



Pest e-alerts



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Wheat Disease Update – 15 March 2017

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I haven't sent out an update since 21-Feb for several reasons, but the primary one is that wheat diseases in Oklahoma have been sparse. Wheat around Stillwater (STW) is at growth stage 6 or 7, and is showing good growth. On 09-Mar, I looked at wheat in a loop from STW west to Marshall (30 miles west of STW) and Hennessy (50 miles west of STW), then south to Kingfisher and finally to El Reno (25 miles west of OKC). At that time and in the 8-10 fields/variety trials I stopped at, the only disease I saw was powdery mildew at a low incidence. On 15-Mar, I, Patrick Rydzack (PLP graduate student) & Branden Watson (Plant & Soil Science graduate student) visited trials at Chickasha (30 miles southwest of OKC), Apache (35 miles southwest of Chickasha), and again in El Reno. We found a few small pustules of leaf rust at Chickasha and some light to moderate powdery mildew (especially at Apache), but overall the foliage was green. Wheat at Apache was GS 7 (2 nodes at base of stem). These observations and other input from around the state indicate that leaf rust is present only in trace amounts and stripe rust has yet to be observed in Oklahoma.

In contrast, I have seen tan spot and have heard several reports of leaf spot diseases in no-till fields. On 13-March, Josh Bushong (NW Area Extn Agron Speclt), Corbin DeWitt (Extn Edctr-Kay County), and I visited a field near Ponca City that had severe tan spot on the lower leaves; in my estimation, sufficiently severe to merit a fungicide application. I also have had similar situations described to me from fields in Kiowa County (southwest OK), but have not directly seen them. Typically tan spot/septoria/stagonospora (the leaf spot foliar diseases) are more severe in no-till fields where wheat residue has been retained on the soil surface. The leaf spots on lower leaves (Figure 1) can be severe and will continue to move up the foliage as long as moisture and temperature are favorable. If infection is severe on lower leaves, spraying with a fungicide (this early in the season I would go with the lesser expensive generic fungicide) will help limit spread of these leaf spot diseases to older foliage. For additional information regarding early season foliar wheat diseases and possible control with an early fungicide application, see our fact sheet (PSS-2138) that discusses split application of fungicides at www.wheat.okstate.edu

Figure 1. (A) Severe tan spot on lower wheat leaves. Note wheat residue on soil surface in the background. (B) A close up of wheat residue with 'pseudothecia' (spore containing structures) of the fungus that causes tan spot. Spores are released from these structures that infect the lower wheat leaves.

1A



1B



Reports/excerpts of reports from other states: I received a report of leaf rust in south Texas from Dr. Gary Odvody (Texas A&M AgriLife Research & Extension Center, Corpus Christi, TX). However, this report indicated only that leaf rust was observed and mostly focused on severe oat crown rust, which won't infect wheat.

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Plant Disease and Insect Diagnostic Laboratory

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