



# Pest e-alerts



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Vol. 10, No. 4

<http://entopl.okstate.edu/Pddl/>

Mar 14, 2011

## Brown Wheat Mites Are Showing Up in Winter Wheat

Tom Royer, Extension Entomologist



As if the prolonged La Niña drought hasn't caused enough trouble with our winter wheat crop, it can also assist pest problems, such as greenbugs and brown wheat mites to develop. Ron Wright, Custer County Extension Educator, Agriculture has been receiving reports that brown wheat mite populations are growing in some wheat fields. Producers need to remain alert to these problems so that their wheat does not suffer dual effects from dry growing conditions PLUS brown wheat mites or greenbugs.

This mite is small (about the size of this period.) with a metallic brown to black body and 4 pair of yellowish legs.

The forelegs are distinctly longer than the other three pair. Brown wheat mites can complete a cycle in as little as 10-14 days. They attach their eggs to soil particles and will undergo up to 3 generations each year, but have probably already completed at least one or two by now. Increasing populations will lay red-colored eggs, but spring populations begin to decline in mid-late April when females begin to lay white-colored "diapause" eggs.



Brown wheat mites cause problems in wheat that is already stressed from lack of moisture. They feed by piercing plant cells in the leaf, creating a fine stippling that gives infested leaves a grayish cast. As injury continues the plants turn yellow-bronze, then dry out and die. These mites feed during the day, so the best time to scout for them is in mid-afternoon. They do not produce webbing and will quickly drop to the soil when disturbed.

Brown wheat mite numbers can build up and cause yield loss under dry conditions. Scout fields by direct counts; tap plants over a white sheet of paper and count dislodged mites to get more

accurate counts. An insecticide treatment is warranted if your field inspection reveals 25-50 brown wheat mites per leaf in wheat that is 6-9 inches tall. An alternative threshold is “several hundred” per foot of row. However, make sure you check your field before deciding to spray, especially after a good rainfall, as this pest is just one hard driving rain away from being killed off.



Check CR-7194, Management of Insect and Mite Pests in Small Grains for registered insecticides, application rates, and grazing/harvest waiting periods. It can be obtained from any County Extension Office or download from the OSU at:

<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2601/CR-7194web2008.pdf>

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## Wheat Disease Update

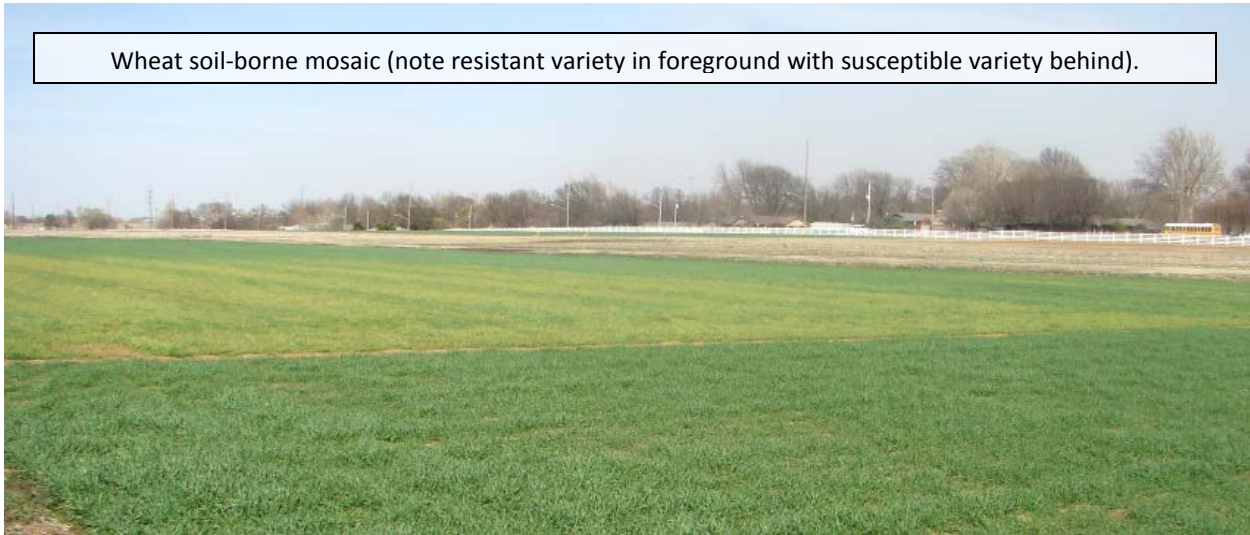
Bob Hunger, Extension Wheat Pathologist



**Oklahoma:** March 10-11 was spent in many fields around Stillwater. Symptoms of wheat soilborne mosaic are being strongly expressed in many fields. I also saw symptoms of wheat spindle streak mosaic in ‘Sierra’ but not nearly as strong as the SB symptoms in susceptible varieties such as ‘Vona’. Symptoms of barley yellow dwarf virus were apparent in early planted (mid-Sep) trials, most notably a seed treatment trial (not an insecticide trial) and the early planted variety-demo, which also was planted in mid-Sep. Aphids were plentiful in these areas last fall. Interestingly, the late planted (late Oct) variety-demo shows very limited BYDV symptoms. In

