

*Issued by:***Cereal Disease Laboratory**

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<http://www.ars.usda.gov/Main/docs.htm?docid=9970>

Or, send an email to: Mark.Hughes@ars.usda.gov

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- Leaf rust has been found at generally low levels from southern Nebraska to southern Minnesota east across Indiana and Ohio and north to central New York.
- Stripe rust has now been found in all wheat growing areas of Nebraska. Low levels of stripe rust have been found in areas of Idaho.
- Oat crown rust with up to 50% severity was found in plots in southeastern Nebraska.
- Barley leaf rust was found at low severity in plots in southeastern Nebraska.

For original, detailed reports from our cooperators and CDL staff, please visit the [Cereal Rust Situation \(CRS\)](#) reports page on the [CDL website](#) or click the [CRS](#) link found throughout the bulletin.

The winter wheat harvest is underway in nearly all districts in Kansas and has progressed into southern Illinois and Indiana. By June 3, twenty percent of the U.S. winter wheat crop had been harvested. The barley harvest is underway in Maryland and Delaware and progressing in Virginia. By the end of last week 51% of the oat crop was at or beyond heading. Small grain development continues to be well ahead of normal in most areas east of the Rockies

Wheat stem rust. There have been no new reports of wheat stem rust since the last bulletin (see [CRB #5](#)). Previously, wheat stem rust was reported in Mississippi, Kansas and North Carolina and race QFCSC was identified from samples collected in a plot in northwestern Mississippi.

Wheat leaf rust. Leaf rust has been found at low levels from southern Nebraska to southern Minnesota east across Indiana and Ohio and north to central New York.

Nebraska – Leaf rust was widespread in southeastern Nebraska the last week of May. Leaf rust was at low to moderate incidence with severities up to 60% on susceptible cultivars in trial fields in southeastern Nebraska. Wheat in southeastern and south central Nebraska was at soft dough stage. Leaf rust on triticale ranged from trace to 50% in plots at Mead in southeastern Nebraska. Trace levels of wheat leaf rust were found in trial fields at North Platte in south central Nebraska. The wheat was at milky to soft dough stage.

Minnesota – Traces of wheat leaf rust were found in spring wheat spreader rows at Rosemount Experiment Station in southeastern Minnesota on May 25. Leaf rust was found at low incidence in a spring wheat field near Barrett in west central Minnesota in early June. Plants of Morocco had high incidence of leaf rust infections at St. Paul on June 5. Previously, trace levels of leaf rust were found on lower leaves in winter wheat plots at St. Paul Minnesota, May 22.

Michigan – There have been no updates since the last bulletin. Previously, leaf rust was found in fields in west central Michigan by May 23.



Illinois – There have been no updates since the last bulletin. Previously, leaf rust was found at low severity on several cultivars in plots in Fayette County in south central Illinois the second week of May. Winter wheat harvest has begun in some southern areas of the state.

Indiana – Leaf rust has now been reported across the state with 50% severities found on susceptible cultivars not treated with fungicides. Leaf rust development has progressed in northern Indiana, but is not yet severe. Winter wheat harvest is underway in southwestern counties and will soon move northward as the crop is maturing rapidly.

Maryland – Leaf rust may have overwintered in the state as pustules were found on susceptible cultivars in February, but remained at low levels until late April. In May, leaf rust developed rapidly with premature senescence of flag leaves of susceptible cultivars in a research plot by late May. Wheat is rapidly approaching maturity.

New York – Leaf rust at low severity and incidence was found in fields in Orleans County in northwestern New York and in plots in Tompkins County in south central New York in late May. Winter wheat was about 10 days past flowering on June 1.

Wheat leaf rust map. Please visit: (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

Wheat cultivar *Lr* gene postulation database. Please visit: [Leaf rust resistance gene postulation in current U.S. wheat cultivars](#).

Wheat stripe rust. Stripe rust was reported across the northern plains and the Great Lake states, northwestern Montana, southeastern Washington and northeastern Oregon the fourth week of May.

Nebraska – Stripe rust was found at Alliance and Sidney in the northern and southern Panhandle, respectively on May 23. Infections at North Platte in west central Nebraska were severe on May 24. With these reports stripe rust has now been found in all wheat growing areas of the state. Stripe rust was prevalent (along with leaf rust) in southeastern Nebraska the last week in May with severities up to 60% on susceptible cultivars in trial fields in Saunders, Lancaster and Saline counties. Stripe rust development was slowing with telia forming on wheat in fields in south central Nebraska by early June.

Colorado – Stripe rust was widespread, but at low levels across eastern Colorado plots and fields on May 25. Continuing dry weather with periodic high temperatures appeared to have limited stripe rust development. Some recent cool temperatures were not accompanied with much precipitation and will not likely result in significant stripe rust development. Previously, stripe rust was found at low levels in Phillips County in eastern Colorado in early May.

South Dakota – Small stripe rust lesions were appearing on the penultimate leaves of the winter wheat cultivar Wesley in plots at Volga in Brookings County in east central South Dakota on May 30. Wesley was at Feekes 10.5 stage. Traces of stripe rust were found in a field (early milk stage) in Bon Homme County in southeastern South Dakota in early June. Previously, stripe rust was reported in south central and southwestern South Dakota (see [CRB #5](#)).

North Dakota – Stripe rust was found in a field of the cultivar Mayville west of Grand Forks in east central North Dakota the fourth week of May. An updated report from North Dakota is expected later this week, please check [CRS](#) for updated information.

