Malézieux E., Trébuil G., Jaeger M. (ed.): **Modélisation des agroécosystèmes et aide à la décision**. – CIRAD et INRA, Nîmes 2001. ISBN (CIRAD) 2-87614-474-3. ISBN (INRA) 2-7380-1014-8. Pp. 447, € 45.00.

This volume contains the main contributions presented at a conference organised by CIRAD ("Centre de Cooperation Internationale en Recherche Agronomique pour le Dévelopment", Centre of International Cooperation of Research and Development in Agronomy) at Montpellier in 2000. From the total of 79 contributors, 64 were from France, 3 from Mexico, 2 each from the USA, China, and Belgium, 1 each from Mali, Nigeria, Philippines, South Africa, and Thailand.

The publication starts with a Preface by M. Griffon, science director of CIRAD, Introduction by E. de Turckheim from INRA, and an abstract in English (1 page only). Individual contributions have no English abstracts and are arranged into the following sections: 1. Challenge and opportunities for decision support sys-tems (the very introduction by the editors, 20 pp.). 2. Ecology, agronomy and decision support (3 papers, 58 pp.). 3. Analysis and assessment (3 papers, 40 pp.). 4. Performance and guidance of a crop system (5 pa-pers, 98 pp.). 5. Taking into account the spatial heteroge-neity (4 papers, 86 pp.). 6. Management and coordination (2 papers, 44 pp.). 7. Representation and decision making (4 papers, 67 pp.). A list of the authors′ addresses ends this publication. The majority of contributions contains many tables, colour graphs, schemes, and maps.

The aim of the Conference and this book was not only to summarise what has been known in the modelling of agroecosystem functioning, but also to provide new stimuli to researchers and farmers to apply such a kind of knowledge. The aim should be to offer new ways for both the maximisation of crop production and sustainability of the agriculture. The papers express hope that modelling is the most suitable tool to provide farmers with completely new tools for the regulation of crop performance under various growth conditions. The contributors also address

the variable diversity of the hierarchical levels of crop production including not only the structure of a canopy, but also the complete system of a farm and a region. For example, the following topics are discussed: utilisation of the mathematics and informatics in both heuristic and practical importance of mathematical models, the potential use of artificial intelligence, cooperation of a crop model and geography information systems, assessment of the nitrogen nutrition in irrigated rice, long term changes of the forest productivity, models of grasses, model for the irrigated corn stand, teledetection, graphical models of the plant development, agroforestry management, etc.

It is highly regrettable that such a book appeared only in French. I am sure that this valuable text could have been presented to the international readership being another proof of the high standard of French science of biological modelling. My personal regrets have been accentuated by the total absence of English abstracts and captions to figures and tables in the contributions. The book presents considerable amount of both summaries of previous research and new information useful for students, their teachers, as well as researchers. Regardless of the language, I strongly recommend to all interested in modelling of plant functioning and crop production to at least browse the book to get some insight into the topics and results presented as well as to learn the authors' names and their affiliations. However, for readers of Photosynthetica specialised only in some part of photosynthesis, I have to state that only limited information could be found on photosynthesis or modelling of photosynthetic processes. For those with at least basic knowledge of French, who are keen to see broader horizons of the relationship between photosynthesis and plant ecology or crop physiology including modelling, I highly recommend at least to browse this valuable book.

L. NÁTR (*Praha*)