CEREAL RUST BULLETIN

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Please note: The next Cereal Rust Bulletin will tentatively be distributed the first week of June. If you have information on the rust situation in your area that might be of interest, please email (davidl@cdl.umn.edu) or call (763-612-1284) Dave Long.

- Wheat leaf rust is common in southern Kansas and northern Oklahoma.
- Wheat stripe rust has been found in Kansas and Virginia.
- Oat stem rust was severe in Texas plots.
- Barley stripe rust is severe in California.

By the third week in May, harvest had commenced from central Texas to southern Georgia. Most of the crop in the central plains is near normal crop maturity. In the spring grain-growing area, crop planting and emergence remained behind normal.

Wheat stem rust. The only reports of wheat stem rust this year were in late April, in plots in south Texas and southwest Louisiana.

Wheat leaf rust. By mid-May, leaf rust was severe in plots and fields in central Oklahoma, but the crop was near maturity so losses will be minimal. In mid-May, leaf rust in Kansas was common on the flag leaves of susceptible cultivars in the south central area and light in the northern part of the state. Leaf rust that is prevalent throughout the southern winter wheat area of the U.S. will provide inoculum for the northern wheat growing area and especially where the crop is behind normal crop maturity.

By mid-May, leaf rust of wheat had spread throughout the Central Valley of California. In the southern San Joaquin Valley 40% severities were observed on lines and cultivars in nurseries. Leaf rust was also found on a few durum wheat cultivars and lines and moderate severity was reported on one triticale cultivar. In the past 2 weeks, leaf rust was severe on wheat flag leaves in most commercial

fields throughout the Sacramento Valley, obscuring the levels of stripe rust that occurred earlier in the season on some of the same cultivars in the region (particularly Bonus). The crop was in the latter stages of grain fill (late dough) when high levels of leaf rust developed, so yield losses to leaf rust should be minimal.

In mid-May, moderately severe leaf rust was reported in eastern Virginia plots.

Wheat stripe rust. In early May, severe wheat stripe rust was reported in some north central Oklahoma plots, while in fields in the same area rust was light or not found. In early May, stripe rust was observed in south central Kansas and since wheat was in the full berry developmental stage yield impact will be minimal. In mid-May, a 2-meter foci of stripe rust was found in a plot of the highly susceptible cultivar Lakin in northeastern Kansas. More stripe rust is expected since the weather has been perfect for stripe rust development in mid-May.

By late April, moderate to severe wheat stripe rust had been reported on susceptible cultivars in the Sacramento/San Joaquin Valley Delta and the Sacramento Valley. In mid-May, stripe rust of wheat had spread throughout the Central Valley of California. Despite the warmer, drier climate of the southern San Joaquin Valley, stripe rust was easily detected (80% severity/20% incidence), in commercial fields as far south as the southern end of the San Joaquin Valley. In the San Joaquin Valley, some durum wheat cultivars also had stripe rust infections, but at lower levels than hard red wheat.

This year in the Pacific Northwest, the weather was favorable for wheat stripe rust overwintering and the cool moist conditions in late April and early May were favorable for rust development. By mid-May, wheat stripe rust was severe in northwestern Washington plots and fields. In eastern Washington, stripe rust was increasing.

In early May, stripe rust was found in plots in north central Alabama. Severities ranged from traces to 40%.

In mid-May, traces of stripe rust were found scattered throughout the state of Virginia.

Oat stem rust. In early May, significant amounts of oat stem rust were observed in southern Texas plots at Uvalde. Thirty-eight of 40 entries had `S' type reaction types. TAM 397 and Horizon were severely rusted and in tests done in previous years stem rust was not observed on these two varieties. In seed production fields of TAM 397 near Castorville, Texas, large stem rust pustules were found on oat plants throughout the field. Many of the plants still were green because of regrowth after the freeze damage in March. These late developing tillers are the best places for the stem rust to develop. Almost every year in Texas, oat stem rust has developed late in the season on later maturing plants.

In early May, severe oat stem rust was found in plots in the central coast region of California.

Oat crown rust. In mid-May, light crown rust was found in a San Joaquin Valley, California field.

Buckthorn. Aecia were found on the 10% of the leaves that had emerged from buckthorn, the alternate host for oat crown rust, at the St. Paul, Minnesota nursery. Despite the slow leafing out of the buckthorn due to the prolonged cool temperatures in April and May the appearance of aecia is near the average date observed.

Crown rust aecia were found on buckthorns growing in a hedge at Ithaca, New York in early May.

