

Issued by:

Cereal Disease Laboratory

U.S. Department of Agriculture
Agricultural Research Service
1551 Lindig St, University of Minnesota
St. Paul, MN 55108-6052
(612) 625-6299 FAX (651) 649-5054

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- Wheat stem rust was found in central Texas and west central Mississippi plots.
- Wheat leaf rust levels are increasing in the south central plains and eastern areas of the U.S.
- Wheat stripe rust levels are severe in plots and fields in the central U.S. and Pacific Northwest.
- Oat crown rust levels are low in the southern U.S.
- Aecial infections on common barberry were found in Minnesota, Wisconsin, Idaho and Washington.

Wheat Stem Rust

Texas – In mid-May, low levels of stem rust were found in a plot of the stem rust susceptible McNair 701 cultivar at McGregor in central Texas

Mississippi – In mid-May, severe levels of stem rust were found in plots of late-maturing soft red winter wheat at Greenville in west central Mississippi. Stem rust observation maps can be found on the CDL website (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

This spring from collections made in Louisiana and Texas race QFCS was identified as the predominant race. This is a common race that has been found in the U.S. the past several years. This race is relatively avirulent - the majority of the U.S. cultivars are resistant to QFCS.

Wheat Leaf Rust

Oklahoma – In mid-May leaf rust was increasing in plots at Stillwater in north central Oklahoma. By the third week in May, wheat across southern and central Oklahoma had lost or was quickly losing its flag leaves from a combination of diseases and maturation. Some green tissue remained in flag leaves of varieties with resistance to leaf rust, or in wheat that had been sprayed with a fungicide. (For more detailed information see: Oklahoma reports on the [Current Cereal Rust Situation Reports page](#)).

Kansas – By the third week in May low levels of leaf rust had been observed in Kansas.

Louisiana – In mid-May, leaf rust levels were moderate in northeast Louisiana fields. The hot temperatures slowed the rust development in much of this area.

Arkansas – In mid-May, leaf rust had increased on susceptible varieties in plots and in northeastern Arkansas while low levels were found in fields in the same area. Good moisture conditions and



moderate temperatures promoted continued rust development in this area. (For more detailed information see: Arkansas reports on the [Current Cereal Rust Situation Reports page](#)).

Georgia – In mid-May, low levels of leaf rust were observed in fields while severe levels were found on susceptible varieties in plots in southwestern Georgia.

Kentucky – In mid-May, leaf rust was widespread in western Kentucky fields on susceptible varieties. Weather conditions were conducive for widespread infection and symptom development. Many of the fields have been sprayed with fungicide. This is the most leaf rust observed in this area in several years.

Illinois – During the third week in May, low levels of leaf rust were found in research plots in Fayette and Champaign Counties in Illinois.

Virginia – In mid-May, traces of leaf rust were observed on the susceptible cultivar Massey at Blackstone while severe levels found on the susceptible cultivars USG 320 and Sisson (both have Lr26) at Holland in southeastern Virginia. During the third week in May, leaf rust was severe on plots of susceptible cultivars at Painter on the eastern shore. Wheat leaf rust continued to worsen in magnitude at Warsaw on cultivars that are not highly resistant. (For more detailed information see: Virginia reports on the [Current Cereal Rust Situation Reports page](#)).

Delaware – During the third week in May, low levels of leaf rust were found throughout the canopy of several cultivars in the Delaware variety trial plots in Sussex County. One cultivar was heavily infected where the flag leaf infection ranged from 10-30%.

New York – In mid-May, trace levels of leaf rust were distributed across a 100-acre field at different canopy height levels in Genesee County in western New York. This is a fairly early detection date for New York but not unprecedented. (For more detailed information see: New York reports on the [Current Cereal Rust Situation Reports page](#)).

Minnesota – On May 21, trace levels of leaf rust were found in a plot of the susceptible winter wheat “old-timer” Cheyenne at Rosemount in east central Minnesota.

Wheat Stripe Rust

Oklahoma – During the third week in May, wheat across southern and central Oklahoma had lost or was quickly losing its flag leaves from a combination of diseases and maturation. Some green tissue remained on flag leaves of varieties with resistance to stripe rust, or in wheat that had been sprayed with a fungicide.

Kansas – During the third week in May, stripe rust was increasing throughout central and eastern Kansas. Stripe rust could easily be found on the flag leaves in most fields. The incidence of disease on the upper leaves ranged from trace to more than 20 percent and severity generally was less than 10%. Stripe rust is likely to cause severe yield losses in northern Kansas and many growers have attempted to reduce potential losses with fungicides. (For more detailed information see: Kansas reports on the [Current Cereal Rust Situation Reports page](#)).



Nebraska – By the third week in May stripe rust was widespread in south central and southeast Nebraska. Incidence and severity range from trace to nearly 100% depending on the field. Stripe rust was found in the southern Panhandle area in late May. (For more detailed information see: Nebraska reports on the [Current Cereal Rust Situation Reports page](#)).

