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Wheat Disease Update

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We've not seen any diseases so far this fall around Stillwater, but we have been relatively dry and much of the wheat was not planted until the past couple of weeks. Mark Gregory (Area Extn Agron Spclt – southwestern OK) indicated to me earlier this week that he has not seen or heard any reports of leaf rust or other diseases. However, Bryan Vincent (Crop Scout – NW/NC Oklahoma) sent me some photos of leaf rust pustules he found in several fields around the

Aline-Helena area (30-40 miles northwest of Enid in north-central OK). The pustules were

extremely sparse and found only in very early planted wheat. Bryan also reported seeing greenbug heavy in one field and some light tan spot infections. Leaf rust also has been observed in Kansas, Colorado, and Nebraska (see reports below), and stripe rust has been reported in Wyoming, Montana and the PNW.

When leaf rust occurs in the fall in Oklahoma, the question arises regarding the value of spraying to control that rust. Fall-infected leaf rust plants typically have yellowed lower/older



leaves with rust pustules, but the youngest 2 or 3 leaves are green and healthy. As temperature drops through November and December, the older 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 considerations, spraying to control leaf rust in the fall is of limited value. 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 through the winter and early next spring is recommended to determine if a split application of a fungicide is merited to control the rust (and also possibly tan spot, septoria, and/or powdery mildew) in the early spring.

Kansas: (Dr. Erick De Wolf, Extn Plant Pathologist, Kansas State University) 27-Oct-2014: Wheat Leaf Rust Update in Kansas: Planting of the winter wheat crop in Kansas is well underway. Farmers are reporting that wheat has emerged and is looking good in many areas of the state. Wheat planting on some farms was delayed by a late soybean harvest this fall, but these acres should be planted soon.



I was checking wheat this week in Manhattan (Northeast KS) and found leaf rust in some research plots. This wheat was sown about 2-weeks prior to the optimal planting date but well within the normal planting range for wheat production in the state. The leaf rust was not difficult to find with disease incidence near 5% some plots. The severity was 2 percent or less on most of the infected leaves. This level of fall infection of leaf rust is common in Kansas; however, 60% of the time cold temperatures and leaf desiccation during the winter months will eliminate the disease in many fields.

Ned Tisserat, retired plant pathologist from Colorado State University, also reported leaf rust in Northeast Colorado this past week. So it is possible that leaf rust is active in other areas of Kansas as well. I will be checking other locations for leaf rust in Kansas this coming week and let the group now what I find.



Nebraska: (Dr. Stephen Wegulo, Extn Plant Pathologist, Univ of Nebraska) 27-Oct-2014: On Friday last week, Oct 24, I answered a call from a crop consultant who told me there is leaf rust in several wheat fields in the Panhandle of Nebraska.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

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