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

Barley leaf rust. In early May, leaf rust was severe on barley lines in eastern Virginia nurseries. In mid-May, 60% severities were observed on barleys in nurseries in the San Joaquin and Sacramento Valleys.

Stripe rust on barley. By mid-May, barley stripe rust was severe in the Sacramento and San Joaquin Valleys of California. Plots of many susceptible cultivars and lines in nurseries had 100% severity/100% incidence.

In late April, barley stripe rust was reported in northwestern Washington. Severities of 10 to 30% were observed on winter barley cultivars. This year in the Pacific Northwest, the weather was favorable for barley stripe rust overwintering and the cool moist conditions in late April and May were favorable for rust development.

Barberry rust. In mid-May, aecia infections were found on barberry (alternate host for stem rust) in south central Wisconsin.

Rye rusts. There have no new reports of rye leaf rust since CRB #4.

Fig. 1. Leaf rust severities in wheat fields - May 21, 2002

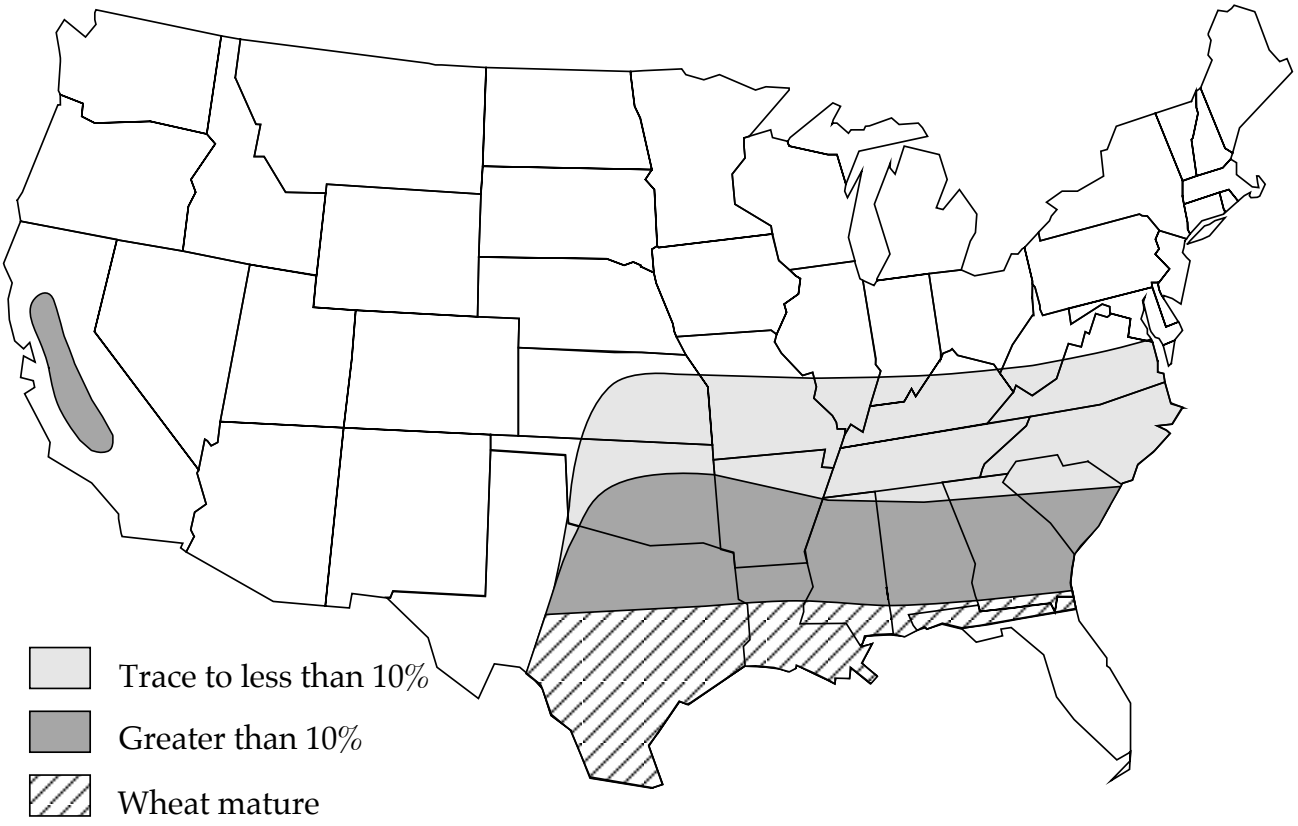

Fig. 2. Stripe rust severities in wheat fields - May 21, 2002