



# Pest e-alerts



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## Wheat Disease Update

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Over the last couple of weeks, several disease and/or disease-like symptoms have been observed. Several of these diseases are causing or contributing to general yellowing of the older/lower foliage. However, other abiotic factors such as cold, wet soils and nitrogen deficiency also may be contributing to the yellowing seen in wheat this fall. Dr. Jeff Edwards has written a good description of the combination of these stresses that is available in the Plant & Soil Science Newsletter ([Vol 2, Issue 22](#)).

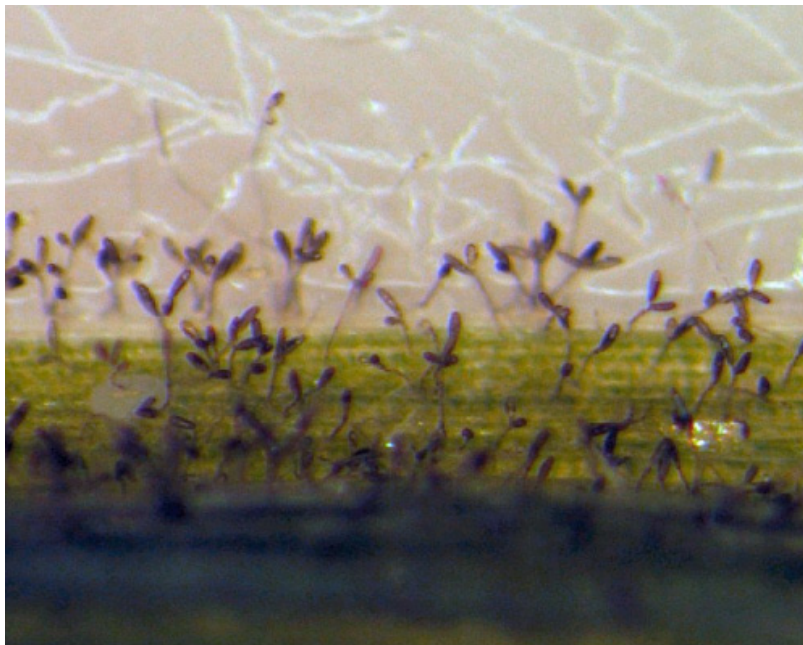
The diseases we have isolated from samples coming into the Diagnostic Lab or have seen in the field include:

**Leaf rust:** Leaf rust has been reported on susceptible varieties across Oklahoma, and has reached fairly severe levels in some fields. As in the past, the question of spraying to control these fall infections with leaf rust has also been raised. When looking at leaf rust infected plants, the lower/older leaves will be yellowed and covered with rust pustules, but the youngest 2 or 3 leaves should be green and healthy. As temperature drops in late November and December, the older rust-infected leaves die and new infections are greatly slowed and inhibited. Thus, spraying to control leaf rust in the fall is not recommended. The primary concern with fall infections of leaf rust is that with a mild winter and sufficient moisture, the rust will survive through the winter and inoculum will be present in fields to start the disease early in the spring. Hence, monitoring of these fields next spring is recommended to see if application of a fungicide to control the rust is indicated in the spring.

Symptoms caused by leaf rust have been confounded or appear more severe if the wheat also is infected with aphids (as indicated in southwestern OK by Gary Strickland) or if the wheat also is stressed by cold, wet soils and lack of nitrogen. As indicated earlier, Dr. Edwards describes this situation in the recent PASS Newsletter.

**Leaf and glume blotch:** These diseases, as well as tan spot, are caused by fungi that survive on wheat residue on the soil surface, and thereby are more severe in no- or low-till fields. Although we have isolated the leaf/glume blotch fungi from samples this fall collected in the panhandle and southwestern OK, the incidence was not great. However, these fields may show more of these diseases next spring as weather conditions return to being more favorable for infection and disease development.

**Spot blotch:** The fungus that causes this disease also survives on wheat residue. Again, we have isolated the fungus that causes spot blotch from several samples obtained from across Oklahoma, but not at a high incidence. This fungus also can cause common root rot, but to date we have not confirmed common root rot from any samples.



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