

BOOK REVIEWS

Nitrogen cycling in South-East Asian wet monsoonal ecosystems. Ed. by R. Wetselaar, J. R. Simpson and T. Rosswall (1981) ISBN 0-85847-097-7 Australian Academy of Science, Canberra. vii + 216 pp. (108 tabs, 52 figs) Hardback A\$25.00, plus postage—within Australia A\$1.50, overseas A\$3.00 (Available from Executive Secretary, Australian Academy of Science, P.O. Box 783, Canberra City, A.C.T. 2601, Australia).

This book contains proceedings of a Regional Workshop arranged by the SCOPE/UNEP International Nitrogen Unit of the Royal Swedish Academy of Sciences and the Chiang Mai University, sponsored by the Man and the Biosphere (MAB) programme of UNESCO and the National Research Council of Thailand, and held at Chiang Mai, Thailand, 5–10 November, 1979.

Appropriately, half of the thirty-four papers in the book are devoted to rice, the most important food crop in the region. The first paper is a review of nitrogen cycling in wetland rice. The other papers in the first half of the book report experimental data for nitrogen fixation, recovery of fertilizer nitrogen and transformation and balance of soil and fertilizer nitrogen in rice cropping systems.

The second half of the book includes papers on aspects of nitrogen cycling in plantation crop-legume cover crop ecosystems, tropical rain forests, mangroves and peat deposits, nitrogen fixation by *Neptunia oleracea*, decomposition of nodules and roots of *Centrosema pubescens*, and the role of *Casuarina* under shifting cultivation. There are a further three interesting papers which are related to environmental problems associated with parts of the nitrogen cycle, and three dealing with modelling and methodology. The contributed papers conclude with a bibliography containing 92 references on nitrogen in precipitation in south-east Asia and adjoining areas (including Australia). Next are the reports of five Work Groups. These deal with nitrogen cycling in four types of systems (irrigated wetland rice, forests and plantation crops, catchments, and shifting cultivation) and with the relevance of the nitrogen cycling studies to the MAB research programme of the region. Problems and priorities for research in the four types of systems are listed in the reports, but only the Work Group for Wetland rice was able to construct a detailed balance sheet of nitrogen inputs and losses.

The book is intended for scientists with an interest in nitrogen cycling, and although half of the book is concerned with rice cropping systems, grassland scientists who have an interest in nitrogen cycling will find much information of general applicability that they can relate to grasslands.

I. VALLIS

Assessment of the agricultural and pastoral potential of Queensland. E. J. Weston, J. Harbison, J. K. Leslie, K. M. Rosenthal and R. J. Mayer (1981) ISBN 0-7242-2143-3. Published by Queensland Department of Primary Industries, G.P.O. Box 46, Brisbane, 195 pp, A\$20.00 plus postage (A\$4 intrastate, \$8 interstate, \$6 overseas)

One of the major needs when planning research and development programmes is to know just what areas of land one is dealing with and to which areas the results obtained will be applicable. The present volume therefore is most useful to people so charged in Queensland. Whilst numerous regional land use surveys have been carried out within the State this is the first such survey for the whole state. The Atlas of Australia Soils provides a uniform base for this assessment. It was implemented by using field officers of the Divisions of Plant Industry and Land Utilization of the Department of Primary Industry to assess the potential agricultural and pastoral use of each unit of land as mapped in the soils atlas.

No attempt was made to limit assessments of potential to those which may be realized within a defined time, so social and economic pressures were removed. The