

# CEREAL RUST BULLETIN

Report No. 7  
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Issued by:

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- Wheat stem rust has been found in susceptible winter wheat in Nebraska, Colorado, Michigan, Illinois, Missouri, Texas and Washington.
- Wheat leaf rust is widespread and light throughout the northern Great Plains.
- Wheat stripe rust is widespread in the panhandle of Nebraska.
- Oat crown rust is at low levels in the northern oat growing area.

**Wheat stem rust. *Nebraska*** – In late June, severe levels of stem rust were found in a susceptible triticale in an irrigated nursery in Mead Nebraska. Also in late June, severe levels of stem rust were observed on wheat and triticale in the Lincoln nursery. In late June, high levels (20% severity) of stem rust were found in susceptible winter wheat fields at the hard dough maturity stage in Nuckolls and Franklin counties in south central Nebraska.

***Colorado*** – In late June, low levels of stem rust were found on Winterhawk and Bill Brown varieties in plots in northeastern Colorado.

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

***Michigan*** – In early June, low levels of stem rust were reported in wheat research plots in Lenawee County in southeastern Michigan.

***Illinois*** - In late June, moderate levels of stem rust were found in plots in Dekalb County in north central Illinois.

***Missouri*** – In early June, a stem rust collection was made in soft wheat in Barton County in southwestern Missouri.

***Texas***- In late June, low levels of stem rust were found in a Texas Panhandle wheat plot.

***Washington*** – On June 23, levels of 20% severity were reported in a spring wheat field close to barberry bushes (alternate host of wheat stem rust) in Latah County, Idaho. Plants with rust pustules were 20 feet from the bushes. Spring wheat and barley crops were planted later this year so stem rust will likely develop more than in the last two in the Palouse region.



**Wheat leaf rust.** In late June, high levels of wheat leaf rust were found in winter wheat fields of susceptible varieties from southern to northwestern Nebraska. In late June, low levels of wheat leaf rust were found in plots and fields of susceptible winter wheat cultivars in southern South Dakota and in a west central Minnesota field. (Fig. 1).

In late June, trace levels of leaf rust were found in a plot of the susceptible winter wheat Jagalene in Dickey County in southeastern North Dakota.

This year wheat leaf rust is widespread, but the rust is at low levels due to the cool weather in the northern plains in May and June. Spring wheat in this region is one to two weeks behind normal development. Leaf rust incidence and severity will increase with warmer temperatures in July. The loss of many winter wheat fields in North Dakota due to winterkill also removed a susceptible early source of leaf rust in this region.

Many of the wheat fields in the spring wheat region will be treated with fungicide in the next 1-2 weeks, which will reduce losses due to leaf rust and FHB (scab).

In late June, severe levels of leaf rust were found in some plots in northeastern Colorado.

In mid-June, moderate levels of leaf rust were found in southern Wisconsin, east central Illinois and southeastern Michigan soft red winter wheat plots. In late June, light levels of leaf rust were found in north central Illinois and southwestern Michigan plots.

In mid-June, low levels of leaf rust were found in Delaware and in central and western New York winter wheat plots and fields.

In late June, low levels of leaf rust were observed in wheat nurseries at Mt. Vernon and Walla Walla in the state of Washington.

Low levels of leaf rust (trace to 3%) were found in southwestern Ontario, Canada fields in late June.

**Wheat stripe rust.** In late June, significant levels (40% severities) of wheat stripe rust were found in fields from Hemingford to Gordon in the northern panhandle of Nebraska. Rust will continue to develop in this area if nighttime temperatures continue below 60 degrees (Fig. 2). In late June, low levels of stripe rust were found in plots in northeastern Colorado.

In late June, stripe rust was moderate in winter wheat fields and plots in southeastern Idaho and northern Utah. No stripe rust has been found in spring wheat as of late June in southern Idaho.

In late June, wheat stripe rust had increased rapidly (100% severities) on susceptible varieties growing in winter wheat nurseries in the Palouse region (Whitman County, Washington and Latah County, Idaho). At the Pendleton experiment station in Oregon, stripe rust reached 60% severity on susceptible entries. In the spring wheat nurseries, 40% severities were reported on susceptible entries. No stripe rust has been observed in spring wheat fields in eastern Washington and northern Idaho. Stripe rust will not cause significant damage on the winter wheat crop in this region as the



crop is approaching maturity. However, the spring wheat crop still has time for stripe rust to cause damage. In the western Pacific Northwest area stripe rust was very severe in nurseries in Corvallis, Oregon. In mid-June, in the Mt. Vernon, Washington nursery, 80% stripe rust severities were reported in susceptible winter wheat varieties and by late June 100% severities were reported in susceptible spring wheat entries.

In mid-June, low levels of stripe rust were found on a soft wheat variety in the Montgomery, Virginia nursery.

With the cooler weather, stripe rust in late June is more prevalent in Essex and Chatham/Kent counties (adjacent to Detroit, Michigan) than in recent years.

