

*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

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

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- Leaf rust has been observed in North Dakota, Wisconsin and New York.
- Stripe rust has now been found on winter and spring wheat across North Dakota and is severe in some winter wheat fields.
- Stripe rust is severe in areas of Valley County in northeastern Montana.
- Oat crown rust has been found in central New York.

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 Nebraska, Colorado, Illinois, Indiana and Ohio and just beginning in parts of South Dakota and Michigan. Dry conditions and an early spring have accelerated small grain maturity in many areas east of the Rockies. By June 24, producers had harvested 59 percent of the U.S. winter wheat crop for the quickest pace on record. Fifty seven percent of the spring wheat crop was at or beyond heading by end of last week. The oat harvest is underway in Iowa, Nebraska, Ohio and Texas with 10% of the U.S. crop harvested.

Wheat stem rust. Stem rust was found at low levels in only six fields in Illinois, Indiana and Ohio in an early June survey. Race QFCSC, the predominantly identified race in recent years, has been identified from samples collected from winter wheat fields in Kansas, Illinois, Indiana and Ohio and in plots in Mississippi and Kansas.

Wheat leaf rust.

Nebraska – There have been no new reports from the state since the last bulletin (see [CRB #6](#)). Previously, leaf rust was reported as widespread in southeastern Nebraska and at trace levels in trial fields in south central Nebraska. Thirty two percent of the state’s winter wheat crop was harvested by June 24.

Minnesota – Low levels of leaf rust were found in areas in the southern Red River Valley in late June. Leaf rust was found at lower incidence, but one field had 30% severity in Norman County in northwestern Minnesota. Leaf rust has been observed at low levels in plots in southeastern Minnesota.

North Dakota – The first confirmed observations of wheat leaf rust in the state were on June 18 in Cass and Slope Counties in eastern and southwestern North Dakota, respectively. The leaf rust was at trace levels in both locations.

Wisconsin – Trace levels of wheat leaf rust were found in a few fields in northeastern Wisconsin in late June. Prior to last week less than an inch of rain had fallen in the previous 5 weeks in the area.

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 – Low to moderate levels of wheat leaf rust were found in west central Illinois in early June. Eighty four percent of the state’s winter wheat crop was harvested by June 24. Previously, leaf rust was found at low severity on several cultivars in plots in south central Illinois the second week of May.

Indiana – Low to moderate levels of wheat leaf rust were found in west central Indiana in early June. Seventy two percent of the state’s winter wheat crop was harvested by June 24. Previously, leaf rust was reported across the state and some susceptible cultivars had 50% severities in fields not treated with fungicides.

Ohio - Low to moderate levels of wheat leaf rust were found in northwestern Ohio in early June. Twenty percent of the state’s winter wheat crop was harvested by June 24.

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.

Wheat leaf rust races identified to date from 2012 collections.

Virulence code	Virulences	No. of isolates
MBDSD	1,3,17,B,10,14,39/41	2
MCDSB	1,3,26,17,B,10,14a	3
MCNSB	1,3,26,3ka,17,B,10,14a	1
MCRJG	1,3,26,3ka,11,30,10,14a,28	1
MCTNB	1,3,26,3ka,11,17,30,B,14a	3
MDNSB	1,3,24,3ka,17,B,10,14a	2
MFBSB	1,3,24,26,B,10,14a	1
MFDSB	1,3,24,26,17,B,10,14a	4
MFNSB	1,3,24,26,3ka,17,B,10,14a	1
MFPSB	1,3,24,26,3ka,17,30,B,10,14a	3
MLDSD	1,3,9,17,B,10,14a,39/41	4
MMPSD	1,3,9,26,3ka,17,30,39/41	1
TBBGJ	1,2a,2c,3,10, 28,39/41	4
TCRKG	1,2a,2c,3,26,3ka,11,30,10,14a,18,28	4
TDBGJ	1,2a,2c,3,24,10,28,39/41	1
TFPSB	1,2a,2c,3,24,26,3ka,17,30,B,10,14a	1
TNBJG	1,2a,2c,3,9,24,10,28,39/41	11
TNBJJ	1,2a,2c,3,9,24,10,14a,28,39/41	5
TPBGD	1,2a,2c,3,9,24,26,10,39/41	1
TPBGJ	1,2a,2c,3,9,24,26,10,28,39/41	3
TPBQJ	1,2a,2c,3,9,24,26,B,10,28,39/41	1
Total		57

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.

