

# CEREAL RUST

## BULLETIN

Report No. 7  
June 21, 2005

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  
markh@umn.edu

For the latest cereal rust news from the field, subscribe to the cereal-rust-survey mail list. To subscribe, send an email message with the word *subscribe* in the message body (not subject line) to: [cereal-rust-survey-request@coafes.umn.edu](mailto:cereal-rust-survey-request@coafes.umn.edu)

Reports from this mail list as well as all Cereal Rust Bulletins are maintained on the CDL web page (<http://www.cdl.umn.edu/>).

- Wheat leaf rust is widespread throughout the central U.S.
- Wheat stripe rust is widespread from Virginia to Nebraska.

Winter wheat harvest has started from eastern North Carolina to southern Kansas. Most of the northern-planted spring small grain crop is behind normal growth stage.

**Wheat stem rust.** No wheat stem rust has been reported since mid-May in south Texas.

**Wheat leaf rust.** In mid-June wheat leaf rust was found in winter wheat fields from southern Nebraska to North Dakota (Fig. 1). Rust severities on flag leaves in fields ranged from 20% in Nebraska to trace levels in North Dakota fields.

Leaf rust is increasing in winter wheat in southern Minnesota, with severities of 20-60% on lower leaves and 5-10% on flag leaves of susceptible cultivars. The spring wheat crop had trace to 10% levels of leaf rust infections on lower leaves. With the recent rains and warm temperatures, conditions have been good for the increase and spread of leaf rust in the north central region.

In early June, leaf rust was found in fields from southern Illinois at 20% severity to trace levels on flag leaves in northwestern Ohio, northwestern Indiana and south central Wisconsin. Low yield losses due to leaf rust are expected in this area. In much of the Ohio Valley, dry conditions in May and June have slowed rust development.

In early June, leaf rust severities were low across the state of Virginia. However, a severe leaf rust epidemic occurred in a nursery at Warsaw, Virginia with multiple races that had virulence to Lr24 and Lr26. Cultivars with Lr26, e.g. USG 3209 and Sisson had considerable leaf rust.

In mid-June, trace levels of leaf rust were found in plots in south central New York.

In mid-June, wheat leaf rust was severe in nurseries near Mt. Vernon in northwestern Washington and rust was increasing in central Washington, mainly in seed production fields under irrigation.



**Wheat stripe rust.** In early June, stripe rust was widespread from northern Kansas to eastern Virginia (Fig. 2). Stripe rust was found across Nebraska and many farmers were spraying to control the disease. In early June, trace amounts of stripe rust were found in spring wheat fields throughout North Dakota and in spring wheat plots in south central Minnesota. In mid-June, in a nursery in east central Minnesota 0-80% severities were observed on winter wheats. Soft red winter cultivars with Yr9 stripe rust resistance gene which is on the 1B-1R wheat-rye translocation that also has Lr26/Sr31, had 80% severities. Stripe rust has passed peak development in Minnesota and is slowing down due to warmer weather and host resistance in both winter and spring wheats.

In early June, 60% severities were observed in fields and plots from northwestern Missouri to east central Indiana. Traces of wheat stripe rust were found in nurseries in northwestern Ohio and central Michigan in early June. In mid-June traces of stripe rust were found in plots in south central New York.

In early June, stripe rust foci of 10% severity were located in winter wheat plots and fields in northern Indiana and south central Wisconsin. Most of the infections developed from spores deposited with rain in the previous 10-14 days.

In mid-June, wheat stripe rust occurred throughout the wheat areas of the Pacific Northwest. The disease has passed its peak development on winter wheat and is still developing on spring wheat. Most fields of susceptible and moderately susceptible winter and spring cultivars have been sprayed with fungicides. Because the rust started very early in the season, and the weather has been extremely favorable to the disease (cool and wet), and the inoculum load has been heavy, cultivars with low to moderate levels of high-temperature adult-plant (HTAP) resistance, which is generally adequate in years of normal weather, have shown heavy infection.

**Oat stem rust.** In early June, oat stem rust was found on wild oats (*Avena fatua*) in Sonoma County in California.

**Oat crown rust.** In mid-June, trace to 20% severity levels of oat crown rust were observed in fields and plots in southern Minnesota.

In early June, crown rust was found on wild oat (*Avena fatua*) in Sonoma County in California.

**Buckthorn.** Light crown rust infection was observed on upper leaves of oat in spreader rows close to the St. Paul, Minnesota buckthorn nursery.

