

# War on WEEDS

CASE STUDY:

## Strathalbyn

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 Auscrimper sucker puller being demonstrated at an MLA PDS Weed Management Field Day.

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.



Strathalbyn grazier,  
**BRISTOW HUGHES:**

☛ *One of the toughest challenges facing producers is weed management.*

*There's no simple solution to weed control, we need an approach that combines integrated tactics, including mechanical, chemical and management practices.*

*It's about working smarter, not harder, because weeds will never be eradicated. Constant management is key.*

*Being part of the MLA Producer Demonstration Site group enabled us to demonstrate practices and technologies that worked well.* ☛

## PROJECT TRIALS

A number of techniques and pieces of equipment were trialed.

These included mechanical removal of dense bellyache bush, rubber vine and other woody weed infestations using:

- a Raptor Forestry mulcher;
- an Auscrimper sucker puller attached to a bobcat; and
- a dozer and Ellrott plough.

Intact and regrowth weed infestations were chemically treated using a custom-made boomless jet spray.

## RAPTOR FORESTRY MULCHER

- A 50ha trial area of dense bellyache bush was mulched with a Raptor Forestry mulcher and a forage sorghum based pasture mix was broadcast.
- A temporary "Kiwitech" electric fence contained 1000 breeders for five days to bale graze – 50 large hay bales were placed across the paddock to distribute dung,



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

# Trials, results, knowledge gained

urine, and the residual hay as a seed bed for the broadcast seed.

- After the wet season, there was limited weed recruitment where good stands of forage sorghum had established.
- Follow-up chemical sprays of germinated weeds have kept the trial site weed free.

## AUSCRIMPER SUCKER PULLER

The sucker puller was a very effective tool for treating scattered clumps and individual woody weed infestations.

About 500ha was treated using an experienced operator, with a 99 per cent kill.

The tool was modified, given the rugged conditions, with the manufacturer adopting the modifications.

## DOZER AND FRONT-MOUNTED ELLROTT PLOUGH

- Stick raking or ploughing with an Ellrott front-mounted blade plough was employed across 400ha of dense, mature rubber vine, chinee apple, bellyache bush, parkinsonia, lantana and creeping mimosa.
- The Ellrott blade plough was highly-successful on the heavier soils on flood-out plains with a very high kill of rubber vine.

- Treated areas were successfully re-seeded with a competitive and productive forage sorghum-based pasture mix.

## JET SPRAY

A 120ha trial area was sprayed using a custom-made boomless jet spray (30m swathe) with 7000l tank and trailer for foliar spraying with Metsulfuron Methyl and wetter and, as follow-up for the mechanical interventions.

Treatment was only carried out prior to 10am, as the winds increase and temperatures rise after this time.

## KEY LESSONS LEARNED

- Always check legislative obligations to see if the planned technique is authorised.
- The bale grazing trial was effective, but time consuming and costly.
- A good soil moisture profile is desirable when using the sucker puller.
- Blade ploughing requires a dry top 10cm and ploughing should not occur if rain is forecast within two days.
- When foliar treating rubber vine, 100 per cent coverage of the plant is required to maximise the kill rate.



*Strathalbyn grazier Bristow Hughes speaking about the MLA Weeds Trial at a field day.*

# 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.



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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*Participants at a Gee Dee Road field day inspect weed control work.*



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

