

Know your wheat varieties weaknesses

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. January is quickly getting away from us. Before we know it the calendar will say March and then we'll be watching the wheat crop jointing and we'll need to be making some decisions on whether or not to apply fungicides. Too many producers literally gamble with their wheat crop. Most years, the majority of losses to diseases occurs from fungal foliar diseases. These are somewhat predictable, or at least we know what conditions are going to favor them. The big ones are leaf rust and stripe rust. After a good hard winter like we're having, with not a lot of snow cover, it's highly unlikely that any rust organisms survived in Kansas or even Oklahoma. Disease spores will have to blow in from southern Texas. We'll have a pretty good idea of when spores are on their way and the weather will dictate whether it'll be leaf rust or stripe rust. We also have a pretty good idea of how our wheat varieties react to each of these diseases. By the time we'll need to spray we'll also know the economics AND the yield potential. We can put all of this into a decision making tree so instead of rolling the dice on whether you'll spray or not, you can make a decision based on facts. But it means that you first have to start by making a list of what varieties are planted where and what leaf diseases they are susceptible to. We have a bulletin for that. Then we can keep track as we progress out of winter into spring and if the right conditions set up, we'll know which fields will need spraying and which ones won't. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Corn Bacterial Streak

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. In 2015 a new leaf disease in corn, bacterial leaf streak, was identified in Nebraska. It was likely here before then, by perhaps as much as five years, but it was finally identified in 2015. In 2016 it was identified in Finney County and by the end of the summer it was discovered in 16 more counties. In 2017 another 21 counties were confirmed. The closest to us where it was found last year was Clay County. Its appearance on the leaf can be amazingly similar to gray leaf spot. We'll be keeping a close watch for bacterial leaf streak this growing season. We are still learning a lot but it appears that it could cause a 5 to 15% yield loss. Because it can be confused with gray leaf spot we need to confirm the diagnosis for one very good reason. Gray leaf spot, depending on when it is setting up, can be treated with a fungicide. Bacterial leaf streak, as indicated by its name, is caused by a bacteria. There's nothing we can spray for it with. It overwinters on old residue. Fields that are no till and in continuous corn, or at least second or third year corn will be at highest risk. Crop rotation will help as will tillage that buries the crop residue. No-tillers just shuddered when I said that. So at least you have options, rotate and keep no tilling or grow continuous corn and plow. There is some concern that it may be seed born - like smuts and bunts are. We're still working on that. And to make matters worse, it can also infect many of our pasture grasses. There's a lot we need to learn about this so stay tuned! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Rusts in Corn

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Rust is not just a disease of wheat. We can have rust in virtually any crop we grow - heck I even see rust on several tree species and on the tall fescue in my yard. Of course, each different plant species has it's own species of rust and as we know in wheat, sometimes multiple species. Corn has two species of rust, so far, that we have seen in Kansas. One is a problem, the other one isn't. Common rust is present every year. It will be present every year especially if you are out in fields late in the season. It looks rather un-rust like with dark gray or black pustules. Southern rust can be a problem. Historically it has shown up late enough in the season that we haven't worried about it but the past two years, it's been showing up much earlier - even as early as June. Rust is a facultative disease. It needs green tissue to live on. So both of these overwinter down in Mexico or somewhere south of here and then have to blow in during the growing season. We have some good treatment thresholds and can monitor development of the disease further south which will serve as an indicator. A couple of other points here - late season infection of either isn't an issue. Check with your seed supplier on the hybrids you are planting. If you have a hybrid that is susceptible then be alert for potential infections and if it shows up well ahead of soft dough, then aerial applications of fungicides may be beneficial. And of course, if you aren't sure what's causing spots on your corn's leaves, give me a call! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Corn ear diseases vs mycotoxins

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. When I left Nebraska all those years ago and moved here to Kansas I was so excited to be moving out of corn country and into wheat and sorghum country. Wheat was a crop we didn't grow so enjoyed learning about it and sorghum was near and dear to my heart having spent five years working on a sorghum research crew in college, as well as growing it on our farm as a kid. So what happens? I had to start remembering all my corn and soybean problems as production over the last 25 years swung from wheat and sorghum to corn and beans. Ear rots of corn are a non-issue some years and a major issue other years. Ear rots are most likely to happen when we have insect damage on the tip of the ear that opens that ear up to easy infection by disease organisms or when we have heat, rain and humidity late in the season and those ears get wet and stay wet. Ear rots don't cause a lot of yield loss and in and of themselves, they aren't a problem. The problem is that under the right conditions those ear rots create compounds called mycotoxins. Mycotoxin levels that are high enough create health issues for livestock and for humans. We all know about aflatoxin and the fuzzy mold that creates that. But the other one is called fumonisins and they can be just as nasty. The ear rot that causes them may not be as obvious to producers but is characterized by a white starburst pattern on the tip of the kernels. Unfortunately there's not much we can do to stop them, but we need to be aware that they may be present. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Options for broadleaf weed control in wheat

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. A week from now we'll be into February. Every warm spell that we get from here on out will start getting the wheat growing as well as the weeds. Quite honestly, I'd prefer about three more weeks of consistently cool weather just to help keep things deeply dormant. With that said, we do have a number of herbicides that have good residual activity. Glean, Finesse, Amber and Rave can be applied in February assuming we don't have frozen soils - so it may be a week or so before you can apply these! One thing to keep in mind with these is to watch the recropping intervals. If you have any inclination to double crop soybeans, some of these can really cause problems so proceed with caution. Once we get past these residual action products we are looking at foliar active compounds which includes the good old standbys of 2,4-D and dicamba. 2,4-D should not be used until wheat is fully tillered. We've got a lot of wheat that isn't there yet. Dicamba can be applied as early as the two leaf stage. We have some wheat that isn't even to that stage yet! But both of these products need to have weeds actively growing and temperatures above 50 degrees before they are used to make sure that they work effectively. I need to mention one thing about dicamba: we've been talking about dicamba being made a restricted use herbicide but that is only the formulations that are designed for use on dicamba tolerant soybeans. Good old Banvel, Clarity and the many other formulations are not affected by that new regulation and are still general use products without all those other regulations! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.