

CEREAL RUST

BULLETIN

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Issued by:

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- Traces of wheat stem rust were found in north central Oklahoma plots.
- Wheat leaf rust is widespread, with high severity and increasing throughout the Great Plains.
- Wheat stripe rust is light in the central Great Plains and Washington.
- Oat stem rust levels are light in a central Texas nursery.
- Oat crown rust is increasing in the southern U.S.

The small grain harvest is underway from Georgia to southern Oklahoma. Winter wheat is at normal crop development stage in the central U.S. Most of the spring grain in the northern plains is at average maturity.

Wheat stem rust. On May 23, light levels of wheat stem rust were found in the susceptible McNair 701 plot at Stillwater, Oklahoma. So far this year wheat stem rust has been found in plots of susceptible cultivars in southern Louisiana, southern and central Texas and north central Oklahoma.

From wheat stem rust collections made this spring in Louisiana and Texas the QFCS race was identified. This is a common race that has been found in the U.S. the past several years.

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

Wheat leaf rust. In late May, high severity (80%) levels of wheat leaf rust were found in fields throughout the states of Nebraska, Kansas and Oklahoma (Fig. 1). Many fields have been sprayed for rust control and in some fields of susceptible cultivars there will be almost a total loss to leaf rust. Commonly grown cultivars such as Jagalene and Jagger are susceptible. This year significant losses to wheat leaf rust are projected in the southern and central Great Plains states. With continued favorable conditions for rust development, leaf rust will increase throughout this area and provide inoculum for the northern wheat growing areas.

In late May, wheat leaf rust was increasing in fields and plots from southern South Dakota to the coastal plains of Virginia (Fig. 1). High leaf rust severity levels were observed in nurseries in southern Georgia, northeastern South Carolina and eastern Virginia.



On May 23, traces of wheat leaf rust were found on susceptible winter wheat cultivars in the Rosemount, Minnesota nursery. On May 25, low levels of leaf rust were found on winter wheat in southeastern North Dakota fields.

In mid-May, no leaf rust was detected in nurseries throughout the San Joaquin Valley in California.

Wheat stripe rust. In late May, severe levels of stripe rust were reported in irrigated plots in the Oklahoma panhandle (Fig. 2). However, little stripe rust was found in dryland plots and fields. In comparison, leaf rust was heavy in both irrigated and dryland plots in the same area. By late May, stripe rust was present at many Kansas locations but appeared to be a heavier in western Kansas. Leaf rust is the predominant disease in western Kansas, and preliminary indications suggest that many growers in this area responded to the disease threat with timely fungicide applications. If temperatures during the nighttime stay below 60 degrees, stripe rust will continue to develop in the central plains.

In mid-May, low levels of stripe rust were found in southeastern Washington fields. As the weather conditions become dry in this area, stripe rust development should be slowed down. In mid-May, low levels of stripe rust were found in nurseries in the Palouse region with some hot spots of severities up to 40%.

Much of the wheat crop in the California's Central Valley reached the soft dough stage of growth in mid-May. Despite very dry conditions, the previously reported trace to low severity levels of wheat stripe rust increased to severe levels in small areas of fields of susceptible varieties in the San Joaquin Valley by mid-May. Because of the late development and limited spread of the disease, yield losses will be minimal in the San Joaquin Valley.

Oat stem rust. On May 23, oat stem rust pustules were found in the McGregor nursery in central Texas. Due to the cooler and wetter than normal spring, there still are green plants along the roadside in central Texas on which stem rust can increase. From rusted collections received at the CDL, races NA-29 and NA-67 were identified, most samples were also virulent on gene Pga.

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

Oat crown rust. In mid-May, oat crown rust was heavy across central Texas fields and plots. In late May, crown rust made its initial appearance in oat plots near the buckthorn nursery at St. Paul, Minnesota.

Buckthorn. By late May, moderate to heavy numbers of aecial infections were observed on buckthorn in the nursery at St. Paul.

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



Barley leaf rust. In mid-May, 80% severity levels of barley leaf rust were observed in Warsaw and Blackstone, Virginia nursery plots. The barley leaf rust occurred earlier and was more severe than in recent years, which means the rust over wintered.

