CEREAL RUST BULLETIN

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Issued by:

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- Wheat leaf rust is widespread, with high severity and increasing throughout the Great Plains.
- Wheat stripe rust is increasing in limited locations in the central Great Plains and Washington state.
- Oat crown rust is increasing in the northern oat growing area.

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

Wheat stem rust. There have been no additional reports of wheat stem rust since the May 30th CRB. 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. In early June, high severity (100%) levels of leaf rust were reported in irrigated nursery plots of susceptible winter wheat cultivars at Bushland, Texas (Fig. 1). At the same time and area leaf rust was not present in the dryland nurseries. During the first week in June in northwestern Kansas, high severity levels of leaf rust were found in susceptible cultivars of hard red and white winter wheat. By the first week in June, high levels of wheat leaf rust were found in south central and southeastern Nebraska winter wheat fields. In early June, leaf rust was increasing in southern South Dakota winter wheat fields and plots.

In early June, wheat leaf rust was found in fields from northeastern Missouri to southern Illinois at 60% severity on flag leaves. There will be yield losses to leaf rust in the soft red winter cultivars in this area. In early June, trace levels of leaf rust were found on flag leaves in wheat fields from northwestern Ohio, northwestern Indiana, to south central Wisconsin. In plots in west central and northeastern Indiana 20% severities were found on lower leaves. In early June, leaf rust was found on several breeding lines in a nursery at Wooster, in north central Ohio. Lack of moisture has limited rust development in some locations in the northern soft red winter wheat area.

On June 1, traces of wheat leaf rust were found on susceptible spring wheat cultivars in the St. Paul, Minnesota nursery.

In early June, light levels of wheat leaf rust were found in winter wheat cultivars at the University of Manitoba, Canada and other locations in southern Manitoba and on susceptible spring wheat cultivars at Homewood, Manitoba.

Wheat stripe rust. In early June, high severity (100%) levels of stripe rust were observed in irrigated nursery plots of susceptible winter wheat cultivars at Bushland, Texas (Fig. 2). No stripe rust has been found in the dryland nurseries.

By early June, in an irrigated nursery in northwestern Kansas, 70% stripe rust severities were observed in susceptible cultivars. Low levels were found on previously resistant cultivars. In early June, stripe rust was found in wheat plots in southern Nebraska and in northeastern Colorado fields. If nighttime temperatures stay below 60 degrees with adequate moisture, stripe rust will continue to develop in the central plains.

In early June, foci of stripe rust were noted in plots at Saint Jacob, Illinois (near St. Louis, MO) and traces were found in plots at Owensboro in western Kentucky. These are the only two locations in the northern soft red winter wheat area where stripe rust has been found this year.

In early June, stripe rust severities ranged from 10% to 40% in eastern Washington winter and spring wheat plots. No stripe rust or very low severities were found in wheat fields in eastern Washington, which is due mainly to the long period of dry weather conditions up to mid-May. By the end of May, in northwestern Washington, 100% stripe rust severities were observed on susceptible winter wheat entries and 40% severities on susceptible spring wheat entries. By the end of May, wheat stripe rust was reported in experimental fields in Pendleton, Oregon and Moscow, Idaho.

Oat stem rust. There have been no new reports of oat stem rust since the last bulletin.

Oat crown rust. By the second week in June, heavy crown rust infection was observed on upper leaves of oat in spreader rows in the St. Paul, Minnesota buckthorn nursery. In oat plots at Rosemont, Minnesota, traces of crown rust were found in early June. High levels of crown rust were observed in a field in south central Minnesota.

Buckthorn. In early June, severe levels of aecial infections were found on buckthorn (alternate host for crown rust) in hedgerows in western Minnesota. Crown rust aecia were observed on buckthorn near Saskatoon in south central Saskatchewan in early June.

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

Barley leaf rust. Barley leaf rust levels were severe in plots in northwestern Washington in early June.

Stripe rust on barley. In early June, high levels of barley stripe rust were found in northwestern Washington plots and none was found in eastern Washington fields and nurseries.

