Pest e-alerts

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Wheat Disease Update

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I was in the field this past week around Stillwater and up into northern OK around Lahoma (10 miles west of Enid), Cherokee (20 miles east of Alva) and just west of Alva. Wheat around Stillwater is at milk to soft dough, with wheat in northern Oklahoma more in the full kernel to milk stage. On susceptible varieties that were not sprayed, the effects of stripe rust were striking. Although only little active sporulation of the stripe rust fungus can be seen at Stillwater, quite active sporulation was apparent at Lahoma. Stripe rust also was found at Alva, but at a much lower incidence.

Finally, I have observed increasing and severe leaf rust around Stillwater, but not nearly as much in other locations. This next week I will be going to several field days in central and northern OK and will report again next weekend.

Severe leaf rust on wheat near Stillwater.

As a continuation from last week, wheat streak mosaic (WSM) is more common this year across northern and northwestern OK. This past week I again visited an area where several fields of commercial wheat were significantly impacted by an adjacent field in which volunteer wheat and/or weeds were not controlled following the 2015 harvest. This situation can result in devastation of wheat in surrounding fields. The Plant Disease and Insect Diagnostic Lab also continued to receive samples testing positive for the presence of the viruses that cause WSM, high plains disease, and barley yellow dwarf. For more information, see Fact Sheet EPP-7328 *Wheat Streak Mosaic, High Plains Disease, and Triticum Mosaic: Three Virus Diseases of Wheat in Oklahoma* at http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-8987/EPP-7328.pdf

Wheat streak mosaic in wheat growing next to a field in which volunteer wheat had not been controlled in the fall or through the winter.

Texas: Dr. Clark Neely (Small Grains & Oilseed Extension Spec; Texas A&M AgriLife Extension; College Station); May 06, 2016: "I was in wheat plots yesterday in Concho County, TX. There was still active stripe rust in the trial, namely hard red winter wheat varieties WB 4458 and Bentley. Most varieties were in the soft dough stage. Leaf rust was active as well at light to moderate infection rates. Active leaf rust was also present at moderate levels in Hill and Williamson Counties last week, though stripe rust had mostly faded and produced teliospores at that time. They were at soft dough at the time. We began harvesting wheat plots in South Texas this week and many producer fields are approaching harvest in the Central Texas region, likely in the next 1-2 weeks."

Texas (cont'd): Ms. Xandra Morris (Extension Agent-IPM; Texas A&M AgriLife Extension); May 03, 2016: "Stem rust was found in Hill county on TV8861 (a soft red winter wheat from Terral)

yesterday, May 1st. Rust was found in a local producer's field, wheat ranged from soft to hard dough. We have had much more rain that normal. The rust doesn't seem to be severe."

Stem rust of wheat observed in central Texas. Photo credit-Xandra Morris; Texas A&M AgriLife Extension.

Cereal Rust Bulletin from the Cereal Disease Lab in Minnesota; May 04, 2016.

Wheat stem rust. Wheat stem rust was found in a field of Progeny 870 in Red River Parish in northwestern Louisiana in late April. The stem rust incidence ranged from 20-80% with severities from 1-20%. Wheat stem rust was found at trace to low levels at Uvalde in southern Texas the fourth week of April. Stem rust was found in a commercial field of the soft red winter wheat TV8861 in Hill County in north central Texas on May 1. The rust was not at high levels, the wheat ranged from soft to hard dough stages. There had been more rain than average in the area. A single stem infected with wheat stem rust was found on a susceptible cultivar in central Mississippi in late April. Previously, wheat stem rust was reported in nurseries in southeastern Texas and southwestern Louisiana; watermelon windbreaks in the lower Rio Grande valley (extreme southern Texas); and in barley plots in south and southeastern.

Wheat leaf rust. Wheat leaf rust is widespread from the southern and central Great Plains to as far north as Virginia on the east coast. High levels of leaf rust were found in nurseries in eastern Virginia. Recent conditions in the Great Plains are conducive for further increase and develop of wheat leaf rust there.

Texas – By March 10, leaf rust was found throughout much of Texas from the Oklahoma border to the Gulf Coast. Plots at Castroville had heavy to moderate levels of leaf rust in mid-April.

Oklahoma – Rain the fourth week of April was very beneficial to the winter wheat crop, but with it came extended periods of dew conducive for rust development. Stripe rust was still active in the state, but it is expected wheat leaf rust will increase as the temperatures rise.

Kansas – Low levels of wheat leaf rust were reported in central Kansas by the last week of April. Recent rains had improved conditions for leaf rust development in the state. Previously, leaf rust was reported in many areas of the state and had reached high incidences in a few fields and plots in central Kansas.

Nebraska – There have been no new reports of wheat leaf rust from the state since the last bulletin. Very little disease was found in a survey in the southeast and south central counties of the state on April 27-28. Previously, wheat leaf rust was reported in the Panhandle, south central and eastern Nebraska, but no leaf rust was found in a survey of the southernmost tier of counties from southeast to west central Nebraska the third week of April.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

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