AgriLIFE EXTENSION
Texas A&M System

Stripe Rust Alert – April 7, 2010

A stripe rust epidemic is occurring across the region. We observed widespread infection levels near Royse City on Monday. The most susceptible variety appears to be AgriPro Magnolia. We also observed moderate infection levels in Crawford and USG 3295. All of these varieties exhibited good resistance to stripe rust last year, so there appears to be a race change in the stripe rust pathogen, *Puccinia striiformis.* Terrell LA 841 and Pioneer 25R57 appear to be resistant at this point.

Since there has been a race change in stripe rust, we cannot accurately predict which varieties will be infected. There is no substitute for field scouting. Stripe rust usually first appears in isolated spots in fields that can be detected from the road, but not always. Sometimes the pathogen will infect the field uniformly, making a careful inspection necessary for disease identification.

Stripe Rust (*Puccinia striiformis)*

Stripe rust (*Puccinia striiformis)* can be a devastating foliar disease that infects both hard and soft red winter wheat in this region. It can be much more damaging than leaf rust, as it occurs earlier and can destroy the flag leaves prior to the grain filling period. The first line of defense to this disease is the development and introduction of resistant varieties. When the rust races change over time, the "fallback" position then becomes the application of a foliar fungicide to protect the yield during the grain filling period. Unlike leaf rust infections, which start on the older leaves in the lower canopy and move predictably up the plant, stripe rust infections can move like "wildfire" across the uppermost leaves of the plants. It is imperative to apply the fungicide when the first signs of infection are observed.

Following is a summary of our 2005-2009 foliar fungicide research for the control of stripe rust on a susceptible variety.

Economic Evaluation of Selected Labeled Fungicides for the Control of Stripe Rust in Patton, a Highly Susceptible SRWW Variety. 2005 - 2009

Fungicide Treatment Formulated Rate/A	2005 AgriPro Patton SRWW	2007 AgriPro Patton SRWW	2009 AgriPro Patton SRWW	3 year Average	2 Year Average Bushel Increase Over Untreated	$ Returns Over Fungicide Cost
Folicur @ 4 oz.	49.0	57.8	71.1	59.3	21.1	101.78
Quilt @ 10.5 oz.	41.1	55.7	72.2	56.3	18.1	76.75
Quilt @ 14 oz.	43.3	60.1	77.7	60.4	22.2	93.85
Tilt @ 4 oz.	46.2	54.9	70.4	57.2	19.0	83.66
Untreated check	23.1	45.6	45.8	38.2	-	-

The most cost effective treatment we have for stripe rust is tebuconazole (sold as Folicur, TebuStar, and Monsoon). It is a triazole, which has curative properties that can stop an infection quickly.

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