

### Cold Weather Impact on Alfalfa and Wheat

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. It seems as if Mother Nature is bound and determined to freeze out our wheat crop, first cutting of alfalfa or both. But so far she hasn't gotten it done! I was a little nervous after the snowfall last week. Reported temperatures out in the county were certainly cold enough to cause problems. The alfalfa was showing a little bit of burn but I think most of the growing points are still okay. And no, it isn't going to kill any significant number of weevil larvae to make a difference. If you haven't sprayed for alfalfa weevil yet, you may want to get that done the first day that we have temperatures above 60 degrees. And sunny days are better than cloudy days. If you did treat, start getting back out there about 3 to 4 days later to make sure you got good kill. Grab about ten alfalfa stems at random and beat them against the inside of a bucket and see what you can dislodge. If you sprayed on a gray and cool day, you may not have gotten as good of control as you were hoping for. The damage to wheat is quite honestly still up in the air. Warm days following the freezing temperatures help to better show the damage that occurred and we did have some, probably in nearly every field. The good news is that in many of these fields we still have good sized plants with lots of secondary tillers that can develop and pick up the slack assuming we continue to have cool average temperatures and adequate moisture. BUT, this will delay maturity and created a larger window for disease infection, so stay tuned! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Sulfur Deficiency in Wheat

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Sulfur is a nutrient that up until about 20 years ago we just didn't talk about here in Kansas. We didn't talk about it because we just never saw deficiencies of sulfur. We always talked about sulfur only possibly being a problem in very sandy low organic matter soils. But changes have occurred in the world. We used to use rock phosphate for fertilizer. Rock phosphate was often loaded with many micronutrients including sulfur. Animal manure contains noticeable amounts of sulfur. Then here's the big one - acid rain. Even though we didn't have the significant acid rain issues that locations further east did, our rain did have significant sulfur in it. The sulfur came from coal burning and even out of the gasoline and diesel fuel that we burned in our vehicle engines. Sulfur, for plant growth, sort of falls between the macronutrients of nitrogen, phosphorus, and potassium which we need in the tens or hundreds of pounds per acre range and the micronutrients that are needed in ounces per acre. Sulfur use is normally in the 5 to 25 pounds per acre per year. So while acid rain may not have been putting a lot of sulfur in the soil, it had been enough. That is until we mined it out through ever increasing crop yields. Sulfur use is more critical in grass crops, like wheat and corn, than with broadleaf crops like soybeans or alfalfa. Sulfur deficiency can look a lot like nitrogen deficiency. In future years, you may want to test for sulfur every 3 or 4 years and like nitrogen, you need a profile soil test to really get a good handle on how much sulfur is or isn't there. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Wheat Streak Mosaic Issues

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Wheat streak mosaic is a virus disease of wheat. It can be extremely devastating, capable of wiping out an entire wheat crop with a heavy fall infestation. The virus is carried from plant to plant by a tiny mite that picks up the virus from an infected plant and then moving, usually wind blown, to an uninfected plant. Unfortunately there really isn't great natural resistance available to this disease, and being a virus, it isn't affected by fungicides. We depend on mechanical controls to minimize it's impact. Since the virus has to over summer in green vegetation we encourage destruction of volunteer wheat at least 2 full weeks ahead of wheat planting time. But the little mites that carry the virus can blow for over a quarter mile in the wind so you need to have neighbors help by controlling THEIR volunteer wheat also. Because of the strong connection to volunteer wheat, wheat streak mosaic has long been considered a western Kansas problem. But over the past few years we've been seeing more and more wheat streak showing up from here east in the state, areas not traditionally thought to be prone to be wheat streak risky areas. What we've found is that as corn acres have increased they form an effective bridge from this spring's wheat crop to next fall's crop. The virus doesn't hurt corn, but it can survive and the mite will move it from the corn to the wheat. Wheat streak causes an overall yellowing of a wheat field with yellowing on the leaves being most intense on the tips. If you suspect it, bring me some in to confirm because the next step will be management this summer and fall! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.