Pest e-alerts

Entomology and Plant Pathology, Oklahoma State University
127 Noble Research Center, Stillwater, OK 74078
405.744.5527

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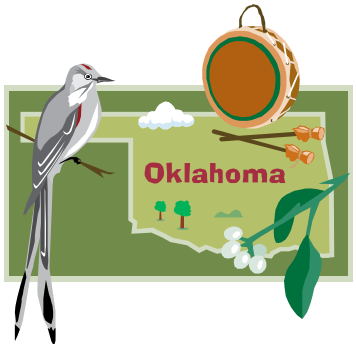
Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist



Oklahoma: Tuesday (24-Mar) I drove from Stillwater west on highway 51 to Canton and then angled southwest to Clinton. Today, I returned to Stillwater via Kingfisher. Along this route I stopped numerous times and found wheat ranging from pre-growth stage (GS) 6 (no nodes visible above ground) to GS 7 (two nodes detectable above ground). No foliar diseases were observed in any of the wheat examined. I did see a few (very few) aphids with the most being in the wheat at the variety trial at Kingfisher.

Please note the following update from Dr. Amir Ibrahim (Wheat Breeder, Texas A&M). He observed severe stripe rust at College Station on Jagger & Jagalene, and also on many varieties that have one of these varieties as a parent. Jagger & Jagalene have demonstrated excellent resistance to stripe rust in the past, but his observations indicate that perhaps the pathogen has adapted to that resistance. The resistance in these varieties has been attributed to "HTAP" resistance, which stands for "High Temperature Adult Plant" resistance. Hence, HTAP resistance "kicks-in" as temperature rises. Early in the season when cool temperatures prevail, a more susceptible reaction is observed. Time should reveal which circumstances are causing the susceptibility observed by Dr. Ibrahim.

Kansas: The following report is from Dr. Erick DeWolf in Kansas, dated 25-Mar-2010. This summarizes information that came from Texas the previous week.

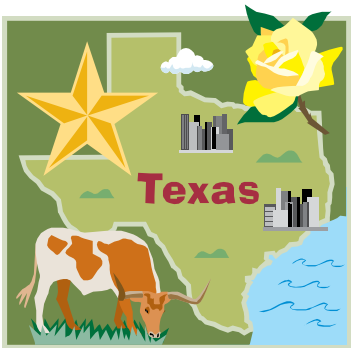
During the past 10 days we have received several reports of active leaf rust and stripe rust at multiple locations in Texas. The most recent of these reports indicates that stripe rust was attacking varieties previously thought to

be resistant to the disease including Fuller, Santa Fe, Art, Jagger, Jagalene near College Station. Several other varieties known to have intermediate or moderately susceptible reactions to stripe rust are also showing signs of severe disease. These varieties include TAM 112 and Endurance. TAM 111 currently is not showing symptoms of disease at this location. Wheat disease specialists and breeders are working to determine if these reports represent an underlying change in the stripe rust population within the region. There is a possibility that these varieties have high temperature adult plant resistance that is not active yet. If this is the case, then the stripe rust should fade with warming temperatures in the South.

Leaf rust has also been reported at low to moderate levels in multiple locations in Texas. Varieties impacted by leaf rust appear to be those previously known to be susceptible (i.e. Jagger, Jagalene).

I believe these reports of stripe rust and leaf rust have important implications of farmers in Kansas. These are the highest severities for stripe rust in recent years, and the severity of the disease on varieties previously thought to be resistant is also cause for concern. Fuller, Santa Fe, and Art are all widely grown in central Kansas. TAM 112 is widely grown in western Kansas and is known to be moderately susceptible to stripe rust regardless of changes in the pathogen population.

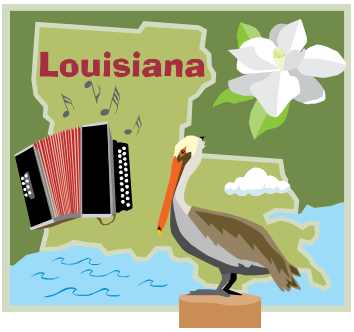
No immediate management action is needed, but farmers should monitor the disease situation carefully. We should get a much clearer indication of which cultivars are vulnerable to stripe rust and leaf rust by the middle of April. At this time, I believe we have a moderate risk for severe stripe rust and leaf rust in Kansas. Growers should be investigating the potential costs of fungicides in case they need to respond to emerging disease threats in early May



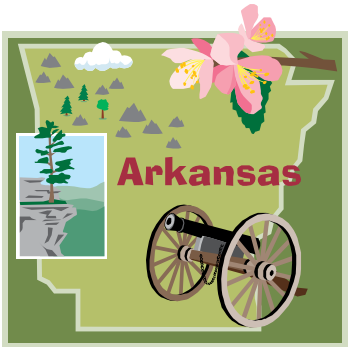
Texas: (Mar 22, 2010). The wheat crop at College Station, TX is elongating with few of the earliest genotypes at the visible boot stage. Stripe rust is prevalent on Yr 17 with 'Jagger' and 'Jagalene' being 60S and 30S, respectively. 'Fuller' is 50S while no symptoms were visible on either 'Fannin', 'Doans', 'TAM 111', or 'Deliver'. On the other hand, 'TAM W-101', 'TAM 112', 'TAM 203', 'TAM 304', 'Sturdy 2K', and 'TAM 401' are 50S, 60S, 20S, 10MS, 15MS, and 30S, respectively. Also, 'Art', 'Jackpot', 'Endurance', 'Bullet', 'Duster', 'Pete', 'Santa Fe', and 'Shocker' are 30S, 10S, 40S, 15S, 15S, 30S, 20S, and 40S, respectively.

I suspect the severity to intensify if the weather continues to be this cool and wet. This is the worst stripe rust I have witnessed in the College Station Area since coming to Texas in 2007.

Louisiana: The following report from Dr. Boyd Pagett (Wheat pathologist, Louisiana State University) was received on 24-Mar-2010 and reports findings of stripe rust on wheat in Louisiana.



Stripe rust found on wheat (variety trial, variety ???) in East Baton Rouge Parish on 3-8-2010; Stripe rust found on wheat (Magnolia @F6) in Rapides Parish on 3-15-2010; Stripe rust found on experimental line (F5-6) in Franklin Parish on 3-17-2010



Arkansas: On 24-Mar-2010, Dr. Gene Milus (Wheat Pathologist, University of Arkansas) sent out the following report.

Stripe rust was reported to be in demo plots of SRWW Beretta and HRWW Overly and Fuller in Lafayette County that is in the SW corner of Arkansas near Texarkana. The discovery was made by county agent, Joe Vestal, and is the first report of stripe rust in Arkansas this year. Wheat was at Feekes 5-6 and leaf rust was light. Some greenbugs were also present.

Dr. Richard Grantham
Director, Plant Disease and Insect Diagnostic Laboratory