



Pest e-alerts



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Wheat Disease Update

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I didn't get out in the field much this past week – too much rain (thankfully). However, I have received several reports and made a few phone calls, so will forward that information on. My impression is that much of the wheat in Oklahoma looks good and is about 2 weeks early.



In southwest/south central Oklahoma, Mark Gregory (SW Area Extension Agronomy Specialist) today indicated that much of the wheat in the area has the flag leaf emerging to fully emerged, but that wheat is not yet in the boot (but is getting close). He hasn't seen any rust, but has seen quite a bit of powdery mildew.

In northwest Oklahoma, Roger Gribble (NW Area Extension Agronomy Specialist) reported that on 23-Mar he toured through NW Oklahoma (Seiling, Arnett, Taloga, Woodward, Gage, Alva, Buffalo, Homestead) and saw generally across that area wheat had the flag leaf rolled up and emerging but not yet completely emerged. Roger saw tan spot and powdery mildew but no leaf or stripe rust.

The weather this past week across much of Oklahoma will provide favorable conditions for foliar disease infection and spread, so although neither leaf rust or stripe rust are widely present at this time, it is getting close to decision time regarding the application of a foliar fungicide. For more information on this topic, obtain [CR-7668 \(Current Report-7668\), "Foliar Fungicides and Wheat Production in Oklahoma."](#) Currently the 2011 edition is available; the 2012 revision, which has minimal updates from 2011, will be available toward the end of the week of 26-Mar.



Texas: Dr. Amir Ibrahim (Assoc. Prof, Small Grains Breeding and Genetics, Texas A&M), 19-Mar: Wheat rusts conditions in South Texas - I toured our nurseries at McGregor, 90 miles north of Austin, TX on March 19, 2012. Yellow rust (Yr) ranges from 30S – 70S on the 'Patton' border. Leaf rust is not present but powdery mildew is heavy on susceptible lines. Surprisingly, 'TAM 111' has the highest Yr susceptible reaction among the Texas Uniform Variety Trial (UVT) entries at a high of 40S, whereas both 'Jagger' and 'Jagalene' have a trace Yr. This is opposite of what we had in 2010 when Yr became virulent on

Yr17. Yellow rust is present in the lower to mid canopy on TAM 111. Historically, TAM 111 was susceptible at the seedling but resistant at the adult plant stage. However, we have not seen this high (40S) reaction on it before. TAM 111 is at Feekes' 9 (flag leaf ligule visible) in the McGregor UVT. It is early to make any conclusions about a race change at this point but it is a possibility. Samples were collected and sent to Xianming Chen. We will keep monitoring the rust situation very closely in South Texas.

Texas (cont'd): Dr. Yue Gin (Research Scientist, USDA-ARS, St. Paul, MN): 23-Mar-2012: The following rusts were observed on March 20 on several small grain cereal species planted as windbreaks in watermelon fields or as green manure in Rio Grande valley, southern TX.

- 1) Leaf rust of barley was severe on 2- and 6-rowed barley used as wind break. Plants were at heading.
- 2) Oat crown and stem rusts were observed on oats (plants scattered as a seed mix in windbreaks planted with barley and emmer) with severity ranges from trace to 80S. Oat was at boot to heading stage. Moderate to severe oat stem rust was observed on black oats (*Avena strigosa*) planted as a green manure crop.
- 3) Leaf rust was severe on plots of spring wheat. Morocco was prematurely killed by leaf rust.
- 4) Emmer and triticales (used mostly in the windbreaks) were at boot to heading stage and remained free from rusts. Stem rust is expected to develop on emmer and triticales at a later stage. Stem rust was observed on these two in 2011 and identified as race QFCSC.

Kansas: Dr. Erick De Wolf (Wheat Extension Pathologist, Kansas State University), 16-Mar: "I was out looking at research plots near Manhattan, Kansas (Northeastern, KS) March 1: Most parts of Kansas experienced warm temperatures this week and the wheat is growing rapidly. I am estimating that most of the crop is finished with tillering and is either strongly upright or jointing this week. I continue to receive reports of leaf rust and



stripe rust from Texas with wheat breeders reporting the leaf rust is severe on susceptible varieties in research plots near College Station and San Antonio. Stripe rust is also active at these locations but it does not appear to be as severe as in 2010. Oklahoma is reporting low levels of stripe rust near Stillwater.

To date, I have not been able to find leaf rust, or stripe rust in Kansas. However, the weather this past week likely favored movement and establishment of these diseases in our region. I have seen some fields and research plots with low levels of *Septoria tritici* blotch and powdery mildew, but currently these diseases are restricted to the lower leaves. The risk of severe disease yield losses is currently low in Kansas, but disease activity may increase if the weather remains favorable for disease development. Farmers should be checking fields carefully in the next 10 to 14 days make sure disease remains at low levels.

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