



Pest e-alerts



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Wheat Disease Update

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Around Stillwater, wheat is mostly in the kernel forming stages. Leaf rust has increased slightly, but still is relatively scarce except in certain fields where it is as high as 80-90S on Jagger. Barley yellow dwarf remains the most conspicuous disease, but somewhat surprising is the high level of powdery mildew that is still present on leaves below the flag (and even occasionally on flag leaves). Stripe rust can still be found, but most stripes are either necrotic or have only a remnant of sporulating pustules.

Dr. John Fellers (USDA-ARS Research Molecular Biologist at Manhattan, KS) was visiting family near Cherokee, OK and had this report: I was in Cherokee this week cleaning up tornado damage. One of our fields 3 mi south of Burlington was Everest. It was flowering Monday and stripe rust was at 5-10S. Next week field days start so I will have more of a statewide update then. The complex of leaf spotting that I suspect to be caused by tan spot, Septoria leaf blotch (SLB), and a physiological leaf spot (PLS) continues to be reported. Isolations from last week revealed another possible player in this as Bipolaris was isolated from samples collected at several fields in north central OK. Finally, over the last week several samples from central and northwestern OK tested positive for wheat streak mosaic virus, high plains virus, and/or barley yellow dwarf virus.

Arkansas: Dr. Gene Milus (Small grains pathologist, University of Arkansas, Fayetteville), 18-Apr: Nearly all wheat in Arkansas is now beyond flowering. Recent overnight lows have been in the 40s °F (39°F two nights ago in Fayetteville) and daytime highs are in the low 70s °F. This trend is forecast to continue for the next several days (forecast high in Fayetteville is 61°F on Saturday). This is in sharp contrast to many days in March when overnight lows were in the mid 60s °F and highs were in the upper 80s °F.



Yesterday I took disease notes on the variety test at Kibler near Fort Smith. Stripe rust was still active but slowing down and forming telia. Plots of a few varieties had >80% severity. No leaf rust was found in the variety test but a low level of leaf rust was found in other plots of known susceptibles.

Septoria leaf blotch ranged from 0 to 30% on flag leaves depending on the variety. BYD was scattered throughout the variety test but not severe. No head blight was found in inoculated plots of susceptible varieties.



Kansas: Dr. Erick De Wolf (Wheat Extension Pathologist, Kansas State University), 20-Apr: Stripe rust continues to cause problems in many parts of south central and central Kansas. The stripe rust is most severe on varieties previously thought to be resistant to the disease, strongly suggesting the emergence of a new race in the Great Plains. Below is a preliminary summary of information on the stripe rust reactions of some of the most common varieties. This information may be helpful for setting scouting and fungicide priorities in northern and western Kansas.

Leaf rust was also observed in some demonstration plots in south central Kansas this week. The leaf rust was on varieties known to be susceptible to the disease, including Overley, Fuller, and PostRock.

Preliminary stripe rust reactions of common wheat varieties 2012

Variety	Comments
Armour, Everest, Garrison, Ruby Lee, TAM111, TAM112, 2137, Jagalene, Endurance	Severe stripe rust reported in mid canopy, lesions developing on the flag leaf
Duster, Fuller*, Shocker*, PostRock*, Overley, Winterhawk, Santa Fe*, Danby*	Stripe rust reported, but disease development is slower than other more susceptible varieties.

* These varieties, on which stripe rust is developing more slowly this year, are known to be susceptible to previous races of the stripe rust fungus. Proceed with caution and verify with observations in your fields on all varieties this year.

Barely yellow dwarf had been reported in multiple regions of Kansas this spring. I was in many fields in Marion County with significant yellowing from what I suspect is barley yellow dwarf. Other fields in central and south central Kansas also appear to have low levels of the disease. Historically, barley yellow dwarf is most common in eastern and central Kansas. It can occur anywhere in Kansas, however.

Nebraska: Dr. Stephen Wegulo (Extension Plant Pathologist, Univ of Nebraska) 19-Apr: “Yesterday I surveyed wheat fields in seven southeast and south central Nebraska counties (Saline, Jefferson, Thayer, Nuckols, Webster, Adams, and Clay). I found stripe rust in all seven counties. Severity ranged from trace to 70% or higher on lower leaves in hot spots in the southern-most counties. In Adams and Clay counties (south central), which are farther north, severity was mostly trace. Incidence ranged from trace to about 50%. Crop growth stage in the southern-most counties was Feekes 10 (boot) in a few fields. The rest of the fields were mostly at Feekes 8 (flag leaf visible) to Feekes 9 (flag leaf emerged). Conditions in Nebraska are currently (and have been during the last seven or so days) very conducive to stripe rust development, with nighttime low temperatures in the mid 30-50s °F and daytime highs in the 60-70s °F and heavy rainfall last weekend in parts of southeast and south central Nebraska. In addition, rain is forecast today in parts of the wheat growing areas in the state.



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