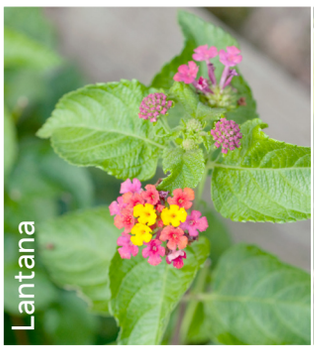
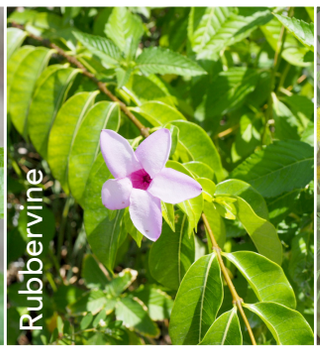
War on WEEDS

CASE STUDY:

Glenroc

One of six Producer Demonstration Sites in the BBB





NQ Dry Tropics partnered with Meat and Livestock Australia to develop a Producer Demonstration Site to accelerate the adoption of cooperative, integrated weed management in the BBB catchment.

Cooperative, integrated weed management in the BBB

Project timeframe: May 2020 — February 2023

This Producer Demonstration Site aimed to showcase a cooperative and integrated approach to identify best-practice management of the highest economic priority weeds in the Bowen, Broken and Bogie River catchments (BBB).

The integrated priority weed management group, centred around Collinsville and Bowen, conducted weed management trials on six grazing properties.

The group implemented a suite of options, including best-practice application of biological, mechanical, and chemical controls.

Priority weeds included lantana (*Lantana camara*), rubbervine (*Cryptostegia grandiflora*), prickly acacia (*Vachellia nilotica*), belly ache bush (*Jatropha gossypifolia*), and chinee apple (*Ziziphus mauritiana*).

The properties measured and compared relative costs of previous control and maintenance measures with the new practices; the areas of weeds treated and the comparative success rates for the new practices; and the number of new cooperative actions with neighbours and other land managers.

The Colls adopted a targeted approach to prioritise weed control along fences and firebreaks before burning.

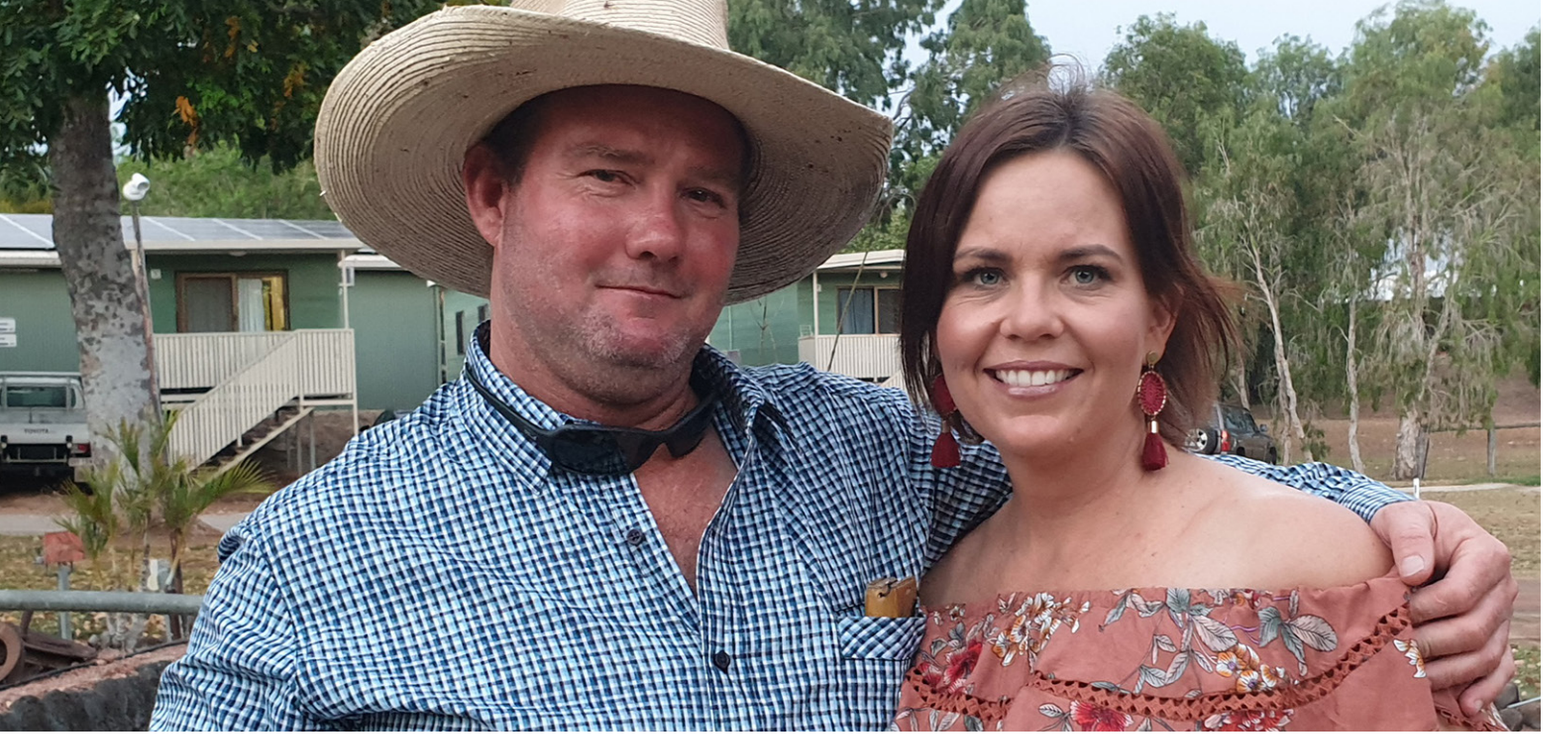
A series of field events and extension activities were held throughout the three-year project to showcase results.

