CEREAL RUST BULLETIN

Report No. 8
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Issued by:

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- Wheat stem rust has been found in susceptible wheat plots in the northern wheat growing area.
- Wheat leaf rust is widespread and light throughout the northern wheat growing area.
- Wheat stripe rust is at low levels in Pacific Northwest spring fields.
- Oat crown rust is at low to moderate levels in southern Minnesota and southwestern Wisconsin fields.

Wheat stem rust. ***South Dakota*** – During the second week in July, low levels of stem rust were found on an experimental line in a regional nursery near Brookings, South Dakota.

Minnesota – On July 13, high levels of wheat stem rust were found on susceptible winter wheats near maturity in plots at Rosemount in southeastern Minnesota. Also on July 13, light levels of wheat stem rust were found on an "old timer" susceptible spring wheat cultivar 'Baart' in plots at Waseca and Lamberton experiment stations in southern Minnesota.

Missouri – On July 8, high levels of stem rust were found in a field of mature winter wheat in Harrison County in northwestern Missouri. Incidence was 100% and severity was more than 40%. The grain was severely shriveled, likely resulting in a significant yield loss in this field.

Michigan – On July 10, light levels of stem rust were found in soft winter wheat plots in Ingham and Saginaw counties in central Michigan.

Idaho – On July 7, light levels of stem rust were found on an experimental line in the soft white winter wheat nursery in Aberdeen, Idaho at the soft dough growth stage.

This year there have been more stem rust reports on susceptible cultivars in the northern winter wheat growing area on this date than in recent years.

The 2009 U.S. stem rust observation map and results of race identification to-date 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 July, leaf rust was at trace levels in spring wheat fields throughout southern Minnesota and eastern South Dakota and North Dakota. Many of the wheat fields in the spring wheat region have been treated with fungicide, which will reduce losses due to leaf rust and FHB (scab). In plots of unsprayed susceptible spring wheats, high levels of leaf rust were found at Rosemount, Waseca, Lamberton and Morris, Minnesota on July 13-15.

In early July, leaf rust was limited to only the most susceptible winter wheat cultivars in fields and plots in North Dakota and South Dakota and northwestern Minnesota. On July 13, in susceptible winter wheat plots in Ramsey County in southeastern North Dakota, 10-40% leaf rust severities were found on the flag leaves at the soft dough stage. Fungicide application at the flowering growth stage had effectively controlled leaf rust at this North Dakota location.

Leaf rust has not yet been observed in susceptible wheat plots in northwest Minnesota and the northern tier of counties in North Dakota. The cooler than normal temperatures, combined with the lack of southerly winds has delayed arrival of leaf rust inoculum in the northern hard red spring wheat region.

In early July, high levels of wheat leaf rust were found in the Nebraska Panhandle on susceptible wheat cultivars.

In early July, high levels of leaf rust were found in fields of susceptible soft red winter wheat in Door County in northeastern Wisconsin.

Wheat stripe rust. In early July, low levels of stripe rust were found in a spring wheat plot at the Beresford research station in southeastern South Dakota.

In early July, conditions were favorable for stripe rust development in the Gallatin Valley at the Post Research farm in Bozeman, Montana. Rust was first identified June 4. Plots that were sprayed with fungicide have had minimal disease development.

In early July, low levels of stripe rust were found in a soft white spring wheat Jubilee plot at Aberdeen, Idaho.

In early July, low levels of wheat stripe rust were found in spring wheat fields in the Palouse and Dayton region of southeastern Washington.

Oat stem rust. During the first half of July, light levels of oat stem rust were found in plots in St. Paul, Lamberton and Waseca and in a field in southeastern Minnesota**.**

The 2009 U.S. oat stem rust observation map and results of race identification to-date can be found on the CDL website (http://www.ars.usda.gov/Main/docs.htm?docid=9757).

Oat crown rust. In mid July, light to heavy levels of crown rust were found in spring oat fields in southern Minnesota and southwestern Wisconsin. The most severe rust was found in late-planted fields growing close to buckthorn from which the initial rust infecting spores arrived. In early July, heavy amounts of crown rust had increased in the spreader rows and then moved into the plots at the St. Paul, Minnesota buckthorn nursery. In mid-July, moderate to heavy levels of oat crown rust were found on susceptible oat at Rosemount, Waseca and Lamberton, Minnesota experiment station plots.

In early July, light levels of oat crown rust were found in plots at Ithaca, New York.

Barley stem rust. On July 13, light levels of barley stem rust were found on the susceptible cultivar Hypana at the Rosemount, Waseca and Lamberton experiment stations in Minnesota. These are the first reports of barley stem rust in the northern Great Plains this year.

