Wheat fungicide experiment

WRITTEN BY

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Location: Balldale

Growing season rainfall:

Annual: 355mm (avg 504mm)
GSR: 135mm (avg 319mm)
Stored moisture: 72mm

Soil:

Type: Red chromosol pH (CaCl₂): 5.1 Colwell P: 82mg/kg Deep soil N: 73kg/ha

Sowing information:

Sowing date: 23 May 2008 **Fertiliser:** 90kg/ha MAP

Variety: Ventura

Row spacing: 18cm

Paddock history:

2007 — wheat **2006** — canola

Plot size: 1.5 x 16m

Replicates: 3

KEY POINTS

- Fertiliser dressings gave responses in wheat during 2008.
- There were no responses to in-crop fungicides.
- During the four years of the experiment, the best fungicide treatments have been the seed and fertiliser treatments and the in-crop fungicide sprays at growth stage Z39 (flag leaf emergence).

Aim

To assess different fungicide timing and dressings for stripe rust control on the yield of a number of wheat varieties.

Method

A replicated experiment was established comparing different fungicides and seed or fertiliser dressings for their ability to control stripe rust on a number of wheat varieties.

Results

See Table 1.

Observations and comments

There was no difference between in-crop fungicide treatments during 2008.

All fertiliser treatments gave significant responses when compared with in-crop fungicides, probably due to root disease (take-all) present at the site.

There was no significant yield difference between the fertiliser treatments.

Protein levels were high in all treatments and screenings were low.

Over the full term of the experiment fertiliser and seed treatments gave about 10-15% higher yields than in-crop treatments and Triademefon gave equal responses to the other in-crop fungicides (Opus, Tilt and Folicur).

Higher rates of Impact did not produce significantly better yields during 2008 or previous years.

Triad fertiliser dressing gave the best gross margin during 2008 but was behind Impact in yield during the full trial period.

Sponsors

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TABLE 1 Summary of 2008 grain yield and gross margin and 2005-2008 average yields

Treatment description	Yield (t/ha)	Protein ¹ (%)	Retention ¹ (%)	Gross Margin (\$/ha)	Yield 2005-2008 ² (%)
Z30	1.2	14	1.4	83	88
Z30+Z39	1.1	14	1.7	57	98
Z39	1.2	15	1.6	88	100
Z45	1.1	15	1.9	52	69
Z39+Z45	1.3	15	2.1	92	103
Z30+Z39 Opus	1.1	15	1.8	37	100
Z30+Z39 Tilt	1.2	14	1.7	65	104
Z30 Opus	1.2	14	2.5	67	92
Z30+Z39 Folicur	1.3	14	2.7	102	105
Impact	1.7	13	1.9	187	115
Impact + Z30	1.6	12	1.7	175	115
Impact + Z39	1.6	13	1.6	157	114
Impact 1.5*	1.6	13	2.3	175	112
Triad**	1.7	13	2.6	215	110
Jockey***					110
LSD	0.3				
CV	9.7%				

^{*} Impact 1.5 (2006-2008 only), ** Triad as four farmers Triad powder at 200g/ha, *** Jockey (2005-2007 only). 1. Rep 1 only. 2. Average yield from 2005-2008 as a % of Z 39 fungicide application (average yield was 2.2t/ha during life of trial), Z — Zadoc Growth Stage when the fungicide was applied. In-crop fungicide (where not stated) — Triademefon. Opus applied at 250ml/ha, Tilt at 250ml/ha, Folicur at 145ml/ha and Impact at 400ml/ha. Variety — Ventura.







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