



Pest e-alerts



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Wheat Disease Update – 27 April 2019

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Reports of rust activity definitely were on the upswing this past week in Oklahoma. At the field day yesterday at Chickasha in central OK, I saw only sparse stripe rust (Figure 1) , but I also heard reports that sounded to me as though rust (both stripe and leaf rust) will be making a strong appearance in Oklahoma. Lance Embry (WestBred/Monsanto) indicated he had recently been in central Texas and saw severe stripe and leaf rust, with a slight edge to the stripe rust. Heath Sanders (SW OK Area Extn Agronomy Spclt) indicated that earlier in the week he saw some stripe rust and tan spot in Tillman County (SW OK), but that overall the leaves looked pretty good. This is consistent with what Gary Strickland observed in southwestern OK last week, where he indicated,

“I was in several fields yesterday. Most fields are boot (some are a little later yet) to heading (some fields have just started blooming). I found incidence of both stripe and leaf rust. However, in only 2-3 fields was it heavy enough (combined with a good yield potential, 45+ bushels) and had advanced up the plant that I felt like spraying was an immediate need. In most other fields while I would find both species low on the plant or mid-way in the plant but it was typically very low severity. So, in the end both species were present but I think stripe rust was probably more prevalent. But overall, severity is not high for either rust species. I found no powdery mildew. Septoria and a little tan spot were present but the Septoria is still the predominant disease that I am seeing. In nearly all cases it remains low on the plant. In one field it had advanced mid-way up the plant and caused a lot of yellowing of the lower leaf canopy but again that has just been in one case. With high field moisture present and humid canopy conditions existing I am telling producers to keep a close eye on their field because conditions are right for the disease to spread quickly.”

Moving a bit northward in Oklahoma, Lanie Hale (Wheeler Brothers) reported the following while scouting fields north and west of Loyal to Okeene and Hitchcok and then to just east of Canton, OK:

“I found Stripe Rust in two fields and one field with leaf rust. Some of the fields I checked were repeats of 10 days ago where I found no rust. The Septoria and Tan Spot are now on the third leaf down with occasional spots on the second leaf and flag leaf. Aphids infestations are still heavy in some fields and on the heads in one field I looked at. I’ve seen a couple of small Army worms on the beards; something else to watch for with the good moisture and heavy wheat. A good number of heads in most fields show some freeze damage to the top 2-4 kernels, plus some trapped and twisted heads especially on the field edges.”

Note in Lanie's observations that he also is seeing the leaf spotting diseases tan spot and septoria (Figure 2) as well as aphids and some army worms. Regarding the leaf spot diseases and aphids, this is similar to what I saw and have heard from others. The leaf spot diseases typically don't move up onto the upper leaves in Oklahoma unless we have continued cool and wet weather, which appears to be in the forecast for at least the next week. However, Lanie indicates he has seen some spots up on the flag leaf and the leaf just under the flag. Hence, application of a fungicide in these cases at this point in time will also help in managing the rusts. For more information on applying fungicides and their relative effectiveness in managing foliar diseases, see OCES Current Report (CR-7668) that can be found at:

<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-4987/CR-7668web2019.pdf>

Moving still further north and northwest in Oklahoma, Josh Bushong (NW OK Area Extn Agronomy Spclt) reported seeing, "No PM (powdery mildew), LR (leaf rust), or YR (stripe rust) found in Roger Mills (checked all 20 varieties in demo plot) and Blaine counties."

These reports lead me to believe that leaf spot diseases (septoria and tan spot) are more prevalent than typical for the western half of Oklahoma. Further, the rust (both leaf and stripe) are making their entrance considerably later than typical for Oklahoma, but with continued relatively mild temperature and moisture I would look for all these foliar diseases to increase.

Figure 1. Stripe rust found on winter wheat at Chickasha in central OK (upper photo), and on winter wheat near Greenfield Oklahoma in approaching west-central OK (lower photo; credit to Rob Anderson, Wheeler Bros).

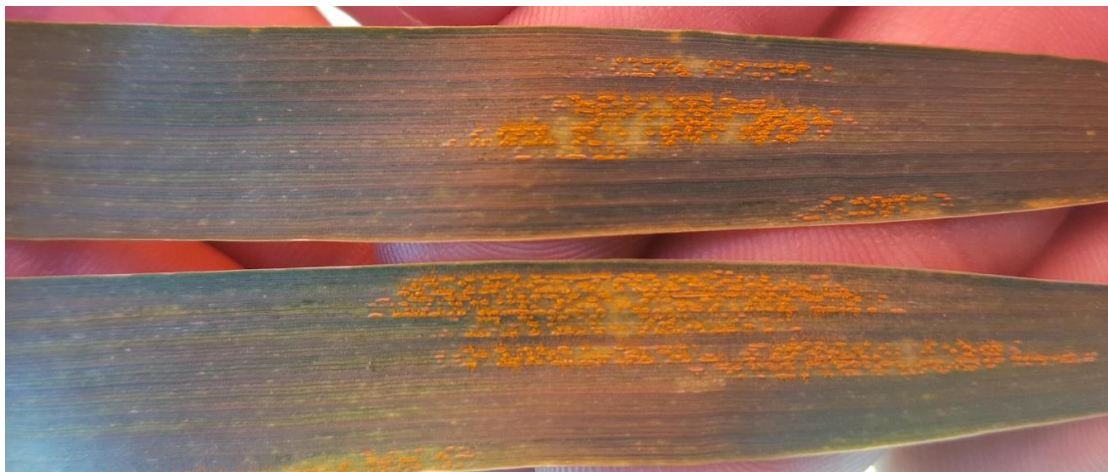


Figure 2. Wheat infect with tan spot [upper two photos – leaf symptoms (left) and spore-containing structures on residue (right)] and septoria leaf blotch (lower photo).



Disease and Insect Diagnostic Laboratory

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