The events attracted participants from grazing properties, local government, National Resource Management (NRM) groups, industry and the general community.

Producer Demonstration Site

mla MEAT & LIVESTOCK AUSTRALIA

NQ DRY TROPICS



Glenroc graziers, **CADE** and **CHRISOP COLLS**:

"NQ Dry Tropics' offer to be part of the MLA weeds group's war on weeds could not have come at a better time.

We had just started our weed management plan and it had become an overwhelming job.

We started small, treating fencelines and small infestations, but knew we had to do more.

As a result we have employed a worker two days a week, primarily for weed management.

We use a mix of clearing, foliage spraying and basal barking.

So far our war on weeds has proved labour-intensive and expensive but we find a great sense of accomplishment when we see how well a paddock responds after weeds have been eradicated."

PROJECT TRIALS

Historically, there has been limited weed management work undertaken across the property, so the trial work was valuable for future activity.

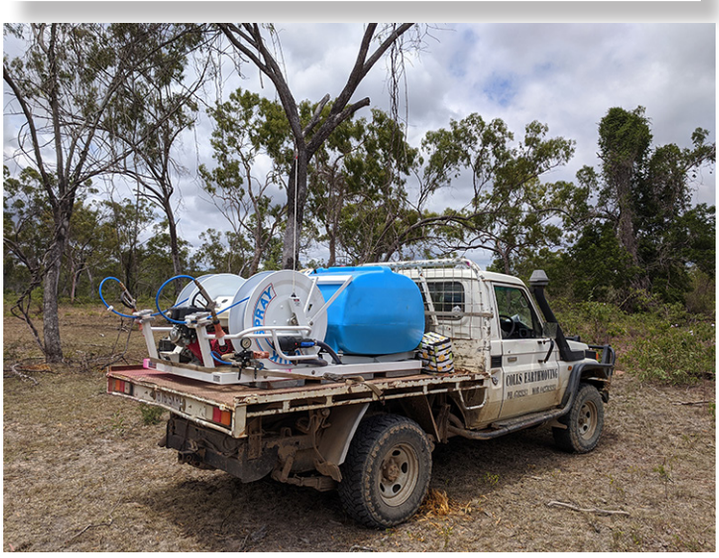
A few techniques were trialed, mainly targeting rubber vine and lantana.

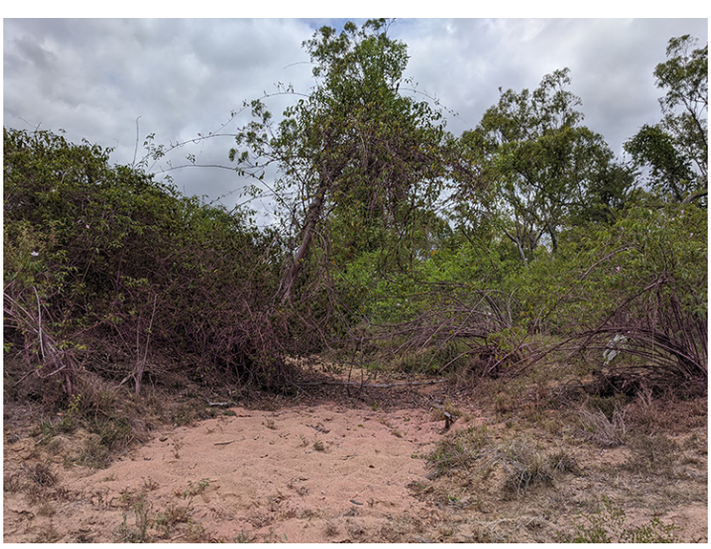
These included:

- Mechanical removal of dense rubber vine infestations using a dozer, predominately on heavier soils.
- Foliar spraying lantana and rubbervine using a QuikSpray slip on unit.
- Burning lantana and rubbervine, including treated areas.

