

Wheat Disease Update – 30 March 2021
Bob Hunger, Extension Wheat Pathologist
Department of Entomology & Plant Pathology
Oklahoma State University - 127 Noble Research Center
405-744-9958

Reports of foliar diseases, especially stripe and leaf rust, are starting to increase in southern Texas and around Stillwater. First, here is an update sent out on 24-March by Dr. Amir Ibrahim (Regents Professor & Small Grains Breeder/Geneticist; Texas A&M AgriLife Research). Dr. Ibrahim is finding both stripe rust and leaf rust increasing across southern Texas.

“I visited our small grains trials at McGregor (18 miles southwest of Waco, TX) on March 18, 2021. Stripe rust (caused by *P. striiformis* Westend. f. sp. *tritici* Eriks.) continues to be active (Figure 1; photo on the left). Leaf rust (caused by *Puccinia triticina* Erikss.) is beginning to move to the middle canopy (Figure 1 – photo on the right).”

Figure 1. Stripe and leaf rust observed by Dr. Amir Ibrahim in southern Texas in mid-March.



“We visited the naturally inoculated Rust Evaluation Nursery at Castroville, TX today. The nursery is about 196 miles from Texas A&M University's main campus in College Station, where we are based. We also visited our trials at Uvalde, TX today. Stripe rust is not very active

at both Castroville and Uvalde. Leaf rust is now picking up, especially at the Rust Evaluation Nursery at Castroville. Stripe rust is very actively spreading at the Agronomy Farm near our main campus in College Station as of our last visit on March 23, 2021. Stripe rust is also active in our trials in Greenville (50 miles northeast of Dallas). No reports yet of leaf or stripe rusts in the Texas High Plains. Leaf rust is also developing in our trials at Wharton (60 miles southwest of Houston).”

In Oklahoma, both stripe and leaf rust (Figure 2) have been observed in trials around Stillwater and near Perkins (about 15 miles south of Stillwater). Also recall in my update of 15-March, I indicated seeing powdery mildew, *Septoria/Stagonospora* (Figure 3) on lower leaves in many trials. These diseases also are present, and with the relatively cool and windy weather in the forecast, I expect the incidence and severity of all these diseases to increase.

Figure 2. Wheat showing pustules of the fungi that cause stripe rust (top two photos) and leaf rust (bottom photo). [Observation & photo credit for middle and bottom photos; George Wallace, Oklahoma State University]



Figure 3. Powdery mildew (upper photo), Septoria/Stagonospora (middle photo), and tan spot (bottom photo credit; Gary Strickland, Jackson County Educator, observed in mid-March).

