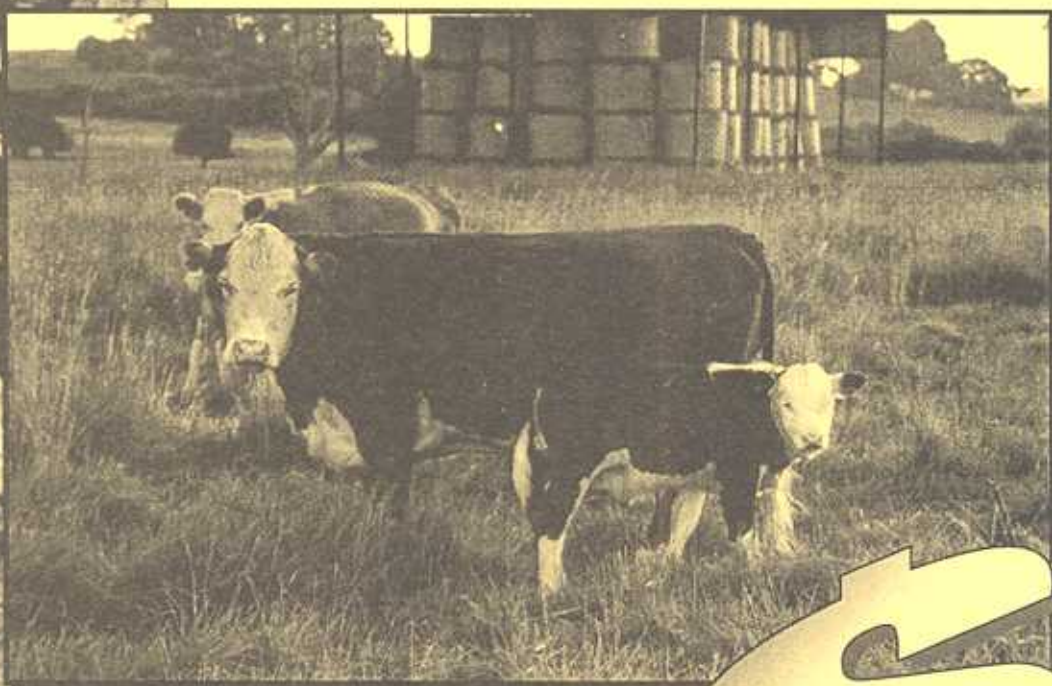


The Grasslands Society of NSW Inc.

13th Annual Conference

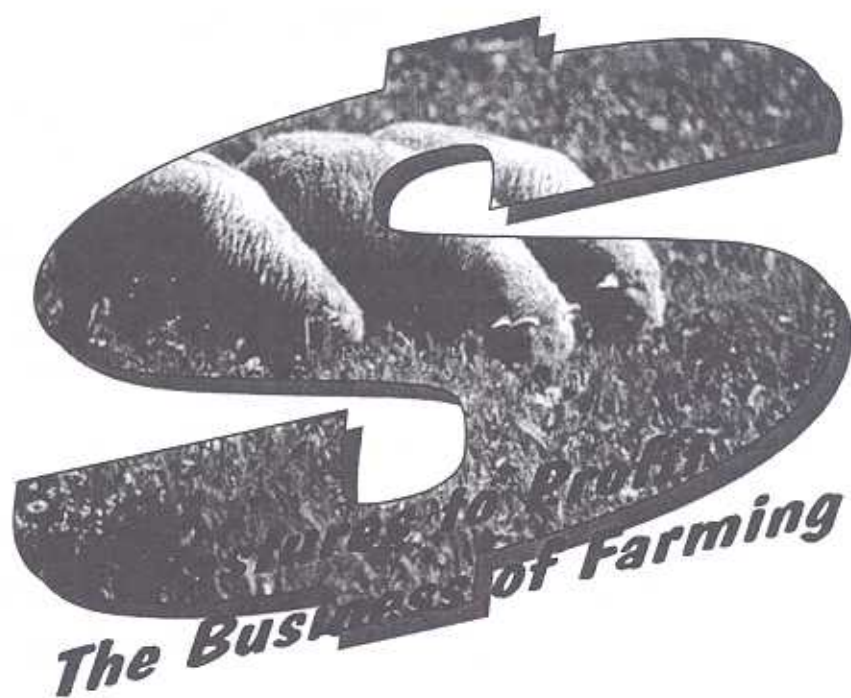
***Pastures to Profit -
The Business of Farming***



Conference Proceedings

7th - 9th July 1998
Orange Function Centre

DEVELOPING OUR MOST IMPORTANT RESOURCE



**PROCEEDINGS OF THE THIRTEENTH ANNUAL CONFERENCE
GRASSLAND SOCIETY OF NSW**

Invited papers, contributed papers and poster summaries
from the Conference held
at the Orange Function Centre
Ash Street, Orange, NSW
on 7-9 July, 1998

Edited by
Frank McRae and David Michalk

Editorial review and referee team
Haydn Lloyd Davies, Malcolm Campbell and Peter Dowling



THE GRASSLAND SOCIETY OF NSW INC.

A unique blend of people with a common interest
in developing our most important resource
our Grasslands

The Grassland Society of NSW was formed in March 1985. The Society now has 1200 members and associates, 75% of whom are farmers and graziers. The balance are agricultural scientists, farm advisers, consultants, and executives or representatives of organisations concerned with fertiliser, seeds, chemical and machinery.

The aims of the Society are to provide opportunities for members to meet in conference, at field days, or socially, to exchange information, ideas and experiences relating to grasslands.

Other aims of the Society are to advance the investigation of problems affecting grassland husbandry and to encourage the adoption into practice of results of research and practical experience. The Society holds an annual conference, publishes a quarterly newsletter, holds field days, and is establishing regional branches throughout the State.

