

## General NRM information: **Tropical Savannas NRM Websites**

### **The Tropical Savannas CRC and its partners have recently developed a range of innovative websites to support sustainable National Resource Management (NRM) in north Australia.**

Web access is increasing across the region and the internet helps overcome the isolation experienced by many northern communities.

These websites partly funded by the Natural Heritage Trust, share the same database and resources, but are tailored to meet the needs of different users. They are also designed to be easily maintained by user groups into the future. The more established North Australian Fire Information (NAFI) website already has an important day-to-day role in the management of north Australian bushfires.

More details on these sites are given in the relevant user sections in this guide.

### **North Australian Land Manager Website [www.landmanager.org.au](http://www.landmanager.org.au)**



This innovative website is a comprehensive “clearing house” of practical information on NRM in the tropical savannas. The site links to a wide range of information in fact sheets, reports, books, journals and NRM websites. Information is grouped under particular regions.



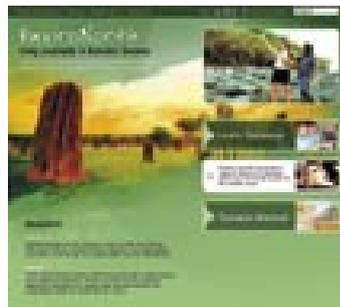
### **Savanna Explorer Website [www.savanna.org.au](http://www.savanna.org.au)**



Brings Australia’s remarkable tropical savannas to life with stunning images and easy to read information on plants and animals and land management issues such as sustainable industries, fire, weeds, water, vegetation and climate.



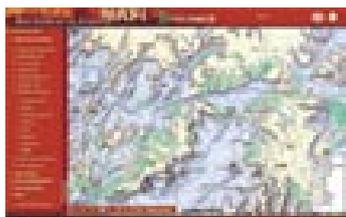
### **Environorth Website [www.environorth.org.au](http://www.environorth.org.au)**



A resource-rich website for teachers and students with a comprehensive range of educational resources on north Australian environments and landscapes suited for upper primary and lower secondary students.



### **NAFI Website [www.firenorth.org.au](http://www.firenorth.org.au)**



This established website maps bushfire behaviour across northern Australian using data from satellites. Fire managers can track the progress of current fires in close-to-real-time and can see maps of burnt country updated weekly. This website is transforming bushfire management across north Australia.



### **Dynamic Savannas Website [www.dynasav.org.au](http://www.dynasav.org.au)**



This website is an “intelligent map” that is a one-stop-shop for people interested in vegetation change in Australia’s tropical savannas. Maps can be used to interrogate a comprehensive set of vegetation change data and other information resources.



The Tropical Savannas CRC website also has links to the website of the North Australian Indigenous Land and Sea Management alliance: [www.nailsma.org.au](http://www.nailsma.org.au) which features information on Indigenous land management issues across northern Australia.

Much of the practical land management information gathered by the Tropical Savannas CRC and its partners is available as information sheets downloadable from the CRC website. These sheets are listed below.

## Introduction to the Tropical Savannas

- Australia's tropical savannas (48 kb)
- Living with fire in the tropical savannas (106 kb)
- Weeds in the tropical savannas (53 kb)

## Weeds in the Savannas

### Mimosa in the NT

- Native grass species for revegetation (61 kb)
- How to attack mimosa on a grand scale (72 kb)

### Weeds in the Burdekin Rangelands: General Issues

- An Overview (57 kb)
- Impacts (25 kb)
- Invasion processes (132 kb)
- Lifecycles (53 kb)
- Disturbance (51 kb)
- Principles of weed management (94 kb)

### Weeds in the Burdekin Rangelands: Management

- Prickly acacia, mesquite and chinee apple (25kb)
- Castor oil plant and bellyache bush (19kb)
- Hymenachne (19 kb)
- Lantana (20 kb)
- Parkinsonia (22 kb)
- Giant rat's tail grass (22 kb)
- Parthenium (23 kb)
- Rubber vine (24 kb)

### Managing rubber vine

- An experience-based approach to managing rubber vine (38 kb)
- Developing a rubber vine management plan (56 kb)

## Biograze

Biograze: managing watering points and wildlife (968 kb)

*Biograze is a collaborative project by staff from CSIRO Sustainable Ecosystems, the Pastoral Board of South Australia, South Australian Department for Environment and Heritage, the Parks and Wildlife Commission of the Northern Territory, and land managers in the rangelands. The project was jointly funded by these research agencies and the Land and Water Resources Research and Development Corporation.*

**Fire management at Ban Ban Springs, NT**  
 Tom Hart, Manager, Ban Ban Springs pastoral property, Northern Territory

Fire management is an integral part of the overall station management in Northern Territory pastoral rangelands. Land managers have long recognised the need to get the fire regimes right and are finding it increasingly difficult to do so as the complexity of issues surrounding fire often increases. Ban Ban Springs reveals one way these complexities are dealt with in a practical manner.

**B**an Ban Springs is an NT pastoral property covering 1.6 million hectares. It is a typical large station property of the Northern Territory, with a herd of 1,200 beef cattle. The fire management strategy is based on the principle of maintaining the property in a state of low fuel loads to reduce the risk of catastrophic fires. The professional fire management strategy is based on the principle of maintaining the property in a state of low fuel loads to reduce the risk of catastrophic fires. The professional fire management strategy is based on the principle of maintaining the property in a state of low fuel loads to reduce the risk of catastrophic fires.

