USDA ARS CEREAL RUST BULLETIN

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Issued by:

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For the latest cereal rust news from the field, subscribe to the cereal-rust-survey listserv list. To subscribe, please visit: http://www.ars.usda.gov/Main/docs.htm?docid=9970

Or, send an email to: Mark.Hughes@ars.usda.gov

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

- The first report of stem rust was in wheat and barley plots in southeast Texas.
- Wheat leaf rust is increasing in plots and fields in the southern U.S.
- Wheat stripe rust levels were low in northeastern Louisiana.
- Low amounts of oat stem rust were found in southeast Texas plots.
- Oat crown rust is increasing in the southern U.S.

Wheat Stem Rust. On March 23, low levels of stem rust were found on spelt wheat and barley planted as a windbreak for watermelons in Hidalgo County along the Rio Grande Valley in southeast Texas.

Wheat Leaf Rust. ***Texas –*** In mid-February, low levels of leaf rust were found in central Texas. In late February leaf rust was observed in south Texas at Castroville in irrigated plots. The most severe leaf rust was found in the Jagger (*Lr17* resistance), Jagalene (*Lr24*) and TAM 112 (*Lr41*) cultivars. By mid-March, leaf rust was severe in the irrigated plots. The rust was much more severe than in the past two years in the irrigated plots. In late February, low levels of leaf rust were found on lower leaves of wheat growing in irrigated fields in the Rio Grande Valley. Dryland fields had lower incidence of leaf rust. In early March, low levels of leaf rust were found in southern and central Texas fields. By mid-March, leaf rust was severe on susceptible cultivars in the College Station nursery in central Texas. The severe drought this winter throughout much of Texas limited rust development. Recent rains have improved conditions for rust development in Texas.

Oklahoma – In mid-February, leaf rust was at trace to low levels in Oklahoma plots. In mid-March, low levels of leaf rust were found throughout Oklahoma. The most severe leaf rust was in early planted Jagalene.

Kansas – In mid-February, traces of wheat leaf rust that overwintered were found in a southeast Kansas field. In late February traces of leaf rust were detected in northeastern Kansas plots near Manhattan. In mid-March, low levels of leaf rust were found in eastern Kansas.

Louisiana – In early March, infection levels of wheat leaf rust were much lower than normal in southern Louisiana. During the fourth week in March low to moderate levels were found in plots and fields throughout Louisiana. Some growers are starting to spray.

Arkansas – In early March, low levels of wheat leaf rust were found in southwest Arkansas. Levels of leaf rust appear to be much lower than normal in Arkansas.

Mississippi – In mid-March, leaf rust was severe on wheat in southern Mississippi plots.

Georgia – In mid-March, leaf rust was found on the lower leaves of the most susceptible wheat lines at the Plains, nursery in southern Georgia.

Wheat Stripe Rust. ***Texas*** **-** During the fourth week in March, low levels of stripe rust were found in southeastern Texas. As of March 25, no wheat stripe rust has been reported in Oklahoma or Kansas.

Louisiana – During the fourth week in March in northeastern Louisiana at Winnsboro, high levels of stripe rust were observed in one wheat plot while surrounding plots were relatively clean. Stripe rust has not yet been reported in other areas of the state.

Arkansas – As of March 25, no stripe rust has been reported in Arkansas.

California – In Late March, stripe rust was found in nurseries in the Sacramento and San Joaquin Valleys.

Pacific Northwest – In late February, wheat stripe rust was found in the Mount Vernon area of northwestern Washington.

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.

Oat Stem Rust. On March 23, severe levels of stem rust were found on oat mixed in spelt that was planted as a windbreak for watermelons in Hidalgo County along the Rio Grande Valley in southeast Texas.

Oat Crown Rust. In early March, light levels of crown rust were found in oat in the College Station, Texas nursery plots. In early March, crown rust was found on the susceptible oat variety 'Brooks' in the Baton Rouge, Louisiana nursery. All were fairly young pustules, probably from a spore shower 10-14 days ago. By late March, the crown rust was spreading rapidly in the nursery. In mid-March, crown rust was severe on the on the variety Brooks in Beeville, Texas plots. Crown rust infections are generally lighter than normal in the southern U.S.

Barley Leaf Rust. No barley leaf rust has been reported in the U.S.

Rye Leaf Rust. No rye leaf rust has been reported 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 listserv list. Instructions can be found at:

http://www.lsoft.com/scripts/wl.exe?SL1=CEREAL-RUST-SURVEY&H=LISTS.UMN.EDU

Or, if you prefer, simply send a message to Mark Hughes (Mark.Hughes@ars.usda.gov) and he will add you to the list. Messages from the 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 observations to:

Mark Hughes (Mark.Hughes@ars.usda.gov) and David Long (David.Long@ars.usda.gov)

Or to: CEREAL-RUST-SURVEY@LISTS.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 the 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 provide samples, please contact David Long (David.Long@ars.usda.gov) or Mark Hughes (Mark.Hughes@ars.usda.gov) and they will send you a packet of collection envelopes and forms.