



Pest e-alerts



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Wheat Disease Update – 29 March 2019

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Foliar diseases continue to be light across Oklahoma. Gary Strickland (Extn Educator; southwest OK) indicated he is still seeing only light and scattered leaf rust pustules on senescing lower leaves. He has not seen any powdery mildew or leaf spot diseases, but has seen some low numbers of winter grain mites and heard of one field where the numbers were high and the field was sprayed. Around Stillwater, I have seen much the same, that is, no powdery mildew or stripe rust and only scattered, "old" leaf rust pustules on lower senescing leaves (Figure 1A). However, in addition to the leaf rust I have observed bird cherry oat aphids in older wheat [growth stage 7 to 8 (two nodes visible to flag leaf just appearing)] as well as some septoria on lower leaves (Figure 1B). David Nowlin (Extn Educator; Caddo County) also has indicating having observed septoria as indicated by his email of 25-Mar where he indicated, "I can see what looks like pycnidia on bottom leaves of wheat West of Anadarko, I assume it's Septoria leafspot- it's the only disease I am seeing."

Figure 1A. "Old" leaf rust pustules on lower, senescing wheat leaf near Stillwater, OK



Figure 1B. Septoria leaf blotch on lower wheat leaf from near Stillwater OK



In Texas, Dr. Amir Ibrahim (Small Grains Breeder/Geneticist, Texas A&M University) reported on 18-March that in a large wheat nursery near Castroville, TX (southern Texas near San Antonio) that, “Stripe rust (caused by *Puccinia striiformis* f.sp. *tritici*.) is drying up on both classes [hard red and soft red winter wheat]. Leaf rust (caused by *Puccinia triticina* Erikss.) is **uniform** across the field and moving up the canopy with some susceptible lines showing 100S reaction in the upper canopy. We have not seen this high leaf rust severity around mid-March in a long time.” (Figure 2)

Figure 2. Leaf rust on susceptible lines at Castroville, TX (8 March 2019 – Dr. Amir Ibrahim, Texas A&M University).



The observations in Oklahoma coupled with the report from Texas indicate to me that leaf rust is going to be the rust of concern this year in Oklahoma. Of course, that will still require the right weather (rains/dews and moderate temperature), but inoculum for leaf rust is being produced in southern Texas that should spread northward if weather allows. Plus, there is inoculum that survived in Oklahoma to also promote leaf rust with favorable weather. In contrast, stripe rust inoculum appears to be sparse.

Disease and Insect Diagnostic Laboratory

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