Pest e-alerts

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Wheat Disease Update

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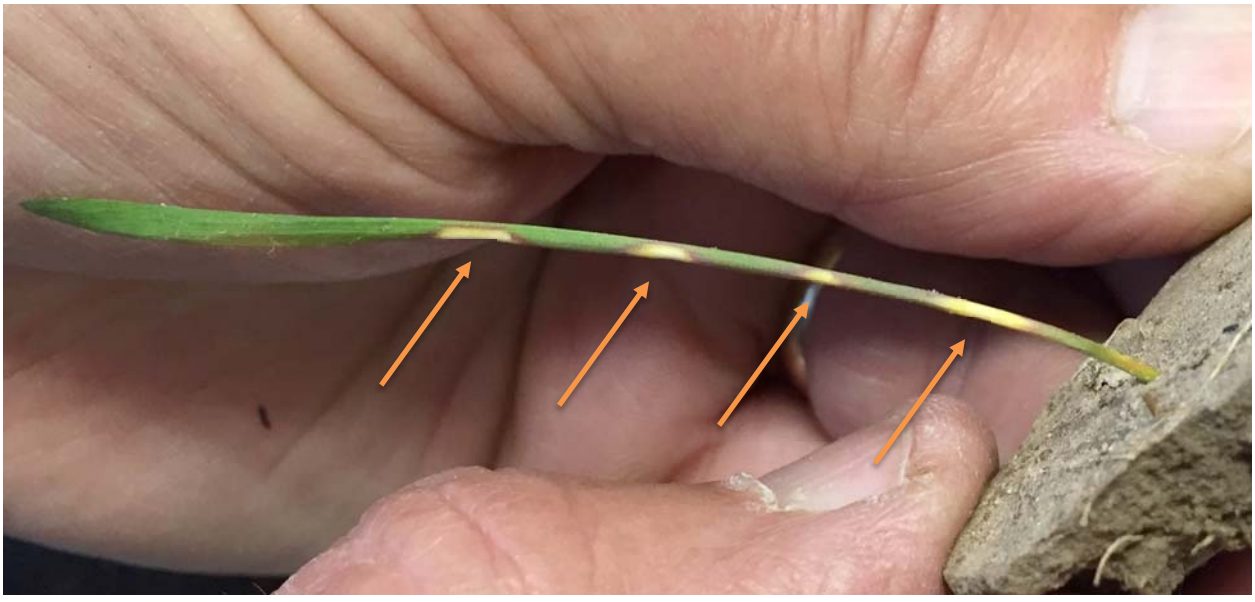
Fall of 2015 was relatively quiet for wheat diseases, but because of mild temperatures and abundant moisture over the last month or so, several calls and samples have come in. One observation is fall infections of wheat leaf rust. I observed leaf rust in Jeff Edward's forage trial here at Stillwater, which was planted on 15-Sep and had not yet been clipped at the time I found the rust (12-Dec).

I am not a proponent of spraying in the fall to control leaf rust. Fall-infected leaf rust plants typically have yellowed lower/older leaves with rust pustules, but the youngest leaves are green and healthy. As temperature drops through December and January, the rust-infected leaves die and new infections are greatly slowed and inhibited. Grazing also helps to remove these leaves and increase air circulation and drying that are conditions less favorable to

spread of the disease. Given these consideration, spraying to control leaf rust in the fall is of limited value. The primary concern with fall infection 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 through the winter and early next spring is recommended to see if application of a fungicide to control the rust is indicated in the early spring.

A different situation may occur with foliar diseases such as tan spot, septoria, and powdery mildew, and stripe rust. Typically, these diseases do not appear until late February or March. However, this year we have received samples and I have heard reports of tan spot showing up on leaves of wheat in no-till fields where large amounts of wheat residue was retained. Again, this is likely due to the mild temperatures and moisture we have received. In these cases, I have heard of growers applying fungicide with herbicide to limit the disease that is present. Although I have no data to support the value of such an application, it makes good sense to me. Plants are smaller and not growing as actively so limiting the amount of foliage loss due to a disease such as tan spot will have value in contributing to the overall health of the wheat going into winter. BUT ESPECIALLY, watch these fields in February and March to see if an application is merited to limit infection from tan spot, septoria, powdery mildew or stripe rust.

Other samples received in the lab have been related to poor looking wheat, but no diseases (fungal or virus) or insect pests have been identified as the cause. Mostly roots have been healthy although some common root rot has been found. Likely other possibilities are cold damage (especially if combined with dry conditions earlier), pH, etc. One sample did come in from Greg Highfill in Woods County that was a great example of color banding (photo below). This results from alternation of warm days and cold nights that causes a chlorotic banding in young leaves/tissue.



So, from a disease perspective it looks like we are in good shape going into winter, but I recommend watching fields closely for occurrence of rusts or other foliar diseases, especially as we move into February and March.

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