

*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
Mark.Hughes@ars.usda.gov

For the latest cereal rust news from the field, subscribe to the cereal-rust-survey listserv list. To subscribe, please visit:
<http://www.ars.usda.gov/Main/docs.htm?docid=9970>

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

Reports from this list as well as all Cereal Rust Bulletins are maintained on the CDL website (<http://www.ars.usda.gov/mwa/cdl>)

For the 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](#) links found throughout the bulletin.

Winter wheat harvest has commenced in parts of the southeastern Nebraska. The winter wheat harvest was progressing in Colorado (21% complete), Illinois (75%), Indiana (39%) and Ohio (11%) by July 3.

- Low levels of wheat stem rust were found in plots in southeastern Minnesota and west central Indiana.
- Leaf rust was found in plots in SE Minnesota; plots and fields in central North Dakota; and much of New York.
- Stripe rust is active and severe in many areas of the Pacific Northwest, Utah and Montana.

Wheat stem rust. Generally, wheat stem rust has been found at low levels in scattered plots and fields in the central and southern Great Plains and Ohio Valley (see CRS). Since CRB #6, stem rust was found at low levels in Panola and McNair 701 plots in southeastern Minnesota on June 24 and in a plot in west central Indiana on June 6.

To date, wheat stem rust has been found at low levels in areas of Texas, Louisiana, Oklahoma, Kansas, Nebraska, Arkansas, Missouri, Kentucky and Indiana. Race QFCSC, the predominantly identified race in recent years, was identified from plot and field collections from southern Texas, south central Louisiana, northeast Arkansas, southeastern Kansas and north central Missouri (see stem rust observation map or CRS for details). Race QCCDC was identified from a plot collection in south central Louisiana.

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

Wheat leaf rust.

Nebraska – There have been no new reports since June 10 when low levels of leaf rust were found in most fields surveyed in the southern tier of counties.

Illinois – There have been no new reports since June 1 when low levels of leaf rust were found in a soft red winter wheat nursery in southeastern Illinois.

Indiana – There have been no new reports since early June when leaf rust was found throughout the state and was moderately severe on some cultivars.

Minnesota – Leaf rust was heavy on flag leaves of susceptible cultivars and at lower levels in resistant cultivars in plots in southeastern Minnesota on June 24.



North Dakota – Trace amounts of leaf rust were found in a plot of Alsen spring wheat at Fargo, in east central North Dakota on June 30. Trace amounts of leaf rust were found on Darrell winter wheat at Jamestown in central North Dakota on June 30. These initial reports of leaf rust are about three weeks later than normal.

Montana – Low levels of leaf rust were found on the cultivar Yellowstone near Manhattan in the Gallatin Valley in southwestern Montana on June 23. Leaf rust was also present in the Yellowstone Valley by mid-June. Leaf rust reports had come in from throughout the state by late June.

New York – Low incidences of leaf rust have been found in winter wheat plots and fields across central, western and southern New York by June 20. Most fields showed rust on upper leaves, but a small number of fields had more severe rust on all leaf positions from likely local overwintering infections.

Ontario, Canada – In southwestern Ontario (Windsor to north of London), leaf rust incidence has increased from <1% to 10% over the last week with severities from trace to 40% on flag leaves. The late development of leaf rust will have limited impact on yield. Winter wheat harvest will begin next week in southwestern Ontario.

Wheat leaf rust observation map can be found on the CDL website (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

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

Wheat stripe rust. Wheat stripe rust is active and severe in many areas of the Pacific Northwest, Montana and northern Utah. Areas not treated with fungicides could experience yield loss.

Colorado – There have been no new reports since June 13 when very low levels of stripe rust were found in plots of susceptible cultivars at Fort Collins in north central Colorado.

Nebraska – There have been no new reports since June 10 when severe levels of stripe rust were found scattered throughout a field in south central Nebraska. Previously, a small focus of stripe rust (trace to 35% severity) was reported in a commercial field in southeastern Nebraska in late May (see CRS).

