

# Group B Efficacy on Ryegrass

The aim of this trial was to compare the efficacy of different group B herbicides.

## Summary

The use of Group B herbicides such as chlorsulfuron (Glean®) can help fight the battle against Group A resistant ryegrass. Although they have a different mode of action, Group A resistant ryegrass populations can rapidly become resistant to Group B herbicides.

This trial showed that when different products from Group B were applied to ryegrass of the same growth stage, varying results were observed. Glean offered marginal control when applied to tillering ryegrass, while Hussar® successfully controlled the same ryegrass population.

## Background

The onset of Group A herbicide resistant ryegrass has resulted in an increased reliance on products from the Group B family. In the past three years new Group B products have been released onto the market resulting in a wider range of products to use for ryegrass control. It is important to gain a good understanding of how the different products work in all scenarios so that the best possible ryegrass control is achieved in each situation.

## Methods and Results

|                          |               |
|--------------------------|---------------|
| Location:                | St Arnaud     |
| Replicates:              | 4             |
| Spraying date:           | 12/8/05       |
| Nozzle Type:             | XR 11002      |
| Pressure:                | 2 bar         |
| Water rate:              | 80L/ha        |
| Growth stage (ryegrass): | Mid tillering |

**Table 1:** Treatments, rates and damage scores 40 days after spraying.

| Treatment          | Chemical rate    | Timing         | Damage scores |
|--------------------|------------------|----------------|---------------|
| Glean + wetter     | 20g/ha + 0.1%    | Post emergence | 2.75          |
| Hussar + hasten    | 200g/ha + 1%     | Post emergence | 7.75          |
| Atlantis® + wetter | 330ml/ha + 0.25% | Post emergence | 5.25          |
| Atlantis + hasten  | 330ml/ha + 1%    | Post emergence | 5.25          |
| Control            | -                | -              | 1             |
|                    | LSD              |                | 0.87          |

EWRC phyto-toxicity scoring system: 1 = no symptoms, 3 slight damage effects, reversible, 5 = severe discoloration and stunting, 7 = heavy damage, some plants killed, 9 = complete loss of plants.

## Interpretation

This trial was sprayed onto a confirmed Group A resistant ryegrass population. Hussar was significantly better than any other treatment with acceptable control of ryegrass scoring 7.75.

There was no difference between the use of the two different adjuvants when applied with Atlantis. The combination of either Hasten with Atlantis or wetter with Atlantis, resulted in identical scores of 5.25.

The level of ryegrass control achieved with the Glean treatments was comparatively poor scoring only 2.75. This is most likely due to the advanced growth stage of the ryegrass at the time of application.

## Commercial Practice

There are limited options for controlling tillering ryegrass in wheat, this trial showed that 200g/ha Hussar can control ryegrass at this growth stage. The cost of this treatment is approximately \$36/ha which in some instances may not be viable. Each of the herbicides used in this trial have long term residual activity which needs to be considered. Cropping options after the use of these products can be restrictive, for example: the re-cropping interval for lentils is 21 months for Hussar.

If ryegrass is resistant to Group A herbicides on your farm, then Group B products should make up only a part of your herbicide resistance plan. Cross resistance can be rapid between Groups A and B. To ensure the longevity of this herbicide group use them strategically.

Herbicide resistance test in paddocks that have high ryegrass numbers to verify resistance status. There are different techniques available ranging from seed collection to spraying small strips.