



Issued by:

Cereal Disease Laboratory

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<http://www.ars.usda.gov/Main/docs.htm?docid=9970>

Or, send an email to: Mark.Hughes@ars.usda.gov

Reports from this list as well as all Cereal Rust Bulletins are maintained on the CDL website (<http://www.ars.usda.gov/mwa/cdl/>)

- Wheat stem rust has been found in a nursery in central Louisiana and in southern, northeastern and west central Texas.
- Wheat leaf rust has been found from Arizona north to Kansas and east to Georgia.
- Conditions in Oklahoma, Kansas and Nebraska have been conducive for stripe rust development.
- Moderate levels of barley leaf rust were found in a nursery at Davis, California.

For original, detailed reports from our cooperators and CDL staff, please visit the [Cereal Rust Situation \(CRS\)](#) reports page on the [CDL website](#) or click the [CRS](#) link found throughout the bulletin.

Fifty six percent of the U.S. winter wheat crop was headed by May 10, eleven points ahead of the 5-year average. Forty four percent of the winter wheat crop was rated in good to excellent condition, 14 points better than the same time last year. The spring wheat crop was 87% seeded, approximately 3 weeks ahead of the 5-year average. Fifty four percent of the spring wheat crop was emerged, 29 points ahead 5-year average. Winter wheat harvest has begun in parts of Louisiana.

The U.S. oat crop was 93% seeded and 72% emerged by May 10, 17 and 13 points ahead of the 5-year average, respectively. Seventy three percent of the oat crop was reported in good to excellent condition. The barley crop was 88% seeded, 30 points ahead of the 5-year average. Fifty nine percent of the barley crop was emerged, 31 points ahead of the 5-year average.

Wheat stem rust. Stem rust was present at incidences of 20-80% and severities of 20-80% in nurseries at Alexandria in central Louisiana on May 1. Stem rust arrived early in some plots at Castroville in South Texas and had increased to 100S on susceptible lines that were grouped together in the nursery by April 24. The stem rust was not widespread in the Castroville nurseries, but developed in the clustered group of susceptible lines. On May 4, stem rust was observed in Ellis and Concho Counties, in northeastern and west central Texas, respectively. Cooler temperatures earlier in the season in combination with fungicide applications likely limited development in Texas and Louisiana. To date, wheat stem rust has been reported in only Texas and Louisiana (see [CRS](#)).

Wheat stem rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Wheat leaf rust. Wheat leaf rust has now been found from Arizona to Kansas and east to Georgia. Recent cool temperatures in the Great Plains have limited leaf rust development while favoring stripe rust development. As the temperatures increase conditions will likely favor leaf rust development. Many areas have been treated with fungicides to control stripe rust and that will also inhibit leaf rust development.



Texas – Generally, wheat leaf rust at low severity was observed in edges of otherwise rust-free commercial fields in South Texas in late April, however, at Wharton and Uvalde severities reached 50% with incidences of 100%. Winter wheat further south near Beeville was approaching maturity. Leaf rust was moderate to severe on susceptible lines in nurseries at Howe, but much lighter at Leonard and Farmersville in northeastern Texas on May 4.

Oklahoma – Leaf rust was developing on lower leaves and occasionally on flag leaves in fields around Stillwater in north central Oklahoma the last week of April. However, stripe was around 90% severity on flag leaves of Jagalene (*Lr 24*). The recent cooler weather was more conducive for stripe rust development, but with increasing temperatures conditions will favor leaf rust development. Wheat in the state was generally between ¼ to nearly full berry. The second week of May leaf rust was found at Kingfisher in central Oklahoma and Kildare and Lahoma in north central Oklahoma. Wheat leaf rust was severe in some cases, but had not increased as much as stripe rust and was mostly found on leaves of cultivars resistant to stripe rust. Wheat was at full berry to nearly milk.

Kansas – Leaf rust, at generally low levels, had been found in southeastern, south central, central and north central Kansas by May 4. The leaf rust was most common on the cultivars with *Lr39/41* resistance gene such as Fuller (*Lr17, 39/Lr41*) and WB4458 (*Lr39/41*). Cool temperatures have favored the development of stripe rust in many areas, but with warming temperatures leaf rust development will likely increase. Many of the cultivars grown in the state are susceptible to leaf rust. Previously, wheat leaf rust was reported in nurseries in northeastern and south central Kansas (see [CRS](#)).

Georgia – Wheat leaf rust has been found in commercial fields in southwestern Georgia (Seminole, Mitchel and Taylor Counties). The rust infections were localized and the severity was low. No rust was found in commercial fields near Plains (southwestern GA) or Griffin (central GA) nor was rust found in the nurseries at the two locations.

Wheat leaf rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Wheat cultivar *Lr* gene postulation database. Please visit: [Leaf rust resistance gene postulation in current U.S. wheat cultivars](#)

2014 wheat leaf rust survey summary and results. Please visit: [Wheat leaf rust race survey results](#).

Wheat stripe rust. Stripe rust continues to be active from Oklahoma to southern Nebraska. Recent cool, wet weather has been conducive for stripe rust development.

Oregon – There have been no new reports of stripe rust in the state since the second bulletin when stripe rust was reported and a concern in the Willamette Valley of western Oregon (see [CRS](#)).

Washington – A single leaf was found with stripe rust in a nursery near Pullman in southeastern Washington on April 20. On April 28, stripe rust (7-10 spots in fields) was found in two of three nurseries near Pullman on susceptible checks or border rows. A few spots of stripe rust were found in nurseries near Colfax in southeastern Washington. No rust was found in commercial fields surveyed in the Palouse region (Whitman County, Washington and Latah County, Idaho). Winter wheat ranged from Feekes 5-7 and spring wheat from planting to Feekes 3.

