



Pest e-alerts



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Wheat Disease Up

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This past week I looked at wheat around Stillwater as well as in central OK (Blaine Co. NW of Oklahoma City; Kingfisher just NW of OKC; Apache in Caddo Co. SW of OKC), and in SW OK around Altus. I saw wheat as far along as approaching flag leaf emergence to at growth stage 6-7. The more advanced wheat typically was planted relatively early and not grazed. Everywhere I was had sufficient moisture, although areas in southwestern and western OK were getting to a point where some rain definitely would be beneficial. In addition to my observations, I've received numerous reports that I'll summarize here.

At nearly all the places I stopped, I observed varying levels of stripe rust, leaf rust, aphids, and powdery mildew, with powdery mildew being by far the least prevalent. Stripe rust typically was scattered across fields, but there were some significant hot spots. In some fields (for example the variety trial at Kingfisher) I saw no stripe rust. Greg Highfill (Extension Educator, Woods Co.) and Darrell McBee (Extension Educator, Harper Co.) sent me



Photo credit: Greg Highfill & Darrell McBee

the photo below showing stripe rust they found this past week. They indicated the stripe rust was scattered and not common, but this does mean that spores are present in the field and will increase with favorable (cool and wet) weather. They also indicated finding a little powdery mildew. I also heard reports of severe stripe rust in susceptible varieties such as Pete, Garrison, and Everest.

More severe hot spots of stripe rust were reported by David Nowlin (Extension Educator; Caddo Co.), who sent the following photo of stripe rust on 'Pete', which is highly susceptible to stripe rust.



Similar reports regarding stripe rust were made by Dr. Brett Carver. He also has reported seeing considerable chlorosis (yellowing) often with the lack of sporulation. I saw the same type of yellowing with no sporulation at Kingfisher yesterday (see photo below, left). I'm not sure of the cause of this yellowing, but I don't believe it to be from rust or other foliar diseases because it is widespread in its distribution on lower leaves. Perhaps it is the result of the environment.



In no-till fields near Altus and Apache I saw striking tan spot on lower leaves along with numerous pseudothecia of the tan spot fungus on the wheat residue in the field. Near Altus, this was combined with stripe rust presence such as described above. In such a case, applying a fungicide early to catch both of these diseases should be considered, especially if the field at this point has a good yield potential. For more information to help make this decision, see OSU fact sheet CR 7668 Foliar Fungicides and Wheat Production in Oklahoma available at: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-4987/CR-7668web2016.pdf>



I also received a photo from Mike Schulte (Wheat grower and Exec. Director of the Oklahoma Wheat Commission) showing a high infestation of aphids (see photo below). For more information on this and the situation with aphids, see the release from Dr. Tom Royer in the latest edition (Vol. 15, No. 7) of the 'e-Pest alerts' newsletter now available for viewing and/or download from our department webpage.

<http://entoplp.okstate.edu/pddl/2016/PA15-7.pdf>



Photo credit: Mike Schulte



I've only received two reports from Texas this past week. One is from a former student that now lives in the Weatherford, TX area. He indicates that stripe rust is in the area. The other report is from David Nowlin (Extension Educator, Caddo Co.), who indicates a colleague of his located near Denton, TX sent him the following report on 15-March.

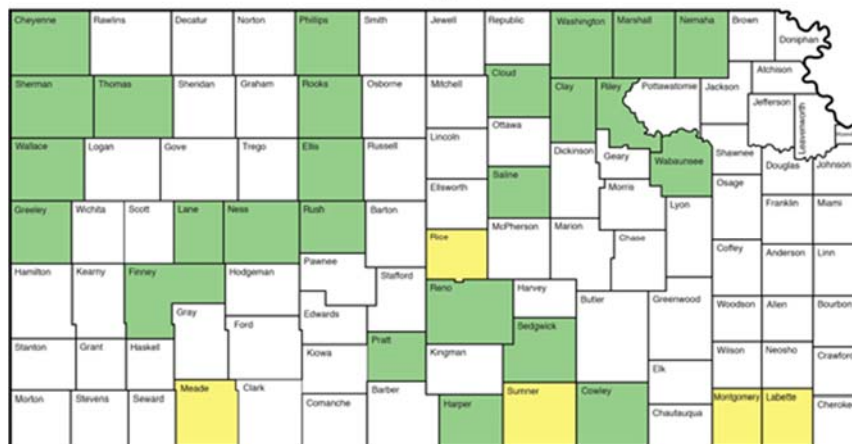
"We're getting hammered with strip and leaf rust as well as powdery mildew on our varieties down here in Denton, TX. We're just a little further ahead of you. Wheat is not as far along as we normally see".

Kansas: Dr. Erick DeWolf (Extension Plant Pathologist; Kansas State University; Manhattan, KS); Mar 19, 2016: "The wheat crop is growing rapidly throughout Kansas. The crop in the more advanced fields are approaching jointing in the northwest and are about a week away from flag leaf emergence in the south central and southeast portions of the state. The crop is generally considered to be about 3 weeks ahead of schedule with respect to normal growth and development. There are multiple reports of leaf rust and stripe rust in Texas, Oklahoma, and other surrounding states.



The Crops Extension team has been busy scouting for disease in recent weeks. We are finding active leaf rust and stripe rust in the state (see maps attached). Leaf rust was reported in west central and northwest, Kansas with most activity in counties bordering Colorado. Low levels of leaf rust were also observed in research plots in Riley County, which is located in northeast Kansas. The winter has been very mild in Kansas and it is very likely that the leaf rust has overwintered in the state. Stripe rust was reported in multiple counties this past week. Stripe rust is generally at very low levels with most activity reported in the southeast portion of the state. Tan spot and powdery mildew have also been reported in some areas of the state."

Distribution of Wheat Stripe Rust
March 18, 2016



Disease Risk
■ Stripe rust not observed
■ Stripe rust observed on lower leaves

Disease observation map based on reports from: E. De Wolf, R. Lollato, D. Shoup, L. Haag, S. Duncan, E. Adee, G. Cramer, A.J. Foster, S. Campbell, J. Carr, J. Coltrain, J. Falk-Jones, J. Green, D. Hallauer, R. Hein, A. Johnson, K. Larson, C. Long, T. Maxwell, C. Miller, M. Ploger, Z. Simon.

