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BOOK REVIEWS

Environmental Indicators and Agricultural Policy. Edited by F. Brouwer and B. Crabtree. Wallingford, UK: CABI Publishing (2000), pp. 305, £90.00. ISBN 0-85199-289-7.

This collection of 18 chapters by some 30 European environmental analysts – mainly from the Netherlands, Britain and Spain – deals with the problems of assessing the effects of agriculture on the (mainly EU) natural environment. The book reflects not only academic work but also governmental activity, much of which adopts the OECD's pressure (driving force)–State-response framework. While the state of the environment may be the ultimate target, pressure indicators are more useful for policy purposes if there is a process model which relates driving-forces to likely effects, e.g. over time and space. Other user ('decision-relevant') concerns about indicators relate to cost, transparency and precision, and to their 'fit' to institutional and individual activities, e.g. area responsibilities, and audit or legal requirements.

Apart from various EU case studies, much of this book discusses various types and properties of agri-environmental indicators. While this discussion is hardly conclusive, and reflects the complexity of the European countryside (though not that of its policies, which are rarely referred to in detail), it does offer to a wider audience some guidelines for agri-environmental indicator design in other global regions such as the tropics.

Kenneth J. Thomson

Plants and Politics. Edited by G. Meester, R. D. Woittiez and A. De Zeeuw. Wageningen: Wageningen Pers (1999), pp. 255, NLG 125.00. ISBN 90-74134-72-6.

This book, published to mark the centenary of the Netherlands' Plant Protection Service, hosts an impressive range of authors contributing to five authoritative chapters. Subjects covered include the history and future of plant protection policy, the globalization of agricultural markets, trade policy, food safety and quality, international agreements on trade and plant protection (such as the Sanitary and Phytosanitary Agreement of the World Trade Organisation and the International Plant Protection Convention), and a comparison of national Plant Protection Organisations in the USA and the Netherlands. The increasing impact of social issues and environmental effects on trade policy are emphasized. Although some concerns of developing countries and General Agreement on Trade and Tariffs (GATT now succeeded by the World Trade Organization (WTO)) rules have been addressed, it is disappointing that an author from such a country did not contribute a chapter.

Each chapter is followed by critical assessment by one or more authors, leading to additional insight or a slightly different perspective. Despite some overlap of subject matter between chapters, the editorial board have effectively focused the many strands of these complex and inter-related fields into a succinct yet comprehensive final chapter.

The book constitutes a useful reference text for policy makers, advisers, captains of industry and those working in the global trade of plants and plant products.

C. J. Jeffries and S. R. H. Langrell

Seed Potato Technology. By P. C. Struik and S. G. Wiersema. Wageningen: Wageningen Pers (1999), pp. 383, NLG 150.00. ISBN 90-74134-65-3.

Over recent years, technology of producing potato seed tubers in the highest health classes has changed radically and one might have expected from the title that this book would concentrate on

that subject, but not so. Instead, the authors have presented us with a very wide-ranging overview of potato production and have done an excellent job of relating the underlying science of the potato plant to the practicalities of producing seed potatoes. Indeed, since there is no essential difference between a seed-potato tuber and a tuber intended for consumption (ware) and, since the ware producer should understand thet seed that he will use, this book is as relevant to the ware producer as it is to the seed producer. This is seen particularly in the chapters on yield formation, quality characteristics of seed tubers, control and manipulation of physiological quality of seed tubers, control and manipulation of seed tuber health and the agronomy of seed potato production. These chapters, and others on seed supply systems, are more clearly targeted towards the seed producer. However, as with the chapter on quality control and seed certification, they address matters that should concern the ware grower: How s/he can be sure of getting the best quality of seed.

This book is required reading for anyone wanting a well-written and readable account of potato production – seed or ware.

D. K. L. MacKerron

Stamdard Soil Methods for Long-term Ecological Research. Edited by G. P. Robertson, D. C. Colemen, C. S. Bledsoe and P. Sollins. New York: Oxford University Press (1999), pp. 462, £60.00. ISBN 0-19-512083-3.

This book provides a comprehensive guide to many of the common methods for the storage and analysis of soils. There is extensive coverage of the main chemical, physical and biological methods of use to the soil scientist, clearly related to the wider environment. It stresses the importance of studying the effects that soil can have on vegetation and the atmosphere.