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

Barley crown rust. Trace levels of crown rust were found on barley plots at the Brookings, South Dakota experiment station.

Stripe rust on barley. There have been no new reports of stripe rust on barley since bulletin #7.

Rye leaf rust. In mid July, moderate levels of leaf rust were found on rye at the Rosemount, Waseca and Lambertion experiment stations in Minnesota and at the Brookings, South Dakota experiment station.

Rye stem rust. In mid-July, light levels of stem rust were found on winter rye plots at Brookings, South Dakota and Lamberton, Minnesota. These are the first reports of stem rust on rye this year.

Stem rust on barberry. Light aecial infections were found on four common barberry bushes near Coville, in Stevens County, Washington. Infection occurred mostly on young fruits. This is the first time stem rust infections were observed on common barberry bushes located in this area.

Fig. 1. Leaf rust severities in wheat fields - July 22, 2009

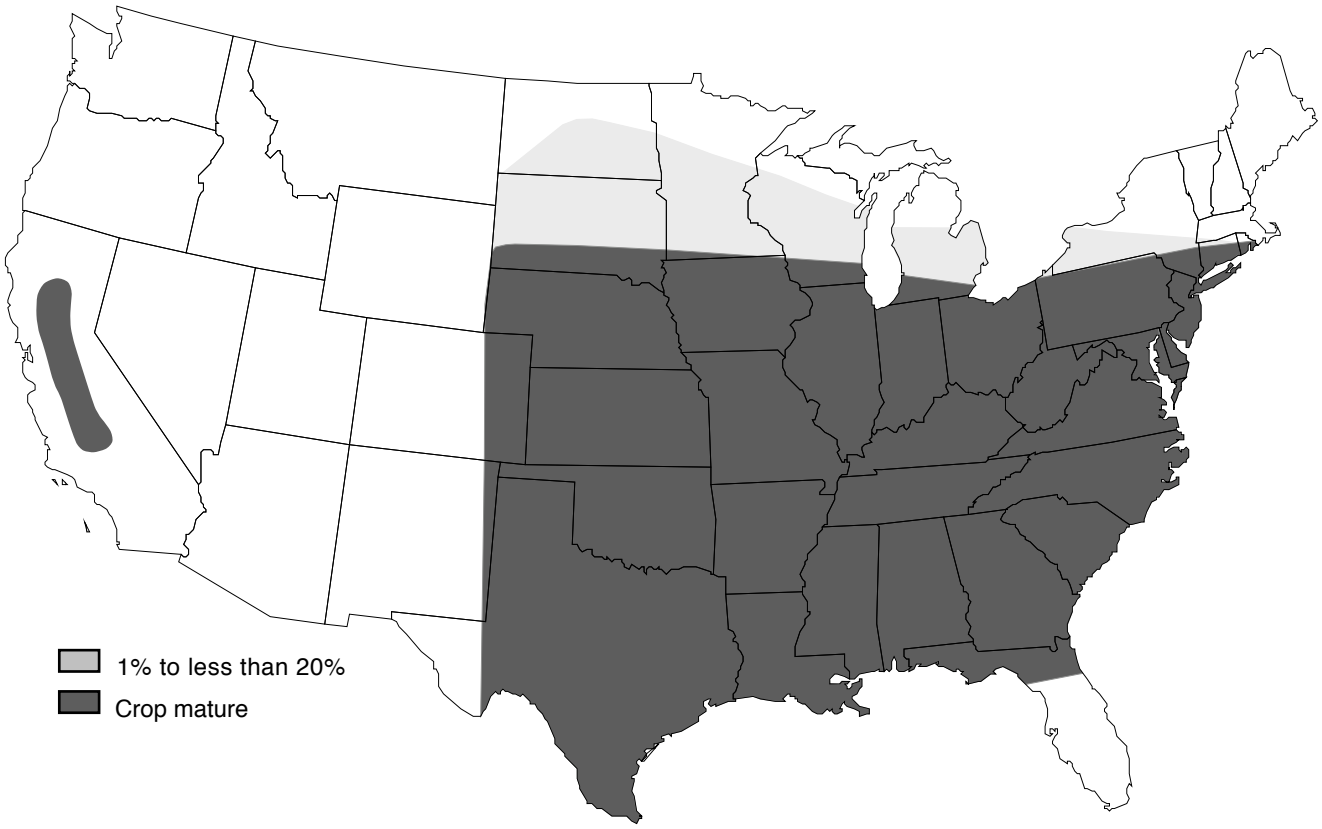

Fig. 2. Stripe rust severities in wheat fields and plots - July 22, 2009