

Stripe Rust Update, June 17, 2016

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Stripe Rust of Wheat

Based on field survey in Adams and Whitman counties of Washington yesterday, wheat crops have been progressing fast since the last update on May 26. Winter wheat ranged from Feekes 10.5.4 (milk) to Feekes 11.3 (almost ripen). Spring wheat ranged from Feekes 5 (early jointing) to Feekes 10.5.3 (flowering completed), and spring barley ranged from Feekes 10 (boot) to Feekes 10.5.3 (flowering completed). The hot weather from June 4 to June 8 pushed crops growing and maturing faster. Winter wheat harvesting is expected at least two weeks earlier than normal.

The hot period slowed stripe rust little bit, but did not completely stop the disease. As the winter crop is maturing, the rust season on winter wheat in most of the Pacific Northwest is over. The disease is pretty much under control. However, stripe rust is developing on spring wheat. As the weather has been much cooler with some moisture since June 8, new and active stripe rust pustules were seen in several commercial fields of spring wheat although incidence and severity were generally low. In our experimental fields at Lind (Adams County), wheat plants were at the flowering to milk stages, susceptible spring wheat varieties had up to 80% severity. Such severe rust is not common for this dryland location. In our nurseries at Pullman (Whitman County), spring wheat plants were at early jointing (Feekes 5) to late jointing (Feekes 8) stages, and stripe rust was very severe on susceptible varieties with 100% incidence and more than 80% severity on lower leaves.

The weather will become warm next week and after, but still in the range favorable for stripe rust. The rust pressure is still high. For fields of susceptible and moderately susceptible spring wheat varieties, fungicide application is needed. If a fungicide was applied more than three weeks ago or active rust pustules start showing up, consider second application.

Stripe Rust of Barley

Stripe rust was found on spring barley in commercial and experimental fields. In our experimental field at Lind, stripe rust up to 30% severity was observed on susceptible varieties. In two commercial barley fields of heading stage, stripe rust was found at less than 1% severity or incidence. Up to 5% incidence was found in our experimental fields near Pullman. Early this week, a sample of barley plants received by the Disease Diagnostic Lab had 10 to 30% severity. Compared to wheat stripe rust, barley stripe rust pressure is relatively low, and fungicide application is generally not needed. However, fields of highly susceptible barley varieties under irrigation or in areas that have had significantly high moisture, stripe rust can develop to significant levels. Please check your fields, if rust incidence reaches 5%, consider fungicide application.

Stripe Rust in the US and Canada

Since the last update on May 26, stripe rust of wheat has been reported in Wyoming and New York. Thus, stripe rust has been reported in 31 states: Texas, Oregon, Louisiana, Arkansas, Oklahoma, Washington, Colorado, Kansas, Mississippi, Georgia, California, Virginia, Montana, Indiana, Idaho, North Carolina, Tennessee, South Dakota, Kentucky, Illinois, Nebraska, Minnesota, Delaware, Florida, Michigan, Ohio, Wisconsin, Utah, North Dakota, Wyoming, and New York. Stripe rust has also reported in Alberta, Ontario, and Manitoba provinces of Canada. This is another most widely distributed year of stripe rust in the US and Canada, similar to 2010.