

News Column  
by Greg McClure, KSU-Riley County Extension Agriculture Agent  
110 Courthouse Plaza  
Manhattan, KS 66502

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Phone: 785/537-6350  
Fax: 785/537-6353

## SOIL TESTING

I walked into the kitchen two weeks ago and found my son sitting at the breakfast bar reading the newspaper. He looked up, smiled, and said, “I’m reading your article.”

The smile wasn’t just your normal, pleasant, glued-on smile. Something in his eyes said he was entertained, and that made this dad feel kind of good — he was reading my article, and enjoying it!

My high lasted about five seconds,....maybe just two. The next words he spoke were, “Oh, I’m to the boring part now.”

While I don’t always remember what I have written, this day I knew because I had compared his mom to a cow, and that’s always risky — even after 30 years of marriage. Ryan thought it was entertaining though, until he reached the educational part of the story.

The education, by the way, was about early weaning calves in the fall so cows can gain weight before winter. You probably skipped over that part too.

Ryan, if you’ve made it this far, this is where you stop reading. The boring educational part comes next.

Soil testing is a topic I find hard to make interesting. Really, what is interesting about walking across a field on a hot day carrying two plastic buckets, a four-foot-long soil probe, and a can of WD-40?

I need to tell you to sample at least 10 locations in each field, but you’re bored already

and probably won't hear that part. I want to explain how to collect a good sample that adequately represents what is actually in the field, but that's pretty boring too. I know I'm going to lose many of you, but I'll try anyway.

First, let's discuss why we need to sample 10 locations in a field. It is actually pretty simple — the more locations sampled, the higher the likelihood you could get the same results again.

Research tells us that 10 locations is a minimum, and anything more would be better. Take the cores from those 10 locations, mix them together, and submit a sandwich bag full of soil for analysis.

At a minimum, you will want to test for pH, phosphorus, and potassium. A six-inch deep sample is what you want for the basic analysis (pH, P & K), and is also the depth to sample for organic matter and zinc. If you haven't tested your soil before – or it has been 10 years – those are the five tests I like to see.

To be clear, I'm not saying to dig a hole six inches deep and take your sample from the bottom of the hole. You want to use a probe and collect a sample of the soil profile to a depth of six inches.

If you are a bit more ambitious, and willing to work a little harder, I also like to test for nitrogen, sulfur, and chloride. Those three are all mobile and move through the soil quicker than phosphorus and potassium, so a deeper sample is needed. Collect a sample to a depth of 24 inches to test for N, S, and Cl.

I said earlier that I carried two plastic buckets when collecting soil samples. One bucket is for the 0-6 inch profile that will be used for testing pH, P, K, Zn, and organic matter. The second bucket is for the 0-24 inch profile that will be used for testing N, S, and Cl.

Why soil test? Because you really don't know what you are doing without a test. A low enough phosphorus level can cut yields about in half. Nitrogen can do that too, but you might detect that visually. Low sulfur can cut yields even more, but will likely just be in parts of the field. You might detect that visually too, but will need a soil test to confirm.

My suggestion is to go to the field with a good attitude, and on a good day. Pick a beautiful fall day, convince yourself you need exercise, and go out and enjoy some alone time.

When you're done, you can bring those samples to the Extension Office. There is a fee to have them analyzed at the KSU Soil Testing Lab, but we can usually get you a discount if you bring samples to our office.

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to [gmclure@ksu.edu](mailto:gmclure@ksu.edu).

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