

Alectown CWFS Site -Wheat Stripe Rust Control Demonstration

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Key Points

- An H45 crop affected by stripe rust was treated with Tilt. There was no significant difference between the yield of the sprayed and unsprayed sections.
- The crop was badly hit by frost and moisture stress in September and October.
- 2003 was not a typical year in the Parkes area, so the results from this demonstration should not be used until more work is carried out in more typical seasons.

Background

The stripe rust epidemic in 2003 resulted in the infection of a number of wheat crops of various varieties in the Parkes area. The decision to spray or not to spray was a difficult one given the timing of infection and the severe drought conditions experienced at the time.

Objectives

The aim of this demonstration was to determine if an economic result was seen after spraying of an H45 crop for stripe rust.

Methods

Location: Goobang Valley

Co-operator: Allan Forbes

Rainfall (2002):

Monthly Rainfall (mm)												TOTAL (mm)
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
33	99	17	26	25	49	40	75	4	39	26	18	451
Fallow Rainfall (Jan - April)												175
Growing Season Rainfall (May - Oct)												232

Trial Details:

2003: H45 sown with 100kg MAP

2002: Canola sown with 250kg Single superphosphate and 50kg MAP

The H45 crop was sprayed with Tilt at 250ml/ha with 70L water on the 20 September 2003. The crop was at ear emergence and the stripe rust was still in hotspots across the paddock (<5% infection level). Although on minimal

soil moisture, the crop looked like it could yield at 3t/ha or more and so the decision to spray was made. A section in the corner of the paddock was left untreated. Two 30m strips were harvested from the untreated and the treated areas.

Results and Discussion

Treatment	Yield (t/ha)
Unsprayed	1.65
Sprayed	1.59
lsd	0.49

There was no significant difference between the yield of the sprayed and unsprayed sections. This result indicates that there was an economic advantage to not spraying, in this trial.

The stripe rust damage tended to occur in patches across the paddock and within the sampled areas. The crop was badly hit by frost and moisture stress in September and October which resulted in

lower than estimated yields. These issues, which are seasonal effects, mean that the information from this trial is greatly affected by the season in 2003. 2003 was not a typical year in the Parkes area, so the results from this trial should not be used until more work is carried out in more typical seasons.

More work on this subject is expected to be carried out in 2004.

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