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November 7, 2014

## BE CONSISTENT IN SOIL TESTING

The outdoor corn pile at Farmers Cooperative in Wilber has now grown to 600,000 bushels, not a record, but it could have been without the hail damage. Lower commodity prices and open weather this fall should be increasing interest in fall soil testing as producers seek to potentially find cost savings for next spring. Although crop nutrient recommendations are best based on soil tests, fertility management decisions may only be as good as the accuracy of the soil sampling methods.

This fall our growing degree days have been less than last year, but temperatures have still been above normal. These warmer temperatures provided advantages for fall harvest, and if these higher temperatures extend through the winter, there could be added mineralization of nitrogen in our soils compared to normal. Usually soybean stubble ground has less soil nitrate nitrogen in the profile at harvest compared to after corn. Corn fields that were hailed and did not reach their yield potential for the year should have extra nitrate nitrogen in the soil profile that could be utilized if going back to corn. You don't know unless you check. If going back to soybeans, the crop will tend to "mop up" the extra nitrogen and then biological nitrogen fixation takes over.

With abundant moisture and warmer soil temperatures, this usually results in increased soil mineralization, releasing more nutrients for the next crop and crediting this nitrogen can enhance a bottom line and be better for the environment or ground water quality. This would be a year to do deep soil nitrate testing.

When producers are collecting soil sample information this fall for the first time, they might benefit from re-sampling (at least a couple of fields) next spring to adjust for any possible extra mineralization in fields that were not fall fertilized. This may be especially true if planting is delayed into late spring; or if your fertility program is usually based on spring soil testing. The key is consistency and adjusting your fertilizer based on time-of-year testing.

Field locations consistency is also important when trend comparisons are being considered. Site specific GPS coordinates can allow samples to be pulled from the exact same points as the previously test locations. Lower technology methods, such as burying colorful ropes for locations recall, can also maintain consistency.

Depth of samples is also critical for accurate fertilizer recommendations. Since nutrient availability increases nearer the soil surface, deeper soil samples will test lower for plant available nutrients than shallower samples. Fertilizer recommendations can be adjusted based on sample depth; but inconsistent sampling depths errors interpretations. For example, samples collected in fluffy soils may cause the actual sample depth to be shallower. If not corrected, you have different results. To correct this, consider pulling soil samples from your 4-wheeler tracks in the field to increase soil sampling depth consistency.

For more information regarding crop fertility and soil sampling, go to the UNL Extension website at <http://cropwatch.unl.edu>

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