The chapters are set out in a logical way, each one following a similar pattern of very detailed step-by-step instructions on the method, key equations and any calculations.

In addition to being a practical handbook, this is a valuable reference aid to any researcher seeking an insight into the methods for soil analysis currently available. The copious background references to the methods are from a variety of countries, not just from the US, and provide a justification for the choice of certain methods. There are a few omissions, such as how to store soil solutions before analysis, but the comprehensive nature and breadth of coverage more than compensates. Overall the book is a worthy addition to the shelves of soil scientists and any researchers who need to include soil measurements as part of wider biological or environmental studies.

Paul Hargreaves

Intellectual Property Rights, Trade and Biodiverstity. By G. Dutfield. London: Earthscan Publications (2000), pp. 238, £35.00. ISBN 1-85383-692-3.

The last decade has seen a tremendous increase in the application of Intellectual Property Rights (IPR) protection in the area of agriculture, in large part because of the application of the new sciences of biotechnology and bio-informatics. New and exciting research in the area of genomics is also impacting on the research agenda. This book uses an effective case-study approach to the analysis of actual and potential impacts of IPR on the genetic resources community. The test very effectively reviews the role of International Conventions and their impact on policy at the national level.

A number of international organizations are currently struggling with the impact of IPR on the development and distribution of International Public Goods. This text serves as useful background to the key issues involved and highlights the arguments used by each party in the ongoing debate. Clearly the critical issues are those of ownership and access. It is unfortunate that Appendix 5 takes up almost 25% of the text.

Overall the book is timely and useful, it should be critical reading for all scientists and policy makers in the agriculture and genetic resources community.

John Dodds

Cryopreservation of Tropical Plant Germplasm. Current Research Progress and Application. Edited by F. Englemann and H. Takagi. Tsukuba, Japan: International Research Centre for Agricultural Sciences and Rome, Italy: IPGRI. International Agricultural Series No. 8 (2000), pp. 494, no price quoted. ISBN 92-9043-428.

The International Plant Genetic Resources Institute (IPGRI) has a mandate to advance the conservation and use of plant genetic diversity in world agriculture. One approach to the conservation of germplasm is storage of plant material at ultra-low temperature, a technique known as cryopreservation. This publication, derived from papers given at a recent jointly sponsored international workshop, aims to present a comprehensive overview of current knowledge in this area. The volume is divided into five main sections, Keynote Presentations, Fundamental Aspects, Techniques, Ongoing Projects and, probably of most interest to a general reader, a chapter on the Current Status of Research and Future Perspectives of its Applications in National Programmes. The range of techniques and applications described within this volume is extensive, but the nature of this scientific topic, and the high level of methodological detail included, has resulted in substantial repetition in the text. However, positive points include extensive references, some excellent and informative illustrations and topical poster abstracts. The level of detail in this volume would probably limit the consideration of the general reader, but for anyone interested in the potential techniques of long-term storage and conservation of valuable plant germplasm, this volume is useful and informative.

Steve Millam

Agricultural Extension and Rural Development. By R. Ison and D. Russell. Cambridge: Cambridge University Press (2000), pp. 234, £35.00. ISBN 0-521-64201-9.

This is a fascinating book, albeit written in the somewhat narrow context of the Western Division of New South Wales, where seven contributing authors describe recent research into the effectiveness of the local R&D and advisory services, and the impact these factors have on graziers and systems of range management.

One problem for the reader is that the book exhibits mood swings from anecdotal stories. . . . 'We were on a dust-choked road between Wirrinya and Forbes' . . . to philosophical expositions about the theory of technology transfer . . . 'The theoretical basis which gave rise to our development and principles was that of individual world view' . . .

Throughout the book the authors stress the importance of distinguishing between 'First and Second Order Changes and Traditions' where First Order is equated with 'objective' and Second Order as 'subjective', in which the observer is part of the system under study and is, therefore, personally influenced as the system in question changes.

The main finding from this work is that much extension activity, and a large proportion of R&D, is conducted out of context. Perhaps the authors' conclusion that, to be effective, both extension programmes and R&D need to be developed in close collaboration with those directly responsible for range management, will not come as a surprise to those with experience of rural development problems in other countries.