Illinois – There have been no new reports since June 1 when stripe rust at very low incidence was found in southeastern Illinois. Previously, low levels of stripe rust were reported in plots in east central Illinois on May 13.

Indiana – There have been no new reports since stripe rust was found in a southern Indiana field the second week of May and in plots and fields in west central and central Indiana, respectively in early June.

Missouri – There have been no new reports since early June when traces of stripe rust were found in many areas of the state (see CRS).

Utah – Stripe rust in some irrigated fields in the Bear River Valley of northern Utah will likely cause yield reductions. Fungicides were applied by many producers mitigating the possible damage.

Idaho – Stripe rust increased rapidly in northwestern Idaho by late June. Fields of susceptible cultivars not treated with fungicides will likely be significantly impacted.

Montana – Stripe rust was very active and severe throughout most wheat producing counties in the state by late June. According to a retired plant pathologist, this is the worst stripe rust he has seen in 30 years. The



resistance in the cultivar Yellowstone and AP503 are holding up while the cultivar Genou is very susceptible. Fungicides have been applied in many areas.

Washington – Stripe rust increased rapidly in much of the state, particularly the Palouse region in southeastern Washington by late June. Susceptible winter wheat entries in plots around Pullman (southeastern Washington) had 100% severities, all from natural infection. Most commercial winter wheat and many spring wheat fields have been sprayed one or more times. Due to the extended rust season and extremely high spore load this year it may be economical in some cases to fungicide treat resistant cultivars (see CRS). High-temperature-adult-plant (HTAP) resistance is holding up, but not to its full extent due to the early season low temperatures and heavy spore load.

Alberta, Canada – Stripe rust was found at Vulcan in south central Alberta on the winter wheat AC Intrepid and hard white spring wheat Snowstar in early July. The winter wheat was at full boot to 50% headed; the spring wheat was at 6 leaf – 3 tillers.

Ontario, Canada – Stripe rust was found in a winter wheat nursery at Ridgetown in southwestern Ontario in late June. Incidences ranged from trace to 20% with severities up to 30%.

Wheat stripe rust observation map can be found on the CDL website (<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

Oat stem rust. There have been no new reports of oat stem rust since the reports of oat stem rust in plots in Texas and Louisiana in April and May, respectively (see CRS).

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

Oat crown rust. Oat crown rust continued to increase rapidly throughout the Matt Moore Buckthorn Nursery at St. Paul, Minnesota in early July with the spreader rows reaching 60-80S. Despite the application of insecticides, barley yellow dwarf virus (BYDV) was found throughout the nursery. Viruliferous aphids likely were feeding on the oats at the seedling stage prior to insecticide application. Previously, crown rust was reported in plots in North Carolina, Alabama and Texas (see CRB #3, #4).

Barley stem rust. There have been no new reports of barley stem rust since it was found in windbreaks for watermelon fields in southern Texas in late April (see CRS).

Barley leaf rust. There have been no new reports since June 20 when low levels of barley leaf rust were found on winter barley plots at St. Paul, Minnesota. Previously there were reports in May from Virginia, North Carolina and California (see CRS).

Barley stripe rust. Low levels of barley stripe rust were found in the Pullman, Washington nursery in mid June. Barley stripe rust is at very low levels in the Palouse region and will not likely be a significant problem in the area. Previously, barley stripe rust was reported in the Central Valley of California in April and May (see CRS).

Rye leaf rust. Rye leaf rust was present in plots in southeastern Minnesota on July 7. Previously, heavy leaf rust infections were observed on an unknown winter rye cultivar in rotation with watermelon in fields in southern Texas in late April.

Rust on barberry. Barberry bush infection in the Palouse region was delayed this year due to the cool spring. Stem rust may appear late in the season in wheat and barley fields in the area, however, widespread fungicide application may provide some protection.

