

8.2 TIMING OF FOLIAR FUNGICIDE APPLICATION FOR THE CONTROL OF FOLIAR DISEASES IN WHEAT

Location: Lake Bolac

Researchers:

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Growing Season Rainfall:

(April – Oct) 419mm

Background:

The outbreak of leaf rust in wheat in 1999 created a lot of interest in the potential use of fungicides to control this disease (and others). Success in the use of fungicides in the 1999 season was variable with many growers reporting no benefits. It was felt that timing of fungicide application would be critical as the economic benefits of using fungicides decreased as the season went on. It was decided that a trial was needed to investigate the yield differences obtained by applying fungicide at different crop growth stages.

Results:

The 2000 season was not conducive to the spread of leaf rust with the hot dry summer preventing the carry over of rust spores on volunteer cereals. Despite this, very low levels of infection were found in some crops very late in the season. These infections generally occurred after grain filling had commenced and did not affect yields.

This was also reflected in the trial where no significant differences were found between any of the treatments. Rust was not noticed at the trial site until very late in the season when it was observed on the lower leaves of some of the plots (those that had not been sprayed). At such a low level of infection it did not result in any yield depression.

More work is needed to determine the optimal time of fungicide application.

Aim:

To determine the optimal timing for the application of foliar fungicides for disease control in wheat.

Treatments:

Sown on the 18th of June with Kellelac wheat at 100 kg/ha. A commercially obtained and registered fungicide was applied to the appropriate plots at the recommended rates.

Treatments were:

- Nil fungicide
- Early spray (fungicide was applied when the first node was detected)
- Mid spray (fungicide applied as the flag leaf is just visible)
- Control Spray (fungicide applied as an early and mid spray)

In addition it had been planned to spray when the ear was half emerged but seasonal conditions prevented us from achieving the planned optimal timing.

<u>Treatment</u>	<u>Yield (T/ha)</u>
Nil Fungicide	3.87
Early Application	4.32
Mid Application	4.16
Control	4.08
Least Significant Difference	0.59 T/ha

Further Information:

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