MECHANICAL REMOVAL

Dense stands of lantana and rubbervine across 20ha were dozed using a D6, mainly on flat heavier





Extensive spraying across the property was necessary to combat choking rubbervine and chinee apple.

Trials, results, knowledge gained

soil country and around creek lines. This was pushed into piles and burnt.

There was considerable seedling recruitment in the disturbed soil and the regrowth will be sprayed.

As a result of the trial and observation of other rubber vine control work in the region, it was decided to purchase a Challenger plough, to fully develop the more productive soils.

Future management of the woody weeds on the heavier soils will involve ploughing with the Challenger and re-seeding with legumes and pasture grasses.

FOLIAR SPRAY

A twin reel, 600l QuikSpray unit was used for foliar spraying mature and regrowth lantana and rubber vine with metsulfuron.

Treatment was on regrowth following the dozer work, and on mature plants along tracks and fire breaks across 2800ha (the area targeted for burning).

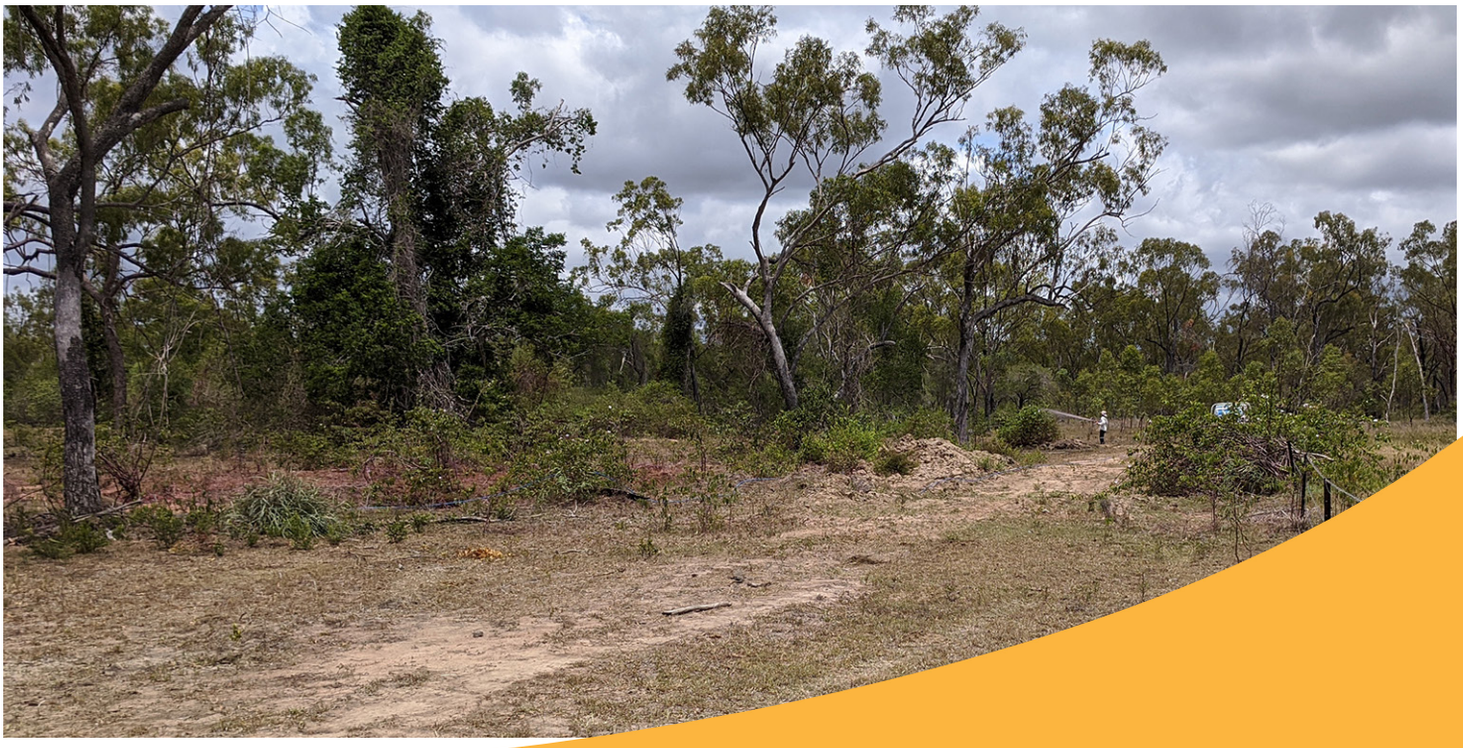
The initial treatment resulted in a high kill rate, although some reshooting and seedling recruitment occurred during the following wet season.

