

Special feature story – week of May 13-17, 2024

Sandra L. Wick

K-State Research and Extension

Post Rock District

Crop Production Agent

Scout alert for Wheat Stripe Rust

Yet another disease may soon or already is affecting the wheat in north central Kansas. Unfortunately, **stripe rust** continues to spread throughout the state of Kansas from the south to the north with more showing up in our area!

Stripe rust is a serious threat to wheat production in Kansas and has been reported in Kansas for decades. Certain weather conditions can significantly affect the spread and development of the disease. Research indicates the population of the fungus that causes stripe rust has changed and this new population is better adapted to warm temperatures. Therefore, stripe rust is likely to remain an important disease in Kansas.

Scouting your wheat fields is the KEY and very important before you determine if a fungicide application is necessary. K-State Research and Extension has an excellent tool that will help producers in determining which varieties have resistance or susceptibility with the 2023 Wheat Variety Guide. This can be found online or picked up at

any of our Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne or Smith Center.

Unlike the Wheat Streak Mosaic virus, Stripe Rust can be controlled by a fungicide application which on average provides about 21 days of protection. Producers continue to have many questions about the value of a fungicide application in fields that are between flag leaf and flowering growth stages. Here are some factors to consider as we make those decisions according to Dr. Kelsey Anderson-Onefre, Plant Pathologist.

1. **First and foremost, what variety is planted?** Varieties rated 3 or below will likely have enough genetic resistance and will not benefit from a fungicide application.
2. **Has disease been detected in the field?** If weather conditions are favorable, fields with already established stripe rust are at the highest risk of the disease increasing in the coming days. K-State research demonstrates that if stripe rust is detected on flag leaves at the heading growth stage, there is a 90% chance your fungicide application will pay off. This is a year when scouting will be critical.
3. **What is the crop's yield potential?** Does the yield potential justify an application? K-State research has shown that under moderate to high stripe rust pressure, a fungicide application can provide a

10-15% yield benefit. However, in the absence of disease, we do not expect any economically significant yield benefit from a fungicide application.

4. **What kind of moisture has been received?** As a reminder, it takes about 10 days from the time of infection to symptom development for stripe rust. Areas that have recently received moisture and are still in the window for a fungicide application (flag leaf to flowering) should be more mindful of scouting over the coming days.
5. **What is the fusarium head scab risk?** Fields approaching early flowering with a history of head scab may be able to use a single application to control both diseases this year. All fungicides that are recommended for head scab are also recommended for stripe rust control. The risk of head scab may be elevated in fields that receive rainfall at or around flowering.

In summary, planting disease-resistant varieties can effectively control stripe rust along with a fungicide application if rust levels are present. The most effective fungicide applications are typically applied at the boot stage of crop growth and provide protection of the upper leaves, especially the flag leaf, that help maintain yield potential of the crop. K-Stare has an excellent publication, “Wheat Stripe Rust” that is

available online or can be picked up at any of our Post Rock Extension District Offices.

If you have additional questions, contact Sandra Wick, K-State Research and Extension, Post Rock District, Crop Production Agent.