Minnesota – Stripe rust is now common in southern Minnesota with nearly 100% incidence found on the spring wheat cultivar Faller, in some fields the severity is approaching 10%. Trace amounts of stripe rust were found in



spring wheat spreader rows in plots at Rosemount in southeastern Minnesota on May 25. Recent rains and cool weather were conducive for stripe rust development. Plants of Morocco had high incidence of leaf rust infections at St. Paul on June 5. Previously, stripe rust was reported in plots at St. Paul and fields in southwestern Minnesota (see [CRB #5](#)).

Wisconsin – There have been no new reports since the last bulletin when low levels of stripe rust were found on flag leaves in a winter wheat field in southeastern Wisconsin on May 18.

Michigan – There have been no new reports since the last bulletin when stripe rust was reported in central Michigan fields (see [CRB #5](#)).

Illinois – There have been no new reports since the last bulletin when stripe rust was reported across the southern two thirds of the state (see [CRB #5](#)).

Indiana – Stripe rust was reported across the state by early June. It was most prevalent in southern and west central Indiana, but was observed at low incidence and severity in northern Indiana. Stripe rust was severe in west central Indiana in late May, the worst stripe rust seen in the area in more than thirty years. Winter wheat harvest is underway in southwestern counties and will soon move northward as the crop is maturing rapidly.

Ohio – Stripe rust was found in areas in Ohio, but was not widespread in all fields and on all cultivars. This was however the most stripe rust seen in the state in many years. The cultivar Malabar, as well as several lines in the scab nursery at Wooster in east central Ohio, were heavily infected. Fields of Malabar in the Sandusky area in north central Ohio were impacted by stripe rust, however, some fields were sprayed with fungicides. After an early warm spring the weather cooled for several weeks and stripe rust rapidly developed and it continued to develop even as temperatures warmed in late May. The winter wheat crop is about 2-3 weeks ahead of normal.

Maryland – Stripe rust was first found in Maryland the week of May 7. It was found to the east as well as to the west of the Chesapeake Bay (see [CRS](#)). Conditions in May were more favorable for leaf rust development and the stripe rust developed on and off during May rapidly producing telia. Stripe rust likely caused minimal damage in the state.

Delaware – There have been no new reports since the last bulletin when scattered stripe rust was reported in a few fields in central Delaware in early May.

California – There have been no new reports since the last bulletin when stripe was increasing throughout the Central Valley (see [CRB #5](#)).

Washington, Oregon – There have been no new reports since the last bulletin when stripe rust was found in fields southeastern Washington and in northeastern Oregon and plots near Pullman in southeastern Washington (see [CRB #5](#)).

Idaho – Stripe rust was found in three fields of the winter wheat cultivar Brundage in the Magic Valley in south central Idaho in early June. The upper leaves were infected indicating the infection occurred this spring and was not an overwintered infection. The fields were sprayed with fungicide. Winter wheat in the area is in heading to flowering stage. Low levels of stripe rust were found in plots at Parma in southwestern Idaho. On June 4, low levels of stripe rust were found on susceptible cultivars in plots at the Parker Farm in Latah County in northwestern Idaho.

Montana – There have been no new reports since the last bulletin when stripe rust was found in winter wheat nurseries in Kalispell in northwestern Montana on May 10.



Alberta, Canada – A light stripe rust infection was found in a winter wheat field at Lethbridge in southern Alberta in late May. The winter wheat was at flag leaf stage.

Ontario, Canada - There have been no new reports since the last bulletin when low levels of stripe rust were found in a 100 acre commercial field of Pioneer 25R47 in the Chatham area (~ 50 miles east of Detroit) on May 22 (see [CRB #5](#)).

Stripe rust samples

Please send wheat and barley stripe rust collections as soon as possible after collection to:

Dr. Xianming Chen
USDA-ARS
361 Johnson Hall
P.O. Box 646430
Washington State University
Pullman, WA 99164-6430
email: xianming@wsu.edu

Note: Stripe rust collections are vulnerable to heat and do not survive long at warm temperatures; therefore, if shipment of collections for race identification is delayed their viability will be greatly reduced. An overnight courier service is preferred for sending stripe rust collections.

Wheat stripe rust map. Please visit: (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

Oat stem rust. There have been no new reports of oat stem rust at locations other than reported earlier (extreme southern Texas and College Station Texas (see [CRB #1](#))).

Oat crown rust. Oat crown rust with up to 50% severity was found in plots at Mead in southeastern Nebraska in early June. Previously, oat crown rust was reported on oat planted as an alfalfa nurse crop in southern and central Kansas and southwestern Missouri and in plots in Minnesota, North Carolina, Louisiana and Texas (see [CRB #5](#)).

Barley stem rust. Not yet reported this year in the U.S.

Barley leaf rust. Barley leaf rust was prevalent at low severities in plots at Mead in southeastern Nebraska in early June. Previously, barley leaf rust was reported in plots in the southern San Joaquin Valley and at UC Davis in California and east central Georgia, Delaware, Virginia and extreme southern Texas (see [CRS](#)).

Barley stripe rust. There have been no new reports since the last bulletin when barley stripe rust was reported at low severities in nurseries in the Sacramento and San Joaquin Valleys in California and in western Oregon and western Washington (see [CRS](#)).

Rye stem rust. Not yet reported this year in the U.S.

Rye leaf rust. Not yet reported this year in the U.S.