P. N. Wilson

The Blue Revolution. Land Use and Integrated Water Resources Management. By I. R. Calder. London: Earthscan Publications (1999), pp. 192, £15.95. ISBN 1-85383-634-6.

This admirably concise book sets out the scientific and organizational background to a new holistic approach to the world's pressing problems of water supply encompassed by the term Integrated Water Resources Management (IWRM).

Since his seminal forest-catchment studies in Central Wales, the author has extended his studies to

many temperate and tropical environments. Using results obtained in the Nile catchment, Zimbabwe, Malawi, India, Australia, USA, UK, New Zealand, the Philippines and South Africa, he sets out to disprove many of the hydrological advantages traditionally claimed for plantation forests and dam-building, and to show how IWRM can aid land-use planning to enhance sustainable water supplies.

Two principles receive particular attention: (1) that forests use more water than non-forest vegetation due to the evaporation of water intercepted by the forest canopy and deeper rooting; and (2) that the forest canopy can enhance the drop size and erosivity of rain reaching the ground and, in the absence of an effective understorey, can increase erosion and runoff.

There are detailed accounts of the development of catchment-wide evaporation and land-use modelling, the role of 39 UN and other international and national agencies in promoting improved water resources, and a list of 243 references.

Brennan D. Soane

The Commercial Use of Biodiversity. Access to Genetic Resources and Benefit-Sharing. By K. ten Kate and S. A. Laird. London: Earthscan Publications Ltd (1999), pp. 398, £50.00. ISBN 1-85383-334-7.

The value of genetic resources and the need to conserve biodiversity cannot be overstated. This unique and timely book provides many detailed examples of the economic importance of biodiversity and how discovery and harnessing a fraction of this diversity has created wealth and improved quality of life.

The authors held extensive consultations with the end-user industries and the eleven chapters comprehensively review aspects of the regulation of access to genetic resources and benefit sharing in seven industry sectors (Pharmaceuticals; Botanical Medicines; Agricultural Seed Industry; Horticulture; Crop Protection; Biotechnology in fields other than Healthcare and Agriculture; and Personal Care and Cosmetic Industry). Additionally, each sectorial review contains relevant and up-to-date information on the markets for genetic resources and the economic impact of natural products.

At the heart of the Convention on Biological Diversity (CBD) is access and benefit sharing. However, as yet there are no harmonized guidelines or standardized procedures on how the CBD works in practice and its implementation will be challenging and complex. This authoritative book is an essential sourcebook that will facilitate greater understanding and adoption of best practice between provider countries and the end-user industries.

N. W. Kerby

Farmer Participatory Research on Coconut Diversity: Workshop Report on Methods and Field Protocols. Edited by P. B. Eyzaguirre and P. Batugal. Rome: IPGRI (1999), pp. 120, Free. ISBN 92-9043-430-9.

This book reports on workshops held in Davao, Philippines and Taveuni, Fiji, followed by two smaller follow-up workshops in the Solomon Islands and Bangladesh. Six keynote papers describing several participatory methods of coconut production follow an introduction on the importance of the farmers' contribution to improving the value and uses of coconut. The methods include: participatory rural appraisal, community mapping; ranking, rating and sorting exercises; individual, semi-structured, group and focus group interviewing; and tools for the elicitation of farmer knowledge. Four reports on testing the methods with coconut farmers follow. The book has a useful selective bibliography of 66 references on coconut diversity, uses and genetic resources. The main drawback is that there is no indication that adoption of the methods will result in changes to coconut research and development agenda to make them more responsive to farmers' needs. A book worth reading for those interested in the methods, rather than those interested in coconut research *per se*.

Roger Smith

Modelling Soil-Biosphere Interactions. By C. Müller. Wallingford, UK: CABI Publishing (1999), pp. 360, £22.50. ISBN 0-85199-352-2.

