

Wheat fungicide experiment

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Key messages:

- Seed and fertiliser dressings and in-crop fungicides gave responses in wheat that were inconsistent.
- Stripe rust resistant varieties gave less response.
- Generally the best response came from spraying at full tillering (Z31).

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 varieties.

Results:

Table 6: Summary of 2007 dry matter, grain yield, gross margin return and long term yield

Treatment Description	Dry Matter (t/ha)	Yield (t/ha)	GM (\$/ha)	Yield ² (2005/7) % of Triadimefon (Z31+Z39) yield
Nil	4.2	1.1	234	68
Z31 ¹	4.5	1.6	398	96
Z31+Z39 ¹	4.7	1.5	385	100
Z39 ¹	4.6	1.5	381	81
Z45 ¹	4.3	1.2	270	93
Opus Z31	4.5	1.5	374	95
Opus Z31+Z39	4.3	1.4	304	119
Opus Z39		1.4	327	92
Opus Z45		1.4	322	79
Folicur Z31	4.1	1.4	319	119
Folicur Z31+Z39		1.4	306	96
Tilt Z31	4.8	1.5	382	108
Tilt Z31+Z39		1.4	333	89
Tilt Z39		1.5	386	88
Jockey Nil	4.3	1.5	365	80
Jockey Z31	4.4	1.6	389	83
Jockey Z31+Z39		1.6	376	53
Jockey Z39		1.5	361	99
Jockey Z45		1.5	376	93
Impact Nil	4.4	1.5	356	124

Location: Balldale
Growing Season Rainfall:
 Annual: 392 mm (avg 504 mm)
 GSR: 221 mm (avg 319 mm)
Soil:
 Type: Red Chromosol
 pH (H₂O): 4.7
 P (Colwell): 39 mg/kg
 Deep Soil N: 86 kg/ha
Sowing Information:
 Sowing date: 23/5/2007
 Fertiliser: 90 kg/ha MAP
Row Spacing: 180 mm
Paddock History:
 2006 – Wheat
 2005 – Wheat
 2004 – Canola
Plot Size: 1.5 m x 16 m
Replicates: 4

Treatment Description	Dry Matter (t/ha)	Yield (t/ha)	GM (\$/ha)	Yield ² (2005/7) % of Triadimefon (Z31+Z39) yield
Impact Z31	4.8	1.6	401	102
Impact Z31 + Z39		1.6	390	
Impact Z39		1.4	337	
Impact Z45		1.4	313	
Triad Nil	4.7	1.6	405	
Triad Z31	4.6	1.5	370	
Triad Z31 + Z39		1.6	407	
Triad Z39		1.4	351	
Triad Z45		1.7	432	
Sunvale	4.4	1.4	353	
Sunvale Z31	4.7	1.4	351	
Sunvale Z31+Z39	4.5	1.4	343	
H45	4.4	1.2	259	
H45 Z31+Z39	4.5	1.4	336	
Ventura Nil	5.2	1.7	460	
Ventura Z31	4.9	1.6	424	
Ventura Z31+Z39	4.9	1.5	388	
Ventura Z39		1.6		
Average	4.5	1.5		
LSD	0.9	0.2		
CV	21%	9%		

Z – Zadok's Growth Stage, 1 – In-crop fungicide at the times nominated – 500 ml/ha of 125g/L Triadimefon (Bayleton®) at the growth stage/s nominated. 2 – Yield as a percentage of Triadimefon applied at Z31 & Z39 (Z31+Z39). Variety - where not stated Diamondbird.

Observations and comments:

- Fungicides produced significant responses in 2007.
- Fungicide products gave variable results, with the best responses coming from sprays to Z31 or Z31 and Z39.
- Observations suggested that plots receiving fungicide stayed greener longer than plots without fungicide. This may explain the higher yield.
- Fungicide did not increase the dry matter yield of wheat.
- Ventura had the best yield and gross margin.

Sponsors:

The Grains Research and Development Corporation, Charles Cay and Susie Cay.