all of the wheat I looked at and rated yesterday and today, I saw active leaf rust pustules only in a strip of 'Jagalene' that had been planted in mid-Sep and has not been grazed or mowed. I looked at about 15 spots in this strip and found a few scattered pustules in only one place. Slightly higher levels of powdery mildew were observed in this wheat strip and in a few other locations. The only other disease report I've received so far in Oklahoma is from Mark Gregory (Area Extn Agron Spec – SW Oklahoma), who indicated that his area is dry – so dry that he has not seen dew formed for some time now.

Wheat soil-borne mosaic (note resistant variety in foreground with susceptible variety behind).



**Texas** (Dr. Amir Ibrahim (Wheat Breeder, Texas A&M): Today, I have found leaf rust on border strips of 'TAM 110' (Feekes 3.0 to 4.0) in the lower canopy in a demo trial at College Station. I could not find rust on our yield trials in the A&M Agronomy Farm at College Station. These trials got to a late start following dry planting conditions. We have had a very dry fall and winter over most of Texas. Half of Texas counties are under a burn ban. On March 8th, Rex Herrington and Bryan Simoneaux found both leaf and stripe rust at Yoakum (South Central Texas). We grow single rows at this location for evaluation of vernalization requirement of wheat and crown rust screening of oats. A few early lines are starting to head at this location. Three of the Southern Regional Performance Nursery (SRPN) entries had wheat stripe rust (10S) on the middle and upper leaves. Wheat leaf rust at Yoakum was found on 'Jagalene' (70S), 'TAM 110' (50S), 'Jackpot' (5S), 'TAM 112' (5S), with trace amount on 'Santa Fe', 'TAM 101', and 'Coronado'. Oat crown rust (5S) was seen on 'Nora', with a lot of susceptible flecking at the same Yoakum location. Powdery Mildew is getting heavy on a few lines.



Bryan Simoneaux saw 10S leaf rust on TAM110 at Uvalde, and he found a few single pustules of leaf rust on the blended rust spreader rows at the Multi-State Rust Evaluation Nursery at Castroville (12 miles west of San Antonio) on Monday the 7th. On March 4th, Rob Duncan, Small Grains Extension Specialist, reported severe leaf rust in commercial production fields in

Colorado and Wharton Counties (southwest of Houston) on 'Jackpot' wheat (80-100%). He reported that fungicide application has already started further south in Jackson County. Leaf rust was also found earlier at McGregor (near Temple) in central Texas by Daniel Hathcoat and Rob Duncan on 'Jagalene' and 'TAM 112'. We have not found or heard about rust yet in northeast Texas or in the Rolling and High Plains of Texas. We will keep you updated.

Texas Rust Update – March 4th 2011 Dr. Rob Duncan (Small Grains Extn Spec, Texas A&M): Severe leaf rust was identified on March 3, in commercial production fields in the Texas Counties of Colorado and Wharton (Southwest of Houston). The two main varieties planted in the area were 'Fannin' and 'Jackpot'. Leaf rust incidence was 80-100% on hundreds of acres of 'Jackpot'. No leaf rust was found in the variety 'Fannin'. Wheat growth stages ranged from Feekes 6.0 to Feekes 7.0. Fungicide applications had begun in these counties and there were reports of fungicide applications further south in Jackson County. As of the last weekend in February, no rust had been found in Castroville (Rex Herrington and Amir Ibrahim). Leaf rust has also been reported in Yoakum, TX on 'Weathermaster' and in McGregor, Texas on 'TAM 112' and 'Jagalene'.

At this point, no stripe rust has been found. I will keep you posted as the leaf rust progresses.



**Louisiana** (Dr. Boyd Padgett, Extn/Res Plant Pathologist, LSU AgCenter, LA): Stripe rust was identified in test plots on the Macon Ridge Research Station this morning (March 3, 2011). The rust is present at very low levels (less than 1%) in an extremely susceptible experimental line used for fungicide screening.

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

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