The aim of this book is to revisit the mathematical modelling of soil processes and their interaction with plant growth in a way that enlightens, rather than frightens, the reader in the use of mathematical tools. It achieves this by describing the step-by-step construction of the various models which ultimately lead to a full description of the soil-plant-atmosphere system. The book recommends the purchase of a commercial modelling package, 'Model Maker' supplied by Cherwell Scientific Publishing. Many of the models presented have already been implemented in this software and serve as a series of practical tutorials. Chapter 1 provides a useful revision of the necessary mathematics learnt in the later years of secondary education. Chapter 2, a third of the book, deals with nitrogen transformations in the soil. This chapter is large because there are many processes to be covered. It illustrates the practical steps in model design and then implementation in Model Maker. Subsequent chapters deal with soil temperature, water and energy balance before moving on to plant growth and, finally, leaching. Chapter 6, where the soil-plant-atmosphere system is ultimately brought together, covers a vast amount of information that requires further critical review. The book, for the most part, revisits previous work.

Provided the models are not taken at face value, there are few concerns. The assumptions are clear and it is up to the reader to judge with a critical and informed mind. The book is good value for money. Despite its strong ties to one piece of software, the reader can glean ideas and implement them elsewhere. Anyone with only basic mathematical skills may not be able to implement the more complex models described, but at least they will have a clear pointer on which to consult with colleagues.

Bruce Marshall

Conservation Tillage in U.S. Agriculture. Environmental, Economic, and Policy Issues. By N. D. Uri. Binghamton, NY, USA: The Haworth Press (1999), pp. 130, US$24.94. ISBN 1-56022-884-9.

This book should be read by all scientists and policy makers involved in issues surrounding soil erosion. It is well written and concise, and represents the missing link between the numerous research papers that summarize the many aspects of soil erosion, and governments' aspirations over the environmental sustainability of farming practices. Starting from a brief historical perspective of conservation tillage, it summarizes the current status of tillage practices – presenting a cost benefit analysis in terms of the environment – and ends on the role of public policy on the adoption of conservation tillage. The book focuses on the situation in the USA, but the author has presented the story to the benefit of the global readership. It may not be a book about the science of erosion, yet it is a book for the scientist.

I. M. Young

Oilseed Crops. Second Edition. By E. A. Weiss. Oxford: Blackwell Science Ltd (1999), pp. 364, £89.50. ISBN 0-632-05259-7.

This interesting and well prepared book is targeted at annual species in tropical agriculture and not at oilseed species worldwide. Hence, it includes chapters on castor, groundnut, safflower, sesame, soya, sunflower and a combined chapter on crambe, niger and jojoba, but not rapeseed or palm. Clearly, several of these species also have niches in warm temperate agriculture.

The approach to each species is comprehensive and this book is much more than a farmers' guide or a student 'crib'. Plant species are dealt with in their botanical context; harvesting technology and chemical analysis of produce are reported; ecological issues discussed in the context of environment for the crop and there are several sections on each plant species covered under agronomic issues like pests, diseases, nutrition, cultivation (e.g. seed rate, special arrangements), weed control, irrigation and fertilizer use.

In addition, there are two generic chapters on oilseeds in the wider context. The first of these embraces world oilseed production and trade, and whilst a disappointingly short chapter, it is quite valuable in quantifying trade and production rate, including estimates for year 2000.

The chapter on oilseed processing and products characterizes the generic issues before moving on to detailed consideration of extraction and characterization of oils from the species described in the crop chapter.

Finally, the short glossary would be helpful to anyone in the oilseeds sector and the reference list equally so.

Melvyn F. Askew

Peppers: Vegetable and Spice Capsicums. By P. W. Bosland and E. Votava. Wallingford, UK: CABI Publishing (1999), pp. 204, £27.50. ISBN 0-85199-3354.

The authors of this well-researched and concisely written book have emphasized the increasing prominence and wider use of *Capsicum* species in fresh foods, food flavourings and colourings, as spices and as medicinal additives; this is primarily due to recent cultivar improvement.

The selection of material for this book is well balanced and is predominantly aimed at commercial rather than smallholder pepper production in warmer climates, although much of the data presented are applicable to both production systems.

The first six chapters deal very appropriately with Taxonomy, Genetic Resources, Botany, Genetics, Plant Breeding, Chemical Composition, and Biotechnology. The biotechnology component includes current developments such as the identification of molecular markers, isozyme analysis, restriction fragment length polymorphisms (RFLPs) and randomly amplified polymorphic DNA (RAPD).

