

### Rainfall and wheat development

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Last week's half inch, give or take, was a very welcome event for our wheat fields. We were starting to see some perched or stalled rooting development. Roots begin to develop last fall, as they should have, but root development was limited due to late planting, cold soils or soils that dried out. Even though there was moisture below the surface, 3 or 4 inches deep, the dry soil nearer the surface was essentially restricting root development this spring. When a seed germinates, the first root it sends into the soil is called the primary root. Following that are the seminal roots. These are all roots that are actually in the embryo of the grass seed, in this case wheat, before it sprouts. They are going to develop as long as the new sprout keeps growing. Their function is to keep the plant going long enough for a crown to develop. The critical mass of roots that wheat needs to produce a good crop are going to be crown roots. The crown develops between the soil surface and the seed, which is why seed placement 1 to 1½ inches in the soil is so crucial. If growing conditions are poor, as in poor seed placement, dry soil or poor nutrition, crown roots won't develop. We've been seeing that this year as dry soil was preventing crown roots from developing. Now that we had that nice little half inch of rain, crown roots should develop quickly and start taking up that nitrogen, that's finally washed into the soil, and much of the wheat should start looking a lot better over the next ten days! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Chloride on wheat

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. In the 40s and 50s, fertilizers were a far different thing than they are today. If you needed phosphorus, you likely used rock phosphate which was often loaded with micronutrients. If you needed potassium, you used potash, a mined product. Soil testing was still in its infancy so we often applied nutrients on a by guess and by golly approach. Soil testing improved and we found out we didn't need potassium, in our area anyway, so quit using potash. We found ways to purify phosphorus as phosphoric acid and then utilized that to make very pure and specific fertilizers. So nutrients that we didn't even know we needed, were suddenly no longer being applied and we started mining the soil. Just within the past 25 years we have started to notice some of the things that we are missing. In the case of wheat, chloride is one of those nutrients. Chloride deficiency often shows up as leaf spotting on wheat leaves that will fool you into thinking you've got a leaf disease. Unfortunately it isn't uniform across varieties with some being far more sensitive than others. You've got two choices - apply 10 to 20 pounds of chloride every year OR take a 24 inch profile soil test. We've got a pretty good idea of soil test levels needed to not have chloride deficiency and the soil test is pretty reliable. If you are seeing yellow leaf spotting on your wheat with no other real disease evidence, you may want to take a profile soil test. Or, pay the money for 20 pounds of chloride on your next wheat crop! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

Got your cow calf records started for a new year?

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. By now most of you should be wrapping up calving if you aren't already done. So have you gotten all your cow calf records from the calving season all written down (if using some little red or other color book) or entered in the computer if you are using a software program? It is critical that you get all the notes written down. Did the cow, or heifer, require assistance? Did they take right to the calf or did they ignore it? Was the cow overly protective (if you wound up diving into the bed of the truck or under the truck, that's a good indication that the cow was overly protective!) Did the calf have more illness issues than the other calves born this spring? So why am I asking if you've got your records up to date? It's very simple - time goes by quickly and before you know it you'll be weaning those calves and then having to make culling decisions on cows and heifers and you'll suddenly finding yourself wondering if it was 222 or 224 that had all those problems calving. Was it 3201 or 2301 that put you in up on the flat bed when you tried to tag her calf. Culling cows and keeping back heifers can be hard enough with good records, and with poor or missing records, your rolling the dice and falling back on sentiment. Sure, weaning weights are important, but so are calving ease and maternal instinct. You should be making notes every day, just not in September as you struggle to remember those details. Make notes now, make notes through the summer. Come fall, you'll be glad you did. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

If you are going to burn, have a good reason

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. With it being as dry as it's been this winter and so far this spring, I did a quick survey of local producers and came up with about 1/3 who were planning to do normal amounts of burning and 2/3 who are doing less or none at all, UNLESS it starts raining. Which is about what I expected and that is probably good news to everyone who is bothered by the smoke. I'm not saying you shouldn't burn this year, but make sure that you have a good reason for why you are burning. I fear that far too often pastures are burned because, well, that's just what we do each spring. We call it prescribed burning because we are doing it to meet a need. If you are in the middle of a cedar and brush control cycle, then sure, you have a reason to burn. If you are burning because you are running yearlings and want improved performance, then you have a pretty good reason as you will see improved gains, especially under intensive early stocking, also called double stocking. But that same improved performance is not seen in cow calf herds. We don't see the same improved weight gain on calves. So if you really don't fall into one of those two categories, this may be a good year to lay off. Another consideration is that if you are trying to get sericea lespedeza under control, don't burn the pastures where you have it this spring, or at least not the portions of the pasture where you have it. Then you can go out in late August and do a late summer burn which has been showing some pretty good results at control. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Flint Hills Smoke Management Plan

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. April 1<sup>st</sup> starts the Flint Hills Smoke Management Plan season. For those counties in the smoke management area, Geary and Riley County are, Clay and Dickinson are not, burning in April is limited to prescribed agricultural burns, i.e. pastures. Brush piles are not to be burned during April. We are limited to just burning pastures. If you live in Geary County you also have to have a burn permit and then obtain permission to burn first. One of the under utilized tools that's out on the web is the Smoke Management Plan website and specifically the smoke management prediction model. This model allows you to look at your fire and if the smoke may make a problem for other areas. It's a great model and we need to be using it more. The web site is simple, [ksfire.org](http://ksfire.org). There's a wealth of information on that website with weather forecasts, copies of press releases and general burning information. There's a link to a page so you can see what the burn permit requirements are for other counties in the Flint Hills, which is kind of interesting. But to me, the real teeth in this website is the smoke management model. Click on the little map that says Access Smoke Management Model. It will pop open a new page that shows today and tomorrow's smoke forecast. If your county is in green it means that for smoke dispersal there isn't a problem. But the weather may not be conducive to safe burning which is why you still need to call the appropriate authorities to receive permission. Accessing this map doesn't replace calling the authorities - this only is looking at smoke dispersal. But it's a good website to go and check out, it is located at [ksfire.org](http://ksfire.org). Call me if you have questions. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.