BURNING

Based on observations on other properties, the trial area was burnt during the following spring. However, this was not particularly successful as there was an insufficient fuel load to carry a hot fire.

KEY LEARNINGS

- Always check legislative obligations to see if the planned technique is authorised.
- Some regrowth occurred due to insufficient spray coverage and seedling recruitment in bare areas.
- Follow-up is critical after weeds are mechanically removed.
- Foliar spray plants when they are showing no signs of stress and have full leaf coverage and ensure full spray coverage of the plant.
- A splatter gun is a good additional treatment option for dense infestations, helping to reduce chemical costs.
- Grazing management will be modified to ensure a sufficient fuel load is available for a hot fire. Burning is considered a potentially cost-effective option, where an adequate hot fire can be carried.
- Using a drone to monitor the site encouraged investigations into that option to spray softer weeds, such as parthenium, on the property.



LDC helps communities to tackle landscape problems

Empowering communities in the Bowen and Collinsville region to manage healthy and productive landscapes has been a cornerstone of the Landholders Driving Change (LDC) project.

A grassroots design developed by locals, for local needs, provides the overarching framework and has been supported by a community-led co-governance model.

From the outset, landholders identified weed management as a barrier and challenge to improving land condition on their properties.

In the LDC landholder baseline survey, 47 per cent of landholders identified weeds as a barrier to improving land condition. One year later in June 2019, this increased to 67 per cent.

LDC submitted an application to Meat and Livestock Australia (MLA) in November 2019 to form an integrated catchment priority weed management cluster group.

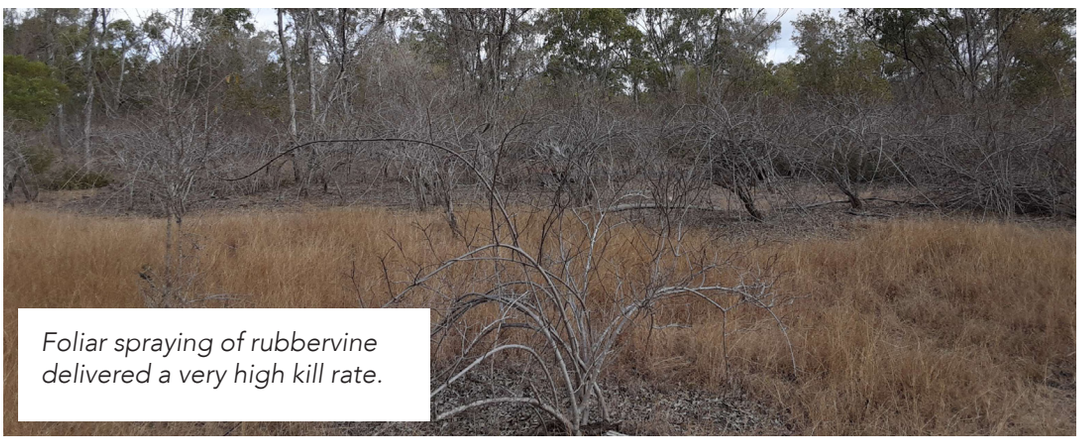
This was approved and the group started a three-year project through the LDC's BBB Grazier Support activity area.

LDC hosted nationally-accredited weed training workshops to:

- increase awareness of biosecurity and build capacity in the BBB catchment to effectively manage weeds;
- learn how to clean and inspect vehicles and machinery for plant materials;
- understand government legislation and requirements; and
- increase awareness of biosecurity threats and impacts on businesses.

Land managers, non-grazing land managers, local contractors and council representatives attended the workshops.

The Queensland Government funded the first phase of the LDC project, 2017-2021.



Foliar spraying of rubbervine delivered a very high kill rate.

NQ DRY TROPICS

The vision of the Sustainable Agriculture Program is resilient landscapes and productive enterprises, agricultural producers maximising outputs while minimising environmental impacts.

The Sustainable Agriculture Program aims to support and empower producers in the use of best management practices for natural resource management within the agricultural industries of the Burdekin Dry Tropics NRM Region.

FOR MORE INFORMATION

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Landholders Driving Change is a Burdekin Major Integrated Project funded by the Queensland Government through the Queensland Reef Water Quality Program.

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Queensland Government