The establishment and crop management aspects of pepper production in the open are fully detailed and include reference to soil solarization with clear plastic mulches and mycorrhizal fungi as an important factor in stimulating production. Details of greenhouse production and tunnel planting systems have been included.

The remaining chapters on harvesting, postharvest handling, disorders, diseases and pests emphasize recent developments in these areas. Pest and disease incidence is considered to be one of the most important factors limiting pepper production, particularly the 45 types of virus which can affect the crop.

H. D. Tindall

Sampling and Monitoring in Crop Protection: The Theoretical Basis for Developing Practical Decision Guides. By M. R. Binns, J. P. Nyrop and W. van der Werf. Wallingford, UK: CABI Publishing (2000), pp. 284, £49.95. ISBN 0-85199-347-8.

Aimed primarily at graduate or final-year undergraduates specializing in pest management, this book covers the statistical basis for classifying pest distributions, sequential sampling, sampling plans, multiple sources of variation, resampling, and sampling and monitoring over time.

The text is written with remarkable clarity and the examples are mostly from actual case studies, presented warts and all, but never to the point of obscuring the illustration. The authors assume the reader has no formal training in statistics yet they effortlessly cover everything from the binomial distribution to bootstrapping without losing sight of the principal focus – the practical decision guide.

I was also impressed with the authors' determination to make this a twenty-first century text. They have provided their worked examples on a web site and encourage the reader to download the files, run the examples for themselves, change the parameter values to see how this affects the sampling plan, and to indulge in simulation and bootstrapping.

Of course I have a few complaints. Bootstrapping is promoted without sufficient cautionary

advice, the brief description of Bayesian methods is uncharacteristically opaque and there are no examples for students to try by hand.

Overall this is an excellent book for everyone interested in pest management.

J. W. McNicol

Solute Movement in the Rhizosphere. By P. B. Tinker and P. H. Nye. Oxford: Oxford University Press (2000), pp. 444, £70.00. ISBN 0-19-512492-8.

This excellent book is a thorough updating of the classic 'Solute Movement in the Soil-Root System' published by the same authors in 1977. In comparison with the former publication, this one includes much more information about the growth of roots and root systems, processes in the rhizosphere, and crop modelling. The book may be conveniently divided into three parts. The first six chapters deal mainly with processes of solute movement through soils to roots, and the uptake of solutes by roots. The next two describe the processes that affect ion fluxes into and near roots, especially the solubilization of nutrients in the rhizosphere and the role of various microorganisms. Finally, three chapters detail the growth of root systems and models of nutrient uptake by single roots, crops and mixtures of plants in the field. The approach throughout is to promote a quantitative understanding of the processes involved. After a prolonged period in which research on plant nutrition has been unfashionable, societal pressures for sustainable production and more-efficient use of nutrient inputs, coupled with scientific advances in molecular control of membrane transport and greater understanding of nutrient transformations in the rhizosphere, mean that a renaissance is underway. This advanced text will underpin teaching and research for the next generation of students seeking to manage nutrients in a wide range of ecosystems.

P. J. Gregory

Seed Biology Advances and Applications. Edited by M. Black, K. J. Bradford and J. Vázquez-Ramos. Wallingford, UK: CABI Publishing (2000), pp. 528, £95.00. ISBN 0-86-199-4090.

This is an edited version of most of the papers presented at the 6th International Workshop on Seeds held in Mérida, Mexico, in January 1999. As claimed, this specialist reference work reflects the major developments in seed science in the last five years. It provides, for seed scientists, a valuable starting point on recent literature from a variety of backgrounds. After two opening papers there are six sections: Development and Quality (11 papers), Storage and Vigour (8), Germination (9), Dormancy (4), Ecology (5) and Applications of Seed Biology (7). In the first opening paper, the Senior Editor presents an illuminating insight into progress and prospects in seed science from a personal perspective but, as is often the case with proceedings, does not give a strong framework for the sequence of the submitted papers that follow. The papers do cover recent work, with many references since 1994. Authors' approaches vary, e.g. a 22-page review with 80 references and a brief one of six pages, but many papers describe new work in detail. Subjects range widely within sections; under Dormancy we have a genetic model, two papers on gene expression and one on the use of smoke to break weed seed dormancy. This exemplifies both the book's potential interest to a wide audience and its lack of a strong focus.

