CEREAL RUST BULLETIN

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- Wheat leaf rust is widespread at low to moderate levels in the U.S.
- Wheat stripe rust is at low levels in a few areas of the U.S.
- Pycinal development of crown rust is heavy on buckthorn bushes in Minnesota.

Much of the wheat crop in the Central Plains is ahead of normal crop development and is in good condition. The winter wheat harvest has commenced from southern Texas to southern Georgia. Although much of the spring wheat crop has been planted, cool and wet weather has slowed initial growth.

Wheat stem rust. In late April, wheat stem rust was found on 'Wintex' cultivar in Ellis County in north central Texas. This was the first report of wheat stem rust found in Texas this year. From several collections made in Acadia county, Louisiana in April, race QFCS (with virulence to *Sr5, 8a, 9a, 9d, 9g, 10, 17,* and *21*) was identified. This is a common race that has been found in the U.S. the past several years. This race is relatively avirulent - the majority of the U.S. cultivars are resistant to QFCS.

Wheat leaf rust. From north central Texas to south central Kansas wheat leaf rust infections are at low severity levels in fields and at moderate levels in plots. Wheat plots in Stillwater and Efaw Oklahoma have variable amounts of leaf rust severity with the highest between 25-40%. In southern and central Oklahoma, wheat plants with scattered pustules were found, however the wheat in this area is close to maturity. In fields in southeastern and south central Kansas, flag and flag-1 leaves at full berry in mid-May 10% leaf rust severities could be found. In south central Kansas plots of susceptible cultivars such as Jagalene had up to 60% severities. The leaf rust infections in this area appear to have developed within the last two weeks. Drier than normal conditions in late April and early May slowed leaf rust development in the southern Great Plains. With the recent rainfall, leaf rust infections will increase and provide inoculum for the northern wheat growing area.

Low levels of leaf rust (10% severity) were found in southwestern Missouri fields on May 15.

On May 8, leaf rust infections that had over wintered were found on the lower leaves of winter wheat plants of the susceptible cultivar Cheyenne at the Rosemount Experiment Station in east central Minnesota.

In early May, flag leaves of soft red winter wheat in central South Carolina plots had 5% leaf rust severity. In the second week in May, severe leaf rust infections were reported in plots at the Kinston station in east central North Carolina and in the wheat-breeding nursery at Warsaw in northeast Virginia.

From collections made in early March in central Texas the following races were identified: TDBJ (Lr24 virulence), TJBG (Lr 16 and Lr24 virulence) and MFPS (Lr17, Lr24, and Lr26 virulence). These leaf rust races also were identified from rust collections made during the 2005 survey (http:// www.ars.usda.gov/mwa/cdl/).

Wheat stripe rust. In early May, plots in Urbana, Illinois and in fields in east central North Carolina had low levels of stripe rust incidence and severity. There have been no reports of wheat stripe rust in Kansas or Oklahoma. The drier and warmer than normal weather in March and April has slowed the increase and spread of stripe rust.

In early May, stripe rust infections that over wintered were observed on susceptible winter wheat cultivars in the Gallatin Valley in southwestern Montana. The severity level was near 10%.

Oat stem rust. There have been no new reports of oat stem rust since CRB #4. From a collection made in central Texas in mid-April race NA 29 (with virulence to *Pg1, 2, 3, 4, 8*, and *15*) was identified. This was one of the common races identified in the U.S. in the past.

Oat crown rust. There have been no new reports of oat crown rust development in the last two weeks.

Buckthorn. By the second week in May, pycnial infection was heavy in the buckthorn nursery at the St. Paul, Minnesota nursery; only the cool weather is holding back aecial development. Despite the slow leaf emergence of the buckthorn due to cool temperatures in early May, the timing of pycnial development is near normal.

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

Barley leaf rust. There have been no new reports of barley leaf rust since April 4.

Stripe rust on barley. There have been no new reports of barley stripe rust since CRB #3.

Rye rusts. There have been no new reports of rye leaf rust since CRB #4.

Fig. 1. Leaf rust severities in wheat fields - May 16, 2006

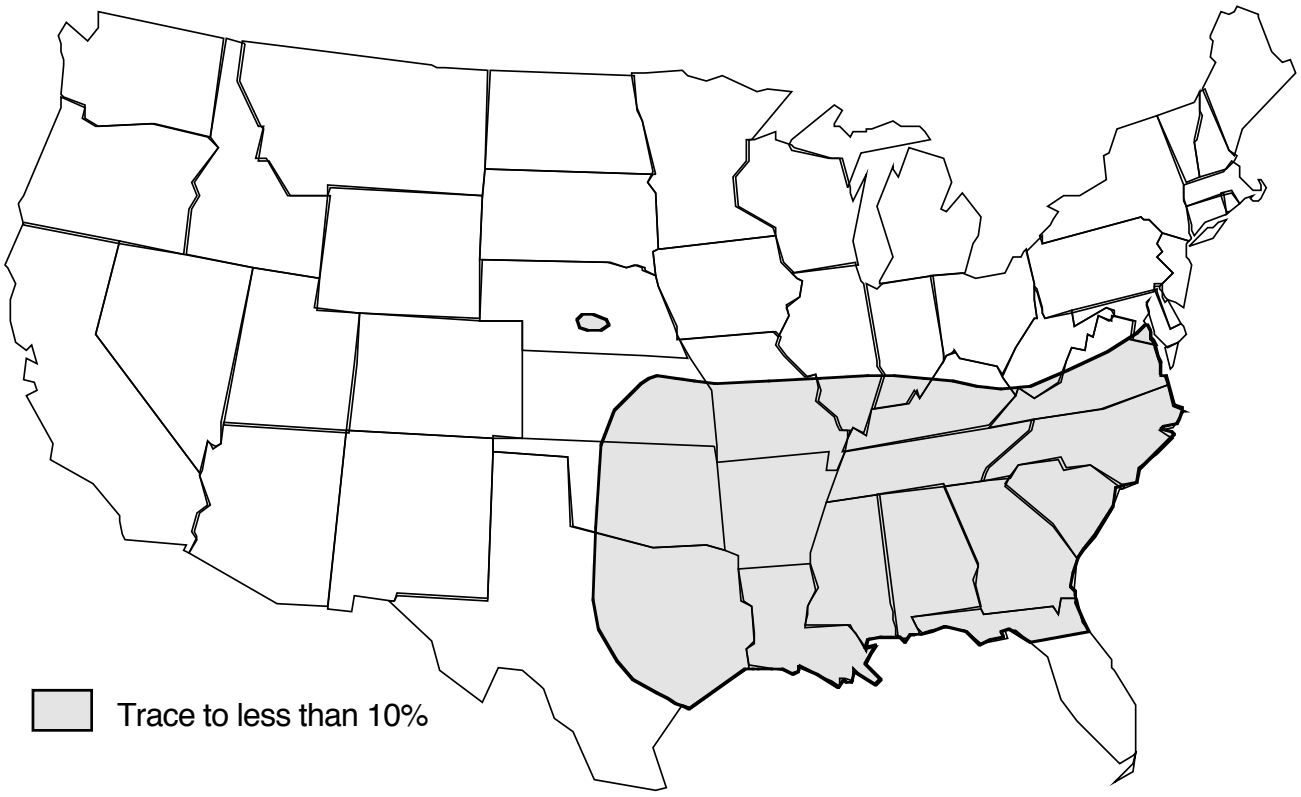

Fig. 2. Stripe rust severities in wheat fields - May 16, 2006