

CEREAL RUST BULLETIN

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Issued by:

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- Low levels of wheat stem rust were found in south central Louisiana plots.
- Wheat leaf rust is widespread and increasing throughout the southern U.S.
- Wheat stripe rust is at low levels in the southern U.S. wheat growing area.
- Oat stem rust was found in plots in Texas.
- Oat crown rust is increasing in the southern oat growing areas.

Winter wheat is behind normal developmental stage in many areas of the U.S. In the spring wheat and oat area of the northern plains, cool and wet conditions have delayed field preparation and planting.

Wheat stem rust. On April 9, wheat stem rust was found scattered throughout plots in south central Louisiana at Crowley. One variety, CK 9553 had significant stem rust infection. To date, the only other report of wheat stem rust was in plots at Castroville in South Texas.

Stem rust observation maps can be found on the CDL website.
(<http://www.ars.usda.gov/Main/docs.htm?docid=9757>).

Wheat leaf rust. By the third week of April, the susceptible varieties TAM 110, Jagalene (*Lr24*) and Jagger (*Lr17*) had 60% leaf rust severities on flag leaves in nurseries at Castroville Texas. In northeastern Texas, leaf rust was beginning to appear on susceptible wheat varieties (Pio 25R78, Terral 8558, Coker 9553). Most of the fields have received a foliar fungicide application. This year leaf rust appeared much earlier than normal in this area.

In mid-April, scattered pustules of leaf rust were found on susceptible cultivars in central Oklahoma and the highest severity (10-20%) was found on the lowest leaves in plots at Minco. On April 21, leaf rust was found in many fields in southwestern Oklahoma. The rust was visible on most of the lower leaves with flecking occurring on the upper leaves. Many of the fields in this area will be sprayed the week of April 21. In central Oklahoma, widely scattered pustules of leaf rust were found on lower yellowing/dying leaves.

In mid-April, leaf rust was increasing in plots and fields throughout southern and central Louisiana.



This year a significant amount of leaf rust overwintered in southern Arkansas. Most of the commonly grown cultivars appear to have some resistance and by mid-April some fields had been sprayed with a fungicide. The leaf rust epidemic is developing slowly in Arkansas.

In mid-April, plots of susceptible wheat cultivars in southern and central Alabama and southern Georgia had severe levels of infection on the lower leaves and a few pustules were noted on the flag leaves. Good rainfall in March and April have made conditions more conducive for rust development in this area than in the past two years.

With continued good conditions for rust development, leaf rust incidence and severity will increase in the next few weeks. Many of these southern areas will provide rust inoculum for areas further north.

Wheat stripe rust. As of early April, no stripe rust has been found in Oklahoma or states to the north.

So far this year there have been few stripe rust inoculum sites reported in the southern U.S. This year stripe rust overwintered in Arkansas but at a much lower level than leaf rust. Very susceptible varieties are no longer grown, and the acreage planted to susceptible varieties is small. Most cultivars have adult-plant resistance to the current pathogen population. The combination of resistance and fungicides appears to have controlled stripe rust at this time.

In southern Alabama and southwestern Georgia traces of wheat stripe rust were found in a few plots. In these locations most of the stripe rust infections had occurred earlier in mid to late winter when temperatures were cooler. As day and nighttime temperatures continue to increase, the conditions for stripe rust development will be less favorable. This will lead to a reduced amount of stripe rust for the northern wheat growing regions of the U.S.

By the second week in April, wheat stripe rust was increasing in the northern part of the Central Valley of California (Sacramento Valley and the Sacramento/San Joaquin Delta), but the rust was not uniformly severe. Only a few commercial fields were not treated with a fungicide and these fields had severe infection levels (80%). Only light infections were observed in the southern part of the Valley (San Joaquin Valley).

In the first week in April, susceptible varieties in winter wheat nurseries in northwestern Washington had 50% levels of stripe rust infection. Similar levels of rust severities were observed in commercial fields that were planted with susceptible varieties. In the second week of April, low levels of stripe rust were found in central Washington fields, which was much less rust than was found last year in the same area.

Oat stem rust. On April 12, oat stem rust was first found at College Station, Texas on the spreader rows of Brooks and Harrison on both the upper leaves and stems. This was later than normal for this location. On April 22, light amounts of oat stem rust were found in the plots at Castroville, Texas.

In mid-April, oat stem rust was severe and spreading rapidly in plots at Baton Rouge, Louisiana.



Oat crown rust. In mid-April, trace to 50% severity levels of crown rust were found in south central Texas plots. Heavier levels (80-90%) of crown rust were found in a field south of College Station.

