Wheat Disease Update – 25 March 2022 Meriem Aoun, Small Grains Pathologist Department of Entomology & Plant Pathology Oklahoma State University - 127 Noble Research Center Email: meriem.aoun@okstate.edu

Phone: 405-744-9753

Based on my observations in Stillwater wheat fields and communications with multiple county educators in Oklahoma, it is relatively quiet in terms of diseases. In southwestern Texas and during the first week of March, Dr. Amir Ibrahim (Regents Professor & Small Grains Breeder/Geneticist; Texas A&M AgriLife Research) and Dr. Bryan Simoneaux (Research Associate, Texas A&M AgriLife Research) reported infections of stripe rust and leaf rust in naturally infected rust nurseries.

In Castroville, TX (29.3558° N, 98.8786° W) nursery, Drs. Ibrahim and Simoneaux observed a little bit of leaf rust in the lower canopy of the hard red winter wheat variety 'Jagalene'. In the Uvalde, TX (29.2097° N, 99.7862° W) nursery, they observed some leaf rust on the lower canopy of the hard red winter wheat varieties Jagalene and 'TAM 110', however leaf rust infection did not spread uniformly throughout the nursery. They also found good stripe rust infection on Jagalene in Uvalde, TX (**Figure 1 & 2**).



Figure 1. Leaf rust and stripe rust infections on the same leaf of the susceptible wheat variety Jagalene at Uvalde, TX (Photo by Dr. Bryan Simoneaux on 3 March 2022).



Figure 2. Stripe rust infections on the susceptible wheat variety Jagalene at Uvalde, TX (Photo by Dr. Bryan Simoneaux, on 3 March 2022).

In southwestern Oklahoma and during the first week of March, Gary Strickland (Jackson County Extn Educator) reported seeing only very little tan spot on bottom leaves but nothing major (in terms of percentage infestation). He also noted a few leaves infected with stripe rust. Gary Strickland mentioned that the major issue he observed was winter grain mites.

In the Stillwater Agronomy Research Station and on 24 March 2022, I am starting to observe symptoms of the wheat soil-borne mosaic (SB)/wheat spindle streak mosaic (SS) virus complex on the susceptible hard red winter wheat variety 'Vona' in the SB-SS nursery (**Figure 3**). However, due to the use of resistant varieties, these viral diseases are not a problem in Oklahoma and the central plains.



Figure 3. Symptoms of wheat soilborne mosaic/wheat spindle streak mosaic virus complex on the susceptible wheat variety Vona in Stillwater, OK