

Wheat Disease Update – 8 February 2019
Bob Hunger, Extension Wheat Pathologist
Department of Entomology & Plant Pathology
Oklahoma State University - 127 Noble Research Center
405-744-9958

This is just a brief update from a discussion I had today with Gary Strickland (Extension Educator, Jackson County in southwestern OK). He indicated the majority of wheat in southwestern OK is quite small due to late (mostly November) planting. He has seen some spotty plant death in some fields that appears to be common root rot as there is significant darkening of sub-crown internodes (Figure 1). In addition, he has observed leaf rust on the lowest leaves close to the ground in a number of the varieties at the variety trial located near Altus. He hasn't seen rust at any other location, but did find it on wheat at the Altus variety trial, which he indicated was some of the bigger wheat in southwestern OK.

Figure 1. Common root rot on wheat. Note the darkened sub-crown internodes (left and center photo) compared to a creamish-white (healthy) sub-crown internode on the right.



Reports from other states: Leaf rust appears to be increasing across southern and central Texas as indicated by Dr. Clark Neely (Small Grains and Cool-season Oilseed Extension Specialist for Texas A&M AgriLife Extension). Dr. Neely reported finding leaf rust in mid-January near

College Station, TX, but adds to this by reporting, “I heard my first report of fairly widespread leaf rust in producer fields from a crop consultant in the Temple, TX area last week (Central Texas). It was reportedly observed on ‘WB Cedar’ which is known to be susceptible to leaf rust and was seen in multiple fields at varying levels of infection. More cloudy, rainy weather is forecasted for the next 10 days with highs fluctuating from mid 40’s to mid 70’s.”

So, taking this report along with Gary Strickland’s observation indicates that as temperature increases producers need to be watching for rust (both leaf and stripe although only leaf rust has been found so far) in southern OK. Early infection by stripe rust does not always produce pustules in stripes as seen with later infections. It is important to be aware of this as it is easy to confuse leaf rust and stripe rust juvenile infections if one is looking for pustules in stripes. Typically the color of the spores in the pustules is different with stripe rust being more yellowish/golden orange versus a darker brownish red for leaf rust (Figure 2).

Figure 2. Stripe rust early (juvenile) infection (left photo; note how pustules are not in a stripe); stripe rust adult infection (center – Dr. Mary Burrows; Montana State University); stripe rust and leaf rust on the same leaf (right photo – Dr. Stephen Harrison; Louisiana State University). Note the darker brown (rusty) color of leaf rust pustules compared to the more yellowish golden orange color of stripe rust pustules.



Dr. Bob Hunger
Professor & Extension Wheat Pathologist
Department of Entomology & Plant Pathology
127 Noble Research Center
Oklahoma State University
Stillwater, OK 74078
405-744-9958 (work)
405-744-6039 (FAX)
Bob.hunger@okstate.edu