



STRATEGIC MANAGEMENT OF NEEM ON THE WICKHAM RIVER

Introduction

Neem (*Azadirachta indica*) is an invasive species which poses a significant threat to both land productivity values and biodiversity. The weed is spreading through northern Australia, particularly along riparian corridors and adjacent savannah lands.

This project contributes to the permanent eradication of Neem from a heavily infested section of the Wickham River. In all, the project was designed to strategically manage Neem across 4,000ha of riparian habitat and associated flats.

“Neem tree control on Victoria River Downs is a long term goal for Heytesbury. The Territory NRM grant allowed us to intensify our control work, use local indigenous labour and ultimately fast track what is a very big job.”

Rhys Arnott, Rangelands Manager
Heytesbury Cattle Company



Background & Motivation

Since Neem was declared as a weed in the Northern Territory in 2014 concerted efforts have taken place across the Katherine region to manage it. Neem has the ability to rapidly create thick, near impenetrable monocultures, which severely reduce biodiversity and encroach on valuable grazing country. Owing to the spread and density of Neem along the Wickham River, Heytesbury Cattle Company has identified its control as a key issue. Neem infestations have displaced the River Cane Grass (*Chionachne cyathopoda*), which was once abundant along this section of the river.

This River Cane Grass helps to stabilize the river bank and also serves as a key habitat for the vulnerable Purple Crowned Fairy Wren (*Malurus coronatus*).

The Victoria River District has been active in strategically managing weeds across multiple land tenures. In keeping with this tradition, Heytesbury Cattle Company has conducted this project with involvement of the NT Government Weed Management Branch, Indigenous rangers, and the Victoria River District Conservation Association.

PROJECT HIGHLIGHTS

2,000 ha strategic on ground neem control using foliar, basal bark and stem injection

2,000 ha aerial control using Graslan away from riparian zone

4 Indigenous rangers employed for **1** week

High levels of involvement from station staff with up to **7** working on ground at a time

200 ha of near monoculture thicket treated

Victoria River
Downs Station
2824 km²

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Activities

The project has contributed to a longer-term goal of eradicating Neem from the Victoria River District. It has worked with key stakeholders to strategically tackle the significant populations of Neem established in the Wickham river riparian zone. Project activities have included applying new technology for the point application of granular herbicide from the air. This system is particularly useful for controlling scattered, outlying plants.



Outcomes

The project has seen a marked reduction in the density of Neem within the area. Aerial surveys clearly indicate that the strategic nature of the control methods used and the high level of involvement from Heytesbury Cattle Company has been effective. Riparian habitat has also improved as a result of this project. The project has demonstrated what can be achieved through stakeholder partnerships in strategic management.

Importantly, the project has paved the way for longer-term, broad scale management of Neem. It has highlighted the significance of tailoring management techniques to the particular area being treated. This method has proven to deliver the most cost-effective and successful environmental outcomes.

The invasive and competitive nature of Neem is demonstrated in that although this area has been largely excluded from grazing, no river cane grass was noted along the 4km stretch of river surveyed.

The Future

Projects of this nature will always require more than one-year commitments. While some populations of Neem remain along the Wickham, it is hoped that continuing partnerships and stakeholder collaborations in management can help reduce these. Heytesbury is committed to the long-term management of Neem along a large stretch of the Wickham River.

However, because the project has been able to achieve considerable reductions of Neem, the banks of the Wickham River may once again become home to significant populations of species that contribute to biodiversity, such as River Cane Grass.



Acknowledgements

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- Weed Management Branch,
- Timber Creek Aboriginal Rangers
- Victoria River District Conservation Association

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FURTHER INFORMATION

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