CEREAL RUST BULLETIN

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The winter-sown small grain crop is generally in good condition throughout the United States. Severe freeze damage during the second week in April did occur in winter wheats growing in western Kansas and the Panhandles of Oklahoma and Texas. Cold wet weather slowed the planting progress to a snail's pace in the northern spring grain-growing area. Within the last week, planting in this area has begun and rapid progress is expected.

Wheat stem rust. During the last week in April, trace - 20% stem rust severities were observed in wheat plots at McGregor, Temple and Giddings nurseries in central Texas, and traces of stem rust were found in wheat plots at the Prosper and Howe nurseries in north central Texas. Also during mid-April, widespread stem rust (5% severities) were found in commercial fields of CK 9835 and Savannah in central Louisiana. These fields were sprayed with Bayleton to stop further stem rust development. By late April, traces of stem rust were found in plots of susceptible cultivars from northeastern Louisiana to southwestern Georgia. In late April, traces of stem rust were found in nursery plots in southwestern South Carolina, which was earlier than normal for this area. These southern infection sites presently are small, but they will be providing rust inoculum for the susceptible wheats growing farther north.

Wheat leaf rust. By late April, light amounts of leaf rust were found on susceptible cultivars in nurseries and fields from eastern North Carolina to north central Kansas (Fig. 1).

In late April, leaf rust severities in southwestern Oklahoma wheat fields and plots ranged from traces to 20%. These represent normal rust severity readings for this area for this time of the year. In western Kansas and northwestern Oklahoma the hard freeze killed much of the leaf tissue where the rust had developed. Only time will tell what effect the freeze has had on rust development in this area. In late April, more leaf rust was found than last year on the same date throughout the southern small grain-growing areas. These southern areas will be providing exogenous inoculum for areas farther north.

On April 28, a few leaf rust pustules were found on green winter wheat leaves just breaking winter dormancy at the Rosemount, Minnesota nursery.

In late April, leaf rust was light in plots and fields in the Sacramento Valley of California.

Race MBR-10, which is virulent to *Lr*1, 3, 3ka, 10, 11, 30 and MCB-10, which is virulent to *Lr*1, 3, 10, 26, were identified from collections made in Beeville, Texas in February.

Wheat stripe rust. In mid-April, stripe rust was reported in central and southeastern Arkansas southern soft red winter wheat fields. During the last week in April, traces of stripe rust were observed on southern red winter wheat cultivars in north central Texas plots. This disease generally is inhibited at temperatures above 70 F, so the disease should stop developing and not become a serious problem when the temperatures start to increase.

In California, in late April, wheat stripe rust was light in San Joaquin Valley fields and Sacramento Valley plots. This represents less and later than normal stripe rust development for this area. During late April, 70% stripe rust severities were reported in northwestern Washington wheat fields and nurseries.

Oat stem rust. During the third week in April, oat stem rust was severe in the Beeville, Texas oat plots. In the last week of April, trace to 20% severities were reported in oat plots in central and north central Texas. Traces of oat stem rust were also found in fields and on wild oat (*Avena fatua*) plants growing along the roadside in central Texas. This oat stem rust development is normal and could provide some inoculum for areas farther north, but the lack of oat acreage in the central Great Plains tends to interrupt potential epidemics. The oat stem rust development in southern Louisiana nurseries has been slow and is less than last year.

Oat crown rust. During the last week in April, crown rust was severe and widespread from the southeastern U.S. to central Texas. In southeastern U.S. varietal plots, crown rust killed the most susceptible cultivars. This was the most severe crown rust ever observed from southern Georgia to southern Louisiana. The warm temperatures and moisture have been conducive for rust development to continue at a fast rate. These southern areas of infection could provide inoculum for the limited acreage of northern oats emerged by mid-May.

Barley stem rust. In late April, traces of stem rust were found in a barley plot in north central Texas. Limited amounts of barley are grown commercially in the southern states and generally only traces of stem rust are found in this area.

Barley leaf rust. During the last week in April, 20% barley leaf rust severities were observed in central Texas plots and traces in north central Texas plots. Leaf rust is a minor barley disease in the southern plains.

Barley stripe rust. There have been no new reports of barley stripe rust since CRB #1.

Rye stem rust. The first report of rye stem rust this year was trace severities in central Texas plots.

Rye leaf rust. During the last week in April, trace to 5% severites of rye leaf rust were found in fields and plots in north central Texas.

Other rusts. During the last week in April, light amounts of stem rust were observed on fescue in north central Texas. Also, during the last week in April, crown rust was found on ryegrass and fescue and leaf rust on little barley (*Hordeum pusillum*) in southern Georgia.

Note: The next Cereal Rust Bulletin will be distributed the week of May 23; if you have any information that you feel should be included in the bulletin or just want to share with us, please send an email message to: davidl@puccini.crl.umn.edu or markh@puccini.crl.umn.edu or call Dave Long (612-625-1284) The Cereal Rust Bulletins can also be obtained from the GrainGenes gopher under "Files to Browse".

Fig. 1. Leaf rust severities in wheat fields on May 2, 1995