CEREAL RUST BULLETIN

Report No. 1
March 21, 2006

Issued by:

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For the latest cereal rust news from the field, subscribe to the cereal-rust-survey mail list. To subscribe, send an email message with the word *subscribe* in the message body (not subject line) to: cereal-rust-survey-request@coafes.umn.edu

Reports from this mail list as well as all Cereal Rust Bulletins are maintained on the CDL web page (***http://www.ars.usda.gov/mwa/cdl***).

- Wheat leaf rust is present at low levels in fields and plots in the southern U.S.
- Wheat stripe rust is present at low levels in fields and plots in the southern U.S.
- Traces of oat stem rust were found in Louisiana plots.
- Oat crown rust is present at low levels in the southern U.S.
- Barley stripe rust was found in Arizona plots.

Wheat Stem Rust. As of mid-March no wheat stem rust has been reported in the U.S.

Wheat Leaf Rust. **Texas –** In late January, low levels of leaf rust were reported in irrigated central Texas wheat plots. The 2006 fall and winter were the driest on record in the state of Texas. In early March, leaf rust was found in varietal plots at College Station, Texas. In a few of the susceptible cultivars, i.e. Jagger, leaf rust severities of 5% were observed on the flag leaves and in a few others, i.e. Cutter in an early planted test, 70% severities were observed on the lower leaves. In mid-March, only traces of leaf rust were found in the irrigated nursery at Castroville, Texas. The wheat crop throughout south Texas is under severe drought stress.

Oklahoma - In mid-January, leaf rust was found in southern Oklahoma, but conditions were not conducive for sporulation, spread and development of leaf rust. By the first week in March, a few pustules of leaf rust were observed on lower leaves in the wheat varietal plot at Stillwater, Oklahoma. The dry conditions have not been conducive for rust development throughout the southern Plains area of the U.S.

Kansas – In mid-March, no sporulating rust pustules were found on wheat that had infections in late fall in Kansas.

Nebraska – In early March, traces of leaf rust were found on the lower leaves of wheat in plots and fields in central Nebraska.

Louisiana – In mid-February, leaf rust was found on susceptible cultivars throughout Louisiana in plots and fields. By early March, cultivars growing in plots in southeast Louisiana had up to 70% leaf rust severity. The high leaf rust infections were observed on cultivars that were not vernalized properly and are not commonly grown in Louisiana. It was suggested that these cultivars may have adult plant

resistance and that the resistance genes may not have been 'turned on` because of a lack of vernalization.

Arkansas - In early February, leaf rust had survived as far north as northeast Arkansas. However, a mid-February cold snap combined with freezing rain and snow appeared to kill the rust in northeast Arkansas. In mid-March, leaf rust was light in the southern part of the state.

Georgia – In mid-March, leaf rust was light in southern Georgia plots.

Wheat stripe rust. Texas – In early March, stripe rust was present at low levels on the upper leaves of a cultivar growing in a plot at the College Station nursery in Texas. In mid-March, traces of stripe rust were found in the nursery at Giddings in central Texas. Stripe rust development in Texas is at a much lower level than last year on the same date.

Oklahoma – By the second week in March, no stripe rust had been reported in Oklahoma.

Louisiana – In mid-February, stripe rust was increasing in wheat plots at Winnsboro in north central Louisiana and by mid-March stripe rust was severe throughout the plots. In mid-March, stripe rust was severe on a few susceptible cultivars in the nursery at Baton Rouge, Louisiana.

Arkansas – In early February, wheat stripe rust was found throughout Arkansas. However, a mid-February cold snap slowed rust development in the state. By mid-March, the only reports of stripe rust were at low levels in east central Arkansas.

California – In mid-March, low levels of stripe rust were found in plots in the southern San Joaquin Valley and 80% severities were found in a field in Colusa County in the northern Sacramento Valley of California. Several hundred square feet of the field had a high level of disease, with lower severities on lower leaves in the surrounding area.

Oat Stem Rust. In mid-March, traces of stem rust were found in oat varietal plots at the Baton Rouge, Louisiana nursery. Temperatures have been warmer than normal in Louisiana this year.

Oat Crown Rust. In early March, traces of oat crown rust were found on the lower leaves of the cultivar Brooks at the College Station nursery in central Texas. In mid-March, crown rust was observed in a spreader oat plot at Baton Rouge, Louisiana. Crown rust infections are less than last year on the same date in the southern U.S.

Barley Stripe Rust. Arizona- In mid-March, stripe rust was observed in 6-rowed barley plots at Yuma, AZ. There was one hot spot in the early generation material.

Please send wheat and barley stripe rust collections (5 or more rusted green leaves) as soon as possible after collection to:

Dr. Xianming Chen
USDA-ARS
361 Johnson Hall
P.O. Box 646430
Washington State University
Pullman, WA 99164-6430
email: xianming@mail.wsu.edu

Note: Stripe rust collections are vulnerable to heat and do not survive long at warm temperatures; therefore, if shipment of collections for race identification is delayed their viability will be greatly reduced. An overnight courier service is preferred for sending stripe rust collections.

Rye Leaf Rust. No rye leaf rust has been reported as of mid-March in the U.S.

