CEREAL RUST BULLETIN

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From:

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- Wheat stem rust has been found in fields in southern Nebraska, southern Wisconsin, and Michigan.
- Trace amounts of wheat leaf rust have been found as far north as Winnipeg, Canada.

Winter wheat harvest is in full swing from North Carolina to southern Nebraska. In many areas like northern Kansas, yields and test weights are better than expected even after the poor weather conditions of the late winter and spring. In the Upper Midwest, the hot dry weather in late June and early July has accelerated plant growth of the spring-sown small grains. However, maturity of the crops is still behind average development for this time of the year because of the late planting and cool spring.

Wheat stem rust. During late June, wheat stem rust was found at trace-40% severities in plots and trace-1% severities in fields of susceptible cultivars in northern Kansas and southern Nebraska at the soft dough growth stage. The first stem rust infections in this area occurred when stem rust spore-laden rains fell 14-21 days ago. The hot dry weather in late June in this area was not conducive for rust increase. There have been no new wheat stem rust races identified since CRB #6. In late June, traces of stem rust were found on winter wheat plants growing in fields in Racine and Dane counties in southern Wisconsin. The hot dry weather in early July slowed rust development and since the crop is close to maturity, losses to rust will be minimal.

In early July, traces of stem rust have been found widespread in Michigan.

During the second week of July, trace amounts of stem rust were found in plots in Pullman, Washington.

Wheat leaf rust. During the last week in June, 40% leaf rust severities were observed in a few fields and plots of susceptible cultivars at the soft dough growth stage in northern Kansas and southern Nebraska. In many of these plots fewer cultivars were infected with rust than in previous years. Since the rust development was late this year, rust losses will be very light in both Kansas and Nebraska. On June 28, traces of wheat leaf rust were found in west central Minnesota and east central South Dakota nurseries. This was two weeks later than the normal first date of observation of wheat leaf rust at these two locations. During early July, traces of leaf rust were found in spring wheat plots in central and east central North Dakota and traces in a winter wheat field in east central North Dakota. On June 28, traces of leaf rust were found on upper leaves of susceptible spring wheat cultivars in plots 65 km southwest of Winnipeg, Canada. This first date of observation was 10-14 days later than in the past two years. In early July, leaf rust was severe in susceptible cultivars growing throughout Michigan.

During the first week in July, leaf rust was light on winter wheats across the state of New York. Severities ranged from trace to 10% on flag leaves at the hard dough stage. Rains in eastern Washington and eastern Oregon during the last week in June created ideal conditions for rust increase and leaf rust severities on susceptible wheats have increased significantly. There have been no new leaf rust race identifications since CRB #6. **Wheat stripe rust.** In the Pacific Northwest, rust buildup on the soft white wheats has been light

since most of the major cultivars are resistant to stripe rust.

Oat stem rust. The first detection of oat stem rust in the central plains this year was during the last week in June in oat fields in north central Kansas. Single pustules were found on oat stems where spores had been deposited 14-21 days ago.

Oat crown rust. In early July, crown rust was light to moderate in southern Wisconsin and southern Minnesota oat fields. During the second week in July, traces of crown rust were found in a oat field in west central Minnesota and in the same field, 20% severities were found on wild oat plants.

Barley stem rust. As of July 9, no barley stem rust has been reported in the U.S. this year.

Barley leaf rust. By late June, traces of barley leaf rust were observed in plots in east central South Dakota and west central Minnesota. In early July, traces of leaf rust were found in a barley field in west central Minnesota. **Barley stripe rust.** During the first week in July, stripe rust was starting to increase in spring barley fields and plots in northern Idaho and eastern Washington. In plots 40 miles west of Pullman, Washington, 100% rust severities were observed. In the Pacific Northwest this year, there was observed a range in adult plant resistance in different cultivars to barley stripe rust.

Rye leaf rust. In early July, leaf rust was heavy on the lower leaves of rye plants in a west central Wisconsin field. **Stem rust on barberry.** There have been no new reports of stem rust on barberry since the last bulletin. **Crown rust on buckthorn.** During the last week in June, a new set of aecia were found on buckthorn growing in hedges in St, Paul, Minnesota. This is the latest that actively sporulating aecia have been found on buckthorn in Minnesota in the last 8 years. Oats growing near these hedges are heavily infected with crown rust.