

outlined, followed again by a chapter on organic matter decomposition in relation to composting, and methane production. This is followed by an account of trace gases in soil, especially nitrogenous gases and methane, and finally a chapter on heavy metals as pollutants, together with a brief account of toxicity, environmental aspects and microbial resistance. The text includes a good number of figures and tables, which clearly relate to the text, and there is an ample bibliography, which could lead readers to more detailed accounts of the topics discussed. Clearly the topic is huge, and the authors have succeeded in greatly simplifying and reducing to the most important points in this short volume. The book is of value to undergraduate and postgraduate students, or indeed other readers new to the field.

Geoffrey Michael Gadd

*Expl Agric.* (2010), volume 46 (4), © Cambridge University Press 2010

doi:10.1017/S0014479710000487

*Soil Ecology and Management.* By J. K. Whalen and L. Sampredo. Wallingford, UK: CABI (2010), pp. 296, £37.50 (paperback). ISBN 978-1-84593-563-4.

This modular textbook will be particularly suited for undergraduates, lecturers and practitioners interested in soil systems. It is written with some authority with over 100 scientific articles on soil ecology between the authors. The modular nature of the book allows the reader to select those chapters of greatest interest. Each chapter presents selected highlights in focus boxes with more in-depth information. However, the modular nature also means that the book falls a bit short of a systems approach as the interactions between groups and processes are more difficult to identify. The first part of the book provides the reader with basic information on the soil environment and soil-forming factors, and is particularly aimed at those new to soil studies. The larger part of the book deals with the organisms in soil, covering microorganisms, micro-, meso- and macro-fauna, with each section describing the biology, the diversity, and methods for collections and quantification. Interactions between various groups are discussed by considering their roles in the food web. The ecology is then linked to functions of the food web, covering primary production, decomposition, nutrient cycling and biological control. The final two parts of the book deal with management of the soil environment and address the impact of climate change on the food web. These last two chapters are a bit short and might not satisfy a reader specifically interested in management or the impact of global warming. Overall the book strikes a balance between depth and breadth of soil ecology and offers helpful links to web pages for each of the chapters for further study. Undergraduates and those new to the field will find this a useful book.

Wilfred Otten

*Expl Agric.* (2010), volume 46 (4), © Cambridge University Press 2010

doi:10.1017/S0014479710000499

*Manual of Methods for Soil and Land Evaluation.* Edited by E. A. C. Costantini. Enfield, Science Publishers (2009), pp. 549, £76.99. ISBN 978-1-57808-571-2.

This book is an English language revision of a text first published in Italian. The book aims to provide an operational and educational tool for land evaluation for agriculture and forestry based on knowledge of soil. The introduction covers the history, definitions and concepts of soil and land evaluation. This is followed by seven chapters in Part II on Soil and Land Evaluation covering land capability classification, soil protection, irrigation, erosion, hydrology and restoration; and in Part III on Land Suitability and Land Zoning 25 chapters present a wide variety of detailed examples of land suitability for row crops (bread wheat, durum wheat, maize, rice, alfalfa, potato, tobacco, soybean, sugar beet), small-scale niche cultivation (emmer wheat, truffles, ash-tree manna, cactus pear, lentils), and tree cultivation (including common ash, walnut, citrus, olives, stone fruits, apple and pear, kiwi fruit). These chapters provide clearly organized descriptions of suitability assessments focused largely through cultivation techniques and crop requirements for each species. Two final chapters cover land evaluation for Italian conifers and land suitability for grazing.

The focus of the book on Italian soils and crops is clear and limits the utility of the text to be mainly an applied manual for those interested in these crops in areas with soils and climates similar