

CEREAL RUST BULLETIN

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Issued by:

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- Wheat leaf rust is light in fields and plots throughout much of the southern U.S. small grain growing area.
- Wheat stripe rust is present and increasing throughout the southern U.S.
- Oat stem rust over wintering sites were found in southern Alabama.

Most of the small grain crop is in good condition and near normal crop maturity throughout the United States. By early May, harvest had commenced in southern Texas.

Wheat stem rust. By late April, wheat stem rust was severe in plots of McNair 701 and Chinese Spring in the southern Texas nursery at Uvalde.

Wheat leaf rust. In early May, wheat leaf rust was found in light amounts in fields from south central Kansas to central Georgia. The highest leaf rust severities (60%) were in plots of susceptible cultivars in central Louisiana and southwest Georgia. Only trace levels of leaf rust could be found in southeastern Arkansas wheat plots. The dry and cool weather in April was not conducive for leaf rust development in many parts of the southern U.S. With rainfall and warmer temperatures, leaf rust should increase and provide inoculum for the northern wheat growing area.

In late April, wheat leaf rust was severe in the irrigated nursery at Uvalde in south Texas. In early May, central Texas had moderate to light infection on susceptible cultivars while in northern Texas wheat at the late flower to early dough growth stages did not have any leaf rust infection. In early May, traces of leaf rust were found in plots of susceptible cultivars in southwestern Oklahoma.

In many areas of California in early May, wheat leaf rust was difficult to find because of the cool weather and abundance of stripe rust. However, leaf rust was severe in commercial fields in the Imperial Valley. Fields of the durum wheat cultivar Orita, at the soft dough stage, had 70-80% leaf rust severities in early May.

Wheat stripe rust. In mid-April, 20% stripe rust severities were common in fields from northeastern Louisiana to central Georgia. However, the dry weather during the last two weeks of April slowed stripe rust development in many parts of the southern U.S. In late April, wheat plots with stripe rust severities of 20% were in susceptible cultivars in central Mississippi and central Alabama, however, stripe infections were light in the commercial fields in this area.



In southeast Arkansas, wheat plots of susceptible cultivars had 20-30% stripe rust infection. There was a wide range in the amount of stripe rust on the cultivars in the breeding plots; some soft red winter wheat cultivars were highly resistant to stripe rust, while others were relatively susceptible. Stripe rust infection in Arkansas fields was reported to be scattered and light in the last week of April.

During the last week in April, wheat stripe rust infections were increasing on susceptible cultivars from central to northern Texas. In early May, hot spots of stripe rust foci were found in central to north central Oklahoma plots. A wheat field in north central Oklahoma was heavily infected with stripe rust. There will be significant losses to stripe rust in Oklahoma in 2003.

In early May, stripe rust infections in the south should continue to increase and provide inoculum for the northern wheat growing area. This year stripe rust over wintering sites occurred in more locations than in previous years throughout the southern U.S. wheat growing area. Where stripe rust spores are deposited in late fall and early winter they create over wintering sites which is very critical as to where stripe rust will develop the next year.

In mid-April, in the Central Valley (Sacramento and San Joaquin valleys) of California, stripe rust was severe in plots of susceptible wheat cultivars. In the first week of May rust was severe in fields in the Central Valley due to favorable conditions for stripe rust.

In late April, stripe rust was severe in susceptible winter wheat fields in southeastern Washington and northeastern Oregon. Infection foci with 60% rust severities that were up to several hundred feet in diameter were found in wheat fields. The ground under the plants was covered with rust spores. Some fields in the area were sprayed with fungicides. This high level of stripe rust infection in eastern Washington at this time of year is unusual. Because heavy rust inoculum is in the region with favorable weather for rust development, stripe rust will continue to spread and develop in eastern Washington and northern Idaho.

By late April, stripe rust was also occurring on early-planted spring wheat cultivars in the Pendleton area of Oregon.

Oat stem rust. During the last week in April, over wintering foci of oat stem rust infections were found in southwestern Alabama and central Louisiana cultivar plots of Chapman and Horizon 474. Severities in the middle of the infection foci ranged from 20-60%, while a meter from the center severities were trace-1%. In late April, severe rust was observed on oat in plots in a south Texas irrigated nursery and in central Texas oat plots.

Oat crown rust. During the last week in April, oat plants with 60% severities were observed in cultivar plots in central Louisiana, southwestern Alabama and northwestern Florida. In a field in southeastern Alabama, 60% crown rust severities were reported. Heavy crown rust infections on oat were reported from southern Texas in late April. In early May, trace amounts of crown rust were found in varietal plots in north central Texas.



