

5 Conclusions

Background

This report provides a co-ordinated definition of the main pasture communities, and the relationships of the local pasture units in these communities, in northern Australia. It has linked estimates of production capabilities and condition to this structure.

We recognise the complexity of the northern Australian pastoral production scene; there is a wide range of problems, risks and issues affecting long-term productivity and resource sustainability. Some problems and risks are general to the whole region, others may be very important to a specific sub-region. Issues include: biological and physical constraints affecting the industry as a whole; the differential distribution of resource endowments; inherent production capabilities and livestock demographics; social, political and economic considerations; and, above all, the custodianship of one of Australia's most valued resources—the land.

Cause for concern

We consider there is cause for concern over the deterioration of the pasture resources in much of northern Australia, particularly in the more resource-rich state of Queensland.

Although this deterioration has not yet led to widespread serious degradation, a sound understanding of the causes needs to be developed so that the trend can be reversed while there is still time.

Usually there is no single cause, but persistently high stocking rates are clearly implicated and they show no clear signs of falling. Deterioration is due partly to the alarming spread of weeds, particularly the woody species, in Queensland over the last 10 years. The deterioration may be associated with the widespread change in cattle breed, supplementary feeding strategies, and with the occurrence of droughts. Each cause illustrates the need for a deeper understanding of its interactive effects on the use and sustainability of the resource base.

It will not be easy to address the needs of this complex system in terms of research and development. There are many parties, not all of whom have the same interests and therefore the same research and development

objectives—indeed some may be competing for the same resources. However, the sum of these interests, if properly rationalised, should benefit all who have an interest in the sustainability of Australia's land resources.

Role of the Meat Research Corporation

The Meat Research Corporation is central to the interests of the pastoral land users; the pasture users are the largest on an area basis, but second to mining on the basis of value of output from primary resources, and third to mining and tourism on the basis of Gross Domestic Product.

The Corporation's role, by tailoring the nature and degree of its sponsorship for research and development, will be to address the complex problems of the pastoral industry in terms of sustainable production, benefit and economics.

The Corporation must also be aware of all the potentially relevant research being done for a wider range of users of the resource, and know how its own sponsored research complements this. All users of the resource must be aware of the efficiency with which the overall research budget is being applied for the benefit of the resources as a whole.

At a more specific level, the Corporation should be able to evaluate projects on an overall strategic basis, as well as on individual merit. This should enable key issues to be addressed on a broader basis, and draw on the human, technical, institutional, site and regional resources in a more integrated way.

Linking research over both the vertical (technological) and horizontal (environmental) gradients would lead to more efficient use of these resources. When relatively inexpensive regional research is linked with the more sophisticated research carried out at major research establishments, it can be a valuable aid to understanding the breadth of the problem, as well as providing a base to interpret and compare results.

Other aspects that need to be developed are the linkages between research at the national and regional level, and on-farm application. On-property research should complement on-station research, particularly with the active participation of the property

manager.

The development of property planning could be a powerful means of framing these interactions, but it may need new research approaches at the scale of paddock and property. This would provide invaluable feedback from the producer to the researcher and extension officer; it would also open a door to a great deal of property-based production information that is needed to interpret the existing and anticipated research information.

Priorities for funding research lie in several areas. The ranking of problems is an important first consideration, but research funding needs to be rationalised over the whole field of vertical and horizontal research perspectives, and from large to small in areas of application.

There is no point in pursuing research in

isolation; the linkages must be clear between research and its application to development and eventual use at the property or landscape level.

There should be open discussion between the sponsor, researcher, extension officer and end-user, with adequate feedback to ensure that the right things are being funded and researched by the right people and organisations for the right reasons.

Just as the Meat Research Corporation should be able to call for particular areas of research when it perceives gaps in the research dossier with which it is presented for funding, so too should the end-users be heard, along with informed society's perceptions as to the relevance of the research. This requires channels, such as the Landcare movement and graziers' Land Management Associations, to help bring forward credible comment.