

Possible Cold Damage to Wheat Crop

This is Ag Outlook, I'm Chuck Otte, Geary County Extension Agent. Guess what. It got cold about a week ago. I haven't looked yet but it may have gotten down into record low territory. This always makes us nervous with young wheat plants coming out of the ground. First of all here's the good news. We had good soil moisture and on the first round of low teens we even had 3 or 4 inches of snow on the ground. That snow made it seem colder but between the insulating blanket of snow and the good soil moisture many of those wheat plants were pretty well protected. Even through those couple of days of low to mid teen overnight lows, the 2 inch soil temperature didn't drop below 33 degrees. The heat coming off the soil actually created a nice buffer zone around the base of those young wheat plants. The other thing to keep in mind is that young wheat, once it's gotten even a couple of leaves, has pretty darn good cold tolerance. Yes, that assumes a fairly normal decline in fall air temperatures and we went from moderately warm to pretty darn cold pretty darn fast but I still think we'll be okay. The next question that folks have been asking me is if wheat planted right ahead of this cold weather, or even after, will come up at all. The answer is yes. Even with snow on the ground, wheat will come up under the snow. Not very fast but it still will emerge. That tiny wheat plant doesn't even have to be out of the ground to be vernalized in fact. But obviously, the more fall growth we can get, up to a point, the more tillers each plant will have the larger the heads are likely to be. But honestly, if you don't have wheat planted now, you may not want to. This has been Ag Outlook and I'm Chuck Otte.

Options for Damaged Soybeans

This is Ag Outlook, I'm Chuck Otte, Geary County Extension Agent. Okay, I'll be the one to say it. This year's soybean harvest has been ugly. When I say ugly I'm talking about both the harvest conditions AND the quality of the beans coming out of the fields. What we are seeing on the soybeans is generally a disease called purple seed stain. What caused the purple seed stain is a fungal disease that was exacerbated by rain, lots and lots of rain in August and September. The disease organism invades the pods. These conditions that create the fungus may not always hurt the yield of the crop but a high incidence can make the grain less desirable for buyers. It can result in darker soybean oil if the beans being crushed have a high incidence of purple seed stain. If you are being subjected to high dockage rates you can try to blend the beans with beans that don't have the stain - if you have any. Another option is to use them for livestock feed. Before being fed to swine they do need to be roasted or extruded to destroy the urease activity which can create problems in hogs. But if feeding to cattle this isn't a problem although slightly rolling them as they are used will increase performance. Damaged soybeans are more likely to become rancid quicker due to the high fat content so you want to plan to use them before spring gets here. Cold weather slows the process that makes the beans go rancid. Given their protein content, soybeans are a good source of protein for cows and developing heifers. It is recommended to limit inclusion of beans to no more than 10 to 15% dry matter in the ration. Mature cows can handle up to 4 pounds a day. This has been Ag Outlook and I'm Chuck Otte.

CoAXium Wheat and Aggressor herbicide

This is Ag Outlook, I'm Chuck Otte, Geary County Extension Agent. There is a new wheat trait that you will be starting to hear more about in the coming years. CoAXium is a new herbicide resistant wheat trait that provides resistance in the wheat plant to ACCase, Group 1, class of herbicides. This trait was found through traditional plant breeding and is not a GMO trait. ACCase herbicides are post emerge herbicides that provide good foliar activity on grasses so these would provide a control option for winter annual grasses, meaning the cheat grasses. The ACCase herbicides that you might be most familiar with include Fusilade, Assure, Select Max and Poast. Wheat varieties that carry this herbicide resistant gene will be designated with the letters AX in the name. Two cultivars were available on a limited basis this fall - PlainsGold Incline AX and LCS Fusion AX. Both of these varieties are best adapted to western Kansas. At this time there is only one herbicide labeled for CoAXium wheat varieties and it is called Aggressor. It is very chemically similar to Assure II but don't use the two in place of each other. Do not confuse this with the Clearfield wheat technology. The two are not cross compatible and Clearfield wheat will be severely injured by Aggressor herbicide. I imagine in another year or two we will have CoAXium wheats bred for our region of Kansas. At that time it will become one more tool to deal with problems like downy brome, goatgrass, cheat, rye and volunteer cereals. In tests at Hays this past year it provided excellent control of downy brome and good yield bump compared to the untreated check. This has been Ag Outlook and I'm Chuck Otte.

Dicamba Research Update

This is Ag Outlook, I'm Chuck Otte, Geary County Extension Agent. I don't know about you but I've heard very little about dicamba since last spring. I think every single land grant university in the soybean and cotton belt was doing research this past summer. Sometime in the coming few months the EPA is going to have to decide what they are going to do with the dicamba label for Xtend varieties of soybeans and cotton. But so far, at least in my world, it's been flying under the radar screen. We are starting to get little bits of information from research that was done this summer. The issue is that dicamba is subject to volatility and drift concerns. Many plants are very susceptible to dicamba drift and we aren't just talking physical drift, we are talking vapor drift. I'm sure many of you have seen distorted tomato leaves in your gardens and that is most likely from dicamba vapor drift from lawn weed control products applied during the summer. Dr. Dallas Peterson at K-State was doing quite a bit of testing this summer. Non resistant soybeans were exposed to a spray that was 1/100th the normal use rate of dicamba. We're talking less than a quarter ounce of Extendimax per acre. Different plots were exposed at different times of the year. Early season exposure, when the plants were still in a vegetative growth phase showed damage but had little impact on yield. Exposure at this rate later in the season, in the reproductive stage, understandably resulted in far more damage. And exposure three times during the growing season at that 1/100th use rate resulted in yield reduction of nearly 70%. We're now in a waiting game to see what the EPA is going to do. This has been Ag Outlook and I'm Chuck Otte.

Kansas Mesonet Updates

This is Ag Outlook, I'm Chuck Otte, Geary County Extension Agent. At different times over the past year I've talked about the weather website known as Kansas Mesonet. It can be found at [mesonet\(mesonet\).ksu.edu](http://mesonet(mesonet).ksu.edu). More and more items are being added to these automated weather stations that are found all across the state. For us our closest weather stations are Ashland Bottoms at the K-State research farms, Rock Springs 4-H Center, and for some, maybe Clay Center. Looking at these three locations gives you a pretty good idea of what's going on in our areas. At this time the growing list of readings now includes: current weather including temperature, rainfall and wind, historical weather, weekly summaries, current and weekly soil temperature, degree days, wind gust, freeze monitor, heat index, wind chill, freeze monitor, soil moisture, and inversion probability. The inversion one is going to become more and more critical as we figure out how to deal with dicamba drift issues. Soil moisture is the latest one to come on line. Soil moisture sensors have been set at 2, 4, 8 and 20 inches. They measure percent soil saturation at those four depths. As you move your cursor around the map it will show you current conditions at all four depths and whether it is wet or dry. As I was playing around with this recently it was hard to find any locations that were considered dry. This website allows any of us to quickly see the weather conditions anywhere across the state and will become a valuable tool for agriculture in the years ahead. If you want a demonstration of this website, just stop by the office and we'll take it for a test drive! This has been Ag Outlook and I'm Chuck Otte.