

Double Crop and Grazing Stalks

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Two issues that I commonly run into in cropland leases are double cropping soybeans after wheat harvest and whether the tenant has the right to graze stalks of corn or milo after harvest. Both of these practices have both legal implications as well as landlord-tenant relationship implications. From a legal point of view, unless prohibited in a written lease, the tenant has the right to double crop and graze the stalks. Of course, if it is an oral lease and the landlord doesn't want either thing to happen, the tenant is liable to lose the ground if they go ahead and do it. Yes, legally they were within their rights, but from the relationship point of view, they just messed up! Then we get into whether it is a share's lease or a cash lease. In general, we figure the landlord's contribution into one crop per year and as such, they don't have much contribution on the second crop. Economically the landlord may not be entitled to much of that crop, but again, they need to get something if the tenant wants to keep the lease. Often, a net share's lease is a good option for double crop. In a cash lease, a nominal additional payment would be a good idea. Grazing stalks again comes down to an agreement to do this. By the way, long term studies at Nebraska have not shown a yield detriment, in fact there may be a slight yield bump. If the lease is cash, the landlord may not be entitled to any additional payment. If it's a share's lease, the tenant may want to consider paying for the landlords's stalks. This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

Running out of time to fertilize and dormant herbicide alfalfa

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. With the current spate of warm days, very warm days in fact, alfalfa is going to be breaking dormancy probably sooner than we want. Alfalfa weevils we will talk about in future weeks, but for right now I want you to be thinking about phosphorus fertilizer applications AND dormant season herbicide applications. Phosphorus is crucial for established alfalfa fields. Alfalfa is a heavy user of phosphorus so even levels of P that wouldn't require phosphorus fertilizer applications in other crops are needed on alfalfa. Ideally we would be going from a soil test to determine P need but in the absence of that, plan for an annual application of 20 pounds of actual phosphorus per acre. With phosphorus it doesn't matter if the alfalfa has started growing a little or even a lot. But unlike the phosphorus, dormant season applications of herbicides NEED to be done while the crops is still dormant. So they need to be done now. Dormant season herbicides are generally applied to take care of weeds like henbit and the mustards and with some of the products, even the cheat grasses. Probably my favorite of the dormant season products is going to be metribuzin and going with the heavier rate you'll probably get a little bit of residual control into May for some earlier germinating summer grasses and broadleaf weeds. But there are plenty of other choices too. Pursuit isn't quite as critical with the dormancy requirement. Take a walk across your alfalfa field. If you find a fair number of weeds and grass already out there, get a dormant season treatment lined up while you still can!

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Micronutrients in crop production

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. For plants to grow, just like with people, there are a whole range of nutrients that are needed. In plants there are three elements that are needed in quite large quantities that we often refer to as macronutrients. Those are nitrogen, phosphorus and potassium. There are a couple of elements, sulfur and chloride, that are not needed in as great of quantities as the macronutrients, but higher than all the other elements, frequently in the 10 to 25 pounds per acre range. Which then leaves as all those other elements that are needed for proper plant growth. This is things like iron, zinc, copper, manganese, magnesium or boron. These are plant nutrients that are needed at a few pounds to a few ounces per acre. These are known as micronutrients and are commonly misunderstood and far too often over-sold. Of that long list of micronutrients about the only ones we ever need to really be concerned about are iron and zinc. The others are often touted as being needed, and in fact, in cases of deficiency just a few ounces per acre can be all the difference in the world between crop failure and a good crop. But when someone is trying to sell you a whole package of micronutrients that they say you need, WITHOUT even looking at a soil test, just walk away. I have never seen a soil test in this part of Kansas that was deficient in copper, boron, manganese or magnesium. The kind of things necessary to cause those deficiencies are rarely found in the state. The others can certainly happen, but as I've said before, don't waste money on what you don't need. Soil test to be sure!

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The value of organic matter

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Soil is a complex living organism. Many people consider it just dirt, but it is far more than just anything! It's 50% mass and 50% void. The void is the spaces between the particles of everything else. It is where the water moves and the air exists. The mass is everything else. It's sand, silt and clay. It's living creatures and a small proportion, usually less than 5% in most crop fields, is something called organic matter. That small percentage has often been called the life blood of the soil. It is the bits and pieces of what used to be plants, both the above ground and below ground portion of those plants. It slowly decomposes and nutrients are recycled. But while it is decomposing it performs some crucial roles. It helps to separate those sticky particles called clay. It can create binding in sandy soils. It can greatly impact diversity and biological activity of soil microorganisms. It affects plant nutrient availability, soil structure, soil porosity, water infiltration rate and water holding capacity. As organic matter increases, the inherent productivity of the soil also increases. Many fields, prior to the adoption of no-till or reduced till farming had organic matter rates at or below 1%. Thanks to changes in farming practices many of those soils are now pushing 5% or higher. There's much we still need to learn about organic matter and how high we can push it - but we have yet to see negative impacts from higher soil organic matter. In the meantime, consider experimenting with cover crops and keep doing the good job you're doing with reduced till. Keep that soil healthy! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

Compaction

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Yesterday I was talking about soil and organic matter. I talked about 50% of a healthy soil being empty space and why that was important. One of the problems that I see developing rapidly with crop production is soil compaction. Compaction is when weight is applied to the soil at a period of time when it is vulnerable. Period of vulnerability is a function of soil moisture and total weight in pounds per square inch. Any soil can become compacted, at times very easily. Compaction shifts the ratio and all of a sudden you have less and less pore space. Compaction limits water infiltration. It impacts water holding capacity. It creates barriers that roots have troubles penetrating and it causes nutrient deficiencies because of lack of root development. It isn't good. Here's the really bad thing about compaction - it's easy to create and difficult to fix. Freezing and thawing can help as can cycles of wetting and drying. But the changes that these natural cycles have is small compared to how quickly compaction can happen. There are soils in prairie areas where wagon trains traveled well over 100 years ago that still have measurable compaction. Over a century of natural cycles hasn't erased that compaction. Deep soil tillage and I mean rippers going down well through the compaction zone, can help, but it has to be done when the soil is dry enough that you actually get fracturing of the soil mass. Otherwise it just won't work. The biggest thing you can do is to take active steps to NOT compact the soil. Compaction is a growing issue, and our tools to fix it are going to be limited! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.