

**PROCEEDINGS OF THE AUSTRALIAN RANGELAND SOCIETY
BIENNIAL CONFERENCE**

Official publication of The Australian Rangeland Society

Copyright and Photocopying

© The Australian Rangeland Society 2012. All rights reserved.

For non-personal use, no part of this item may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the Australian Rangeland Society and of the author (or the organisation they work or have worked for). Permission of the Australian Rangeland Society for photocopying of articles for non-personal use may be obtained from the Secretary who can be contacted at the email address, rangelands.exec@gmail.com

For personal use, temporary copies necessary to browse this site on screen may be made and a single copy of an article may be downloaded or printed for research or personal use, but no changes are to be made to any of the material. This copyright notice is not to be removed from the front of the article.

All efforts have been made by the Australian Rangeland Society to contact the authors. If you believe your copyright has been breached please notify us immediately and we will remove the offending material from our website.

Form of Reference

The reference for this article should be in this general form;

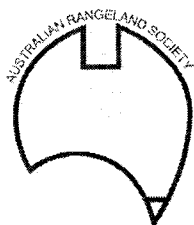
Author family name, initials (year). Title. *In*: Proceedings of the nth Australian Rangeland Society Biennial Conference. Pages. (Australian Rangeland Society: Australia).

For example:

Anderson, L., van Klinken, R. D., and Shepherd, D. (2008). Aerially surveying Mesquite (*Prosopis* spp.) in the Pilbara. *In*: 'A Climate of Change in the Rangelands. Proceedings of the 15th Australian Rangeland Society Biennial Conference'. (Ed. D. Orr) 4 pages. (Australian Rangeland Society: Australia).

Disclaimer

The Australian Rangeland Society and Editors cannot be held responsible for errors or any consequences arising from the use of information obtained in this article or in the Proceedings of the Australian Rangeland Society Biennial Conferences. The views and opinions expressed do not necessarily reflect those of the Australian Rangeland Society and Editors, neither does the publication of advertisements constitute any endorsement by the Australian Rangeland Society and Editors of the products advertised.



The Australian Rangeland Society

A GRAZING LAND MANAGEMENT EDUCATION PROGRAM FOR LIVESTOCK PRODUCERS IN NORTHERN AUSTRALIA

Mick Quirk¹, Chris Chilcott², and Shane Blakeley³

¹Qld Department Primary Industries, PO Box 976, Charters Towers, Q 4820

²Qld Department of Natural Resources and Mines, 80 Meiers Rd. Indooroopilly, Q 4068

³Rural Production Systems Pty Limited, PO Box 1910, Toowoomba, Q 4350

INTRODUCTION

There has been increasing recognition of the potential for enhanced management of grazing lands in northern Australia (Queensland, Northern Territory and Kimberley region of WA) to meet the goal of sustainable beef production. This has been largely driven by concern over declining land condition in many areas. This concern has matured somewhat to include the critical link between land condition and production, and the threat to sustainable carrying capacity that comes from declining land condition. At the same time, there is also interest in optimising the use of pasture, eg, through development of infrastructure (waters, fencing), through more pro-active management of stocking rate and use of grazing systems, and through pasture development. In fact, achieving production goals while looking after the health of the land has arguably become the major on-property issue for beef enterprises.

The gradually increasing demand for better information and decision tools in grazing land management has been accompanied by investment into relevant R&D. However, a general view is that there has been limited uptake of information and ideas from this investment in R&D, and this perception is now limiting further investment into strategic, long-term R&D. The reasons for low uptake include issues like: the lack of any comprehensive, ecologically-based framework to guide practical decision-making in grazing land management; insufficient emphasis in research and extension on issues of rangeland management; low level of awareness of R&D outputs and outcomes amongst beef producers.

To help address this lack of impact from R&D, we have worked with Meat and Livestock Australia and representatives from a range of organisations (QDPI, QDNR&M, Tropical Savannas CRC, CSIRO, NT-DPIF) to develop an education product that specifically addresses the needs in grazing land management identified by beef producers in northern Australia.

