Pest e-alerts

Entomology and Plant Pathology, Oklahoma State University
127 Noble Research Center, Stillwater, OK74078
405.744.5527

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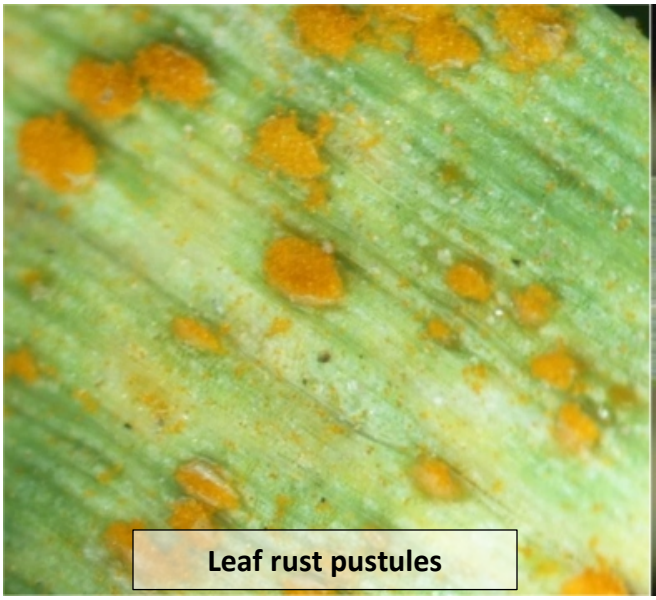
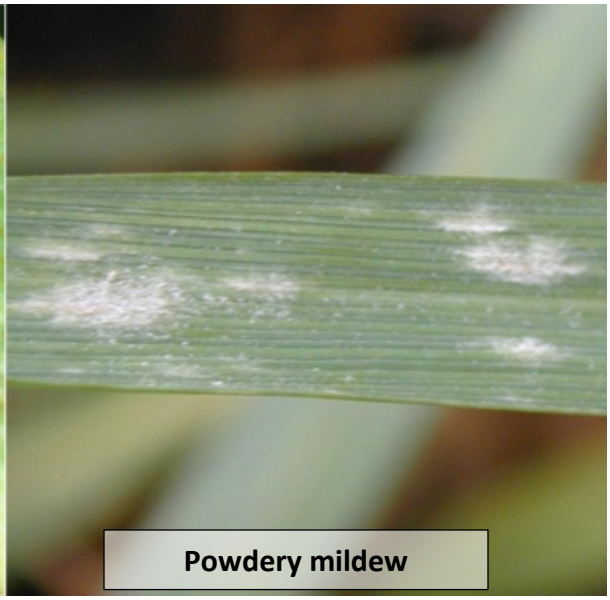
Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist

Oklahoma: Wheat around Stillwater is entering the flowering stage, but no change in foliar disease incidence and severity over the last 10 days has occurred because of the drought. Although can be found, foliar diseases appear to be negligible around Stillwater and across Oklahoma. Samples testing positive for barley yellow dwarf virus and wheat streak mosaic virus have been received in the Diagnostic Lab from eastern, northern, and northwestern Oklahoma. Around Stillwater, BYD is prevalent in many trials and powdery mildew can still be observed on lower (F-3 and F-4) leaves.


Leaf rust pustules


Powdery mildew

Texas: (Rex Herrington, Research Associate, TAMU): The whole state of Texas is under drought conditions, with 65% of Texas being under exceptional or extreme drought. We are having many fires also. The Texas Forest Service reported Saturday that the state has had 95 wildfires burning over 700,000 acres in the past week. This is the driest spring we have had in the last 40 years that I have been here at A&M. At College Station, we have only had 6 inches of rain since Oct. 1st of last year, which is 20 inches below normal. We have also set several new records for high temperatures this spring.

The area southwest of Houston has had the most rust reported. Today, I went to a small headrow nursery at Yoakum, which is about 30 miles north of Victoria, and about 65 miles north of the Gulf. They received more rain there than we have had at College Station. Also, the nursery was irrigated 2-3 times. The stripe rust previously reported at Yoakum, dried up and didn't move any more. Wheat leaf rust is very active there. Wheat stem rust was found on the McNair 701 trap **ONLY**, with numerous small pustules. I don't think it will increase much due to the plants drying down. McNair 701 was hammered by LR also.

