AgriLIFE EXTENSION
Texas A&M System

Stripe Rust in Central Texas Wheat 2010

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Stripe Rust

This winter and early spring have been cooler and wetter than we have experienced in several years. This means prime conditions for the development of stripe rust. The causal agent is the fungus *Puccinia striiformis* (syn. *P. glumarum*), which requires a living host to thrive. Stripe rust can survive between seasons on alternate host plants, but wheat is the primary host. Symptoms appear as narrow orange-yellow stripes of pustules on leaves (Figure 1), sheaths, awns and glumes.

Figure 1. Stripe rust on 'Jagger' (60% severity) wheat in College Station, TX.

Varietal Resistance

In the past, stripe rust has been managed with resistant varieties such as Jagger. This season in College Station, TX, the variety Jagger and varieties with the same source of resistance, have shown a susceptible reaction to stripe rust (Figure 1). Other varieties that are showing a breakdown in resistance in College Station include, but are not limited to, Jagalene, TAM 203, TAM 401, Jackpot and Fuller. **Resistance in TAM 111, Fannin and Doans remains uncompromised** so far, as these varieties are currently showing no signs of susceptibility to the current race/races of stripe rust in College Station (Figure 2).

Figure 2. Comparison of Fannin (left) and Jagalene (right) in College Station, TX.

Chemical Management

If a currently planted variety is no longer resistant, disease progress needs to be intensively monitored. If stripe rust is present, chemical management may be necessary to maintain the yield potential. Some options include Folicur, Headline, Quadris, Quilt, Stratego, Tilt and Twinline. It may be necessary to spray for stripe rust when 1-5% of the leaves show symptoms. The timing of the fungicide application is critical, and protecting the flag leaf is key. The decision to spray will also be affected by potential yield, the price of wheat, weather, variety resistance, and the chemical and application costs.

For more information on wheat and/or wheat diseases, go to:
http://varietytesting.tamu.edu/
http://sickcrops.tamu.edu

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