California – There have been no new reports of stripe rust from the state since it was reported in nurseries in both the Sacramento and San Joaquin Valleys in mid to late March (see [CRS](#)).

Montana – There have been no new stripe rust reports from the state since it was reported in northwestern and north central Montana in early April (see [CRS](#)).



Idaho – Stripe rust was found on winter wheat in a nursery at Parma in western Idaho in late April. The wheat was at the boot stage. It was believed the stripe rust was widespread and would continue developing to the east. On May 6, stripe rust was found on both the lower leaves and in the mid-canopy of winter wheat lines at late tillering to jointing stages at the Tetonia Research Station in eastern Idaho. Conditions were conducive for stripe rust development. There was no stripe rust observed in these plots when visited on April 21.

Utah – Stripe rust was found on the soft white winter wheat Lewjain and hard red winter wheat Lucin CL in a nursery at Logan in north central Utah in late April.

Arkansas – There have been no updates from the state since the last bulletin. While foliar diseases were generally at low levels throughout the state stripe rust was severe in late April on susceptible cultivars not treated with fungicides. Adult plant resistance and fungicide applications were effective in mitigating the effects of stripe rust. In January and February stripe rust was widespread across the state.

Tennessee – There have been no updates from the state since stripe rust at very low levels was reported in a field in Haywood County in western Tennessee the second week of April. It did not appear the stripe rust was developing to any extent.

Texas – There have been no new reports of stripe rust in the state. Fungicides were applied in many areas of eastern, central and northern Texas to control stripe rust. Stripe rust was previously reported in west central Texas fields and nurseries in South Texas (see [CRB #1](#)).

Oklahoma – Stripe rust development had increased in much of the state by early May. Wheat was at ¼ berry to nearly full berry. Stripe rust was mostly found in the mid-canopy with some pustules appearing on the flag leaves of susceptible cultivars in nurseries at Stillwater in north central Oklahoma. Near Kingfisher in central Oklahoma stripe rust was the most severe disease found. Stripe rust was severe (~90%) on flag leaves of susceptible cultivars such as Ruby Lee, Everest and Garrison at Altus in southwestern Oklahoma while little sporulation was found on resistant cultivars such as Gallagher and Lee due to the hypersensitive reaction. Light amounts of stripe rust were found in borders of plots near Alva in northern Oklahoma.

Kansas – By early May stripe rust was reported in many areas of the state (see [stripe rust observation map](#)). Stripe rust had moved into the upper leaves, where the disease can be most impactful, in many fields in the southeastern and south central areas of the state by May 4. Wheat in these areas was at heading to flowering stages. In the central, north central and some western areas stripe rust was at low levels and primarily on lower leaves. Recent conditions have been conducive for further stripe rust development in the state.

Nebraska – Stripe rust was widespread in the southernmost tier of counties in the state on April 28 and by May 4 was found in eastern Nebraska. Recent rains and cool temperatures have been conducive for further stripe rust development.

Illinois – Stripe rust was found in border rows of AgriPro W1566 in a nursery in Pope County in southeastern Illinois on May 7. The rust was not widespread in the nursery.

Georgia – Low levels of stripe rust were found on a few cultivars in a nursery in Floyd County in northwestern Georgia in late April. The infections appear to have come in late. There have been no reports of natural stripe rust infection elsewhere in the state.



Please send wheat and barley stripe rust collections as soon as possible after collection to:

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361 Johnson Hall
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Washington State University
Pullman, WA 99164-6430
email: xianming@wsu.edu

Note: Stripe rust collections are vulnerable to heat and do not survive long at warm temperatures; therefore, if shipment of collections for race identification is delayed their viability will be greatly reduced. An overnight courier service is preferred for sending stripe rust collections.

Wheat stripe rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Oat stem rust. There have been no new reports of oat stem rust since the first bulletin (see [CRB #1](#)) when oat stem rust was reported in nurseries in southern Louisiana and southern Texas. Race TGN was identified from Marvelous oat collection made in a nursery at Weslaco in extreme southern Texas.

Oat stem rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Oat crown rust. There have been no new reports of oat crown rust since the second bulletin. Previously, oat crown rust was reported in South Texas and southern Louisiana (see [CRS](#)).

Oat crown rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Barley stem rust. There have been no new reports since the first bulletin when a few stem rust pustules were reported on hooded barley, used in watermelon windbreaks, in the Lower Rio Grande Valley of Texas (see [CRS](#)).

Barley leaf rust. Barley leaf rust at 80% incidence and 40% severity was found on barley at dough stage in a nursery at Davis, California on May 6. Previously, barley leaf rust was reported in a different nursery at Davis and in a field in the southern area of the San Juan Valley of California and in watermelon windbreaks in the Lower Rio Grande Valley of Texas (see [CRS](#)).

Barley leaf rust map. Please visit: <http://www.ars.usda.gov/Main/docs.htm?docid=9757>.

Rust on buckthorn. Pycnia were appearing on common buckthorn (*Rhamnus cathartica*), the alternate host for oat crown rust, in the Matt Moore Buckthorn Nursery at St. Paul in southeastern Minnesota on May 8. Aecia have been observed in areas of southern Minnesota. Aecia from buckthorn can infect oat resulting in oat crown rust. In 2014, oat crown rust was severe in Minnesota resulting in a 50% oat loss statewide.

Rust on other grasses. Stem rust was found on tall fescue a mile north of Bay City in southeastern Texas in late April.

