CEREAL RUST BULLETIN

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From:

CEREAL RUST LABORATORY
U.S. DEPARTMENT OF AGRICULTURE
UNIVERSITY OF MINNESOTA, ST. PAUL 55108

(612) 625-6299 FAX (612) 649-5054
Internet: markh@puccini.crl.umn.edu

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The hard red winter wheat crop is in poor condition because of drought and cold temperature injury in Texas, Oklahoma, Kansas, and eastern Colorado. In some areas, rain in late April and early May helped fill the kernels, but not nearly enough to bring yields up to normal. In the northern soft red winter wheat area, approximately 30% of the acreage was lost because of freeze damage. Cold wet weather slowed planting progress in the northern spring grain-growing area, where it is 2-3 weeks behind normal in most areas.

Wheat stem rust. During the last two days in April, traces of wheat stem rust were found in central Texas plots. Even though rust development was late in this area and the crop is close to maturity, it still could be an inoculum source of wheat stem rust spores for susceptible wheat farther north.

Wheat leaf rust. During the first week in May, 30% rust severities were observed on susceptible cultivars in central Texas nursery plots and traces were found in north central Texas fields. The lighter than normal leaf rust development in the southern United States was due to drier and cooler than normal conditions during the winter and early spring (Fig. 1).

By late April, in the southeastern soft red wheat area, leaf rust was severe on susceptible cultivars in nurseries and light in fields in central Louisiana and southern Georgia. Environmental conditions were not conducive for rust development, but 60% severities were still common on some nursery cultivars and rust losses could have been significant if these cultivars were grown on extensive acreage.

The first report of leaf rust in Arkansas were trace reports of rust being found April 30 in a east central field. The wheat in this field was infected from overwintering leaf rust that had survived the extremely cold winter in this area.

By the last week in April, moderate to severe leaf rust was found on wheat cultivars growing in nurseries and fields in the San Joaquin Valley in California.

From rust collections made in late March, in southern Texas, the following races were identified: MBR-10; MBR-10,18; MBG-10; MCD-10; TDG-10 and TDB. Race MBR-10, which is virulent to *Lr*1,3,10,11,3ka,30 , was the most commonly identified race in 1995 and is the number one race identified so far from southern Texas in 1996.

Wheat stripe rust. During the last week in April, traces of stripe rust were found in wheat fields in the San Joaquin Valley of California.

By early May, wheat stripe rust was found throughout the whole state of Washington where enviromental conditions have been ideal for rust development. Sixty percent severities were reported on susceptible cultivars in western Washington plots at the late jointing stage and 10% severities in eastern Washington in the Walla-Walla plots. The earliest planted hard red winter wheat fields in central Washington were sprayed last week for stripe rust control.

Oat stem rust. In late April, traces of oat stem rust were found in nurseries in central Texas. In early May, 20-30% oat stem rust severities were observed on susceptible cultivars in central Louisiana, which was less than normal.

Oat crown rust. During late April, crown rust was light in central Texas fields and plots. This area will provide very little crown rust inoculum for oat-growing areas farther north.

By early May, the severity of oat crown rust in central Louisiana was much less than normal and even the most susceptible cultivars will yield fairly well this year.

Barley stem rust. As of May 7, no stem rust has been reported on barley in the U.S. this year. Limited amounts of barley are grown commercially in the southern states. Stem rust on barley rarely occurs in this area.

Barley leaf rust. There have been no new reports of barley leaf rust since Bulletin 1.

Stripe rust on barley. By the last week in April, barley stripe rust was severe on susceptible cultivars growing in nurseries and fields in the San Joaquin and Sacramento Valleys of California. Most of the released cultivars are susceptible to barley stripe rust, but some of the nusery lines are resistant to the rust.

In early May, stripe rust infection centers were observed in northeastern Oregon winter and spring barley varietal trials. In western Washington fields, 40% severities were reported at the late jointing growth stage and in eastern Washington barley plots, stripe rust was light but increasing at a significant rate.

In late April, stripe rust infection centers were observed in northeastern Oregon winter and spring barley fields and in western Washington fields, 40% severities were found at the late jointing stage.

Rye rusts. In late April, trace-10% rye leaf rust severities were observed in central Texas plots. As of May 7, no rye stem rust has been reported in the U.S.

Fig. 1. Leaf rust severities in wheat fields and occurrence of stripe rust in barley fields on May 7, 1996