

Variety x Seed Treatment Demonstration

Aim: This demonstration was designed to determine the relative resistance of a range of wheat varieties to stripe rust with and without a seed treatment.

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Farmer: Michael O'Callaghan

Location: North Marchagee

Background: Initially this demonstration was designed to look at the effect of variety and fungicides on the occurrence of stripe rust. Stripe rust did not reach the trial area. However, leaf rust was present and this trial did highlight the yield penalties in not controlling the disease. Hamelin Barley was included in this demonstration to help quantify the cost of stripe rust to the farmer had it occurred.

Trial Details:

Plot size and replication	12m x 100m, 2 Replicates
Soil type	Well drained, non-wetting sand
Sowing date	12 th June
Conditions at sowing	Good soil moisture
Machinery	Knife points, press wheels at 9 inch spacings
Seeding rate	Barley 75 kg/ha, Wheat 70 kg/ha
Fertiliser	At sowing: 85 kg AgStar extra, 10 kg/ha Urea 22 nd July: 65 kg/ha Urea
Herbicides and Insecticides	10 th June: 1.1L PowerMax (0.5% Sulphate ammonia, 1% oil, 0.1% Wetter), 24g Logran
Paddock History	2002 = Lupins, 2001 = Pasture, 2001= Pasture

Results:

Treatment	Average number of Leaf Rust Pustules per flag lead
Westonia	32
Westonia plus Real® (1L/t)	29
Wyalkatchem	1
Wyalkatchem plus Real® (1L/t)	1.2
Blade	15
Sapphire	1
Ruby	1.4

Variety	Yield t/ha	Protein %	Weight kg/hl	Screenings %	Return \$/ha
Wyalkatchem + Real®	2.28	10.9	80.36	2.05	APW-526
Westonia + Real®	2.04	10.7	77.6	3	APW-465
Westonia	2.00	11.2	76.83	3.28	APW-456
GBA Ruby	1.99	11.3	79.6	5.6	APW-441
Wyalkatchem	1.99	10.8	79.82	2.45	APW-455
Blade	1.97	11.7	76	3.26	AH-464
GBA Sapphire	1.97	11	79.92	7.38	APW-431
Hamelin Barley	1.75	11.8	63.18	9.07	Feed - 238

Summary:

- The application of Real® didn't appear to have a big effect on the occurrence of leaf rust on flag leaves. This would be expected, as leaf rust didn't occur until late in the season.
- There was a yield increase when applying Real® to Wyalkatchem, this increase was far less pronounced for Westonia.
- GBA Ruby and GBA Sapphire didn't yield as well as and had higher screenings than the more commonly grown Wyalkatchem.

Wheat on Acid Soils Variety Trial