

PLANT DISEASE AND INSECT ADVISORY



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Wheat Disease Update Bob Hunger, Extension Plant Pathologist

Listed below are observations of wheat diseases I made during my trips from Stillwater to the panhandle and from Stillwater to southwestern Oklahoma (Altus area) made during the week of May 3 – May 7.

Rusts:

Between Stillwater and the panhandle I did see some **stripe rust**, but not at levels that cause significant yield losses. For example, leaves of 2174 at Lahoma showed many “stripes” of stripe rust, but these stripes were inactive (that is, not sporulating). It appears to me that a substantial infection occurred, but immediately thereafter the weather conditions were such that the stripe rust fungus was inactivated. As a result, many of the leaves on susceptible cultivars appear split or shredded. Hence, northern OK may have just missed a significant stripe rust epidemic on susceptible varieties. From Stillwater to southwestern Oklahoma I again found a few “hot spots” of stripe rust, but not at levels that will cause significant yield losses.

In contrast, **leaf rust** is increasing significantly over much of the state and may cause some yield reductions. Much of the Jagger wheat that I have seen around Stillwater is heavily rusted on the flag leaves, and some yield reductions are likely. However, these losses will not be comparable to losses that occur when stripe rust is severe.

Virus diseases:

In the panhandle (as I think Rick Kochenower will attest), much of the dryland wheat has been impacted by drought, freeze, and hail, but there also are a number of fields (primarily irrigated wheat) that will be 100% losses due to **Wheat Streak Mosaic Virus (WSMV)** and **High Plains Virus (HPV)**. Both of these viruses are transmitted by wheat curl mites. For a more comprehensive discussion of these viruses see – **WSMV**, vol. 3, no. 7, Apr 20; **HPV**, vol 3, no. 8, Apr. 24.

I also observed **barley yellow dwarf virus (BYDV)** on all of my trips, but there was not significant stunting associated with the symptoms. This usually is an indicator of later infections (i.e., spring infections) and should not result in as large of yield reductions as associated with early infections.

Miscellaneous observations:

Miles Karner (Southwestern Area Extension Entomologist) found a few **Russian wheat aphids (RWA)** at the field day located near Hollis, OK. He reported that RWA have been observed at several locations in OK this year, but not at serious levels.

I also observed symptoms of **tan spot, septoria and some root rots** on all of my travels, but have not seen levels that indicated major problems from any of these diseases.

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