Buckthorn. Moderate to heavy pycnial and aecial infections were observed on emerging buckthorn leaves in the nursery at St. Paul, Minnesota on May 6. Buckthorn serves as the alternate host for oat crown rust.

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

Barley leaf rust. As of May 5, no barley leaf rust has been reported in the U.S.

Stripe rust on barley. In early May, in the Western Regional Spring Barley Nursery at Davis, California, susceptible lines were rated at 50-80% severity at early dough stage.

Rye rusts. During the last week in April, traces of leaf rust were observed in rye fields in southern Georgia.



Fig. 1. Leaf rust severities in wheat fields - May 7, 2003

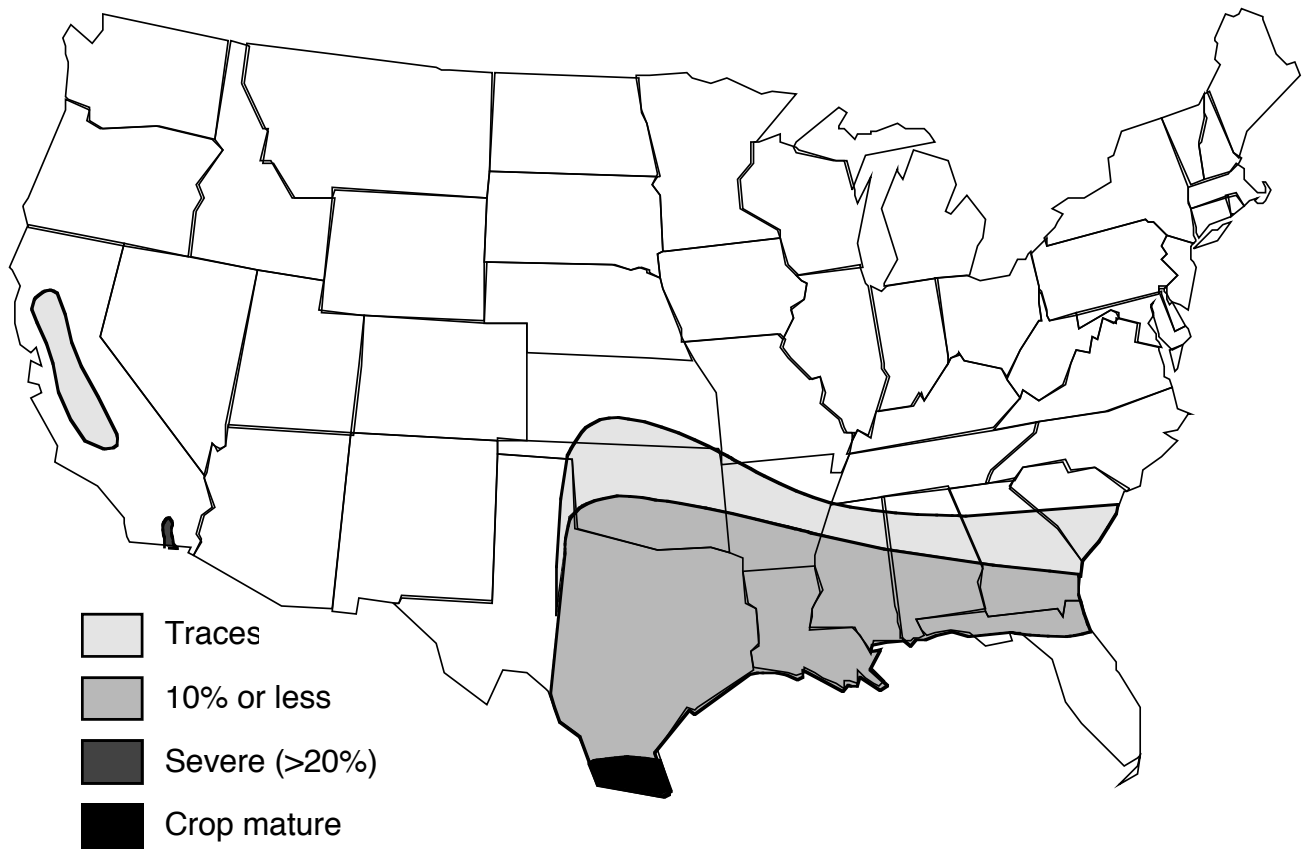


Fig. 2. Stripe rust severities in wheat fields - May 7, 2003

