

A course developed by ...



RANGELANDS AUSTRALIA

GRAZING LAND MANAGEMENT

Postgraduate Course – AGRC7023

Available Semester 1

In External, Internal or Intensive Mode

(Subject to minimum numbers)

OVERVIEW

Around 60% of Australia's rangelands are grazed by domestic animals. The condition, productivity and sustainability of these grazing lands are strongly driven by climate and seasonal events, with management and its interaction with the environment often influencing the outcome(s). For this reason, adaptive management is addressed throughout the course.

This course covers the theoretical background, principles and concepts of the main management tools in grazed rangelands - grazing and fire, and other issues that may influence grazing management in your region, such as introduced pasture plants, forage trees and weeds. The theoretical background serves as a framework on which knowledge and understanding can be built and on which proposed practices can be analysed. The practical application of the theory is a significant component of this course.

Market and consumer expectations are raising the standard and expectations of grazing management.

LEARNING OBJECTIVES

On completion of this course you will be able to:

- Identify the broad context of topics and issues relevant to grazing land management and will have developed a working knowledge of grazing management terminology
- Describe and apply the ecological components, concepts and models of grazing to the management of grazing animals and natural resource management
- Assess and evaluate the positive and negative interactions between environmental features and grazing animals
- Identify the most important principles in the process of grazing and apply these principles to grazing management to optimize productivity and minimize the negative effects of animal impact
- Describe the principles of grazing land management, evaluate grazing management systems and integrate grazing management principles into management decisions
- Implement a framework for integrating prescribed burning, fire management and wildfire control into grazing land management
- Describe all aspects of a weed problem and identify and evaluate management and control strategies for weeds in the context of grazing land management
- Explore the opportunities and threats of plant introduction in the rangelands – including how they can be integrated in relation to grazing management and animal production
- Outline the role of decision support tools and information management in grazing land management and evaluate the current tools available
- Identify the possible future influences such as global markets, conservation issues and climate change, and evaluate their possible/probable impact on grazing land management practices.

COURSE STRUCTURE

Course modules include:

- Introduction to grazing land management
- The grazing environment and ecological processes
- The grazing process
- The impact of grazing
- Grazing management
- Fire and fire management
- Weed management
- Introduction of trees, shrubs and pastures
- Information support for decision making

LEARNING FACILITATOR

Bruce Alchin (BScAgr, MSc, GCEd). Bruce has had over 30 years experience in the rangelands of Australia. This includes 20 years with the NSW Soil Conservation Service and Western Lands Commission (WLC) in western NSW. He was involved in land resource mapping, property management planning, research and advisory work. Time with the WLC also provided experience with land administration and politics. Since 1988, he has been based in Qld, and involved in rangelands teaching, research (particularly on grazing management) and consultancies. Whilst having broad experience, much of Bruce's work has been 'hands-on' at the property and paddock level. Overseas work has been in the USA and Indonesia.

REQUIRED TEXT BOOKS

There is one book required for this course.

Ludwig, J, D Tongway, D Freudenberger, J Noble & K Hodgkinson (1997). 'Landscape Ecology: Function and Management. Principles from Australia's Rangelands.' CSIRO Publishing, Melbourne.

Students are also supplied with a book of readings that includes articles and other materials required for completion of learning activities and assessment items.

ASSESSMENT

There are no 'examinations', just three assessment items for this course:

Assessment 1: Online discussion activities – 20%

You will need to engage in five online learning activities. This will involve posting your responses on the discussion forum and reading and responding to others in the light of your experience/knowledge and the literature.

Assessment 2: Review report – 40%

Focusing on a particular region or rangeland type, you will review and critically analyse the principles of grazing land management, and identify gaps in knowledge and opportunities for change in current practices (maximum 3,000 words).

Assessment 3: Case study of Grazing Management – 40%

Develop a grazing management plan for an enterprise (maximum 3,000 words).

BACKGROUND TO THIS COURSE

The need for this course was identified by a national survey of education and skills needs for success in the rangelands. The course was developed by Rangelands Australia. The structure, content and resources used in this

course were influenced by experienced producers (private and corporate), advisors and researchers, and the EDGENetwork's Grazing Land Management course. The content includes some material adapted from the EDGENetwork Grazing Land Management Workshop Notes and Technical Manuals (MLA 2003 a,b,c).

A draft of the course was reviewed by experienced producers, and advisors and researchers from CSIRO Sustainable Ecosystems, NSW Agriculture, NT Department Business, Industry & Resource Development, Q Department Primary Industries & Fisheries, Q Department Natural Resources & Mines, Tropical Savannas CRC, The University of Queensland, and WA Department of Agriculture.

This course was delivered for the first time in 2005.

COURSE EVALUATIONS

Students completing this course in 2005-10 were asked to evaluate the perceived relevance, practicality and quality of the course and its delivery (on 1-5 scale, with 1=strongly disagree and 5=strongly agree). The following average ratings were received:

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| • Clear and relevant learning objectives | 4.7/5.0 |
| • Satisfied with the course content | 4.5/5.0 |
| • Satisfied with the amount of contact with the Learning facilitator | 4.5/5.0 |
| • The Learning Facilitator provided useful guidance and support | 4.7/5.0 |
| • I gained new skills and knowledge | 4.8/5.0 |
| • Learning and assessment activities challenged me to think | 4.5/5.0 |
| • Course is well structured and components well integrated | 4.5/5.0 |
| • Course is relevant to my workplace/business | 4.7/5.0 |
| • Course is relevant to my future in the rangelands | 4.7/5.0 |
| • Overall, I'm satisfied with this course | 4.7/5.0 |

Students have also provided the following general comments on this course:

- *"The course answered all the questions I had especially on native grazing lands management"*
- *"Exciting and very practical course"*
- *"Very good. Relevant to land users and managers and aspiring land managers"*
- *"Relevant and very valuable"*
- *"Encouraged me to think about the whole grazing process"*
- *"Very useful course for a grazier".*
- *"I learnt so much; this was the best course ever"*
- *"For anyone tackling the incredible complex ecosystems in the rangelands of Australia this course is a must. It is thought provoking, well referenced..."*
- *"I learnt so many new things from this course about Australia and my own country"*
- *"Gave me a deeper understanding of grazing land management."*
- *"The course materials are a good reference guide. The knowledge learnt is directly applicable to management."*
- *"The course was very relevant to me and the property I manage. This information is now being used in practical application."*