

SGSL TRIAL SITE SUMMARY #10



WEED CONTROL IN ESTABLISHED PUCCINELLIA Bunbury SGSL Producer Network Group, Upper South East, SA

Research Objectives

To control sea barley grass and curly ryegrass in an established stand of puccinellia.

To determine:

- The role of herbicides for spray-topping and pre-emergence in controlling weeds.
- The role of fertiliser.
- The role of grazing.

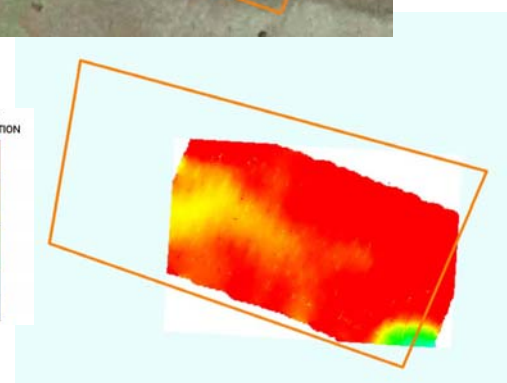
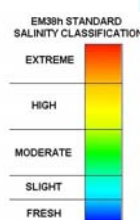


The Trial

- In an old puccinellia stand, spray-topping of weeds was performed in Nov 2003, using 8 chemicals at various rates (21 treatments in all).
- Observations were made post-spray in 2003.
- Normal grazing resumed.
- Treatments of 2 pre-emergent chemicals for toad rush and sea barley grass control were sprayed in Jun 2004.
- Effectiveness of the sprays were monitored in Nov 2004 and Nov 2005.
- Herbicide performance was based on pasture composition counts and visual assessments.

Results

- The most successful treatments to control sea barley grass and curly ryegrass were:
 - Sprayseed 250 ® [Paraquat 135g/L & Diquat 115 g/L] at 600mL/ha [cost \$6.06/ha], and
 - Gramoxone 250 ® or Nuquat 250 ® [Paraquat 250g/L] at 600mL/ha [cost \$4.83/ha], and *400mL/ha [cost \$3.22/ha].



Aerial photo & EM survey.

Fast Facts

Location:

Bunbury Road, 10km south of Mt Charles

Soil Type:

Sand over clay

Rainfall:

500 mm

Pasture Base:

Puccinellia

Landscape:

Saline flats in a jumbled sand dune system

Results (continued)

- *For Paraquat 250g/L there was a trade off between cost and herbicide performance (effectiveness & longevity of impact). ie. The higher dosage costed more but produced a slightly better result. However landholders may see adequate results from the cheaper application.
- Impacts from these treatments were still evident after 2 seasons.
- Previous work has identified that curly ryegrass can invade spaces left when spray-topping sea barley grass in existing Puccinellia. This highlights the importance of good sea barley grass control prior to pasture establishment.

- When establishing saltland pastures a spray-top in the pre-season and a knockdown kill at the break of the season prior to seeding should get on top of the sea barley grass population. Ensuring adequate phosphorus levels and periodic applications of nitrogen will also increase the competitive ability of the pasture sward against sea barley grass.
- Landholders should seek agronomic advice when trialling off-label rates.



Spraying the trial area with a 'Dosatron' mounted spray rig. Sprayed strips were 4m wide with 2m between spray treatments.



SGSL project officers inspecting the site one week post spraying. Sprayseed treatment plots are shown in the background.

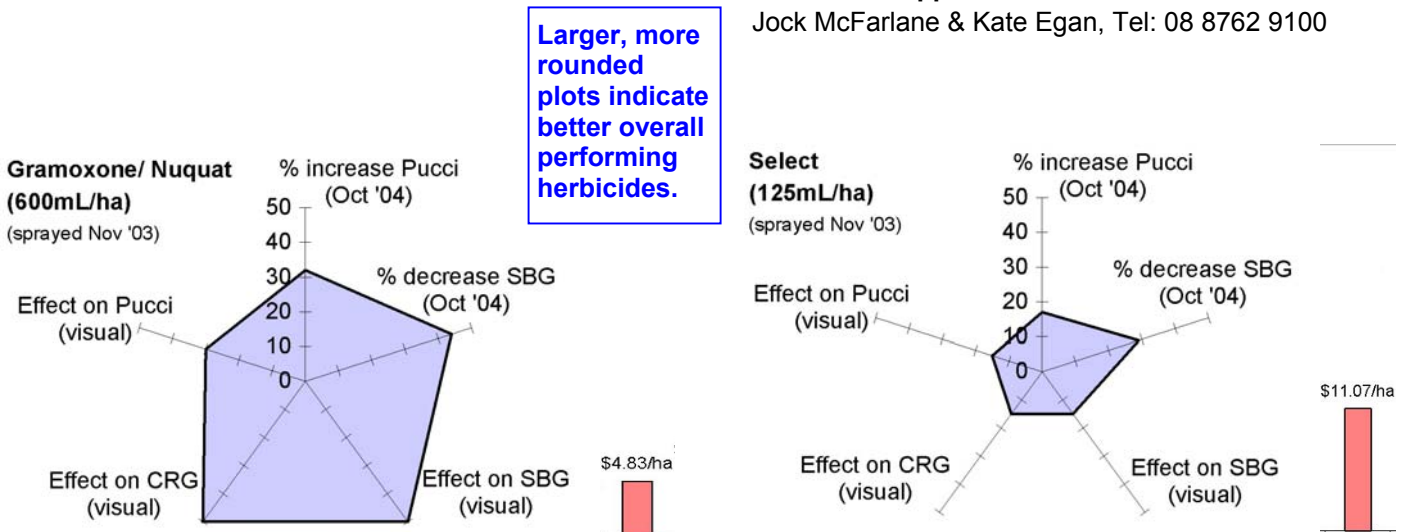
Want to know more?

Participating Host Farmers:

Gordon and Neville Stopp

Technical Support:

Jock McFarlane & Kate Egan, Tel: 08 8762 9100



Radar plots enabled a visual comparison of quantitative (pasture count) and qualitative (visual assessment) data for each herbicide. Cost was also an important factor.