**Oat stem rust.** There have been no new reports of oat stem rust since early June when rust was found in a field in south central Kansas.

Oat 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 late June, low levels of crown rust infection were found in oat plots in southern Minnesota and moderate levels in east central Nebraska. In late June, moderate levels of crown rust were observed on the upper leaves in oat spreader rows in the St. Paul, Minnesota buckthorn nursery.

**Barley stem rust.** There have been no reports of barley stem rust this year.

**Barley leaf rust.** There have been no new reports of barley leaf rust since bulletin #5.

**Stripe rust on barley.** In late June, stripe rust was light in experimental fields near Pullman, Washington. The disease was moderate on barley in nurseries at Mt. Vernon. In contrast, barley stripe rust was severe in breeding nurseries at Corvallis, Oregon. Some susceptible lines had 100% severity by the end of May.

**Rye leaf rust.** During late June, low levels of leaf rust were found in spring rye plots in southern Minnesota.

**Rye stem rust.** There have been no reports of rye stem rust this year.

**Stem rust on barberry.** Aecia infection on common barberry from Latah County was observed in mid June. Aecial collections from southeastern Minnesota and south central Wisconsin were identified as rye stem rust.



Fig. 1. Leaf rust severities in wheat fields - June 30, 2009

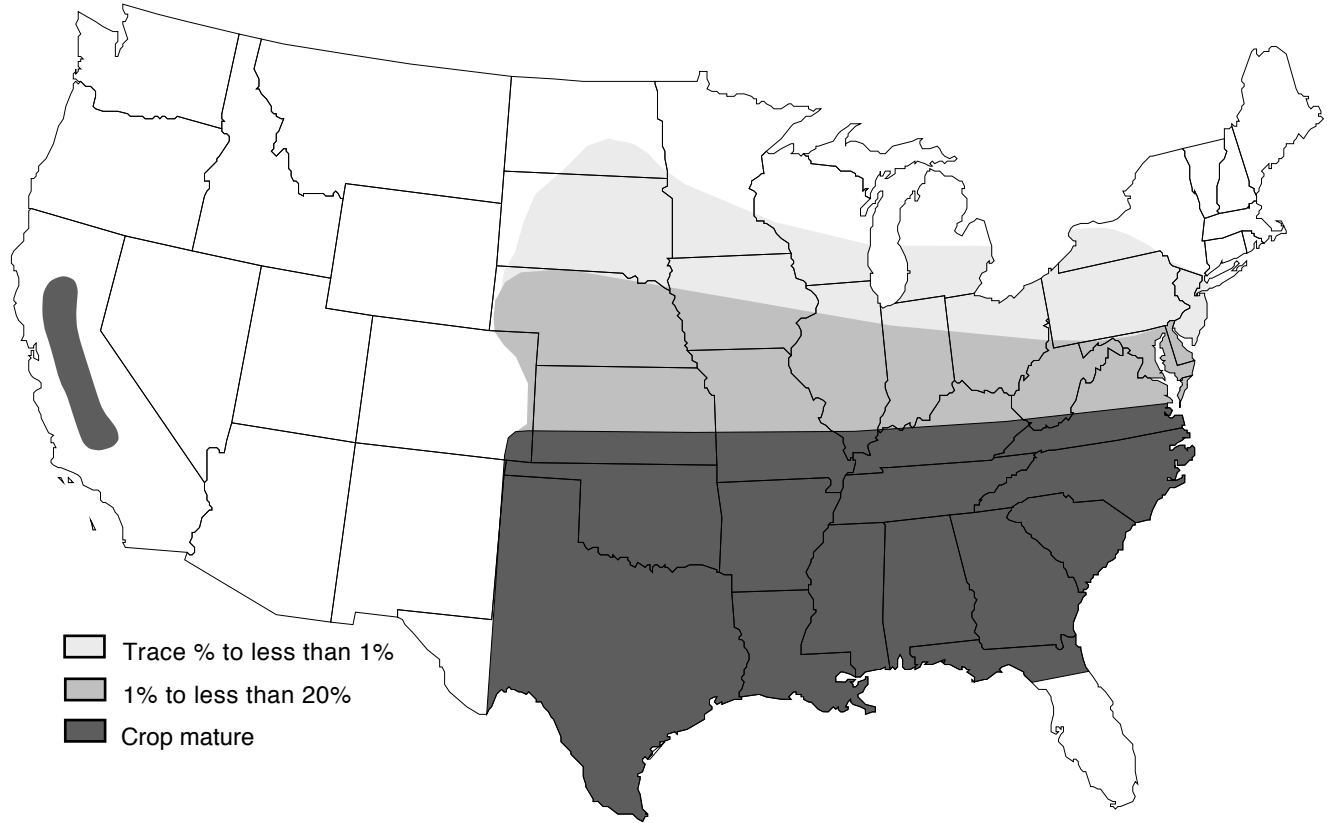


Fig. 2. Stripe rust severities in wheat fields and plots - June 30, 2009

