

CEREAL RUST BULLETIN

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Issued by:

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- Wheat leaf rust is widespread, and increasing with high severities throughout the Great Plains.
- Wheat stripe rust is light in the central plains.
- Oat stem rust is light in southeastern Nebraska.
- Oat crown rust is increasing slowly in the northern spring oat region.

Winter wheat harvest has started from southeastern Virginia to southeastern Nebraska. The spring planted small grain crop in the northern states is near normal growth stage.

Wheat stem rust. There have been no new reports of wheat stem rust since the May 30th CRB. So far this year wheat stem rust has been found in plots of susceptible cultivars in southern Louisiana, southern and central Texas and north central Oklahoma.

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

Wheat leaf rust. During the third week in June, plots of susceptible winter wheat cultivars such as Jagalene, in east central Minnesota, east central South Dakota and southwestern Nebraska had 60% rust severities, while resistant cultivars had only trace levels of infection on the flag leaves. Throughout this area fungicide usage on winter wheat was very common this year with many fields receiving multiple applications. By late June, spring wheat had leaf rust severities of trace to 5% on lower leaves in southern Minnesota and South Dakota fields (Fig. 1). Susceptible spring wheat cultivars in southern Minnesota plots had 20% rust severities with most infections on the lower leaves.

This year leaf rust is widespread, with higher levels than normal in the upper Midwest on both spring and winter wheat. Higher amounts of rust inoculum than in previous years arrived from the winter wheat region because of ideal conditions for infection in the southern plains, which increased rust infections on the winter wheat. Wetter than normal conditions in May and June in many areas of the northern Great Plains have further increased rust development.



Some of the spring wheat cultivars currently grown have less effective resistance to leaf rust than those commonly grown 10-15 years ago. Many of the wheat fields in the spring wheat region will be treated with fungicide, which will prevent losses due to leaf rust and FHB (scab).

In mid-June, light levels of wheat leaf rust were found in plots in Cayuga County, New York.

Wheat stripe rust. During the third week in June, light levels of stripe rust (1-10% severities) were found in winter wheat in northwestern Nebraska fields and southwestern South Dakota plots (Fig. 2). In the roadside ditch near one of the fields 40% severities were observed on *Aegilops cylindrica* (jointed goatgrass). Hot temperatures have slowed stripe rust infections to almost a complete remission in the Great Plains states.

In the Pacific Northwest wheat stripe rust has developed in eastern and central Washington fields and in dryland and irrigated fields in northeastern Oregon. Last week, stripe rust severities reached 100% on susceptible entries around Pullman and Walla Walla and 60-80% at Lind, Pendleton and Hermiston on winter wheat and 40-60% on susceptible entries at these locations on spring wheat. However, stripe rust was still light in commercial wheat fields. Temperatures are still cool so they are not limiting stripe rust development.

Oat stem rust. During the third week in June, light levels of oat stem rust were observed in fields and plots in southeastern Nebraska.

Oat crown rust. By the third week in June, light levels of crown rust infection were found in oat fields and plots in southern Nebraska, southern South Dakota and southwestern Minnesota. In late June, high amounts of crown rust were observed on upper leaves of oat in 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. In mid-June, traces of barley leaf rust were found in plots in east central and southwestern Minnesota.

Stripe rust on barley. In late June, stripe rust on barley was light in the nurseries near Pullman, Washington.

Rye leaf rust. During the third week in June light levels of leaf rust were found in spring rye plots from west central to east central Minnesota.

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



Fig. 1. Leaf rust severities in wheat fields - June 27, 2007

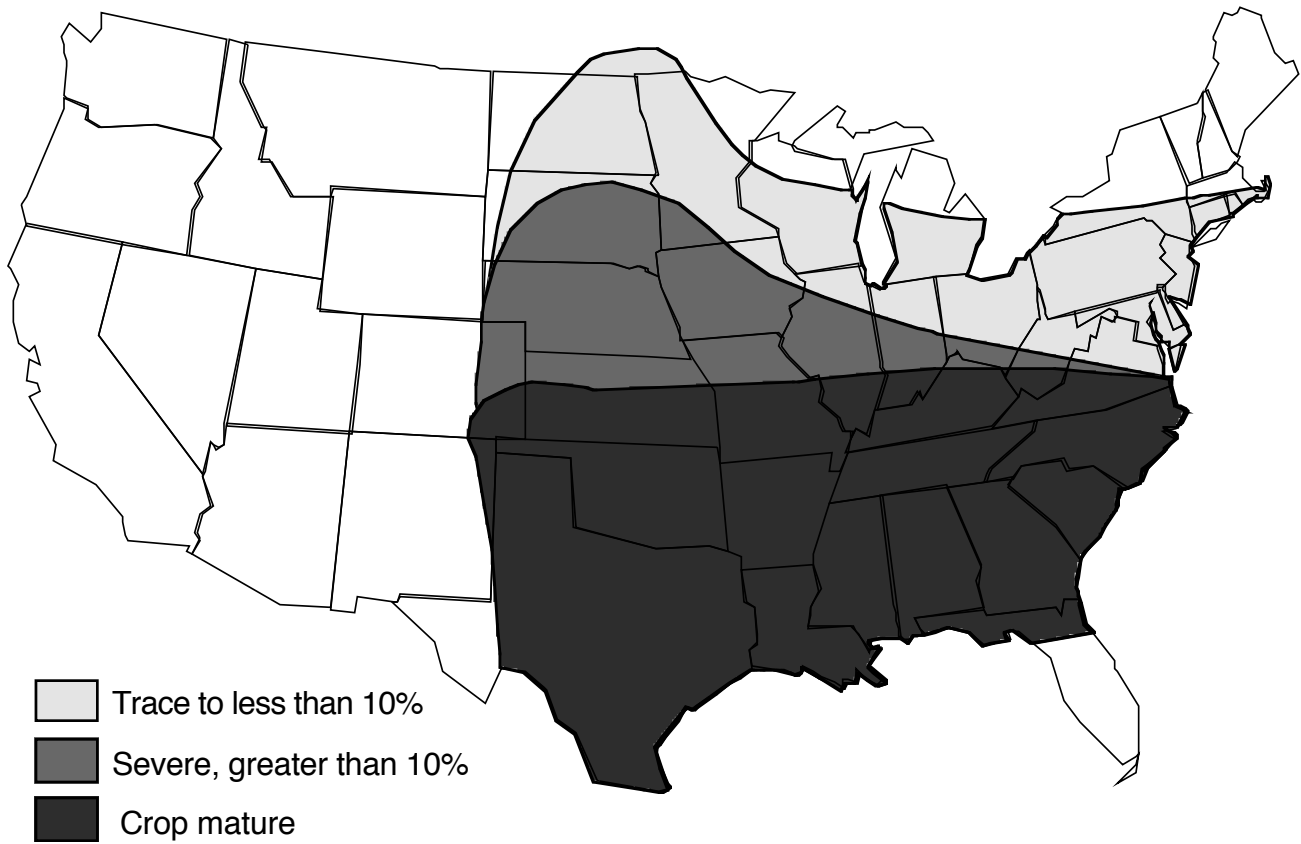


Fig. 2. Stripe rust severities in wheat plots and fields - June 27, 2007