South Dakota - In mid-May, low levels of stripe rust were found in a south central South Dakota field.

Colorado - In mid-May, low levels of stripe rust were found in eastern Colorado. Good moisture conditions and moderate temperatures promoted continued rust development in this area.

Arkansas – End-of-season rust situation: March and April generally were favorable for wheat and unfavorable for diseases. The one exception was stripe rust on susceptible varieties in some areas of the Arkansas River Valley and Southwest Arkansas. Delta wheat growing regions were not impacted by stripe rust most likely because the rust fungus did not overwinter in this region and stripe rust could not get an early start when conditions were favorable. The stripe rust epidemic is over, and no further spread or damage is expected. (For more detailed information see: Arkansas reports on the [Current Cereal Rust Situation Reports page](#)).

Kentucky - In mid-May, stripe rust was widespread in western Kentucky fields on susceptible varieties. Weather conditions were conducive for widespread infection and symptom development. Many of the fields have been sprayed with fungicide.

Illinois – During the third week in May, stripe rust was reported at a high incidence in a field located in St. Clair County in southwestern Illinois. Stripe rust was also observed at low incidences in University of Illinois research plots located in Fayette County (south central IL) and Champaign County (east central IL).

Wisconsin – During the third week in May, trace levels of stripe rust were found in a Dodge County field in southeastern Wisconsin.

Virginia – On May 21, trace levels of stripe rust were found in yield plots at Warsaw.

Maryland – During the third week in May, severe levels of stripe rust were found on the flag leaves of wheat in the Clarksville, Maryland plots at the anthesis growth stage.

Delaware – During the third week in May, several stripe rust foci were observed on several cultivars in the Delaware variety trial plots in Sussex County.

Pacific Northwest

Oregon – Stripe rust foci first were observed in March and subsequently the rust spread throughout the Willamette Valley of Oregon. The predominant winter wheat variety Goetze was heavily infected with stripe rust. Many fields have been sprayed twice and some may be sprayed a third time. During the third week in May, stripe rust was reported at the Pendleton Experiment station in northeastern Oregon. (For more detailed information see: Oregon reports on the [Current Cereal Rust Situation Reports page](#)).



Washington - On May 19, stripe rust was found in winter wheat fields and susceptible check plots in Whitman County in southeastern, WA. The date of the first stripe rust observation was similar to 2008 (May 17) but earlier than 2009 (June 2). During the third week in May, stripe rust was developing rapidly in the Walla Walla plots. Some fields have been sprayed with fungicide in this region. By the third week in May, stripe rust was increasing in the Central Ferry area in Columbia County in southeastern, WA. In late April stripe rust severities of 70-80% were observed on susceptible entries in Mt. Vernon plots in western WA. (For more detailed information see: Washington stripe rust report on the [Current Cereal Rust Situation Reports page](#)).

Oat Stem Rust – Stem rust observation maps can be found on the CDL website (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

Oat Crown Rust – In mid-May, crown rust infections were increasing in Louisiana plots.

Buckthorn – In mid-May, severe levels of aecial infections were noted on buckthorn in Brooking and Minnehaha counties in eastern South Dakota. During the third week in May, moderate levels of aecial infections were observed on buckthorn in the nursery at St. Paul. The cool and moist conditions the first three weeks in May have been conducive for aecial development on the buckthorn bushes in the Upper Midwest.

Barley Leaf Rust – This year in Virginia there was a considerable amount of barley leaf rust in plots at Painter, Blacksburg and Warsaw. Heavy leaf rust infection was found in a barley field near Lewes, Delaware.

Barley Stripe Rust – This year barley stripe rust has been reported in California, western Washington and western Oregon.

Barley Stem – As of early May, no barley stem rust has been reported in the U.S.

Rye Leaf Rust – During the third week in May, leaf rust was found in winter rye plots in east central, Minnesota.

Aecial infections on barberry. In mid-May in Wisconsin, aecial infection levels of susceptible barberry bushes (alternate host for stem and stripe rust) in Dane and Manitowoc Counties were low, while bushes in Ozaukee County were heavily infected with rust. In mid-May, moderate levels of aecial infections were found on susceptible barberry bushes in southeastern Minnesota.

In mid-May, aecial infections were observed on the common susceptible barberry bushes in Latah County, Idaho and Whitman County in Washington. The bushes in Latah County were heavily infected, almost every leaf was infected with multiple rust pustules, which was similar to last year. (For more detailed information see: Washington barberry rust report on the [Current Cereal Rust Situation Reports page](#)).



Fig. 1. Leaf rust severities in wheat fields and plots - May 25 , 2010



Fig. 2. Stripe rust severities in wheat fields and plots - May 25, 2010

