

# CEREAL RUST BULLETIN

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Issued by:

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- Wheat stem rust is present in south central Louisiana plots.
- Wheat leaf rust is widespread throughout the southern U.S.
- Wheat stripe rust is at low levels in the U.S. except for Louisiana and California.
- Oat crown rust is at low levels in the southern oat growing areas.

Winter wheat growth and development is ahead of normal crop development, but many areas in the southern U.S. are dry and need rain. In the spring wheat and oat area of the northern plains, warm temperatures have allowed for an early start of fieldwork and planting.

**Wheat stem rust.** In mid-April, soft red winter wheat plots at Crowley, in south central Louisiana, had stem rust severities of 40%. Stem rust was found in 28 of the 102 plots which are located near rice paddies. The regular dew formation in these plots provided a suitable environment for stem rust infections. This is the first report of wheat stem rust in U. S. this year.

**Wheat leaf rust.** By the second week of April, susceptible cultivars like Jagelene and Jagger in nurseries at Castroville and College Station, Texas had 80% leaf rust severities. In highly resistant cultivars like Fannin and Endurance, no infections were found. Only low levels of rust have been reported in southern and central Texas fields because of the dry conditions (Fig. 1). By early April, low levels of leaf rust have been reported in Oklahoma.

During the second week in April, plots in southern Louisiana had leaf rust severities up to 70%. In early April, leaf rust was found on the lower leaves of the most susceptible cultivars in southwestern and south central Georgia. By mid-April, leaf rust was found in areas of Arkansas that had sufficient moisture. Leaf rust incidence and severity will increase in the next few weeks with periodic rainfall and dews throughout the southern U.S.

From rust collections made in early November in north eastern Oklahoma plots, the following leaf rust races were identified: TBBJ (Lr2a virulence), TDBJ (Lr24 virulence) and TDDS (Lr17 & 24 virulence). From collections made in early December in central Texas, the TDBJ (Lr24 virulence) race and in northwest Arkansas the TBRK (Lr 11 & 18) race were identified. 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 April, only traces of stripe rust were found in southern and central Texas (Fig. 2). Weather conditions have not been favorable for rust development (limited moisture, warm nights and high daytime temperatures). As of early April, no stripe rust has been found in Oklahoma or states to the north.

In early April, no stripe rust had been found in wheat plots in southern Louisiana while high levels of stripe rust were observed in northeast Louisiana plots. By early April, stripe rust was increasing throughout Arkansas, but conditions did not favor development of high rust severities. In early April, stripe rust was found in southern Georgia.

Wheat stripe rust infection in the southern Great Plains and southeastern U.S. is at a much lower level than last year on this same date. If conditions remain unfavorable for rust development a reduced amount of inoculum is expected for the northern regions of the U.S.

For the past month California has had cool and very wet conditions, which have been favorable for stripe rust development. In early April, the susceptible forage wheat cultivar Dirkwinn had stripe rust severity of 30% in the Imperial Valley. Infections also were noted in fields of Oritadurum wheat in the Imperial Valley. Light infections of wheat stripe rust were reported in the southern portion of the San Joaquin Valley and more severe infections were reported from scattered areas further north in the San Joaquin Valley and throughout the Sacramento Valley. In some Sacramento Valley fields, 80% severities were found in hot spots.

By the second week in April, nursery plots at Mt. Vernon (northwestern Washington) had 40% stripe rust severity. Rust also was found in some surrounding fields. Wheat stripe rust was not found from central to eastern Washington during the second week in April. Stripe rust will develop later this year than last year in most of the wheat and barley producing areas in the eastern Pacific Northwest.

**Oat stem rust.** During the second week in April, traces of oat stem rust were found in the plots at Castroville and College Station, Texas. This was much less stem rust than normal in these plots. In mid-April, oat stem rust was light in oat demonstration plots in southwest Louisiana.

**Oat crown rust.** By the second week in April, crown rust was found in irrigated oat plots in southern Texas. During the second week of April, oat plots at College Station Texas had up to 100% severity of crown rust. In early April, crown rust was increasing in oat plots in southeast Louisiana. In mid-April, low levels of crown rust were found in a field in west central Georgia. Oat crown rust infections are much lighter than last year in the southern U.S.

In the second week in April, crown rust was found on wild oats in the Sacramento Valley of California.

**Buckthorn.** In mid-April, buds on buckthorn, the alternate host for oat crown rust, were beginning to break in the buckthorn nursery at St. Paul, Minnesota. This is ahead of normal maturity for buckthorn development in these plots.

