

Case Study: BRADSHAW

2015

Giant Rat's Tail (GRT) control demonstration site

TRIAL OVERVIEW

This demonstration site is an initiative of Reef Catchments and Pioneer Catchment Landcare to determine the most cost effective method of controlling Giant Rat's Tail (GRT) on a grazing property in the Mackay Whitsunday catchment.

The demonstration site shows five methods of GRT control in a configuration shown in Figure 1, these methods have been taken from the GRT control BMP and use methods that are currently available to graziers in the area. Three pasture mixes were chosen for their ability to suppress weed species and suitability for the sites location. They were broadcast running across all five treatment sites to allow for easy viewing of the best mix. The mixes are as follows:

Break Crop

Forage Sorghum 10kg/ha

Mix 1

Tully Humidocolie 3kg/ha
Bare Reclaimer Rhodes 4kg/ha
Cardillo centro 2 kg/ha

Mix 2

Signal Grass 5kg/ha
Bare Reclaimer Rhodes 4kg/ha
Cardillo Centro 2 kg/ha

Mix 3

Mekong Brizantha 4kg/ha
Bare Reclaimer Rhodes 4kg/ha
Cardillo Centro 2 kg/ha

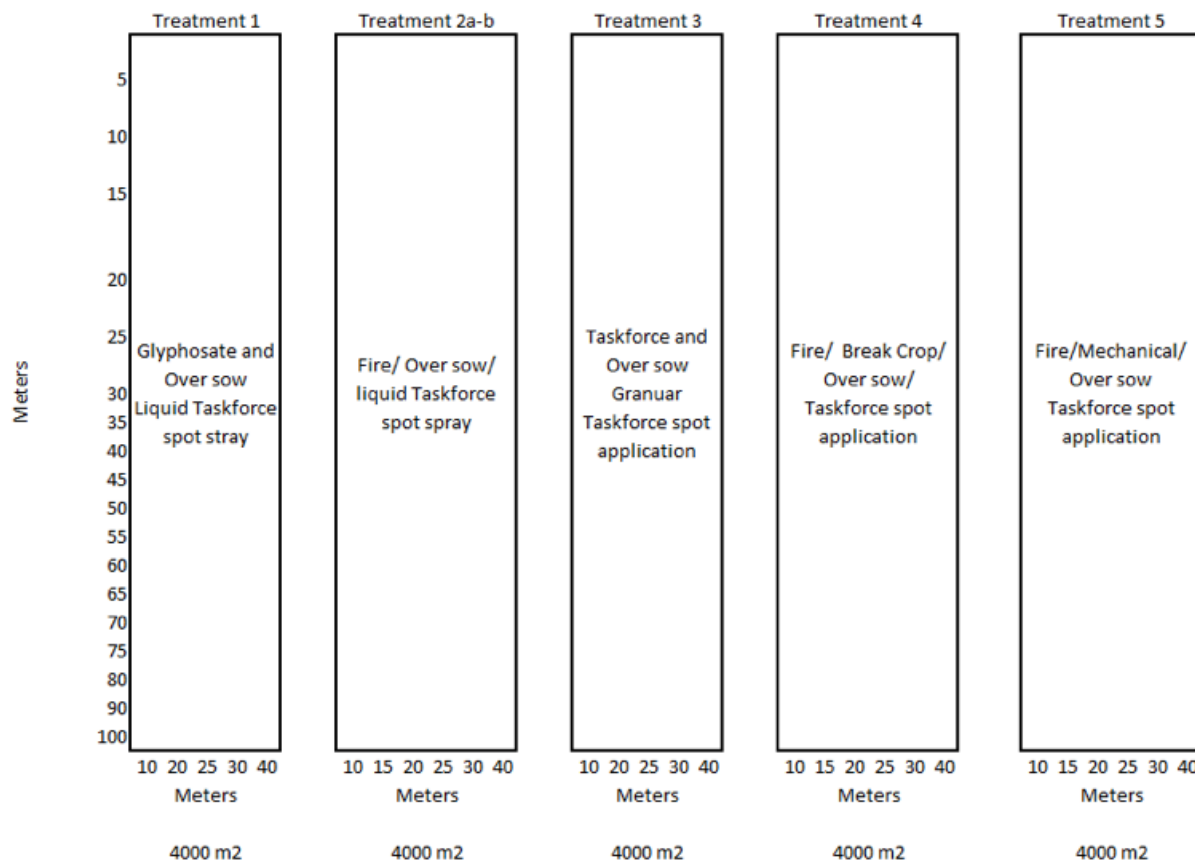


FIGURE 1:
Demonstration site layout

The site before the commencement of the demonstration was almost 100% GRT and had become unusable by the land holder **(Figure 2)**.



FIGURE 2:

Demonstration site before commencement of project.

Treatment 1 is a half hectare site that first controlled the GRT using Power Max® Glyphosate, it was quite affective at removing the GRT from the site allowing for an open surface for planting the pasture **(Figure 3)**.



FIGURE 3:

Treatment 1 three months after application of Power Max®.



FIGURE 4:

Treatment 2 after burning.

Treatment 2 is a Half hectare site were the site is first set on fire and the pasture is then sown into the ash bed, any spot spraying is being done using Taskforce® **(Figure 4)**.



FIGURE 5:

Showing control of GRT and subsequent Broad leaf weeds now taking over.

Treatment 3 is a half hectare site where the site was boom sprayed with Liquid Taskforce®, this is a selective herbicide to target GRT species. The site is showing good control of the GRT 5 months after application however broad leaf weed species are now taking over so a follow up broad leaf herbicide will need to be administered (**Figure 5**).



FIGURE 6:

Treatment 4 site after being worked by off-set disks. The ground had a light roller application after seeding.

Treatment 4 and 5 were sites that were first worked using off-set disks and seeded either with forage sorghum (treatment 4) or with the selected pasture species (treatment 5). The purpose of this treatment was to invert the soil to 300mm putting any viable seeds below possible germination depth (Figure 6). A fast growing break crop is then used on treatment 4 to out compete any other weeds that may emerge, this will then be ploughed in and the selected pasture species sown into the site.

The demonstration site is due to be completed in June 2016 at which point a detailed cost analysis will be conducted and the site opened up for field trips for farmers in the area to view and decide which is the best control option for their situation.

This trial is supported by Reef Catchments, through funding from the Queensland Government.

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