

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

Vol. 17, No. 4	http://entoplp.okstate.edu/pddl/pdidl	3/14/18
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Wheat Disease Update – 14 March 2018 Bob Hunger, Extension Wheat Pathologist Department of Entomology & Plant Pathology Oklahoma State University - 127 Noble Research Center 405-744-9958

I spent Monday (March 12) looking at wheat around Stillwater and found no foliar diseases. Gary Strickland (Extn Educator; Jackson County) indicated the same for southwestern OK. He indicated wheat is short and drought stressed with flag leaves emerging in some wheat even though it is only about 4 inches tall. Josh Bushong (Area Extn Agronomy Specialist) indicated a similar scenario for wheat west of Lahoma, (10 miles west of Enid). He also indicated he had heard of some spraying being done for aphids – both for bird cherry–oat and greenbug.

At this point, it appears there is not much rust inoculum building up to the south of us in Texas. On March 9<sup>th</sup>, Dr. Clark Neely (Small Grains/Oilseed Extension Specialist; Texas A&M AgriLife Extension) scouted sentinel plots for foliar diseases. Here is his report: "I checked sentinel plots at College Station, TX on Friday, March 9, for disease. I found moderate levels of stripe rust in 'Sisson' only. I did not observe stripe rust in any other sentinel plots. I was unable to go through the entire variety trial at the time, but there were no obvious signs of a stripe rust epidemic. There were trace amounts of stripe rust found in a nearby fungicide trial on 'WB 4303'. There have been no reports from growers anywhere in the state yet of stripe rust in producer fields. Leaf rust was found on these varieties as well, but in trace amounts. Overall, leaf rust is much lower this time of year compared to the past two years due to cold temperatures we experienced this winter. Powdery mildew is very common due to cloudy, damp weather the past month and dense canopies. Many winter varieties are around Feekes 7-8. Hard red spring wheat 'LCS Trigger' in an adjacent trial was the most advanced of anything I observed and was at Feekes 9 (fully emerged flag leaf)." I have included one photo from Dr. Neely because it is an excellent photo that shows the difference between the pustules of an early infection of stripe rust and leaf rust (Figure 1).

Figure 1. Early stripe rust on wheat near College Station, TX observed on 9-Mar by Dr. Clark Neely (Small Grains/Oilseed Extn Specialist; Texas A&M AgriLife Extension). Compare the stripe rust pustules located on the left to the three leaf rust pustules on the right side of the leaf.



Finally, the OSU Diagnostic Lab has tested 11 samples from southwestern OK (Washita County) for the wheat viruses that cause wheat streak mosaic, high plains, Triticum mosaic (all transmitted by the wheat curl mite) and barley yellow dwarf (aphid transmitted). We are doing this to see if testing for the presence of these viruses early in the season with the ELISA procedure may have value in giving producers a "heads-up" related to the decision of removing cattle or to graze out a given field. We'll follow these fields as the season progresses to see how the incidence of these viruses in these fields relates to the virus testing.

## Plant Disease and Insect Diagnostic Laboratory

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