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Wheat Disease Update

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No reports of significant diseases in Oklahoma. Around Stillwater, wheat soilborne/spindle streak mosaic are still showing strong in my screening nursery, but these virus diseases should not be much of a problem around the state due to resistance in nearly all planted varieties. Looking in the same places as 10 days ago, I did find a slight increase in the number of powdery mildew pustules on low leaves, but these pustules still are small and did not appear to be actively

sporulating. Wheat is mostly at the Feekes stage 6 but likely approaching stage 7.

Many thanks to Dr. Amir Inbrahim for sending the report below as this is the most comprehensive disease report I have heard to date from Texas. I interpret his observations to indicate that both stripe and leaf rust are present (especially leaf rust), but that build-up has not yet hit the upper canopy but in this area producers should be ready to "pull the trigger" to protect wheat with high yield potential. In Oklahoma we will need to wait and see if moisture comes to allow inoculum coming from southern Texas to infect the Oklahoma wheat crop.

Texas: Dr. Amir Ibrahim (Prof, Small Grains Breeding and Genetics, Texas A&M University) 30-Mar-2014: I have received reports from our research associates, around March 26, 2014, about the rust situation in South Texas.

<u>Castroville, TX</u>: The wheat crop is now at Feekes growth stages 8-10.5. Cultivars such as 'Everest' and 'Billings' have already headed at this site. There is a uniform spread of leaf rust (*P. triticina*) in the lower canopy



of the spreader rows throughout the field. The infection has not yet moved up into the middle canopy or the flag leaves. It has been raining during the week of March 24th, and the weather forecast calls for temperatures in the high 80's for the next few days, which will help promote the spread of the infection.

Stripe rust (*P. striiformis*) has spread throughout the replicated trials, especially on the spreader rows of 'Patton'. The infection was as high as 60S on the flag leaves of some experimental lines. There is uniform spread on TAM 111 in the range of 20-30S, which points to the presence of 2012 virulence. Temperatures have been cooler than normal which helped the spread of *P. striiformis* at this site. However, the warming temperatures will slow spread at this site but not necessarily at sites farther north if infection has already started.

<u>Wharton, TX</u>: The Wharton uniform rust nursery is located 90 miles south of College Station. The wheat crop is now at Feekes growth stages 8-10.5. 'Everest' has already headed at this site.

There is a uniform spread of leaf rust in the lower canopy of the spreader rows throughout the field. The infection is beginning to move into the mid canopy, and we believe mid-April should be a good target date for taking readings at this site.

<u>Beeville, TX</u>: Beeville is located 50 miles NW of Corpus Christi. We have both spring and winter wheat plots and head-rows at this site. The majority of the winter wheat here is at Feekes 5-7 growth stages, whereas the spring wheat is at 9-10. There is a buildup of leaf rust on TAM 112 in the head-rows and on the spreader rows around the yield trial plots.

<u>College Station, TX</u>: The wheat at this site is at Feekes 7-9 growth stages. There is a buildup of leaf rust in the lower canopy of 'TAM 110'.

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