Pest e-alerts

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Wheat Disease Update – 29 March 2018

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I'm still not seeing any foliar diseases around Stillwater, but reports are indicating that inoculum of the wheat rusts (stripe and leaf) have started to increase in Texas. On 21-March, Dr. Clark Neely (Small Grains/Oilseed Extension Specialist; Texas A&M AgriLife Extension) indicated that, "***A report from Uvalde, TX late last week indicated stripe rust had increased significantly on susceptible checks. A fungicide trial in College Station, TX showed stripe rust building in the lower canopy. Flag leaves were still pretty clean, but F1 and F2 leaves were 5% or greater in much of the trial. The field surrounding the trial did not show any obvious signs of stripe rust at this time, but showed heavier levels of leaf rust. Talked to a grower in the Waco area and he reported leaf rust building in his wheat fields as well. Expecting dry conditions through the weekend but then turning wet for much of next week, which could facilitate further development.***"

Dr. Amir Ibrahim (Professor & Small Grains Breeder/Geneticist; Texas A&M AgriLife Research) indicated a somewhat similar scenario for wheat rust in south and central Texas by stating on 23-March that, "***Uvalde seems to be the first location where we detect wheat stripe rust every year. Stripe rust is also active at Castroville, College Station and McGregor. Warming temperatures expected at these locations may slow it significantly during coming weeks."*** Based on these two reports and the recent weather conditions in Oklahoma, I would expect stripe and leaf rust to begin to appear across Oklahoma where moisture was received over the last week. It likely has been too dry in western/northwestern OK and the panhandle to facilitate wheat rusts. Powdery mildew may begin to occur because powdery mildew does not require free moisture but rather just high humidity (see next paragraph).

Lanie Hale (Wheeler Brothers located in Geary, OK) indicated on 29-March that, “I’ve been in lots of fields this week; Canton, Okeene, Loyal, Geary, Greenfield and Calumet areas. The dry weather is taking its toll now and reducing harvested bushels daily in most fields I’ve been in. I’m seeing winter grain mites and brown wheat mites, with a few green bugs and cherry aphids. In some of these fields the mites are taking additional yield also. Mites are a dry weather pest, if we could get a good rain the wheat would outgrow them but if it doesn’t rain, there’s not going to be much of crop even if sprayed. Heavily grazed fields are failing, but the late planted, well fertilized, ungrazed fields are holding on fairly well (Figure 1). Brian and I saw lots of Powdery Mildew (Figure 2). This was a field with a thin stand, open canopy, top of the hill, red ground.”

Figure 1. Grazed field (to the right) compared to a not-grazed field (to the left) in western/west-central Oklahoma on about 28-March-2018. (Credit: Lanie Hale, Wheeler Brothers).

Figure 2. Severe powdery mildew infection observe in central/west-central Oklahoma on the lowest leaves in a wheat canopy. Note how leaves above these lowest leaves appear to not be so heavily infected. Photo credit to Lanie Hale, Wheeler Brothers.

Plant Disease and Insect Diagnostic Laboratory

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