

Plant Disease and Insect Advisory



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Wheat Disease Update – Oklahoma – 22 Apr, 2003

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I was not able to travel around the state since my last report (April 11), but have looked at wheat around Stillwater and have some reports from others to provide.

Disease situation in Oklahoma:

Powdery mildew. In general, powdery mildew seems to be “hanging-on” longer this year than usual. This morning I rated Dr. Krenzer’s variety-demo at Perkins, and found abundant powdery mildew on lower leaves of susceptible varieties. However, none of this powdery mildew was present on the flag leaves or the F-1 leaves (first leaf below the flag). I also had a call this morning from a producer near Tonkawa who was concerned about the level of powdery mildew he was observing on the lower leaves of ‘Jagalene,’ ‘Jagger,’ and ‘Ok101’. All of these are susceptible to powdery mildew. In contrast, ‘Ok102,’ which is resistant to powdery mildew, was free of this disease. Powdery mildew isn’t considered to be yield limiting unless high levels occur on the F-1 and flag leaf. Although there are fungicides highly effective against powdery mildew, it is rare in Oklahoma that a spray should be applied to control only powdery mildew alone.



Leaf rust. There have been some reports of leaf rust in Oklahoma, but severity is still considered light. Around Stillwater, I have seen only a few pustules, and saw none in the variety-demos this morning at Perkins or just west of campus. Further, Craig Siegerist traveled this past week from the Oklahoma/Texas border to Oklahoma City along the I-35 route, and reported that wheat was mostly in the heading to headed stage but saw no leaf or stripe rust in the 6-8 fields at which he stopped. Dr. Krenzer brought in some wheat samples from near Hinton that had a fairly high level of stripe rust as well as some leaf rust. These levels were sufficiently high to merit spraying (especially since the fields had a high yield potential), but this is the only case of high rust incidence I have seen or heard of in the state.

Stripe rust. Other than on the samples from Hinton, I have not seen or heard of any new or major outbreak of stripe rust. This is not the case in Texas (see below).

Barley yellow dwarf virus (BYDV). More symptoms of BYDV are appearing, but based on the lack of stunting, these appear to be the result of aphid infestations in the late winter or spring rather than from infestations last fall. Further, the fields in which I have seen BYDV symptoms, they are occurring in scattered, small circular patches rather than over large areas. Observations similar to this were reported by Craig on his recent trip from Texas up to Stillwater. Also, Brad Tipton brought in a wheat sample from a field near El Reno that had a heavy aphid infestation, and had symptoms consistent with BYDV but also appeared to be hurting from drought. Our feeling was that a combination of the aphids and drought were the problem, and currently we are testing the wheat for presence of BYDV.



Reports from other states:

Texas. Dr. Art Klatt and Craig Siegerist visited the wheat nurseries located near Castorville, TX this past week and confirmed severe stripe rust in this area. Stripe rust-resistant lines had high levels of leaf rust. Hence, there is plenty of inoculum available to our south. Dr. Klatt also observed that there was significant leaf rust on ‘Thunderbolt,’ which indicates virulence on the resistance gene Lr 41. Rex Herrington (Research Associate at Texas A&M) reported that leaf rust is increasing across central and south Texas, with flag leaves of ‘Jagger’ completely dead due to leaf rust at nurseries near Luling (Caldwell county – about 60 miles east of San Antonio). He also indicated that although stripe rust was decreasing in south Texas, this year was the worst ever for stripe rust in plots near McGregor in Central Texas.

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