

### Are You Buying More Technology Than You Need?

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. I read an interesting article the other day about biotech traits in seed. Let's face it, when you get into corn and soybeans you can find a lot of traits stacked one on the other. Those traits can provide a lot of benefit such as glyphosate tolerance, resistance to corn borer, corn earworm and event rootworm. But all of that technology stacked into that little seed can come at quite a cost - it wouldn't surprise me if average 2015 hybrid corn seed prices are nearing or past \$4 per 1,000 seeds. While we all cringe at paying these prices, I'm sure that we all too often just shrug our shoulders, figure what else can we do, and write the check. Well, there are options that can allow you to step away from some of that. Do you need corn borer and rootworm and earworm resistance? You need to evaluate your risk and other control options. Been more than two years since you raised corn on a field? Your rootworm risk is much lower in a longer rotation. Are you using glyphosate because you have tough weeds or because it's an easy out? With more and more glyphosate resistant weeds showing up, you're going to need pre-emerge soil residual herbicides anyway so every other year you could use a non roundup ready hybrid and go with a traditional weed control program. Basically, I'm a firm believer in using the technology when you need it, but too often we buy it because we can when we could get by with cheaper options. And if you can save 20 bushels of corn, why not! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Start Soil Testing Now for 2015

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. As harvest and wheat planting wind down you're going to be getting hit with early seed orders so I know you are already working on your 2015 cropping plans. If you haven't soil tested in the past two years, you really need to get it done now for next year. Other than nitrogen we don't usually see big changes from one year to the next. But over a couple three years we can see big changes. There have been some changes at the soil testing lab at K-State so how we put our samples together is changing too. If you are planting soybeans, or alfalfa, then we just need a basic test. Take an appropriate number of samples, and I'll discuss more on that tomorrow, from 0 to 6 inches and if it's no till, you may want to just consider 0 to 3 inches. From this we can test for pH, phosphorus and potassium. We need this basic test for just about everything you're going to grow. This test can also be used to test for all micronutrients EXCEPT chloride and sulfur. If you want an available nitrogen test OR sulfur or chloride test, then we need a separate profile test from surface down to at least 18 inches deep and preferably 24 inches. Keep this separate from the surface sample. We used to do 0 - 6 and 6 to 24, but that's one of the things that has changed. If the soil is wet you may want to let the sample air dry so you can mix it up well before taking your sub-sample for analysis. Then bring it in to the office to be sent off. Oh, and please use a plastic bucket - galvanized buckets can really mess things up, especially if you are doing a micronutrient test for zinc! Let me know if you have any questions! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck

Otte.

How many soil samples do I need?

This is Ag Outlook on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. One of the most common questions I am asked by producers, when we get into the subject of soil sampling, is how many subsamples do they need to take per field. The answer is that it depends. If you have a large field with a lot of variation, you probably need to split the field up into manageable sections because you're going to find results all over the board. But let's assume we have an 80 acre field that is pretty uniform. Is one sample enough, or do I need to take 5 or 10 or 15 or more samples? I get samples brought in all the time that I'm sure were taken from just 1 or 2 or 3 locations. Studies have been done that show that we probably want to have an 80% confidence level of the sample reflecting what the average field condition will be. The fewer subsamples you take, the greater the risk that you are going to hit an abnormal location that is extremely high or low. So in these studies here is what we find. If you only take 8 subsamples you have a 75% chance of being representative. Which means that if you go down to fewer than 8, like 2 or 3, your odds of being representative drop way off! As we move up we found that 12 subsamples gave us the suggested 80% confidence interval of the sample being representative. Going on up from there we found that 21 samples gave us 85% confidence, 46 samples gave us 90% and if you want 95% confidence that your full sample was accurate, then take 180 subsamples. I think we can file that under "not going to happen"! Bottom line is that if you try to take 10 to 15 subsamples all mixed up well, you'll have a good sample! This has been Ag Outlook on the Talk of JC, 1420 KJCK, I'm Chuck Otte.