

Cereal disease update and Pest Alert: ENVIRONMENT VERY CONDUCTIVE TO Stripe rust!
June 13, 2013

Stripe rust continues to spread in Brundage and is showing up in other susceptible winter wheat varieties such as Garland hard red winter wheat. Given the current weather, the widespread nature of stripe rust in southern and eastern Idaho, and the forecast for the next week, stripe rust **will** start to **show up in our spring wheat** fields, especially the susceptible varieties.

Many winter wheat fields are past legal application of fungicides, based on growth stage and pre-harvest application (PHI) index. Please follow label directions. For fields still within the window of application, the most susceptible varieties (based on reaction to previous 2011 races) include:

Hard winter wheat:

susceptible - Deloris, DW, Boundary, Garland, Golden Spike, Moreland, Whetstone, Yellowstone, Weston, Promontory, Juniper.

Soft white winter:

susceptible - Brundage, AP Legacy, AP Badger, WB 470, Lambert, Goetze, WB528 ("slow rusting"), Agripro Legion and Salute.

This list is by no means totally inclusive. Many of the winter wheat fields, especially towards the Magic Valley and Burley areas, are past the application window (50% heading or 30 days PHI depending on fungicide used).

For the spring wheats, keep an eye on the most susceptible varieties, which include hard wheats WB 936, UI Winchester, Klasic, Snow Crest, Bullseye, Kelse, Jerome, Jefferson, Kronos (durum), WB-Idamax, and WB-Paloma. In the soft spring wheat varieties, keep an eye on Jubilee, Alpowa, Cataldo, Penawawa, and Nick. High-temperature, adult plant resistance (HTAP) should be kicking in with varieties such as Alturas and UI Pettit, but again, please scout and never assume the environmental conditions are sufficient to sustain any initiated HTAP.

Scout resistant varieties as well - never assume stripe rust won't change virulence patterns.

IN ADDITION TO stripe rust, other problems that are surfacing include **Cereal Leaf beetle**.

Damage has been reportedly significant in the areas south and west of Blackfoot. A great reference for CLB is the University of Idaho's Current Information Series #994 (CIS994) found at <http://www.cals.uidaho.edu/edComm/pdf/CIS/CIS0994.pdf> This reference puts the economic threshold for insecticide application at 3 larvae per plant or 3 eggs per plant or both BEFORE boot, or after boot growth stage, 1 larvae per flag leaf. There are many pesticides listed for CLB control in the 2013 PNW Insect Management Handbook <http://pnwhandbooks.org/insect/> .

Now is the time to consider preventative action for our spring grain for **control of FHB**. Spring grain is fast approaching heading, with some of our earliest varieties like Klasic hard white showing awns and ear emergence. ESPECIALLY if you have planted spring grains following corn, consider application of one of three effective fungicides: Prosaro, Caramba or Proline. Conditions are favorable for FHB infection, especially with these storms! For wheat, application should be at 50% flowering. For barley, application will be at early head emergence. Internet

references for FHB in small grains

include <http://msuextension.org/publications/AgandNaturalResources/MT200806AG.pdf> (Mary Burrows at Montana State) and <http://www.ag.ndsu.edu/pubs/plantsci/smgrains/pp804.pdf> (Marcia McMullen at NDSU).

Winter wheat and winter barley diseases that are showing up: Barley Yellow Dwarf Virus, Wheat Streak Mosaic Virus (dry land areas), Eyespot (straw breaker foot rot), environmental damage associated with freezing temperatures.

Spring diseases that have started to show up - so far, black chaff in wheat (*Xanthomonas*) is just beginning. CURRENT weather is CONDUCIVE for continued development of black chaff in wheat and bacterial blight in barley (both caused by *Xanthomonas* bacteria. NO fungicides will control *Xanthomonas*).

Also, damage from Cereal Cyst Nematode is occurring in the sandy soils around Rexburg and Sugar City.

That's enough for now.

Juliet Marshall, Ph.D.

Associate Professor, Cereals Pathology and Agronomy