Rye leaf rust. In mid-May, 40% leaf rust severities were observed in a rye field in southwestern Indiana.

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

Stem rust on barberry. In early June, no aecial development was found on susceptible barberry bushes (alternate host for stem rust) growing in south central Wisconsin.

Fig. 1. Leaf rust severities in wheat fields - June 12, 2007

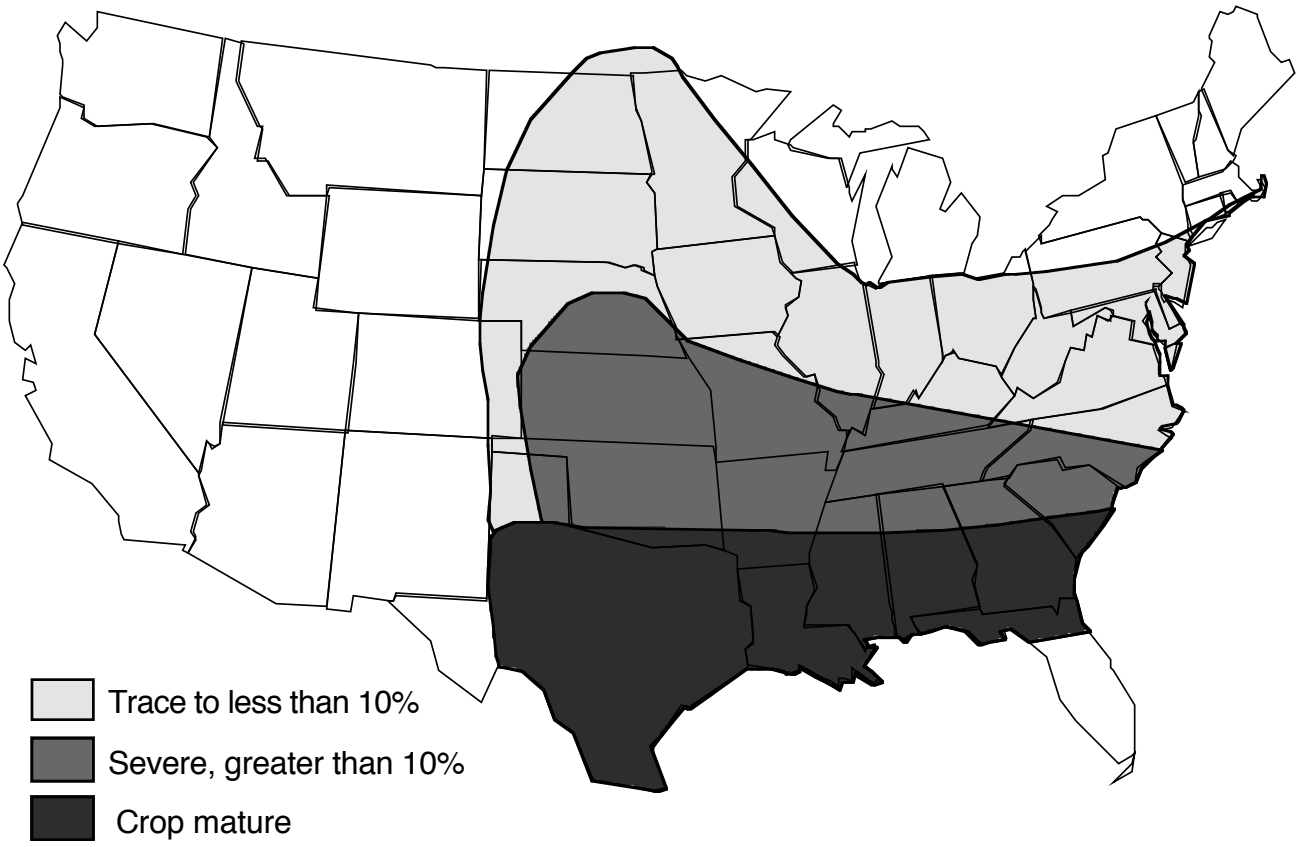

Fig. 2. Stripe rust severities in wheat plots and fields - June 12, 2007