STOCK JOURNAL 9 NOVEMBER 2005

BEATING BARLEY LEAF RUST

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Barley leaf rust, a frequent problem on Yorke and Lower Eyre Peninsulas, South East and the Lower North, has been the subject of South Grain Industry Trust funded research for the past two years.

The Yorke Peninsula Alkaline Soils Group (YPASG) with Bill Long as the Principal investigator has conducted the work, looking at control with fungicides.

The work was conducted at two sites - Brentwood which has a medium disease risk and Warooka, which has a high risk, and used Schooner, a moderately susceptible variety.

Triazoles (Triad, Tilt/Bumper, Tilt Xtra and Opus) and a new generation of fungicides, the Strobilurins (Amistar, Amistar Xtra, Stroby and Flint) were used with the fungicides applied early only, or early and late.

Last year, 2004, yield gains of 70% were achieved at Warooka (high risk site) with a reduction in screenings from 27% to 10% with a combination of Strobilurin fungicides. At Brentwood yield gains of 211% were achieved with a reduction in screenings from 29% to 10%. Remember these trials were subject to a very hot spell in October that burnt the canopy in Brentwood and caused stress at Warooka. In these trials the new Strobilurins performed better than the Triazoles. At both sites the importance of correct timing of the application of fungicide and of a dual application were demonstrated.

At this year's YPASG Field Day on 19 October, growers were enthusiastic about the various treatments in this year's trial at Warooka. This included Keel, which is very susceptible; Gairdner which is susceptible, with both of these varieties being compared to Schooner, which is moderately susceptible.

Barley Leaf rust has developed at a later stage in 2005 than in the previous five years of research, due probably to the late break of the season. This lower level of disease may provide the opportunity to assess the effectiveness and economic value of control in lower risk areas and years. Visual assessment of the plots indicated that a single treatment is reducing the disease reasonably well. The dual treatments have better control but it is marginal at this stage.

The 2005 work has reinforced that the Strobilurins are more effective than the Triazoles. Of course these are only visual comparisons and the yields will be the final assessment.

It is interesting that the crop remains greener for longer following Strobilurin treatment, which might provide the opportunity to make better use of late soil moisture.

These trials demonstrate the large gains possible with good fungicidal disease management.

Under the disease pressure which occurred in 2004, Bill Long estimates with the improvements in both yield and quality, with the best control methods would generate a $7 million benefit to Yorke Peninsula growers alone.