Stripe rust on barley. There have been no reports of stripe rust on barley since the May 15 CRB.

Rye leaf rust. In mid-May, 40% leaf rust severities were observed in rye fields in north central Oklahoma.

Rye stem rust. There have been no reports of rye stem rust this year.

Stem rust on barberry. On May 22, aecial development was light on infected susceptible barberry bushes (alternate host for stem rust) growing in southeastern Minnesota.



Fig. 1. Leaf rust severities in wheat fields - May 30, 2007

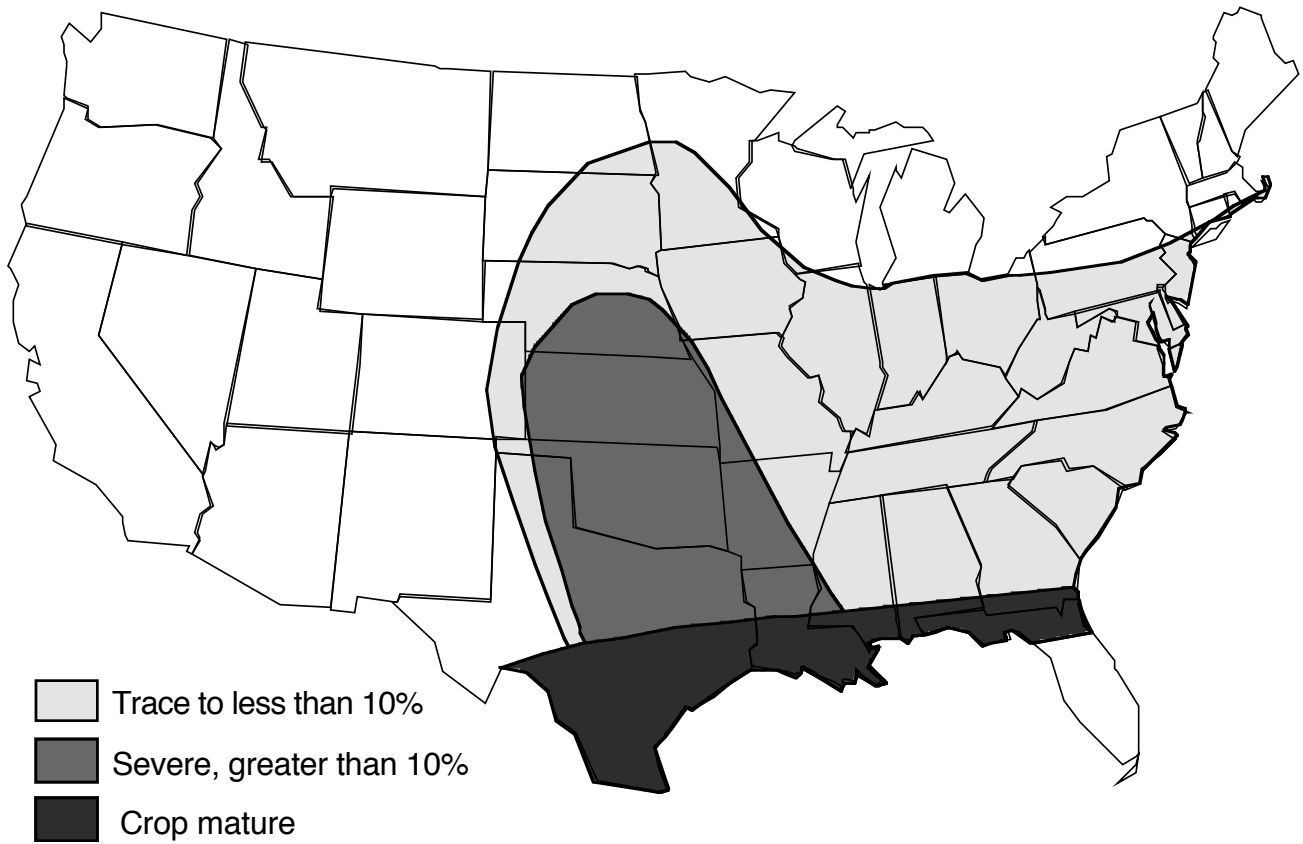


Fig. 2. Stripe rust severities in wheat plots and fields - May 30, 2007

