

Stripe Rust Update

June 4, 2008

Xianming Chen

With the frequent precipitations since the middle of May, wheat and barley crops have been growing much better throughout eastern Washington, northeastern Oregon and northern Idaho. Today, I was checking fields in these regions. Good soil moisture was everywhere due to the widespread rains in the last several days. Winter wheat ranged from boot to soft dough stages and spring wheat and barley ranged from 2-leaf to heading stages. In general, stripe rust was relatively low for this time of the year.

In the Horse Heaven Hills area, south of the Tri-Cities, stripe rust was almost absent in many fields. Thanks to the fungicide application in April that has helped keep the rust inoculum at the low level. However, in some fields previously applied with fungicides, fresh pustules of stripe rust were found. In this area, late-growing susceptible winter wheat and spring wheat still have possibility to be infected by stripe rust, considering the current moisture and cool temperature conditions favorable to stripe rust.

Severe stripe rust was found on susceptible entries in our experimental plots near Walla Walla. Although not uniform, susceptible checks had up to 60% severity. Spring wheat entries also had rust (<1% severity and incidence). Stripe rust was found in commercial fields also, but generally below 2% severity and incidence.

In our experimental fields near Pullman, stripe rust was only found on susceptible checks below 2% severity and 1% incidence. Rust was not found in commercial fields in the Palouse region due to rust inoculum was low and growing resistant cultivars.

Low levels (< 2% of severity and 1% of incidence) of stripe rust were found in the rust monitoring nurseries and breeding nurseries at Hermiston and Pendleton, Oregon. But rust was not found in commercial fields in these regions. At Hermiston, stripe rust was found on winter barley. That was a small hot spot with severity up to 20%. This was the first observation of barley stripe rust in the east Pacific Northwest this year.

Our crew was taking the second time note of stripe rust on winter crops and first note on spring crops. Stripe rust was up to 100% severity on both wheat and barley. Spring wheat and barley had stripe rust of 10-20% severity and some reached 60%.

With the current weather conditions and those forecasted for the next two weeks, stripe rust will increase in most wheat growing areas in the east Pacific Northwest. Fields grown with susceptible cultivars should be checked often. When stripe rust develops to 5% of severity and incidence, fungicide application should be considered.

Nationwide, stripe rust of wheat has been reported in California, Texas, Louisiana, Georgia, Arkansas, Oklahoma, Kansas, Illinois, Kentucky, Missouri, Virginia, Maryland, Oregon, and

Washington. Barley stripe rust has been reported in California, Oregon, and Washington. In general, stripe rust has been at low levels, except some locations in California.