Membership is open to any person or company interested in grassland management and the aims of the Society. Ordinary (including family or farm units), student and corporate membership is available.

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PREFACE

This is our 13th Annual Conference and is not the time - to quote an old Sister Anna dialogue - for foolish superstition. The first activity of the Society was in Orange in October '85, annual conferences have been held at Orange in '87, '88, '93 and here we are again in '98. Most of us regard Orange as the home of the Society - we hold most of the meetings of the State Executive at Orange. On your behalf I sincerely thank the Conference Committee for all the hard work they have put in for the conference which I am sure will be as successful as previous ones.

The structure of the conference is different from the past in that a greater emphasis is placed upon producer papers and we will be visiting the properties of our speakers and also inspecting the prize winning pasture of our pasture competition. The Society's pasture competition is an innovation and we are particularly grateful to Warren McDonald who suggested and did all the preliminary ground work in establishing the rules for the competition.

At the time of writing this the newspaper headlines are mostly about "the Asian crisis, the dropping dollar, the plunging sharemarket and lower commodity prices". Where is the good news? The good news is that at last after a run of difficult years many areas have had a good Autumn break we have been told that "El Nino" is over and this augers well (hopefully) for a good pasture year. Above average yields are expected for most crops. To quote Mick Keogh "gross returns from Canola are expected to reach \$190 gross per hectare-farmers would be scratching to get \$36 gross from the same area for livestock production". Even that \$36 gross could only be produced on legume-based well fertilised introduced species. Without the huge research and development effort that went into pasture improvement the returns would be pitifully inadequate. At each conference we have had valuable information from innovative producers and scientists on how we can obtain good and sustainable animal production from our pastures. This conference continues that tradition.

This thirteenth conference like its predecessors would either not be held or very costly were it not for the excellent support from our sponsors. On behalf of the Society thank you very much. I also wish to thank NSW Agriculture for their very large input into all our conferences. Without their support we would have very great difficulty in holding conferences, publishing proceedings and issuing newsletters.

I look forward to meeting many of you at Orange this year and at Queanbeyan next year.

Haydn Lloyd Davies

President



OPENING ADDRESS

Kevin Sheridan

Director-General, NSW Agriculture

It is with great pleasure that I have accepted your invitation to open the 13th Annual Conference of the Grasslands Society of NSW in Orange. It is six years since my Department moved its Head Office to Orange from Sydney, and I believe that this has certainly provided the opportunity for closer interaction between my Department and people with whom we do business, such as members of this Society.

As a pasture research scientist by training, it is of special significance to me that I have been given the opportunity to provide some observations on the grazing industries and grasslands in these Proceedings. As everyone is only too acutely aware, the grazing industries have had it tough in recent years with depressed prices, increasing costs and prolonged drought. There are also increasing pressures on all agricultural land to ensure that it is managed sustainably, but this can only be achieved if producers of livestock products can still make a profit.

The value of pastures to the economy is easily overlooked. Despite the increase in feedlots and supplementary feeding, pastures still provide the feedbase for most of the livestock products produced from grazing animals in Australia. Pastures also contribute significantly to the cropping industries through supply of nitrogen and disease and weed control. The value of pastures, estimated from the value of livestock products alone is about \$10 billion, which still rates pastures as one of Australia's most valuable resources and export earners. In this context, the challenge we have is to provide as much high quality feed as possible throughout the year to meet the needs of livestock production and market requirements.

Pastures and grasslands are also critical in their own right for sustaining our natural resources, but the value of this crucial role is much more difficult to determine. Perennial pasture species in particular provide many beneficial environmental outcomes, including the protection of soil from erosion and prevention of nutrient and soil run-off into waterways. In particular, deep-rooted pastures recycle nutrients and water thereby reducing soil acidification and salinisation. Water and plant nutrients are perhaps the greatest limiting factors for Australian agriculture. Their retention and utilisation in the landscape is therefore highly profitable as well as environmentally desirable.

Certain community values are also satisfied through the maintenance of vigorous pastures in the landscape *eg.* clean water and maintenance of biodiversity, particularly in relation to native pastures and associated fauna.

It is therefore reasonable to suggest that the maintenance of productive and persistent pastures, particularly those which contain a strong perennial component, on farms and in the landscape is fundamental to the sustainability and profitability of agriculture (including both the livestock and cropping industries), as well as to satisfy the environmental expectations of the community. Our challenge as farmers, agribusinesses and technologists, is to develop, assess, implement and maintain sustainable pasture and grazing systems which are both practical and profitable, in increasingly more challenging financial and climatic circumstances. It is fortunate at least that we can achieve both production and sustainability outcomes simultaneously by the maintenance of vigorous, persistent, high quality pastures, preferably based on perennial species.

I am pleased to say that NSW Agriculture is continuing to play a major role in developing and extending essential pasture technology to assist industry and the community to achieve these outcomes. I am particularly proud of programs such as PROGRAZE which was developed by NSW Agriculture staff and is now being adopted across Australia. Our cooperative R, D & E projects with our Rural Industry Research & Development partners, particularly from the meat, wool, dairy and grains industries, encompass a number of nationally significant pasture nutrition, breeding and management projects which are addressing these complex problems. One of the most encouraging aspects of these projects is the close involvement of rural producers in their development and management to ensure their relevancy and to expedite adoption of results. It is in this context that I particularly value the close association of the Grasslands Society and its producer members with my Department.

Let us hope that our climatic and marketing conditions improve as we enter the new millennium. I also wish this Society all the very best for this Conference, and compliment you on the excellent forum which your Society provides for information exchange across all sectors of the grasslands based industries.