

GRAZING ANIMALS – edited by F.H.W. Morley (Elsevier)

Australia must be regarded as a world leader in the development of grazing production systems – the yearlong grazing of sheep and cattle on grass. Not only have these production systems developed greatly in extent in the post-war period, but they have also developed in productive and economic efficiency. This development has been linked with, and has also financed, considerable scientific investigation of the grazing process. This has been aimed at seeking better animal nutrition and higher production from the land available. Australian scientists in this field are also world leaders, and the whole process, including the science, is now being exported to developing countries.

This scientific research has led to a deep understanding of production systems based on grazing. Earlier problems with mineral deficiencies and pasture-based diseases, such as clover-infertility, have all but been eliminated. The importance of stocking rate for production level and pasture management is now widely understood. The process of supplementary feeding, based on specific deficiencies, such as protein or energy is now a scientific business. The problem of substitution of supplement for pasture and subsequent complementary growth, and the limitations of hay-making and fodder crops at the farm level are now part of our text books. Also, drought feeding with grain has become a planned and predictable process. In most cases too, the Australian scientist has an awareness of the economic implications of his work, as embodied in the delightful phrase of Don Saville's: "The response (to supplement) is biological, but the measure of success is financial". Unfortunately it seems that the more recent research has not led to useful advances at the production level. Research on topics such as grazing behaviour, the control of food intake, pasture evaluation and the utilization of roughages such as straw (all chapters of this book) have yielded little more than information and understanding. This understanding has been useful, but it does suggest that the great advances of the early research days will not be repeated.

This book presents 21 chapters, each an individual review of one field of scientific endeavour. The book is part of a world series on animal production, but this volume is largely Australia. As a multi-author book, it has the usual problem of variable standard and presentation. There are excellent chapters on tropical pastures, complementing grasslands with forage crops, nitrogen supply and animal production, energy and protein supplements and detrimental substances in plants. Others, such as those on the ecology of grazed pastures, the cycling of nutrients, the control of food intake, the multiple use of rangelands and the nutritional value of Mediterranean pastures, are uninspiring, either because they are narrow scientific reviews for the scientist himself, or their coverage is narrow in a geographical sense. Inexplicably, there is no chapter on mineral nutrition – which was one of the earlier successes of Australian research in this field. The outstanding chapter is by the editor, Fred Morley, on the management of grazing systems. Perhaps he could be induced to write his own book on grazing animals: it would be a classic.

Overall, a well presented book, with some excellent chapters for the research student, but too academic for many readers of this journal.

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24 June 1981