At Castroville last week, wheat leaf rust was building, and some LR was moving up to the flag leaves. I didn't find any wheat stem rust, wheat stripe rust, oat crown or oat stem rust. There will be several breeders at Castroville next week, and they can give an update later.

Another Texas report (Dr. Yue Jin, Research Scientist, USDA-ARS, St. Paul, MN - traveling through TX): In Castroville, most entries are in early to mid-dough stage. Plots are in good shape. Drought is not evident due to irrigation. Wheat stem rust was found in a McNair 701 plot. Infection in the plot was not uniform, some tillers had rust up to 50S, but the majority of the tillers had 0 to trace amount. Stem rust may develop further on McNair 701 because most tillers are still quite green. Stem rust was not found in other UVT plots. Leaf rust reached nearly 70S on Jagger, Jagalene, Bullet and other susceptible lines, but not to the peak yet. McNair 701 had about 40S. More leaf rust will develop in Castroville as plants are still fairly green. In Uvalde, UVT plots are drying up (due to drought and maturity?). Wheat stem/leaf rust: Trace amount was on a few stems but mostly on leaves of McNair 701. Only trace amount of leaf rust on a few plots in UVT. Some plots in the irrigation section had a bit higher leaf rust but no more than 10% and plants are just headed out.

Arkansas (Dr. Gene Milus, Small Grains Pathologist, U of A): Stripe rust is still the most prevalent wheat disease across Arkansas, but levels are low due to a combination dry, warm weather, effective resistance in many varieties, and fungicide use. Based on observations and reports, stripe rust seems to be confined to fields where it overwintered. Disease from overwintering infections developed slowly and generally has

not broken out of the top of the wheat canopy to develop visible hot spots. This may explain why some fields of susceptible varieties still have no stripe rust. Other diseases are very light or not found. Yield potentials appear to be very good if fields were not damaged by glyphosate drift. Wheat is heading to flowering across central Arkansas and in boot stage in northern Arkansas.

Kansas (Dr. Erick De Wolf, Wheat Plant Pathologist, KSU): The wheat in Kansas is at the jointing stages of growth in most areas of the state this week. In general this growing season has been characterized by dry weather, but rains today are bringing some relief to many area of state. Despite the dry conditions, leaf rust was reported in Saline County (Central Kansas) this week. The disease was still at low levels (less than 5% incidence) and in the lower third of the canopy. The varieties affected included Protection and AP503CL2, which are both known to be susceptible to leaf rust. It is too early to tell how much of a threat leaf rust will be to wheat production in Kansas this year. The majority of the wheat acres in the state are planted with varieties that have moderate levels of resistance to the disease suggesting the impact of the disease should be lower than a few years ago when the most common varieties were susceptible to leaf rust. It is early for leaf rust to be found this far north in Kansas, and growers should be monitoring fields for signs of disease. Fields planted to varieties known to be susceptible to leaf rust including Jagger, Jagalene, and Overley should be top priories for scouting. Powdery mildew and septoria leaf blotch have also been observed at multiple locations, but not in all varieties. As with leaf rust, it would be a good idea to check fields for symptoms of disease especially now that some areas of the state have received some additional rain. Wheat streak mosaic has been observed at higher levels than in the past 3 years. We will continue to survey for WSM and other viral diseases so that we can better determine their distribution.

Louisiana (Dr. Stephen Harrison; Oat & Wheat Breeder, LSU): Leaf rust of wheat arrived late in Louisiana this year and will cause relatively little damage in commercial fields, which are also maturing ahead of schedule. Some fields have been sprayed but much of that was out of caution due to high prices, rather than need. Wheat leaf rust is very active in susceptible spreaders in Baton Rouge, but it is an even bet whether or not levels become high enough to provide reliable data before dry-down. Wheat leaf rust is also quite active in susceptible plots in northeast Louisiana (Winnsboro). Stripe rust developed around the state this spring but was not a significant problem for growers. Parts of Louisiana, particularly southwest, are very dry and the wheat crop is at or near physiological maturity. Commercial fields generally look very good and high excellent yield potential.

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

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