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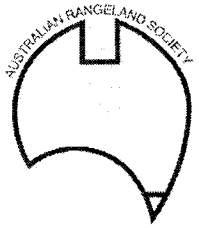

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STRATEGIC WEED CONTROL - THE QUEENSLAND INITIATIVE

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ABSTRACT

*Exotic weeds are one of the greatest threats to the sustainable land use of northern Australian rangelands. In Queensland, particularly, weeds such as mesquite, prickly acacia and rubber vine already infest millions of hectares and will continue to spread if left uncontrolled. To curtail the spread of serious weeds such as these, the Queensland Department of Natural Resources has initiated the Strategic Weed Eradication and Education Program (SWEEP). This program is already beginning to experience success through the dramatic reduction of mesquite (*Prosopis pallida*) infestations in north-western Queensland.*

INTRODUCTION

Weeds cost the Queensland economy over $500 million each year. The impact of weeds is great not only on land managers and rural communities but also on the natural environment. In response, many land managers have increased the level of control over recent years, but the results have been piecemeal. However, to complement and accelerate control on a strategic basis the Queensland Department of Natural Resources has initiated the Strategic Weed Eradication and Education Program (SWEEP). By the strategic control of priority weeds the department hopes to reverse weed invasion and, if practical, eradicate priority weeds from catchments or regions, or even possibly the State.

EVOLUTION OF THE SWEEP INITIATIVE

In 1992 the Department of Lands (now incorporated into the Department of Natural Resources) commenced its 'strategic' weed initiative. This was highly successful in controlling specific weed infestations throughout the State but lacked the magnitude to undertake major control activities at a catchment or regional level. Bolstered by this success, the department initiated a 'critical' weed initiative in 1995. Both of these programs have now been combined into the current SWEEP initiative to maximise the effective use of resources.

SWEEP AIMS

SWEEP is now a $2.4 million initiative with the aims of:

- Carrying out major strategic control work;
- Improving biological control methods;
- Developing best practice management options;
- Increasing communication between researchers, land managers and community groups.

It is a practical 'in the field' weed control program that focuses on strategically important weeds and areas that present the greatest threat to Queensland.

MESQUITE (*PROSOPIS PALLIDA*) - A SWEEP CASE STUDY

Mesquite as a Weed

Mesquite is a thorny tree that grows to 15 metres. It has a tendency to form dense thickets which out-compete native vegetation, interfere with mustering, injure livestock and damage property vehicles. Mesquite's favoured habitat is semi-arid to arid rangelands prone to flooding (Jeffrey and March 1995).

At present the majority of mesquite infestations are confined to localities associated with the original introduction of the weed. The bulk of these infestations occur in north-west Queensland, with several thousand hectares at Cloncurry, Hughenden, Karumba and Burketown. A large infestation of a hybrid *Prosopis* species also occurs at McKinlay.

Experience from *Prosopis* invasion in southern USA reveals that the Queensland level of infestation is still in its infancy. Given favourable rainfall, episodes of mass invasion are quite likely to occur.

The SWEEP Response

Control success has already been achieved at Camooweal, in close proximity to the Northern Territory border, in 1993. In this case an infestation threatened to spread across the border and down the Georgina River in the upper Lake Eyre Catchment.

The characteristics of the remaining mesquite infestations have made them very suitable for targeting under SWEEP. The department's Land Protection Officers have now initiated control action at most of the remaining major infestations in north west Queensland. This has required significant cooperation and input from a range of stakeholders, including local government authorities, landcare groups, land managers and town residents.

Results

The use of best practice management and integrated control has provided effective control to date. It is anticipated that the bulk of the major infestations will have been treated within the next three years. While it is envisaged that a high level of follow-up will be required, the threat of this weed will have been greatly diminished.

DISCUSSION

With the assistance of many stakeholders, the Department of Natural Resources is making notable achievements in combating weeds in Queensland through SWEEP. Significant control activity has currently focused on mesquite, as described above, as well as prickly acacia and rubber vine. However, a host of other serious weeds have also been the subject of control activity.

While the extent of some weeds precludes eradication from the State, strategic control is largely preventing any further increases in their extent. However, eradication is certainly occurring at a local, catchment and regional basis for a number of weeds.

While the task is often immense, SWEEP has the catchphrase 'If we never start, we'll never finish'. By starting now, we are safeguarding extensive areas of the rangelands for many years to come.

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