What is the disease outlook for the 2022 wheat crop?

Wow, the wheat has really “greened” up with the warm temperatures and with the moisture that we have been fortunate to receive. However, wetter conditions can also set up some favorable conditions for diseases in your wheat this spring.

So, what is the outlook for wheat diseases for this spring? **Leaf and Stripe Rust** are some of the most important concerns in the state and annually cause more yield loss than most other diseases of wheat and often become established in Texas and Oklahoma before spreading north to Kansas. Weather conditions in Texas in both the fall and spring can be used to predict the severity of the disease in Kansas in a given season. According to Dr. Kelsey Andersen Onefre, KSU Plant Pathologist, at this time there have been no reports of stripe rust in Kansas. However, there have been reports of moderate stripe rust pressure in Uvalde, TX, but no stripe rust in a natural pressure rust nursery in Castroville, TX. There is good news from Oklahoma State University on March 25th, that there have been no observations of stripe rust in Oklahoma. **However, be prepared to scout your wheat in the near future. This is especially important for this year with the high market prices for wheat.**

For most fields, growers should focus on evaluating the need for a wheat fungicide application, later in the spring, between flag leaf emergence and flowering. This will allow the fungicide application to protect the flag leaf which is critical for grain filling.

Onefre pointed out that a look at the moisture patterns for 2021-22 indicate that the fall was dry in Texas which likely slowed the production of rust inoculum. There was slightly more moisture in Texas in the spring which may be more favorable for disease development.

What does that mean for us? We likely will have below average levels of spores that arrive in Kansas during our critical growth stages. It’s important to remember that this is just a piece of the puzzle in determining risk. The severity of stripe rust in Kansas, after it is first detected, will largely be driven by local weather conditions and the varieties that are planted in the state.

We will continue to update on stripe rust occurrence and weather outlook as we move toward critical growth stages for fungicide applications in Kansas over the next several weeks.
So, what about leaf rust? **There has been no reports of leaf rust in Kansas yet.** Some of the varieties that are resistant to leaf rust include Bob Dole, KS Dallas, LCS Chrome or WB 4792. Susceptible to moderately susceptible varieties include LCS Fusion AX, Larry, LCS Revere and T-158. So, producers will need to watch for signs of leaf and stripe rust as we approach flag leaf emergence in Kansas during April.

Tan spot is another wheat disease that may show up soon, especially in fields with continuous wheat which allows the fungus to buildup on the wheat residue over the winter. The initial symptoms of tan spot are small dark brown spots that expand to become tan elliptical or diamond-shaped lesions with a yellow halo.

**Wheat Streak Mosaic is yet another viral disease** that has emerged as a serious problem in all parts of Kansas in some years. This disease is spread by the wheat curl mite which volunteer wheat is a host. Most of the diseases favor the cool and wet conditions that could occur in the spring. So be on the lookout for any of these diseases.

K-State Research and Extension has an excellent publication entitled, **“Wheat Disease ID Book”** that is available either online or at any of our Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne, or Smith Center.

For more information on disease management in your wheat, contact me at any of our Post Rock Extension District Offices.

*Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Sandra may be contacted at swick@ksu.edu or by calling Smith Center, 282-6823, Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at “Post Rock Extension” along with our “Ag News Roundup” every Friday. Also remember our website is www.postrock.ksu.edu and my twitter account is @PRDcrops.*