

University of Idaho

Extension

November 10, 2016

I would like to pass along the stripe rust update from Dr. Xianming Chen, USDA-ARS scientist in Pullman, WA. It is below.

Our October weather conditions have been conducive for stripe rust, so please report any locations that you see with infections.

The good news is, there was a good, dry break between harvest and planting next year's winter wheat. While this will reduce the chances of fall stripe rust infections transferring from infected volunteer wheat, it is important to scout susceptible varieties to determine if we have infection and have the potential for overwintering of the fungus.

If you have symptoms in the field that you have questions about, send me a picture. I can often tell easily if it is stripe rust.

If you know it is stripe rust, send me a picture with the location(s) and varieties so we can keep track of those locations in the spring 2017. An early warning will help us prepare. We usually do not recommend fall application of fungicides, as infected leaves and the fungus often die over the winter.

Cheers,

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Widespread Stripe Rust Infection on Winter Wheat in Washington

November 9, 2016

Xianming Chen

We checked wheat fields in Whitman, Lincoln, Adams, Grant, Douglas, and Benton counties in eastern Washington yesterday and observed stripe rust in every county. Winter wheat ranged from emerging (before Feekes 1) to early jointing (Feekes 5). Thanks to the much higher-than-normal amount of precipitation in October, winter wheat has emerged uniformly in every field across eastern Washington. However, the high moisture has created a couple of problems, such as growing too fast and particularly stripe rust infection, especially in fields planted in August and September. Stripe rust ranged from a single sporulating (producing spores) leaf (**Figure 1**) spotted in a field up to 5% incidence with small foci of more than 10 sporulating leaves (**Figure 2**). High rust incidences were found in several fields in Lincoln County (especially around Harrington) and Douglass County (near Coulee City) as more fields were planted earlier in these counties than other counties. Such widespread infection is similar to the situation in the fall of 2010 that resulted in the extremely severe stripe rust in 2011. If this winter is mild, stripe rust will likely restart early in the next spring for a severe epidemic in 2017.

Based on the current weather forecast, stripe rust will continue developing in the rest of November. Stripe rust may develop to more than 20% incidence with obvious rust foci of several yards in diameter in many fields planted in August and September. At this point, fungicides are not recommended before the real winter as much of the infected leaves and stripe rust fungus could be killed in the winter. However, growers should prepare for early fungicide application in the coming spring.

In western Washington, we observed high stripe rust infection on volunteer wheat plants (Feekes 8-9) and were also able to spot stripe rust on wheat plants (Feekes 2-3) in planted fields in Mount Vernon (Skagit County) on October 24, when we were planting winter nurseries. For this area, stripe rust always can be found in October, virtually in any month.

We will make stripe rust forecasts in January and March based on winter weather conditions and recommendation for timing fungicide application.



Figure 1. Stripe rust on a leaf in a winter wheat field near Lamont (Whitman County), Washington on November 8, 2016



Figure 2. Stripe rust on several leaves of wheat plants in a field near Harrington (Lincoln County), Washington, November 8, 2016