**Fire management regime**  
 The fire management regime at Ban Ban Springs has evolved over the years to meet the needs of the property. It is based on the principle of maintaining the property in a state of low fuel loads to reduce the risk of catastrophic fires. The professional fire management strategy is based on the principle of maintaining the property in a state of low fuel loads to reduce the risk of catastrophic fires.

**Fire management case study**

## Managing fire in the Savannas

### Arnhem Land

- Indigenous fire practice in western Arnhem Land: Lessons for today (53 kb)
- Traditional and non-traditional viewpoints: Arnhem Land fire stories (61 kb)

### Kimberley fire case studies

- Aerial burning in the north-east Kimberley (20 kb)
- Burning black soil grasses to protect productive country (20 kb)

### Queensland fire case studies

- Fire as a management tool in the semi-arid tropics (27 kb)

### Northern Territory fire case studies

- Fire management at Ban Ban Springs (58 kb)
- Fire management on Elsey Station (23 kb)
- Fire management on Mataranka Station (57 kb)
- Sacrificial burns protect critical country (46 kb)
- Fire helps protect grazing country (21 kb)
- The 'how-to' of firebreaks and aerial burns (86 kb)

## Weeds of the Burdekin Rangelands: Managing Intina

Tony Erics, CSIRO Sustainable Systems, Townsville

**Table 1. Preventing new weeds from establishing**  
Summary of key processes: what do we know?

What are the key weed prevention processes and of what scale is this control?	What factors impede them, in other words, what are they managed?	Do we have enough data to tell us how well? Do they vary with conditions or over seasons?
<b>Seed production</b>	Biological control agents, 20 birds released in Australia, coming from a source known to have relatively low production and females that have difficulty to fully reflectivity of agents (control) managed. Soil moisture and temperature—determines the timing of flowering and fruiting, these processes cannot be managed.	Impact of biological agents is variable and that not been quantified precisely independent of the weed.
<b>Dispersal</b>	Birds—the major dispersal agents, the process cannot be managed. Vegetative growth—plants can spread by rooting from prostrate stems, process cannot be managed.	It is thought that seed falls are limited only short distances but a program may be implemented in 2 km.
<b>Establishment</b>	Ingestion and passage through food digestive tract—the dispersal path, factors (amount, process) cannot be managed.	
<b>Weed survival</b>	Drugs—may kill some germs, cannot be managed. Biological agents, some of them are biological agents probably reduce plant vigor, cannot be managed. Competition—resources, herbivores, etc. may reduce establishment success. Fire—will reduce biomass of Intina, and promote reduction of competitive species, cannot be managed.	Effects of biological agents are highly variable depending on the degree of establishment, climate, resources. The response of the birds has not been quantified. Little quantitative data on the effects of fire.

Managing Intina

## Native grass species for revegetation

Tony Beards, Manager, Melaleuca Station, Mary River District, Northern Territory  
Richard Fox, Tropical Savannas CRC, Northern Territory University, Darwin

Native grass is being used to revegetate successfully cleared areas of rangeland open on Melaleuca Station in the Northern Territory. The weed's elimination was the result of control program run over the past five to six years, and provides valuable insight into lacking large and small herbivores of rangeland. Further investigation into the viability and effectiveness of native grass revegetation is now the subject of a National Heritage Trust trial at the station.

**History of the melaleuca invasion**

In the early 1970s melaleuca was introduced to the property. It was only used for firewood and not for other uses. In 1975, the melaleuca invasion was reported to the Department of Primary Industries and Northern Territory. The melaleuca was not controlled at the time. The property changed hands and a native grass revegetation program was initiated. The program was run by the Northern Territory Department of Primary Industries and Northern Territory. The program was run by the Northern Territory Department of Primary Industries and Northern Territory. The program was run by the Northern Territory Department of Primary Industries and Northern Territory.

**The decision to act**

In 1994, a native grass revegetation program was initiated. The program was run by the Northern Territory Department of Primary Industries and Northern Territory. The program was run by the Northern Territory Department of Primary Industries and Northern Territory. The program was run by the Northern Territory Department of Primary Industries and Northern Territory.

**Control program**

The aim of the control program is to:

- Eliminate the melaleuca from the property.
- Revegetate the property with native grass.
- Monitor the property to ensure the melaleuca does not re-establish.
- Monitor the property to ensure the native grass is established.

**Year 1**

In 1994, the first year of the control program, the melaleuca was eliminated from the property. The native grass was established on the property.

**Year 2**

The melaleuca was eliminated from the property. The native grass was established on the property.



Weeds in the tropical savannas

### Issues in savanna management

- New era for Aboriginal pastoralism (45 kb)
- Introduced grasses: poor master but useful servant? (71 kb)
- Savanna landscapes: defining health (47 kb)
- Landscape change in the savannas (475 kb)
- Managing rubber vine

### Prime Notes

All the Tropical Savannas CRC Information Sheets are also included on the Queensland Department of Primary Industries & Fisheries *Prime Notes* CD-ROM (at left). This CD-ROM has more than 5600 advisory fact sheets from a wide variety of Australian government and research agencies. The information concentrates on natural resource management and agricultural topics.

*Prime Notes* CD-ROM operates under Windows (tm) and Apple Macintosh operating systems. The CD costs \$27.50 (includes \$4.50 GST) plus \$6 within Australia for postage and handling from:

**DPI&F Publications**  
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