CEREAL RUST BULLETIN

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

- Wheat stem rust is lighter than normal this year throughout the Great Plains.
- Wheat leaf rust has appeared earlier than usual again in the northern plains this year.
- Wheat stripe rust is unusually widespread from Kansas and northeastern Nebraska to central Indiana; losses occurred in some Kansas fields

The small grain harvest is underway from southern South Carolina to northern Oklahoma. Winter wheat maturity is one to two weeks ahead of normal throughout the U.S. Small grain planting is virtually complete in the northern growing area and development of spring-planted grains is ahead of average maturity.

Wheat stem rust. During late May, foci of 20% severity were observed scattered throughout a field in west central Missouri, and traces were found in a south central Kansas nursery. Light stem rust was observed on susceptible wheats during harvest in northern Texas wheat plots in late May. Wheat stem rust development is much lighter than normal this year throughout the plains area of the U.S.

Wheat leaf rust. During the last week in May, trace to 80% severities were reported on winter wheat cultivars in south central Kansas nurseries. In fields in the same area, 40% severities were observed on susceptible cultivars like Jagger, but on most of the other cultivars severities were 1% or less. In north central Kansas and west central Missouri, 20% severities were observed on susceptible cultivars at the early berry stage. In late May in south central Kansas spring wheat plots (i.e., 2375), trace to 20% severities were observed at the 1/4 berry stage. During April and early May, leaf rust development was slowed throughout the central Great Plains because of moisture shortage, but with the return of moisture in the form of rain and dew in mid-May the leaf rust increase process was rejuvenated. However, during the last couple of days in May, the hot windy conditions made conditions less than ideal for rust development.

During late May, traces of leaf rust were found in southeastern Nebraska winter wheat plots and fields.

On May 30, traces of leaf rust were observed on the leaves of winter wheat cultivars in east central North Dakota plots. The rust development in the North Dakota plots probably originated from rust timing of this rust development is the same as last year when leaf rust became more widespread in the upper Midwest than in the past 20 years.

During late May, in central Indiana, leaf rust was increasing on the upper leaves of the same plants where Septoria had destroyed the lower leaves.

By late May, 5 to 80% leaf rust severities were reported on wheat in nurseries in eastern Virginia.

From leaf rust collections made in late March in Louisiana and Georgia, there has been a significant increase in the number of T-- races that have been found. Many of the T-- races were also virulent to Lr9 and 10 which is a combination of virulences that has been rarely found in past leaf rust surveys. One of these was identified from rust collections made from the cultivar Mason in Louisiana.

Wheat stripe rust. In late May, stripe rust was observed throughout eastern Kansas, northwestern Missouri and southeastern Nebraska fields. In south central Kansas plots, severities ranged from traces to 60% while in Nebraska fields, 1% severities were observed. This year in the Great Plains the cool spring and nighttime temperatures, which were in the low 50s, were conducive for stripe rust development. However, the hot windy conditions the later part of May probably will disrupt much of the stripe rust development.

During late May, in central Indiana, light stripe rust was found in fields and in the breeding nurseries stripe rust was more severe.

By late May, in eastern Washington, stripe rust was starting to increase in winter wheats and development was slower than normal because of the dry conditions in early and mid-May which were not conducive for rust development.

Oat stem rust. In late May, traces of oat stem rust were observed on some cultivars in a south central Kansas plot. On May 22, limited oat stem rust was found on wild oats (*Avena fatua*) in Sonoma County, California. In general, oat stem rust development is equal to last year throughout the southern U.S.

Oat crown rust. In late May, traces of crown rust were found in oat plots in south central Kansas and a collection of crown rust was made from *Avena fatua* in Sonoma County, California. During late May, crown rust aecial infections were found on buckthorn bushes in east central North Dakota.

Barley stem rust. No new occurrences of barley stem rust have been reported in the U.S. since the last bulletin (http://www.cdl.umn.edu/CRB/2000CRB/00crb4.html).

Barley leaf rust. There have been no new reports of barley leaf rust since the last bulletin.

Stripe rust on barley. In late May, in the eastern Washington, barley stripe rust was increasing, but development was slower than normal because of the dry conditions in early and mid-May.

Barley crown rust. There have been no reports of crown rust on barley yet this year.

Rye leaf rust. In late May, 5% leaf rust severities were observed on rye in a field in south central Kansas.

Rye stem rust. There have been no new reports of rye stem rust since bulletin #3 (http://www.cdl.umn.edu/CRB/2000CRB/00crb3.html).

Stem rust on barberry. In late May, stem rust aecial infections were found on susceptible barberry bushes in southeastern Minnesota.

Latest rust news. As always, for the latest cereal rust news, subscribe to the cereal rust survey mail list (see front page header) or visit the Cereal Disease Laboratory's web page (www.cdl.umn.edu) regularly.

Fig. 1. Leaf rust severities in wheat fields on June 5, 2000