THE GRAZING LAND MANAGEMENT (GLM) EDUCATION PRODUCT

Several organisations, including Meat and Livestock Australia MLA, QDPI, and the DPIF (NT), identified the need for a concerted effort to build a 'product' that would enhance management of grazing lands in northern Australia. We saw that this "product" needed to include:

- the principles, concepts, and relationships underlying sustainable grazing land management
- the technical process or framework that supports planning, decision-making, and implementation
- design and delivery that would both attract and satisfy producers.

The scope of the project included all dry-land, pasture-based enterprises and covered all aspects of grazing land management (GLM), especially grazing management (numbers and types of animals, and their temporal and spatial distribution); land development and maintenance practices (management of trees/shrubs; fire; pasture improvement; weed management); and landscape health and biodiversity

Our strategy had 2 parts. Firstly, to use existing project work being undertaken in the Burdekin region and the Victoria River District as a guide to providing the substance in the product (that is, the principles and concepts of sustainable management and the related decision tools). Secondly, to use a market research approach (see Blakeley et al. 2000) for assessing requirements of the 'market', thereby identifying priority outcomes and issues for producers, operational staff and stakeholders.

MARKET RESEARCH

The market research was in 2 stages, the first was qualitative research to identify the 25-30 general outcomes for grazing land management that were important to cattle producers. The second stage was quantitative, and provided a ranking of the 25 outcome statements generated by producers. The research allowed the ranking to be analysed in several ways, including by region, by type of enterprise, by size of enterprise, and by gender. The highest priority outcomes for beef producers across northern Australia included:

- Knowing how to increase the better pasture plants and discourage less desirable ones
- Knowing how to assess pasture quality and quantity to manage feed supply
- Knowing how to assess land condition to manage for long term productivity
- Having practical ways of varying stocking rates to match animal requirements with feed supply
- Knowing how to determine the financial implications of grazing land management options

Of course there were significant regional differences and these have helped guide development of the product.

Research of stakeholders (industry organisations, R&D organisations, environmental lobby groups) and operational staff (those in the public and private sectors who will deliver the product) showed that the vast majority saw better education in GLM as a high priority. They were generally unhappy with current efforts in GLM education. Interestingly, about 80% of these respondents believed that the program should assist land managers to show they are meeting duty of care obligations.

PRODUCT DEVELOPMENT AND TESTING

The product has 2 major themes: the health of the land and productivity. It provides the principles and concepts of GLM, with local examples/case studies; steps, processes, and information for development of a GLM plan for each participating property; support for implementation on-property.

The core part of the program will be accessible in either face-to-face delivery (eg, 3-day workshop) or in distance education format. The project team has developed the product for 4 regions, in the first instance: Katherine, Burdekin, and Burnett regions, and the Mitchell grass country of Queensland.

These regions were chosen because they already had on-going R&D work that could support development of the concepts, relationships and decision tools that would underpin the product. It is important to note that the development of this product has been reliant on the outputs of past and current R&D. We were dependent on the cooperation and good-will of agency staff and producers within each region to share information, ideas and decision tools.

Information and decision tools are built around 7 major topics: Understanding the grazing land ecosystem; Managing grazing; Using fire; Managing tree-grass balance; Pasture development; Controlling weeds; and Bringing it all together. The emphasis is on providing the best-available information in an interactive process, with continuous reference to analysis of a case study property. Participants are encouraged to relate each session to their own property, and to commence the inventory and analysis process that leads to identification of management options. Assessment of the financial implications of each management option is emphasised through-out.

The pilots of the program have been very successful, and we anticipate the product will be available through MLA's Edge network towards the end of 2002. We are now planning the customisation of the GLM product to other regions of northern Australia.

ACKNOWLEDGEMENT: We acknowledge the contributions of the whole GLM development team and the support of Meat and Livestock Australia.

REFERENCES

Blakeley, S., Quirk, M., Bertram, J., McIntosh, F and Hunt, B. (2000). Application of QFD to Developing Education Products for Northern Australia Beef Producers. 12th North American Symposium on QFD. QFD Institute: Ann Arbor, Michigan.