

Herbicide Carryover

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. There is a gorilla in the room that we are going to have to talk about. It's herbicide carryover and it is going to happen. We apply herbicides every year with the anticipation of normal growing conditions. Recropping intervals are dependent on normal growing conditions. Decomposition of residual action soil applied herbicides are dependent on many factors. Among these are soil type, soil pH, temperature, organic matter and perhaps most importantly, rainfall. Take a look at an atrazine label for recropping intervals in western Kansas as opposed to eastern Kansas. There is a big difference and it all comes down to normal rainfall. We haven't had normal rainfall this year. We haven't even had normal rainfall for western Kansas this year. In fact western Kansas has gotten more rain than we have. We are eternally optimistic that it's going to rain again. But even if we have normal rainfall from here on out to the end of the year, we are still going to have herbicide carryover. Even light rates of atrazine are likely to still be around next spring. We can do soil assays and know the risk, but how many of you have done soil assays? It's not hard, I can show you how to do it. But if you put down more of a full rate of atrazine, it's going to be here next spring. Not having gone through August yet I will tell you that my inclination at this point is just to reset your rotation cycle and repeat this year all over. It hasn't been a normal year so don't risk herbicide damage, just replant the same crops! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

How do nitrates change with different weather

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. I'm spending a lot of time talking about nitrates this year and with good reason. They are out there, they are higher than normal, and they are everywhere! Nitrates are easy to test for but notoriously difficult to predict. The whole thing about nitrates is that the plant takes up nitrogen all the time and under normal growing conditions that nitrogen gets turned into other compounds within the plant. Some plants are more prone to nitrate accumulation than others. Sorghums tend to be worse than corn, for example. Stage of growth can make a difference. Young plant growth is highest in nitrates and decreases as the plant matures. Leaves are usually lowest, lower stalk is highest in nitrate. These are all things I think we are aware of. But there are many environmental factors that can be a big influence. Drought we are acutely aware of. But anything else that changes photosynthetic activity can have an influence. Several days of cloudy weather can increase nitrates. Following a good rain, and I would call that a half inch or more right now, roots of plants will rapidly absorb nitrate and levels in the plant will jump for several days. If you've been harvesting corn for forage and we have a good rain I would stop harvesting for several days to let those nitrates work their way through the normal systems. Hail, disease or even heavy insect infestations that change leaf area, can cause a jump in nitrates. Bottom line, test your forages. But be aware that if the weather changes, so will nitrate levels! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

How do nitrates kill?

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. We all know nitrates are a problem this year, a really big problem. But do we really understand why? Nitrates are the perpetrator, but not the culprit. After a forage is eaten, bacteria in the rumen quickly turn the nitrate into nitrite. Then, normally, the nitrites are quickly converted into ammonia that are used by rumen bacteria as a nitrogen source for energy. However, if too much nitrate is taken in, the conversion to nitrite overwhelms the animal's system. The nitrite is not broken down to ammonia and moves into the blood stream where it converts hemoglobin to methemoglobin. Red blood cells containing methemoglobin can not transport oxygen. The blood takes on the appearance of chocolate syrup and the animal literally asphyxiates. The process can take 2 to 3 hours and if caught in time a vet can give a shot of methylene blue to resolve the issue. Animals stressed because they are sick, hungry, lactating or pregnant are at greater risk. Pregnant animals can spontaneously abort if sub-lethal levels of nitrate are fed too quickly. Rate of feed intake can be a factor which is why we always talk about putting out higher nitrate feeds after cattle have been fed. The key is to slowly introduce higher nitrate level feeds over time. Slowly giving them high nitrate feeds in limited quantities several times a day can get them adapted to levels that would have been lethal if given all at once. The trick is to know the nitrate levels of your feed, introduce it slowly and let the animal's rumen adapt to the nitrates! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

Drought Impacts on Pastures

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. I mentioned to one rancher recently that the pastures looked like mid September not mid July and he corrected me to say October. I couldn't argue with him. With that said, I've seen August rainfall come along and turn yellowing and browning pastures back green in just a few weeks. It could happen. If it does there's several things that pasture managers need to keep in mind. First of all, don't immediately dump a bunch of cattle back in there. Those grass plants are seriously stressed and for the sake of next year you need to give them a chance to play catch up a little. If you had pulled cattle off the pasture I would not re-stock at more than 50% of normal rate. Yes, take advantage of some of that new growth but also leave plenty for the grass to start to get itself back in shape. If August, and/or September, turn off wet you are going to see a lot of blooming plants out in that pasture from now through frost. Don't panic. Most of these are native plants that we have at some level every year. It's just that with decreased grass competition and moisture, they are going to be more able to quickly take advantage of the situation. It may be no more blooming plants than normal but with less grass to mask or offset the blooms, it will look like more. There's no need to get cranked up and spraying those so called weeds. Okay, the one exception to that would be sericea lespedeza. If we start getting rain and it starts blooming, then we do want to spray that one. But I'll talk about that in a couple of weeks. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

Time to Start Checking on Volunteer Wheat

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. About two weeks ago we finally got a nice rain over a good part of the county. In many parts it was the best rain since wheat harvest. That plus the time that has elapsed since wheat harvest is adequate for the natural dormancy that we see in wheat to have passed which would allow for volunteer wheat to start growing. I'm guessing that about 80% of our wheat acres were replanted with either an emergency forage like sorghum, sudan or millet or was planted with soybeans just in case it did start to rain. I'm pretty sure that all of those acres were planted with no soil residual herbicide. So it's time to start getting out there and walking those wheat stubble fields looking for that volunteer wheat. If you have the stubble field planted to an emergency feed, it's unlikely that you can do much to control it until after harvest and you may be viewing it as more pounds if you do cut or graze those fields. Regardless, it is crucial to remember that the volunteer wheat can serve as a bridge for certain insects and diseases to survive into fall and then infect new wheat. That volunteer wheat needs to be destroyed two to three weeks before the 2019 wheat crop starts being planted. So that gives you about six weeks before we really need to be getting it controlled. If you have Roundup Ready soybeans planted you can go in anytime and spray with glyphosate to control the volunteer wheat. But if you've got emergency forage planted we may need to look at other options that can be done in mid to late September! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.