S. Matthews

Modelling of Transport Processes in Soils. Edited by J. Feyen and K. Wiyo. Wageningen, The Netherlands: Wageningen Pers (1999), pp. 786, NLG 275.00. ISBN 90-74134-76-9.

This volume contains the proceedings of an international workshop on EurAgEng's Field of Interest in Soil and Water, held at Leuven in 1999. The book is well structured with three main sections

separated on the basis of spatial scale. Within each section papers deal with technical aspects of modelling transport processes, methods for parameter determination and examples of model applications. The book covers a broad range of topics and individual papers provide pointers to many key areas of research in relation to modelling of transport processes.

The papers clearly identify the scientific issues that currently limit the application of models, particularly in relation to spatial scale. It is encouraging to see so many novel contributions specifically considering methods of identifying parameters at field and regional scale. Most sections are headed by a strong keynote paper that provides a state-of-the-art overview of each topic.

This book will provide a valuable reference text for anyone involved in the development and application of models concerned with transport processes in soils.

Sarah M. Dunn

Emerging Technologies for Integrated Pest Management: Concepts, Research and Implementation. Edited by G. G. Kennedy and T. B. Sutton. St. Paul, Minnesota, USA: APS Press (2000), pp. 526, $54.00. ISBN 0-890545-246-5.

This extensive book contains the proceedings of a conference held in Raleigh, NC, USA, in March 1999 and, as a consequence, is up-to-date. The conference brought together a diverse group of specialists in all aspects of IPM. The book is divided into eight sections covering, amongst other things, diagnostic techniques; genetic engineering; biological control of insects, diseases and weeds; and the use, integration and effectiveness of pesticides in IPM.

As well as showing the many benefits of IPM, this book also discusses the 'shortcomings' in our knowledge relating to aspects of insect and disease management e.g. lack of detailed understanding of pesticide application, lack of environmentally benign products. It does, however, give a good background to the 'newer' developing technologies such as genetic modification and Global Information and Positioning Systems and their place in IPM. The presence of participants from well-known commercial organizations does mean that their companies' research findings may be advanced here. This does not, however, lessen the worth of the book.

The book covers more than traditional IPM and may have benefited from having a wider title, such as Emerging Technologies for Integrated **Crop** Management. This does not detract from its usefulness in giving the general reader a very good background into the current thinking in the rapidly expanding field of integrated crop management (ICM).

S. C. Gordon

Readers may be interested to know about the following publications received but not reviewed because of their limited relevance to the majority of readers of *Experimental Agriculture*.

Pure Profit. The Financial Implications of Environmental Preference. By R. Repetto and D. Austin. Washington DC: World Resources Institute (2000), pp. 50, no price quoted. ISBN 1-56973-442-9.

Rural Development, National Resources and the Environment. Lessons of Experience in Eastern Europe and Central Asia. Edited by L. A. Norsworthy. Washington DC: The World Bank† (2000), pp. 125, US$22.00. ISBN 0-8213-4717-9.

†Pricing of publications by The World Bank. The World Bank has agreements with sole distributors in most countries. The prices quoted in US$ are for the USA. For UK prices it is necessary to consult the UK agent, Microinfo Ltd, PO Box 3, Alton, Hants, UK.

Priority Setting for Underutilized and Neglected Plant Species of the Mediterranean Region. Report of the IPGRI Conference 9–11 February 1998. ICARDA, Aleppo, Syria. Edited by S. Padulosi. Rome: IPGRI (1999), pp. 160, no price quoted. ISBN 92-9043-415-5.

Social Assessment and Agricultural Reform in Central Asia and Turkey. World Bank Technical Paper No. 461. Europe and Central Asia Environmentally and Socially Sustainable Development Series. Edited by A. Kudat, S. Peabody and C. Keyde. Washington DC.: The World Bank (2000), pp. 328, US$25.00. ISBN 0-8213-4678-4.