By mid-April, crown rust had killed some susceptible varieties in southeastern Louisiana oat plots. In mid-April, light to moderate levels of crown rust were found in oat plots in central and southern Alabama.

Buckthorn. As of mid-April, buds on buckthorn, the alternate host for oat crown rust, were not developing in the buckthorn nursery at St. Paul, Minnesota. This is normal for buckthorn development in these plots.

Barley stem rust. No barley stem rust has been found in 2008.

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

Stripe rust on barley. In the second week in April, stripe rust infection levels ranged from trace amounts to 80% severity in the Barley CAP screening nursery at the University of California-Davis Agronomy Farm.

Rye rusts. No rye rust has been reported as of early April in the U.S.



Fig. 1. Leaf rust severities in wheat fields - April 23, 2008

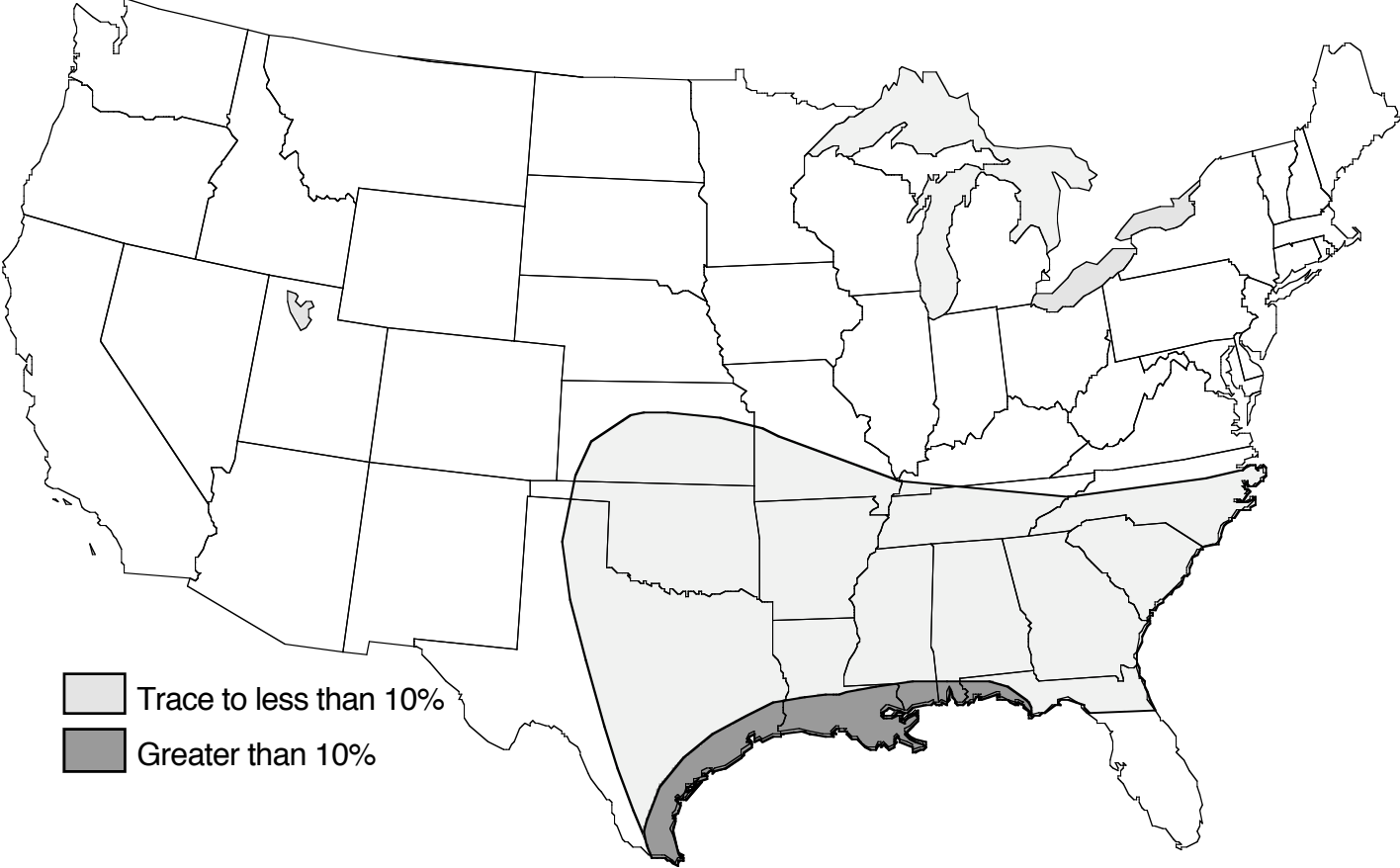


Fig. 1. Stripe rust severities in wheat plots and fields - April 23, 2008

