

Wheat Disease Update – 14 April 2021
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Last week (08-April) in southwestern OK, Gary Strickland (Jackson County Extn Educator) reported seeing only very little stripe rust, but that tan spot was still present in the lower canopy. Southwestern OK has been hot and dry, so conditions in that part of Oklahoma have not been at all favorable for foliar disease development. Also last week, Bryan Vincent (Crop Consultant; north-central OK) reported seeing mostly tan spot and powdery mildew across northern OK, with little to no rust, but some barley yellow dwarf starting to appear as well as aphids. Greg Highfill (Woods County Extn Educator) also reported heavy tan spot is a no-till, wheat- after-wheat field.

More recently, although still scattered and light, both leaf and stripe rust (more so stripe) appears to be increasing across Oklahoma. Lanie Hale (Manager, Wheeler Brothers) sent out the following report. “Yesterday, Will Bedwell and I scouted 22 wheat fields in southern Major, northeastern Dewey, and northwestern Blaine Counties. The wheat variety was unknown to us in most of the fields. In seven of the fields, we found leaf and/or stripe rust in isolated areas, certainly not widespread across the fields. We found powdery mildew in a few fields, but only where the canopy was heavy and dense. Septoria and/or Tan Spot was noted on lower leaves in most fields. Many of the fields had infestations of Bird Cherry Oat Aphids ranging from light to moderately heavy. We saw several Lady Beetles and larvae in fields; I only saw one mummified aphid indicating not many parasitic wasps are present. One of the fields had been sprayed over the weekend. The flag leaf is emerging in most fields we scouted. We did not scout any field with 100% emerged flag leaves.”

Yesterday around Stillwater, I saw wheat that ranged from flag leaves emerging to wheat headed, although by far and away most of the wheat was at the boot/pre-boot stage (GS 9 or so). By far, the most prevalent disease I observed was powdery mildew (Figure 1). Stripe rust also was present, but at a low incidence. I also noted quite a few spots or patches of barley yellow dwarf in various trials, but in contrast to other reports, I saw very few aphids.

Given these reports and observations, it is advisable for producers to start watching their fields closely and prepare for applying a fungicide, especially if growing a variety susceptible to either rust and/or the other foliar diseases. For more information on fungicides and their use, see OSU CR-7668, which can be found at: <https://extension.okstate.edu/fact-sheets/foliar-fungicides-and-wheat-production-in-oklahoma-march-2016.html>.

Figure 1. Wheat leaves observed near Stillwater, OK on 4-13-2021 with powdery mildew and stripe rust (top photo) and with stripe rust (bottom photo).



Perhaps the most striking observation is that wheat streak mosaic (Figure 2) is starting to be reported across both Oklahoma and Texas as a couple of samples have tested positive for *Wheat streak mosaic virus* in the last week. For more information on this and other mite-transmitted viruses, please see OSU EPP 7328 that can be accessed at: <https://extension.okstate.edu/fact-sheets/wheat-streak-mosaic-high-plains-disease-and-triticum-mosaic-three-virus-diseases-of-wheat-in-oklahoma.html>

Figure 2. Wheat streak mosaic virus has been observed in northwestern Oklahoma and western Texas.

