

Issued by:

**Cereal Disease Laboratory**

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*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.*

- Significant levels of wheat stem rust were found in commercial fields in northeastern Wisconsin.
- Leaf rust was found in plots and fields in northeastern Wisconsin.
- Stripe rust is still active in many areas of the Pacific Northwest and Montana.
- Rye stem rust was found in winter rye cover crops in a nursery in south central New York.

**Wheat stem rust.** Generally, wheat stem rust has been found at low levels in scattered plots and fields in the Great Plains, Ohio Valley and Great Lakes region (see stem rust observation map and CRS).

Significant levels of stem rust (1- 40% severity) were found in commercial soft red winter wheat fields within 5 miles of the Lake Michigan shoreline between Sturgeon Bay and Manitowoc in northeastern Wisconsin on July 14. The crop was maturing rapidly and will be harvested within the next two weeks. Stem rust was found in some plots (overall uncommon in the nursery) at Williston in northwestern North Dakota on July 14. Field scouts found no rust in the 137 commercial wheat fields scouted last week in North Dakota. Wheat stem rust was found in plots in central and northern Illinois in late July. Light to moderate stem rust severities were observed in plots in two counties in south central Michigan on the cultivar Jupiter and two nursery lines in late June and early July.

To date, wheat stem rust has been found, generally at low levels, in areas of Texas, Louisiana, Oklahoma, Kansas, Nebraska, North Dakota, Minnesota, Arkansas, Missouri, Kentucky, Illinois, Indiana, Wisconsin and Michigan. Race QFCSC, the predominantly identified race in recent years, was identified from plot and field collections from Texas, Kansas, Louisiana, Arkansas, Missouri and Minnesota (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.**

**Minnesota** – Low levels of leaf rust were found on the cultivar Marshall (*Lr2a*, *Lr10* and *Lr34*) in plots in central and northwestern Minnesota in mid-July. The cultivars Faller and Prosper, which likely have *Lr21*, had low to moderate levels of leaf rust, while other cultivars with *Lr21* had no leaf rust. Generally, leaf rust is at low levels in the northern hard red spring wheat region.

**North Dakota** – Leaf rust was common in plots at Williston in northwestern North Dakota the second week of July, but could not be found in fields in the Dickinson area in the southwestern part of the state. Field scouts



found no rust in the 137 commercial wheat fields scouted last week in the state. Previously, trace amounts of leaf rust were found in plots in east central and central North Dakota (see CRS).

**Montana** – Leaf rust (100% incidence, 5% severity on flag leaves) was found in winter wheat fields south of Malta in north central Montana on July 12. Previously, leaf rust was reported from throughout the state (see CRS).

**New York** – Low levels of wheat leaf rust were found on various soft red winter wheat lines in mowed alleyways in the nursery at Aurora in central New York in mid-July. Very little rust was found in the plots.

Previously, leaf rust was found in winter wheat plots and fields across central, western and southern New York in late June (see CRS).

**Wisconsin** – Wheat leaf rust severities ranged from 0 to 40% in unsprayed soft red winter wheat plots at the University of Wisconsin Experiment Station at Sturgeon Bay in northeastern Wisconsin on July 8. In unsprayed soft red winter wheat fields (soft dough growth stage) within 5 miles of the Lake Michigan shoreline from Sturgeon Bay to Manitowoc, 40% leaf rust severities were observed on July 14.

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 and Montana.

**Utah** – There have been no new reports since stripe rust was reported in irrigated fields in northern Utah in early July (see CRB #7).

**Idaho** – Stripe rust development in winter wheat has nearly ceased, particularly in cultivars with high-temperature adult plant resistance (HTAP). Some spring wheat cultivars are exhibiting higher than expected stripe rust infection (e.g., UI Pettit) while others (e.g., Alturas) are holding up. Spring wheat fields sprayed with fungicides at herbicide timing had reduced infection compared to unsprayed fields; however, stripe rust was redeveloping when a second application was not applied.

**Montana** – Stripe rust is still active in much of the state despite the high daytime temperatures (90 - 100+ F). Nighttime temperatures range from 55 - 70 F with high humidity and significant dews. Stripe rust was widely prevalent in both winter and spring wheat in Fergus, Phillips and Valley counties in north central Montana in mid-July.

**Washington** – There have been no new reports since CRB #7 when stripe rust had increased rapidly in the Palouse region in late June and most commercial winter wheat and many spring wheat fields had been sprayed one or more times. High-temperature-adult-plant (HTAP) resistance was holding up, but not to its full extent due to the early season low temperatures and heavy spore load.

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.** Oat stem rust was found in plots at Urbana in east central Illinois on June 25. This is the first report of oat stem rust since it was found 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.** Despite reduced oat acreage in New York, more crown rust has been found than in recent years. Epidemics have been reported in Oneida and Tompkins Counties in central and south central New York, respectively, in mid July. Low levels were found in Cayuga County in central New York on July 17. Severe crown rust was found on the cultivar Robust which by some references was referred to as resistant.

Previously, crown rust was reported in plots in Minnesota, North Carolina, Alabama and Texas (see CRB #3, #4, #7).

**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.** Barley leaf rust was found in winter barley plots (20% severity) in plots at the University of Wisconsin Experiment Station at Sturgeon Bay in northeastern Wisconsin on July 8. The barley growth stage ranged from soft dough to ripe. Previously barley leaf rust was reported in winter barley plots at St. Paul, Minnesota (June 20) and earlier reported in May from Virginia, North Carolina and California (see CRS).

**Barley stripe rust.** Barley stripe rust can be found in Idaho, but by early July it had not been found at damaging levels in commercial fields.

Previously, barley stripe rust was reported in the Pullman, Washington nursery and in the Palouse region (low levels in mid-June) and in the Central Valley of California in April and May (see CRS).

**Rye stem rust.** Rye stem rust was found throughout winter rye cover crops at the Cornell Vegetable Research Farm at Freeville in south central New York on July 16.

**Rye leaf rust.** There have been no new reports of rye leaf rust since it was found 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.** In early July, moderate levels of aecial infections were observed on common barberry bushes near Potlatch, western Idaho.