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

**Barley leaf rust.** In mid-June, barley leaf rust was reported near Mt. Vernon in northwestern Washington.



**Stripe rust on barley.** In mid-June, barley stripe rust had developed up to 40% severity on susceptible varieties in nurseries and had been observed in commercial fields at very low levels in eastern Washington. Only a few fields of susceptible malting barley cultivars have been sprayed with fungicides. Low levels of stripe rust were found on barley in southern Idaho in early June.

**Rye leaf rust.** In early June, 60% rye leaf rust severities were reported in rye plots in southeastern Indiana.

In mid-June, 60% leaf rust severities were observed in rye plots in southern Minnesota.

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

**Stem rust on barberry.** In early June, aecial infections were light on susceptible common barberry bushes (alternate host for stem rust) in southeastern Minnesota. In mid-June, aecial infections were light on susceptible common barberry bushes in south central New York.



Fig. 1. Leaf rust severities in wheat fields - June 21, 2005

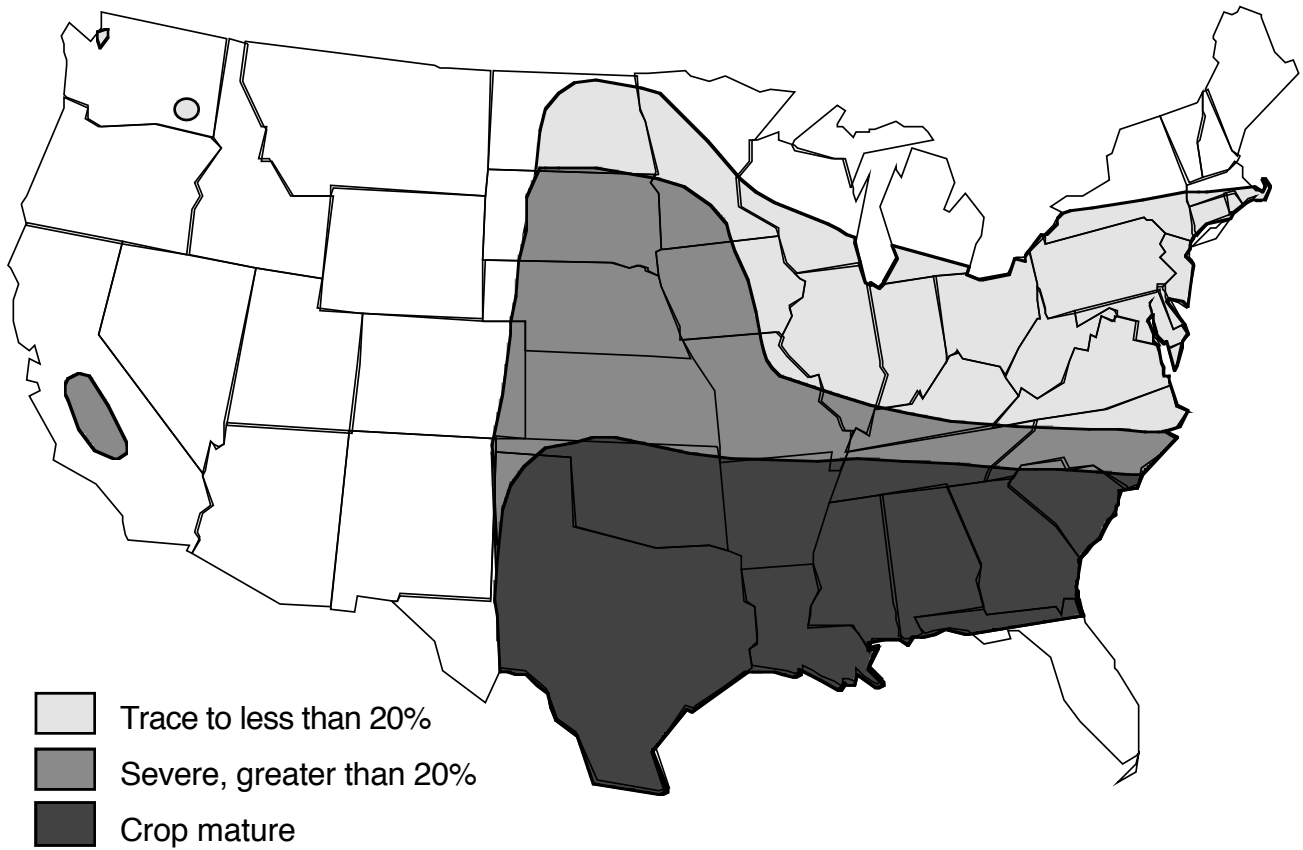


Fig. 2. Stripe rust severities in wheat fields - June 21, 2005

