Coolatai Grass Management Program Year 2

At "Reedy Creek", Emmaville

Background

In 2010 a Coolatai grass (*Hyparrhenia hirta*) management trial was conducted at Reedy Creek. The trial consisted of:

- Managed heavy grazing of a paddock with a severe infestation of Coolatai grass
- Applying glyphosate to all uneaten Coolatai and other coarse grasses using a swingwiper
- Destruction of rabbits and warrens.
- Broadcasting legume seed (lucerne, sub clover and arrow leaf clover) with fertilizer followed by very light scarifying and harrowing

Summary of the 2010 Trial Results

- All mature Coolatai grass and other coarse grasses killed
- No soil erosion despite heavy rain
- High legume germination - the paddock was unsafe for cattle grazing
- A diverse mix of native grasses was evident in late spring
- Chilean Needle Grass (*Nassella neesiana*) and St John's Wort (*Hypericum perforatum*) was evident in the pasture

2011 Trial

The 2011 trial has been conducted to:

- Monitor the pasture in the previous trial site
- Continue managed grazing and swing wiping for Coolatai control and native grass utilization
- Investigate methods of controlling Chilean Needle Grass by strategic spot spraying during the summer and during the late winter (when needle grass is readily identified)
- Utilize a pasture cropping program to reduce legume dominance in the spring and to encourage native grass regeneration
- Continue control of Coolatai grass by managed grazing and swingwiping

Location - Tank Paddock

Start January 2010

October 2010

November 2011

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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

View from road, January 2010

Trial Results

- Continued reduction in Coolatai grass dominance and regeneration of native grasses
- Successful oat pasture cropping leading to a reduction in legume dominance
- Spot spraying of Chilean Needle grass with glyphosate was only moderately successful, flupropanate has been used this spring. Because of the favourable seasonal conditions identification before flowering was very difficult
- No soil erosion occurred despite good rain. Significant erosion would have occurred if conventional ploughing and sowing methods had been used
- Improved pasture density resulting from managed grazing
- Due to the significant reduction in Coolatai grass density St Johns wort population increased necessitating a significant control response. However this was considered acceptable in view of the change in the pasture mix in favour of beneficial native grasses

Tank paddock, October 2010

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

Swingwiper and tractor

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