Please Note:

Current cereal rust situation
Cereal Rust Bulletins are distributed every two weeks on average; for the latest cereal rust situation reports, subscribe to the cereal rust survey mail list. Instructions can be found at: http://mailman.coafes.umn.edu/mailman/listinfo/cereal-rust-survey. Or, if you prefer, simply send a message to Mark Hughes (markh@umn.edu) and he will add you to the mail list. Messages from the mail list are maintained on the CDL website (http://www.ars.usda.gov/Main/docs.htm?docid=9757).

If you have information on the cereal rust situation (or other small grain diseases) in your area that you would like to share, please email your info to:

Mark Hughes (markh@umn.edu) and David Long (davidl@umn.edu)

Or to: cereal-rust-survey@coafes.umn.edu

Or, if you prefer: call Dave (612-625-1284)

We would like to include your name and email address so others can contact you. If, however, you prefer not to have your name or email address appear with the information, we will omit them. We will continue to incorporate these reports into the Cereal Rust Bulletin.

Information of most importance

We welcome any information you can provide, but are particularly interested in:

- Rust (leaf rust, stem rust, stripe rust)
- Host (wheat, oat, etc.)
- Cultivar or line name if known
- Severity and prevalence
- Growth Stage -when rust likely arrived, when infection first noted and current stage
- Where rust is found on the plants, e.g., lower leaves, flag leaf, etc.

Rust collections

Reports on distribution of races of cereal rust fungi are an important part of our surveys as reported in the Cereal Rust Bulletin. We regularly collect and test isolates of stem rust (wheat, oat, and barley), wheat leaf rust, and oat crown rust. We appreciate receiving collections of these rusts from cooperators around the U.S. If you would like to contribute, please contact Dave Long or Mark Hughes and they will send you a packet of collection envelopes and forms.

Fig. 1. Leaf rust severities in wheat fields - March 21, 2006

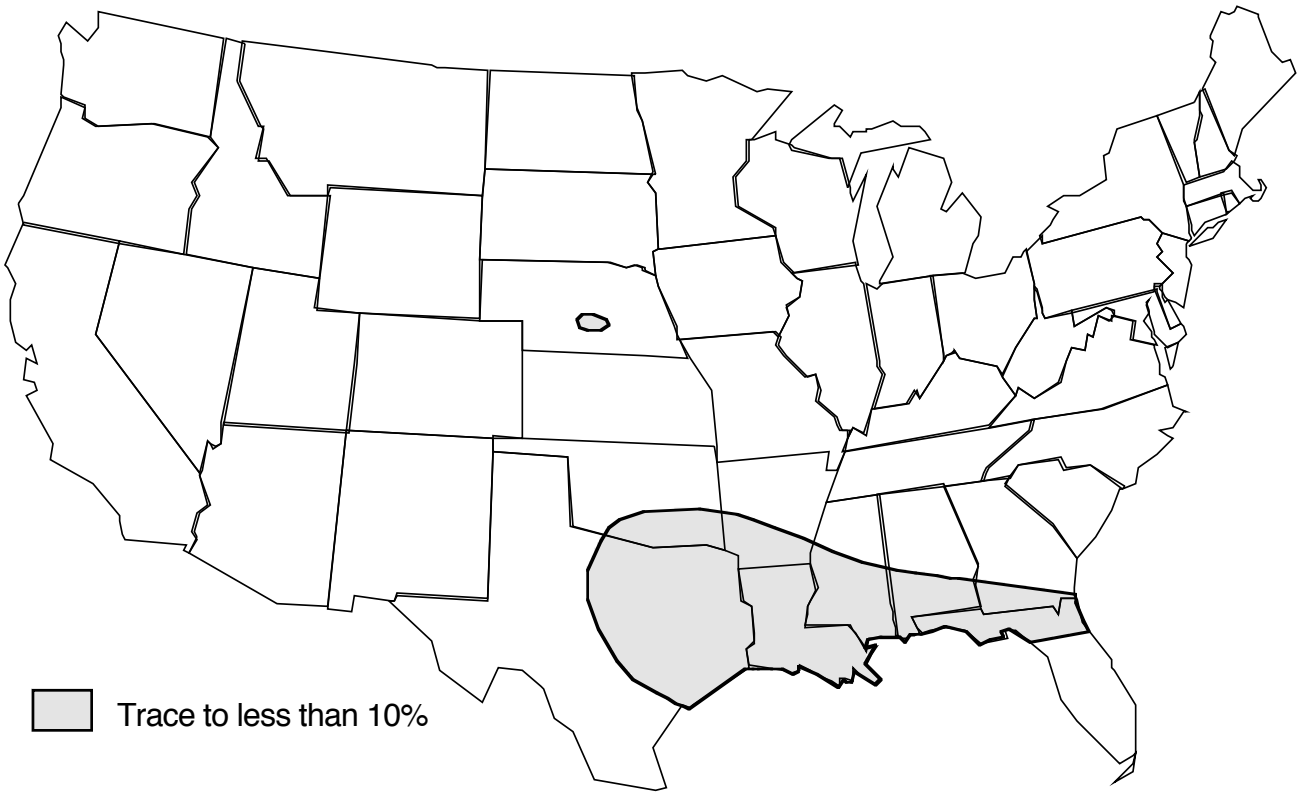

Fig. 2. Stripe rust severities in wheat fields - March 21, 2006