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TIME FOR YOUR ANNUAL SOIL CHECK-UP

When harvest is in full swing, that is the time to start planning for your annual soil check-up. Soil testing is the best science-based means we have for evaluating the health of our soils for production of crops. Finding a way to incorporate soil testing into your nutrient management program should become a top priority.

Harvest is an excellent time to evaluate the variability in fields and plan fall soil sampling. The differences you detect in grain yield when crossing a field are a good indication of variation in soils, landscape, and water availability. Making notes when in the combine can be useful in later finding those parts of the field where grain yield differences require further attention, starting with a soil analysis. Using Global Positioning Systems to record the representative areas of a field can help with future sample collection.

As with most things, the soil test is only as good as the sample collected. Assuring that representative samples are collected means having farmer involvement in selecting field areas to sample. If the farmer cannot participate, it becomes critical that the person taking the samples has clear directions on where to sample each field, avoiding problem areas. Remember, one core taken from a saline area can ruin the ability to make an appropriate estimate of field nutrient levels, even when the total area affected by salinity is 1% or less.

When to sample is a question asked each fall, especially where fall fertilization is practiced. While traditionally the recommendation has been to wait until soil temperatures drop below 5°C (41°F) before sampling, recent research in the northern Great Plains has found that soil nitrate-nitrogen levels may not be as variable as once thought. Little change was found in soil nitrogen levels in cereal stubble fields between mid-September through freeze-up in November, with little fall nitrate accumulation.

Where sampling date resulted in differences, it paid to delay your soil collection. Where waiting pays is in those fields where more nitrogen is generally released in September, such as pulses, canola, corn, or potato stubble. Delaying sampling in these fields is a benefit. Soil phosphorus and potassium levels generally are not affected by sampling date.

Building a successful fertilizer management plan starts with a soil test. Having a representative sample, ensuring that field variability is considered, and timing your sample to best represent the field conditions, will go a long way toward building an appropriate nutrient management plan. Consider a soil test a field check-up – ensuring the health of future crop production.

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