

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

Official publication of The Australian Rangeland Society

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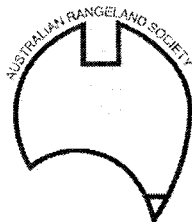
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USE OF SEASONAL CLIMATE OUTLOOK AND RELATED INFORMATION IN RANGELAND MANAGEMENT

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ABSTRACT

Many graziers could make better use of climatic information. The Queensland Department of Natural Resources and Department of Primary Industries are collaborating with the Bureau of Meteorology to provide a large range of climatic decision-support information products using a range of delivery vehicles.

The information products are linked to, and integrated with, a range of tools (for example AUSTRALIAN RAINMAN) developed for use by graziers to help them make better weather-related decisions. New products are developed with graziers' input. Training packages have also been developed to help graziers better understand weather systems and improve skills in managing for climatic variability.

INTRODUCTION

Many graziers need to develop a better understanding of climatic systems, to monitor them and to use climatic information when making major property management decisions. The Queensland Department of Natural Resources (DNR) and Department of Primary Industries (QDPI) are collaborating with the Bureau of Meteorology to provide a large range of climatic decision-support information products to a wide range of clients using the following delivery vehicles: Internet - World Wide Web, mail server, hard copy, poll-fax, floppy disk, video, tape recordings and telephone. Various radio stations, newspapers and television stations access and use our information. We regularly provide ABC-TV and Channel 10 with information for their weather reports.

DEVELOPMENT OF INFORMATION SYSTEM

Potential climatic decision-support information products were given a user-friendly format and then made widely available, at minimal cost, on the following range of public-access information delivery vehicles:

1. SOI Phone Hotline

This service was commenced in January 1992 and consists of a two-minute tape recording on the Southern Oscillation Index (SOI) and the seasonal climate outlook at the end of a standard telephone line (07 3896 9602). The message is updated weekly.

2. SOI Fax Hotlines

This service was commenced in April 1993 using Telstra's Infifax system. It enables clients with a facsimile machine to collect selected pages of information in hard copy. Currently this system contains 19 pages of information spread over 11 lines (switch to polling-receive and dial 019-725 300 to obtain the information index). Available information includes the SOI message, SOI graphs and data, rainfall maps, rainfall probability maps and a sea-surface temperature map.

3. The Internet

'The Long Paddock' is the name given to the agroclimatic information system developed on the World Wide Web of the Internet system. This service was commenced on 19 December 1995. In January 1996 The Long Paddock, at URL-<http://www.dpi.qld.gov.au/longpdk/>, contained about

14,523 pages of information, including over 13,000 coloured maps. The following types of information are available: the SOI message; monthly rainfall maps; a range of rainfall percentile maps; rainfall probability maps for the next three months; drought situation maps for Queensland; world sea-surface temperature maps; vegetation greenness maps for Queensland; SOI graphs and daily SOI data.

‘MANAGING FOR CLIMATE’ WORKSHOPS

An educational module for use in the property management planning process was produced in 1994 in collaboration with the Bureau of Meteorology. It was designed as a one-day workshop called ‘Managing for Climate’ which was aimed at increasing participants’ understanding of weather systems, and improving their skills in making weather-related decisions. A workshop manual and a facilitator’s manual were produced. QDPI staff from each region have been trained to market and facilitate the workshops. Demand for these workshops is high and the number being conducted is only limited by staff availability.

EVALUATION

Over 47,000 enquiries have been received on the Phone and Fax Hotlines since April 1992. In July 1995, a survey was conducted to obtain feedback from users of these Hotlines. The main results from the survey were:

- 63 users responded (mainly users of the SOI Fax Hotlines - 97% used a facsimile machine).
- Location of users: Queensland 45%, NSW 42%, other States 11%, overseas 2%.
- Business operated: primary producers 70%, agribusiness 16%, QDPI 8%, government (other than QDPI) 6%, education 5%, media 2%, other 10%.
- Most useful products: SOI message (92% said fairly useful to very useful), sea-surface temperature map (78%), SOI data page (66%). Surprisingly, 36% said the Phone Hotline was fairly useful to very useful.
- The information is used to make a wide range of decisions in primary production, including stock sales, stock purchases, feed budgeting and planning sown pasture establishment.
- The service can be improved by making the information more relevant outside Queensland.

The Long Paddock home page is currently receiving about 1000 ‘hits’ per month.

Participants in a ‘Managing for Climate’ workshop were surveyed one month after the workshop. A total of 78% reported that they had continued to use information in the workshop manual when making management decisions, while 42% specifically mentioned stocking rate decisions.

CONCLUSIONS

There is an increasing demand by graziers for timely seasonal climate outlook information to help them make better weather-related decisions, and to reduce risks to their operations. ‘Managing for Climate’ workshops have helped to facilitate profitable use of such information.

Unfortunately not all rural communities are able to access the Internet due to either prohibitive STD call rates or poor quality phone lines. However, The Long Paddock demonstrates what is possible, and lays the groundwork for an expanded information system which we plan to develop in conjunction with other rural agencies and agribusiness. As the telecommunications infrastructure is upgraded, our well-established system will be capable of meeting the needs of rural communities.