as tools to allow mankind to meet the massive challenges of producing enough food to meet the needs of a growing world population.

There is a huge amount of information in this book, and as a global reference it is extremely useful, if not always an easy read, due to the sheer amount of data presented. The chapters themselves are well structured with plenty of figures, maps and tables to support the text. Each of the chapters has a section detailing how the global situation has changed since the publication of the first State of the World Report in 1996 and a summary of remaining gaps and needs. The book provides an excellent overview of the different ways in which plant genetic resources are managed and conserved, and equally importantly, used.

Charlotte Allender

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Herbicides and Plant Physiology. 2nd edition. By A. H. Cobb and J. P. H. Reade. UK: Wiley-Blackwell (2010), pp. 296, £45.00 (paperback). ISBN 978-1-4051-2935-0.

This revised edition of *Herbicides and Plant Physiology* is an excellent addition to the bookshelf of any advisers, researchers or agronomy students. This authoritative, yet readable resource (first published in 1992) delves