

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

Official publication of The Australian Rangeland Society

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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).

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REFLECTIONS ON A PAST DROUGHT IN THE PLANNING FOR FUTURE ONES: WIND EROSION AND EXTENSION METHODS ON THE HAY PLAINS DURING THE 1994/95 DROUGHT

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ABSTRACT

The 1994 drought in south-eastern Australia and a number of other synergistic factors contributed to a high frequency of wind erosion events on the rangelands of the Hay plain. A multi-disciplinary and multi-agency approach was developed for an extensive wind-erosion awareness campaign. A post-drought evaluation of landholder strategies and attitudes and the extension methods used was undertaken. This survey material and other drought information was then packaged together to provide a framework for the management of future droughts.

INTRODUCTION

Extreme wind events and reduced ground cover due to the effects grazing and drought (and in some instances high rabbit numbers) precipitated regular dust events in the Hay district from November 1994 to January 1995. These dust events were initiated by three days of unusually high wind velocities (>70 km/hr) in early November 1994. From this point onwards even relatively minor wind gusts resulted in wind erosion. Dust storms continued until January 1995, when significant rainfall events caused increased pasture levels and protective soil crusts.

Some comparisons were made between the severity of wind erosion in 1994-95 and that which occurred in the 1940s. Preliminary investigations of meteorological data for the combined stations of Hay and Deniliquin suggests that wind erosion was more severe in the early to mid 1940s, as reflected in the frequency of dust hazes and dust storms.

EXTENSION STRATEGY TO AMELIORATE WIND EROSION

To limit further land degradation a rapid response was required that was not only multi-disciplinary, but inter-agency. The aims were twofold: to educate landholders about the processes of wind erosion and to develop drought management options that might ameliorate the level of wind erosion.

The key to this program was an initial Focus Planning Meeting that gathered together all the important land management stakeholders in the district. These included representatives from local Shires, NSW Farmers, Murrumbidgee Catchment Management Committee, Landcare groups and various State government agencies. From this cooperative meeting a strategy developed that focussed on a series of workshops, media campaigns and mail-outs.

POST-DROUGHT LANDHOLDER SURVEYS

Two post-drought surveys were undertaken to examine: i) producer attitudes and strategies regarding risk management of drought; ii) economic case-studies of the effectiveness of low risk grazing management strategies in mitigating the impact of drought. The material thus gathered served to highlight successful methods of preparing for and coping with drought. The results of these surveys, along with other material, were packaged into drought kits for landholders to refer to in future droughts.

LESSONS LEARNT

Successful strategies in coping with drought, as cited by landholders, included:

- Conservative stocking regimes that carry surplus pasture into drought.
- Having a stock type (e.g. cattle, wethers) that is tradeable, and can be destocked rapidly.
- Resisting increases in stocking rate (including agistment) in better seasons.
- Conserving sufficient surplus fodder or grain to feed stock for 3-4 months.
- Having cash reserves.

Useful tactics during drought included:

- Early destocking, by selling or agisting cattle and heavier culling of young ewes.
- Confining stock to a sacrifice area of irrigation or similar.
- Rating each paddock for the pasture available (informal feed budget).
- Accessing the right type and quantity of supplementary feed.
- Discussing drought options with objective people.

Overall, planning was seen as integral not only at a strategic level before drought, but at a tactical level during drought.

Improvements to the content and delivery of drought extension information include:

- The use of small, localised drought workshops, to assist groups to work through the process of decision-making in drought (e.g. reviewing previous droughts, climatic predictions, drought management goals and 'what if' scenarios).
- Farm walks to focus on positive examples of drought actions and as a stimulus to share ideas.
- Packaged information relating to feed quality and sources and livestock requirements.

In addition, agency personnel realised the importance of local drought triggers (e.g. rainfall/pasture condition), and the need to facilitate decision-making in drought rather than merely providing technical information.

A FINAL WORD

'You need to take responsibility for your own actions. Don't miss any advantage: you've got to stay thinking to gain advantage.'

Hay grazier, following the 1994 drought.

ACKNOWLEDGEMENTS

The authors acknowledge the assistance of Mr Grant McTainsh and Mr Alan Lynch of the Faculty of Environmental Sciences, Griffith University, Brisbane, regarding the analysis of dust records.