Critical Links. Food Security and the Environment in the Greater Horn of Africa. By L. A. Thrupp and N. Megateli. Washington DC: World Resources Institute and Nairobi: ILRI (1999), pp. 99, no price quoted. ISBN 92-9146-060-5.

The Potato. By L. Zuckerman. London: McMillan Publishers Ltd (Pan Books) (1998), pp. 304, £6.99 paperback. ISBN 0-330-48131-2.

Structural Change in the Farming Sectors in Central and Eastern Europe. Lessons for EU Accession. Second World Bank/FAO Workshop, June 27–29, 1999. Edited by C. Csaki and Z. Lerman, Washington DC: The World Bank (2000), pp. 248, US$25.00. ISBN 0-8213-4733-0.

Seeding Solutions. Vol. 1. Policy Options for Genetic Resources: People, Plants and Patents Revisited. By The Crucible II Group. Rome: IPGRI, Uppsala: Dag Hammarskjöld Foundation and Ottowa: IDRC (2000), pp. 121, no price quoted. ISBN 0-88936-926-7.

Russian Views of the Transition in the Rural Sector. Structures, Policy Outcomes, and Adaptive Responses. Edited by L. A. Norsworthy. Washington DC: The World Bank (2000), pp. 209, US$22.00. ISBN 0-8213-4765-9.

Agricultural Support Policies in Transition Economies. (World Bank Technical Paper No. 470). Europe and Central Asia Environmentally and Socially Sustainable Development Series. Edited by A. Valdes. Washington DC: The World Bank (2000), pp. 151, US$22.00. ISBN 0-8213-4771-3.

Food in the 21st Century: from Science to Sustainable Agriculture. By M. Shah and M. Strong. Washington DC: The World Bank (2000), pp. 72, US$15.00. ISBN 0-8213-4757-8.

India. Alleviating Poverty through Forest Development. By N. Kumar, N. Saxena, Y. Alagh and K. Mitra. Washington DC: The World Bank (2000), pp. 195, US$22.00. ISBN 0-8213-4762-4.

Indonesia. The Challenges of World Bank Involvement in Forests. By M. Gautam, U. Lele, H. Kartodihardjo, I. Erwinsyah and S. Rana. Washington DC: The World Bank (2000), pp. 142, US$22.00. ISBN 0-8213-4763-2.

Costa Rica. Forest Strategy and the Evolution of Land Use. By R. de Camino, O. Segura, L. G. Arias and I. Perez. Washington DC: The World Bank (2000), pp. 128. US$ 22.00. ISBN 0-8213-4764-0.

Brazil. Forests in the Balance: Challenges of Conservation with Development. By U. Lele, V. Viana, A. Verissimo, S. Vosti, K. Perkins and S. A. Husain. Washington DC: The World Bank (2000), pp. 195, US$22.00. ISBN 0-8213-4761-6.

Food and Agriculture in Bulgaria. The Challenge of Preparing for EU Accession. (World Bank Technical Paper. No. 481). Europe and Central Asia Environmentally and Socially Sustainable Development Series. By C. Csaki, J. Nash, A. Fock and H. Kray. Washington DC: The World Bank (2000), pp. 137, US$35.00. ISBN 0-8213-4793-4.

China. From Afforestation to Poverty Alleviation and Natural Forest Management. By S. Rozelle, J. Huang, S. A. Husain and A. Zazueta. Washington DC: The World Bank (2000), pp. 216, US$22.00. ISBN 0-8213-4759-4.

Conserving Agricultural Biodiversity in situ: *A Scientific Basis for Sustainable Agriculture*. Edited by D. Jarvis, B. Sthapit and L. Sears. Rome: IPGRI (2000), pp. 250. No price quoted. ISBN 92-9043-440-6.

Roots and Tubers in the Global Food System. A Vision Statement to the Year 2020. By G. J. Scott, R. Best, M. Rosegrant and M. Bokanga. Lima, Peru: CIP (2000), co-published with CIAT, IFPRI, IITA and IPGRI, pp. 111, no price quoted. ISBN 92-9060-203-1.

Agriculture in Tanzania Since 1986. Follower or Leader of Growth? Washington DC: The World Bank (2000), pp. 167, US$22.00. ISBN 0-8213-4719-9.