BOOK REVIEWS

Advances in Desert and Arid Land Technology and Development, Volume 1. Editors: A. Bishay and W. G. McGinnies, 1979. (Hanwood Academic Publishers: New York). 618 pp. US$66.

This book is comprised of papers presented at the International Conference on the Applications of Science and Technology for Desert Development, held at the American University in Cairo, Egypt from 9–15 September, 1978. It starts with a plenary session on combating desertification with discussion on the roles of education and demonstration as well as technology. This is followed by a series of papers on aspects of Egyptian deserts. "Desert Development and combating desertification" includes papers on land use in arid regions of India, Jordan and Australia. "Water resources and irrigation" has discussion of reserves and useage of water in desert regions. The paper by G. V. Skogerboe on "The development of effective irrigation systems for long-term agricultural productivity" should be read by those concerned with implementing and operating irrigation schemes. "Energy and mineral resources" has papers on energy requirements of developing desert regions of Egypt and some methods of obtaining these, including solar and wind power. Use of remote sensing is discussed. Costs are pre-1979 and allowance has to be made for this. One might wonder at the material and environmental costs of the wind turbine grid discussed by Lloyd P. Smith in "Productive use of solar and wind energy in desert areas". "Desert plants and environment" has papers on potentially useful desert species—guayle for rubber, jojoba for oil and *Thymelaea hirsuta* for pulp and paper. The paper on ordination uses diagrams that lack clarity in comparison to those in, for example, "An introduction to numerical taxonomy" by H. T. Clifford and W. Stephenson (Academic Press). It also ignores the use of classification methods in vegetation surveys. "Technology problems and desert communities" considers problems of sociology and environment associated with the settling of desert areas. The final section has papers on "Biosaline research".

The text contains a number of typographical errors, some of a serious nature. Table 2, page 124 is entitled "Livestock populations and growth—during 1966 and 1971". The next line of the table is "1956" and "1971" and the associated text (page 122) gives 1951 and 1972, with livestock population figures of 9.4×10^6 and 15.5×10^6 which do not occur in Table 2. The column headings (Table 2) appear to be transposed in some manner, and the growth rate percentages are not well explained. In "Productive use of solar and wind energy in desert areas" physics is not treated kindly. Equation 1 (page 292) has a term missing which apparently refers to the 50 metres (seemingly length of vertical vanes) undefined in the following paragraph. On page 294 the energy required to raise V cm^3 of water H cm is VH gm cm/sec. which suddenly becomes 980.7×10^{-10} kw. Table 1 is derived from turbine power from Equation 2 and not Equation 3. Units of gals/metre/minute should be discouraged. Figures 1 and 2 (pages 559, 600) lack keys to the different shadings. Hopefully editing will be improved in future editions.

Considering its subject matter and its price of US$66, the book will probably appeal only to those in the field of arid zone research.

I. F. BEALE

Potential Contribution of Research to Agricultural Development in Northern Australia (1979). The Australian Institute of Agricultural Science. 48 pp. ($5.00 post free from AIAS, Department of Agriculture, University of Queensland, St. Lucia, Qld. 4067).

This booklet is a report prepared by the Australian Institute of Agricultural Science (AIAS) for submission to the Australian Science and Technology Council