Nebraska – There have been no new reports from the state since the last bulletin (see [CRB #6](#)). Thirty two percent of the winter wheat crop was harvested by June 24. Previously, wheat stripe rust was reported from all wheat growing areas in the state.

Colorado – There have been no new reports from the state since the last bulletin (see [CRB #6](#)). Previously, stripe rust was widespread, but at low levels across eastern Colorado (see [CRS](#)). Dry conditions appeared to have limited stripe rust development.

South Dakota – There have been no new reports from the state since the last bulletin (see [CRB #6](#)). Previously, stripe rust was reported in plots in east central South Dakota, a field in southeastern South Dakota and in south central and southwestern South Dakota (see [CRS](#)).

North Dakota – Stripe rust has been reported across the state both in winter and spring wheat cultivars. In some winter wheat fields stripe rust is severe, e.g. on Ideal in Cass County (east central); Jerry in Cavalier County (northeast) and Matlock in McHenry County (central). Stripe rust development on spring wheat may become most severe in the northern counties where conditions are favorable (cool, more moisture, heavy dews). Spring cultivars currently affected include Faller, Prosper, Vantage and RB07; trace levels have been found on Velva and Rollag. Stripe rust development in the southern part of the state had slowed due to warmer and drier conditions. Fungicides were being applied in areas of the state that had received substantial rain.

Minnesota – Stripe rust has now been found at varying levels throughout the state, the highest incidence (75%) was found last week in a field in west central Minnesota. The cultivar Faller is one of the most impacted cultivars in the state, but stripe rust has also been found on Vantage.

Wisconsin – Stripe rust was observed in northeastern Wisconsin fields in mid-May, but stripe rust development in the area stopped due to the dry conditions. Previously, low levels of stripe rust were reported 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 of stripe rust in the state since [bulletin #5](#) when stripe rust was reported across the southern two thirds of the state. Eighty four percent of the winter wheat crop was harvested by June 24.

Indiana – There have been no new reports of stripe rust in the state since stripe rust was reported across the state by early June (see [CRB #6](#)).

Ohio – There have been no new reports of stripe rust in the state since stripe rust was reported in areas in Ohio, but was not widespread in all fields and on all cultivars (see [CRB #6](#)). Twenty percent of the winter wheat crop was harvested by June 24.

California – There have been no new reports since [bulletin #5](#) when stripe was increasing throughout the Central Valley. Sixty five percent of the state's winter wheat crop was harvested by June 24.

Washington – Stripe rust developed to significant levels in south central, central and eastern Washington and northern Idaho by early June (see [CRS](#)). Commercial fields in Adams County in southeastern Washington had severities up to 40% with 20% incidence. Stripe rust was difficult to find in commercial fields in the Palouse region except for some fields in Whitman County where 10% incidence and severities were



observed. Hot spots were found in a nursery in Whitman County and based on the stripe rust development the rust had overwintered. Stripe rust development likely increased in most areas over the last few weeks.

Idaho – Stripe rust was found in one field in Latah County in early June. Previously, stripe rust was found in three fields of the winter wheat cultivar Brundage in south central Idaho in early June (see [CRS](#)) and at low levels in plots in southwestern Idaho.

Montana – Stripe rust developed and spread quickly resulting in a severe outbreak in areas south of Richland in Valley County in northeastern Montana in late June. The winter wheat cultivar Jerry was most severely impacted while Buteo had some lesions and Yellowstone was not yet affected. Stripe rust at Kalispell in northwestern Montana was still at low levels but developing in early June. Most wheat in the area was past heading. Low levels of stripe rust were found in Hardin in south central Montana on June 6.

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. Crown rust was found on oat in Renville County in south central Minnesota and in Oneida County in central New York in late June. Previously, oat crown rust was reported in fields in central Kansas and southwestern Missouri as well as in plots in southeastern Nebraska, Minnesota, North Carolina, Louisiana and Texas (see [CRS](#)).

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

Barley leaf rust. There have been no new reports of barley leaf rust since the last bulletin (see [CRB #6](#)). Previously, barley leaf rust was reported in plots in the southern San Joaquin Valley and at UC Davis in California, southeastern Nebraska and east central Georgia, Delaware, Virginia and extreme southern Texas (see [CRS](#)).

Barley stripe rust. There have been no new reports since bulletin #6 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.

