



PLANT DISEASE AND INSECT ADVISORY

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



Vol. 6, No. 13

Website: <http://entopl.okstate.edu/Pddl/advisory.htm>

May 14, 2007

Wheat Disease Update Bob Hunger, Extension Wheat Pathologist



In some fields yesterday (May 10th) around Apache and in the variety trial at Apache, Jeff Edwards (Wheat Extension Agronomist, OSU) and I saw severe tan spot/septoria infestations. This is not surprising given the cool and wet temperatures we have been experiencing. For the most part, wheat was at the milk to soft dough stage and flag leaves of susceptible varieties were pretty much gone unless a fungicide had been applied. Where fungicides were applied, the flag leaves still had some green in the flag leaves and there were rust pustules developing. In the cases I saw, fungicide had been applied about 4 weeks ago, so the chemical is no longer protecting the foliage, but it did its job in greatly delaying the loss of the flag leaves. With the wheat now being at the late milk to soft dough stage, loss of yield from leaf rust should be minimal.

ALSO – Brett Carver (OSU Wheat Breeder) reported the following earlier this week:

“I observed the remnants (not much living, though live pustules were evident) of stripe rust in the Lahoma yield trial field on Friday. In fact, some experimentals had enough damage on the flag leaf that I made a note of it. I haven't been seeing much Yr of any significance elsewhere.”

Hence, stripe rust has made an appearance in Oklahoma, which is not surprising since it has been reported in Texas and Kansas. However, it does not appear that stripe rust will be a disease of significance in Oklahoma this year.

OTHER STATES:

TEXAS; 10 May 2007 (Ravindra Devkota, Assistant Research Scientist, Texas A&M Univ.):

This is in follow up with the trace amount of wheat stem rust incidence at Castroville/TX that Bob Bowden had reported during the last week of April. I came down to Castroville again on May 2nd and as of today (5-10-07), I am still continuing evaluation/selection on wheat screening nurseries and populations. Yesterday (5-9-07), I walked through the Uniform Wheat Variety Trial (UVT) and Amarillo Observation Nursery (AOBS) again and, in addition to the one previously reported by Bob, I noticed two more incidences of severe Stem Rust infection. It was on the cultivar 'Winmaster' and another experimental AOBS-543. Nearly 50 percent plants in the plots were infected and the severity ranged from 5-75 percent. Then in the afternoon, I drove to Texas A&M University Research Center at Uvalde (about 50-60 miles west from Castroville along the U.S. Hwy 90) and quickly walked through UVT to check on Stem Rust at that location. Cultivar Winmaster had similar incidence/severity at Uvalde also. I have already shipped the samples to CDL at St. Paul/MN from both Castroville and Uvalde locations. The temperatures at Castroville near San Antonio has been in lower to mid 80s during the day and upper 60s to lower 70s during night with a very high humidity and frequent showers.

KANSAS: 09 May 2007 (Erick De Wolf, Extension Plant Pathologist, Kansas State University):

North Central Kansas has been the focus of activity this week, and stripe rust continues to be reported in new locations in Kansas. I observed stripe rust yesterday (May 9) in a variety performance test and in county demo plots in North Central Kansas including Mitchell, Osborne, and Jewell counties. Joe Martin, KSU wheat Breeder at Hayes, reports that stripe rust in Ellis County. Allan Fritz, KSU Wheat Breeder at Manhattan, reports finding stripe rust in Republic County. Note all these counties are in North Central Kansas, and two of the counties (Jewell, and Republic) border Nebraska. Stripe rust was at low levels in all these locations and was on the highly susceptible variety 2137. I estimate the incidence of stripe rust to less than 25% with 1 to 3 obvious lesions on the F-1 or Flag leaves.



Leaf rust continues to be the dominate rust disease in many parts of Kansas. In North Central region, susceptible varieties are showing nearly 100% incidences on the second to the last leaf (F-1) with severities ranging from 2-10%. The flag leaves are also being affected, and the severity is 1 to 2%.

The wheat in this area is at the boot or early heading stages of growth, and I believe the rust pressure will become significant over the next few weeks.

Tan spot is also common in wheat that was planted in to wheat residue, and is also beginning to appear on the flag leaves of some varieties. Powdery mildew appears to be slowing some now that day time temperatures are regularly in the 80 degree range.

COLORADO; 09 May 2007 (Tamla Blunt, Plant Clinic Diagnostician, Colorado State University):

We have just confirmed rust in Colorado on samples sent to the diagnostic clinic. The wheat leaf rust was found in Prowers County on variety Ripper and wheat stripe rust was found in Bent, Baca and Prowers Counties. In Baca County, the variety is Ripper, the other two counties, the variety is unknown.

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

Oklahoma State University, in compliance with Title IV and VII of the Civil Rights Act of 1964, Executive Order of 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, VP, Dean, and Director for Agricultural Programs, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of Agricultural Sciences and Natural Resources.