

# Coolatai Grass Management Program Year 3

## At "Reedy Creek", Emmaville

### Background

In 2010 and 2011 Coolatai grass management trials were conducted at Reedy Creek. The trials consisted of:-

- Managed heavy grazing of paddocks with severe infestations of Coolatai grass
- Applying glyphosate to all uneaten Coolatai and other coarse grasses using a swingwiper
- Broadcasting legume seed (lucerne, sub clover and arrowleaf clover) with fertilizer followed by light scarifying and harrowing
- Utilization of a pasture cropping program to reduce clover dominance in the spring and encourage native grass regeneration
- Continuing control of Coolatai by managed grazing and swingwiping
- Continuing Chilean needle grass control by strategic spot spraying

### The 2012 trial has been conducted to

- Continue management of Coolatai grass by managed grazing and swing wiping
- Continue pasture cropping to manage Coolatai grass and to encourage native pasture regeneration
- Test the effectiveness of gypsum as a soil ameliorant to improve soil structure and promote native grass regeneration
- Continue Chilean needle grass control by strategic spot spraying

### Outline of the Trial Sites

1. Tank paddock - pasture monitoring, heavy grazing, swingwiping, legume seed introduction in 2010 and follow up swingwiping in 2012/13
2. Bentonite paddock - heavy grazing, swingwiping and pasture cropping in 2012
3. Airstrip - heavy grazing and swingwiping in 2013.
4. Pump paddock - heavy grazing, swingwiping and legume seed introduction in 2011
5. All trial paddocks - half spread with gypsum at 628kg per ha in 2012
6. All trial paddocks - strategic spot spraying Chilean needle grass throughout

### Trial Results

1. Continued reduction in Coolatai grass (and other coarse grass) dominance
2. Diverse Native grass regeneration
3. Successful oats pasture cropping. This did lead to native grass regeneration. However as source of fodder this was a failure due to heavy infestations of marsupials and deer
4. Spot spraying of Chilean needle grass with glyphosate was only moderately successful. When used in the latter part of the trial flupropanate (task force/scuffle) was found to be more effective. A reduction in the needle grass population was noted in the spring of 2012. However this may have been due to the season.
5. No soil erosion occurred despite heavy rain. Significant soil erosion would have occurred if conventional ploughing and sowing methods had been used.
6. Improved pasture density resulting from managed grazing.
7. No visible change in pasture density as a result of gypsum application was noted. However the gypsum was broadcast and not worked into the soil.

Location - Tank Paddock



Start January 2010



October 2010



Tank paddock February 2013

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### Food For Thought

- The program - heavy grazing followed by swingwiping works. However over large acres it is time consuming; this program is best suited to productive country that has had its productive capacity reduced by coarse grass invasion.
- Managed high density grazing supported by supplements (mineral blocks) and the introduction of legumes may be the most cost effective way to manage coarse grasses.
- Managed grazing incorporating long pasture recovery periods promotes pasture diversity and density.
- Coarse grass control by management is the key and other management options should be explored.

### Outline of the Trial Sites

1. Pump paddock - heavy grazing, swingwiping and pasture cropping with oats and legumes
2. Bentonite paddock - heavy grazing followed by swingwiping during spring 2011 to reduce Coolatai dominance
3. Tank paddock - pasture monitoring and follow up swingwiping of Coolatai grass as necessary
4. All paddocks - spot spraying of needle grass during summer and late winter

### Where to from here?

A further trial is proposed to:

- Further control and manage Coolatai grass and promote native grasses by grazing management, swingwiping and pasture cropping
- Control Chilean needle grass by spot spraying
- Test and demonstrate the effectiveness of gypsum as a soil ameliorate to improve soil structure and promote native grasses



View from road, January 2010



Tank paddock, October 2010



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