



## Grazing distribution and management in northern Australia

### The Issue

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A major challenge confronting managers of extensive cattle properties is uneven use of the landscape by cattle. This can be one of the main contributors to rangeland degradation and reduced livestock production. This is because cattle preferentially graze only certain parts of large paddocks which are then subject to overgrazing.

If managers could achieve more even use of the landscape there might be benefits to both animal production and range condition. Reducing paddock size with additional fencing, or increasing the number of watering points are two ways of potentially improving grazing distribution. However, before pastoralists invest large sums of money in this sort of infrastructure they need to know: 1) is more even grazing actually beneficial to livestock production and the environment?; 2) do the benefits outweigh the costs?; and 3) if there are benefits, what is the most efficient and cost-effective way of achieving more even grazing?

### CSIRO Research

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In early 2003, in collaboration with several industry and government partners, CSIRO began work on a project to improve our understanding of how cattle use the landscape in commercial-scale paddocks in the semi-arid tropical savannas of northern Australia. We are also looking at the ecological and economic consequences of different approaches to managing grazing distribution. The aim is to develop guidelines relating to grazing management, paddock size and design and water distribution to provide options to improve economic performance whilst maintaining range condition and minimising biodiversity impacts. The study is being conducted on a Heytesbury Beef property in the Victoria River Downs district of the Northern Territory.

Two questions we hope to answer are:

- Do larger paddocks that contain diverse landscapes and have good water distribution have advantages over small paddocks through improved animal performance?
- Does increasing the number of water points in a paddock result in more even grazing as effectively as reducing paddock size, or do animals favour particular water points with negative consequences for animal performance and range condition?

Studies to identify optimum pasture utilisation levels, the potential benefits of several alternative grazing systems (e.g. wet season spelling), and the implications for biodiversity values also form part of the study.

#### Research Staff

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#### Collaborators

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