**Barley stem rust.** No barley stem rust has yet been found in 2006.

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



**Stripe rust on barley.** In the second week of April, barley stripe rust was found in nurseries at Davis, California, Corvallis, Oregon and Mt. Vernon, (northwestern Washington). Some susceptible entries had stripe rust severities of 30-50%. In the second week in April, stripe rust was found on wild barley grasses growing in orchards and along roadsides in the Sacramento Valley of California. Some of the wild barley grasses were heavily infected (100% incidence and 100% severity). The stripe rust on wild barley grasses could be the wheat stripe rust or barley stripe rust pathogen, or another form specific on wild barley grass as reported in Australia.

**Rye rusts.** There have been no new reports of rye leaf rust since April 4.



Fig. 1. Leaf rust severities in wheat fields - April 18, 2006

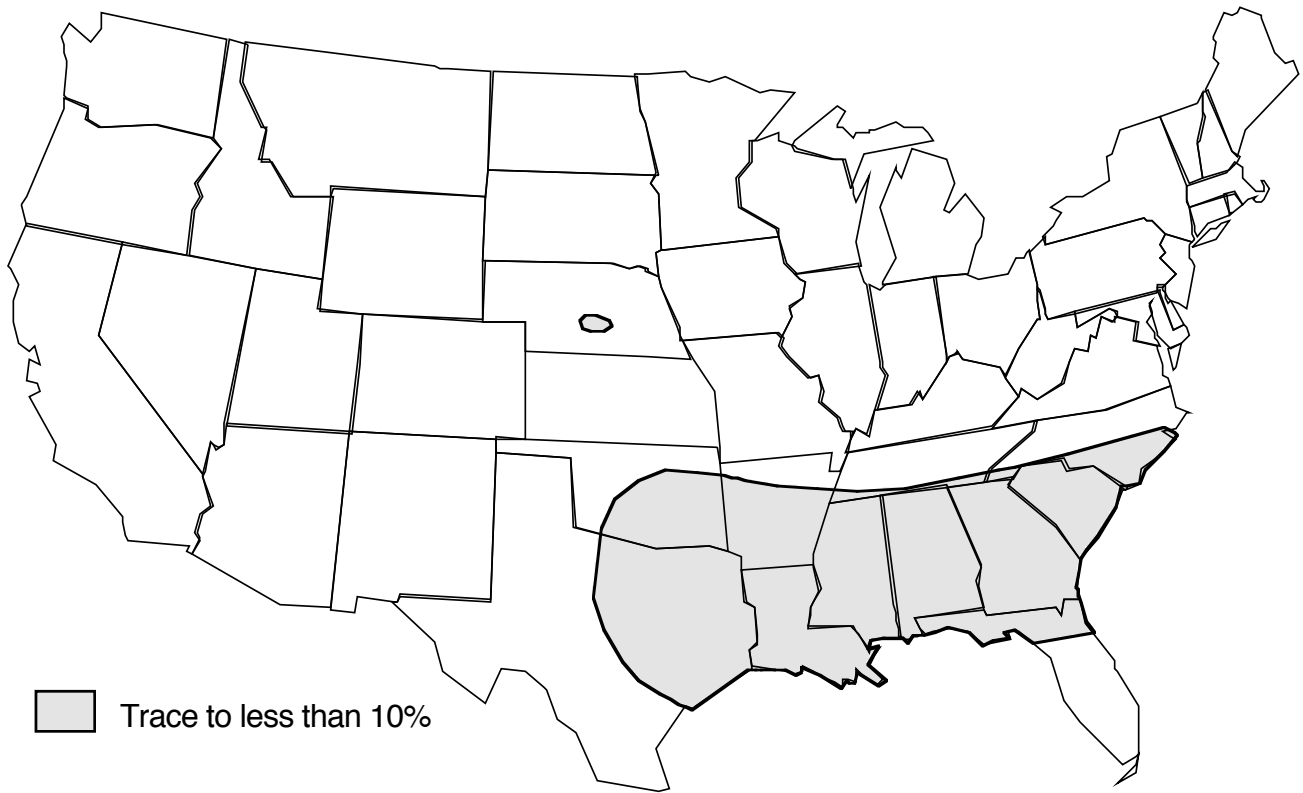


Fig. 2. Stripe rust severities in wheat fields - April 18, 2006

