



Pest e-alerts



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Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist



Oklahoma: 1-June; Dr. Bob Hunger, OSU Extension Wheat Pathologist: Wheat harvest is slowly starting in southwest OK. One grower near Altus indicated he started harvest last Saturday afternoon and averaged 50 bu/A with test weight at near 62 lb/bu. He also indicated that yield would have been higher except for patches of dark colored wheat in which plants were stunted and heads were thinner. I also have a similar report from near Granite (north of Altus) where harvest has not yet started. The grower in

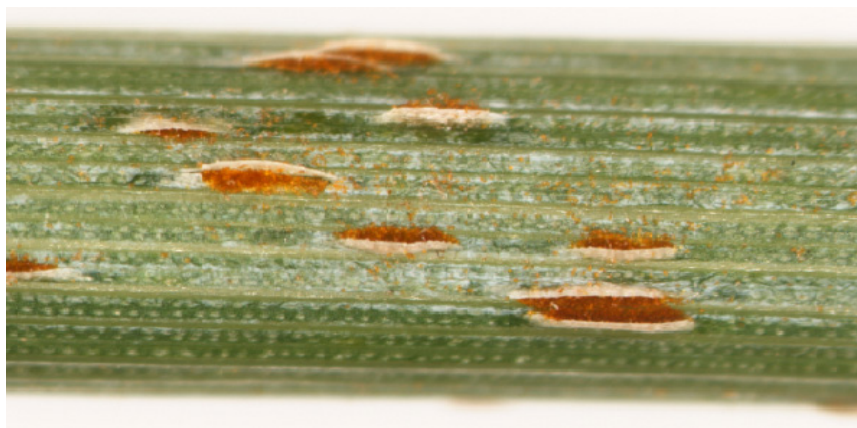
this area described the areas as “black/dark” patches of wheat where yield will be hurt because of lower number of heads and shriveled grain. He indicated these patches were not restricted to any one variety. Both growers are familiar with sooty mold, and indicated that this was not sooty mold. Although I have not seen a sample, it seems most likely to me that these are spots of bacterial streak/black chaff, although melanism (pseudo-black chaff), basal glume rot (also a bacterial disease) and glume blotch (caused by a fungus similar to Septoria) also could be possibilities. Dr. Jeff Edwards (OSU Small Grains Extension Specialist) was in a field last Friday in central OK from which the sample he collected showed symptoms of bacterial streak/black chaff. This sample was from a low lying area that would have been higher in moisture and humidity through the season. Isolations currently are being attempted. The bacterial pathogen that causes bacterial streak/black chaff is primarily seedborne, so saving seed from a field with this disease should not be done. I talked to Terry Pitts (Area Extn. Ent. Specialist – SW OK), and he indicated that he had not noticed these types of spots across SW OK, so hopefully that indicates that whatever has caused these patches is not widespread across southwestern Oklahoma.



Other samples received over this past week have primarily involved root rots (below), with take all, sharp eyespot (left), and eyespot detected in various samples from the panhandle, northwestern and north central OK. I have not received the impression that any of these diseases are prevalent over large areas, but within individual fields one or more of them are prevalent.



Stem rust also was found on stems of a couple breeder lines at Lahoma (north central OK). These lines were planted late (first week or so of November or later), so were still quite green last week.



We also received one sample confirmed to be Fusarium head blight (FHB) but it was not considered to be severe in the field. Other than this one sample, I have not seen or heard of FHB in Oklahoma.

Kansas: 1-June; Dr. Erick DeWolf, Plant Pathologist, Kansas State

University: “I have been out this past week surveying fields and conducting extension programs in North Central and Western Kansas. Stripe rust continues to be a major concern for farmers in the state. The severity of stripe rust has increased dramatically during the last two weeks and most fields have 20-40% severity on the flag leaves. However, I have observed research plots and production fields with greater than 80% severity on the flag leaf at the early stages of grain development. Yield loss to stripe rust is likely to be significant in Kansas this year.



Leaf rust was also observed in central Kansas this past week. Severity of leaf rust in Reno County (central KS) was approaching 30% on flag leaves of varieties Overley, and Jagger (known to be susceptible to leaf rust). Leaf rust was also noted on Armour, Fuller, and PostRock, which have been highly resistant in recent years.”



Nebraska: 28-May; Dr. Stephen Wegulo, Plant Pathologist, University of Nebraska:

“Yesterday, Thursday May 27, I surveyed wheat fields in southwestern Nebraska (Lincoln, Keith, Perkins, Chase, Hayes, Hitchcock, Red Willow, Furnas, and Phelps Counties). Wheat growth stage ranged from Feekes 9 to Feekes 10.51, with a few of fields at Feekes 10.54. I found stripe rust at trace levels of incidence and severity in all fields, with slightly more in some fields than in others. I could tell those

fields that have been sprayed from the presence of stripe rust lesions but no active pustules. I did not see leaf rust. However, last week an entomology graduate student brought me two wheat leaves from Mead (30 miles north of Lincoln) with a single pustule of leaf rust on each leaf, and P. Stephen Baenziger, our small grains breeder, has reported increasing levels of leaf rust in the breeding nursery here in Lincoln. In the last field I surveyed yesterday in Phelps County, I made the first sighting of Fusarium head blight in NE this year. Incidence was trace (I had to look hard to find diseased heads) and severity ranged from a single spikelet bleached to almost entire heads bleached (see close-ups in the attachments).”

Dr. Richard Grantham

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