

## Wheat Fungicide Trial 2015

This trial is continuing on with our fungicide work, but with a program that is considering *Septoria tritici* Blotch as well as Stripe Rust.

*Septoria tritici* blotch is an important stubble borne foliar disease of wheat in Victoria. This disease has increased in importance in the high rainfall cropping regions during the last five years, even though it has been well controlled in Victoria for the last 30 years through the use of partially resistant wheat varieties. The increase in *Septoria* in the high rainfall zone has been favoured by stubble retention, intensive wheat production, susceptible cultivars and favourable disease conditions.

*Septoria tritici* blotch survives from one season to the next on stubble. Following rain or heavy dew in late autumn and early winter, wind borne spores (ascospores) are released from fruiting bodies (perithecia) embedded in the stubble of previously infected plants. These spores can be spread over large distances.



*Septoria tritici* blotch. The presence of black fruiting bodies within the blotches is a diagnostic feature of *Septoria tritici* blotch.



In contrast, Yellow Leaf Spot (above) has no black dots (perithecia) in the blotches. Early ascospore infections cause blotches on the leaves. Within these blotches a second type of fruiting body, pycnidia, are produced. Asexual spores ooze from pycnidia when the leaf surface is wet and spores are dispersed by splash to other leaves where they cause new infections. This phase of disease development depends on the rain splash of spores; therefore *Septoria tritici* blotch will be most severe in seasons with above average spring rainfall. A combination of wind and rain provides the most favourable conditions for spread of this disease within crops (from DEDJTR disease notes).

The trial was sown to Bolac (R-MR for stripe rust; MS-S for septoria) and Corack (MS for stripe rust; S-VS for septoria)

Fungicide	Active Ingredient	Rate
Control		Not Sprayed

Bravo	720 g/l Chlorothalonil	1.5 l/ha
Orius	430 g/l Tebuconazole	290 ml/ha
Prosaro	210 g/l Prothioconazole 210 g/L Tebuconazole	200 ml/ha
Radial	75 g/l Epoxiconazole + 75 g/l Azoxystrobin	420 ml/ha
Soprano	125 g/l Epoxiconazole	250 ml/ha

#### Fungicide Registration for disease control in wheat

Fungicide	Disease controlled
Bravo*	Not Registered for Use
Orius	Leaf Rust Stem Rust Stripe Rust Septoria tritici Septoria nodosum Yellow Leaf Spot
Prosaro	Leaf Rust Stem Rust Stripe Rust Septoria nodosum Yellow Leaf Spot Powdery Mildew
Radial	Leaf Rust Stripe Rust Septoria tritici Septoria nodosum Powdery Mildew
Soprano*	Leaf Rust Stripe Rust Septoria nodosum Powdery Mildew

The timing of the fungicide spray was at Z32 (second node) and Z39 (full flag emergence). The earlier timing of fungicide application is aimed at controlling Septoria, while the later application is aimed at Stripe Rust control. The Z39 timing on the Corack was a little late at Z47 (booting).

#### Fungicide Treatments

Treatment	Fungicide and Timing	
	Z32	Z39
1	Soprano	Radial
2	Orius	Orius
3	NS	Radial
4	Soprano	Soprano
5	Bravo	Radial
6	Prosaro	Prosaro
Control	Not Sprayed	Not Sprayed

The trial was sown on May 8<sup>th</sup> and establishment and early growth was excellent. As the season progressed, the height of the plots became uneven, with patches of smaller plants scattered across the trial. This may be due to Intervix herbicide residues from 2014 and

2015 where there may have been areas that were double sprayed due to the shape of the bay.

No disease was observed through the season.

At harvest, there was a distinct “cliff” where plot yields rapidly declined the further they were across the trial. This is reflected in the extremely high cv% figure for the trial. Therefore the results are too variable to draw any conclusions of the effectiveness of the treatments.

Treatment	Yield (t/ha)
Control	6.46
Soprano + Radial	5.61
Orius + Orius	5.60
Prosaro + Prosaro	5.59
Soprano + Soprano	5.50
Bravo + Radial	5.49
Not Sprayed + Radial	4.71
p	0.234
lsd	NS
cv%	18.5