Begin Planning 2021 Crop Nutrient Program With Fall Soil Sampling

With wheat harvest concluded and soybean harvest soon upon us, the end of summer is a perfect time to plan soil sampling schedules and begin formulating fertility plans for the 2021 crop. Soil sampling to determine soil chemical properties, such as pH and nutrient levels, remains the basis of strong fertility programs, and today’s technology allows other data layers to complement soil test information.

Intensive soil sampling programs such as grid or zone approaches offer definitive benefits compared to less intensive bulk field samples. Variable rate applications of nutrients utilizing intensive soil sampling maps frequently results in lower total application rates than if uniform rates were applied. Rates can be lowered in areas with high nutrient concentrations, saving input costs. Just as importantly, areas with low nutrient concentrations can have yield-limiting conditions addressed, thereby increasing profitability.

Tracking soil nutrient levels over time is important as well. Fields should be on a three to four-year sampling schedule, ideally at the same time of the year and following the same crop each sample timing. Documenting trends in nutrient concentrations over time is essential to understanding how fertilizer applications should be adjusted based on management and environment.

In addition to managing soil nutrient levels, fall soil testing allows for the timely application of lime to manage soil pH levels. Soil pH has a strong influence on macro and micronutrient availability for crops and is a fundamental component of effective nutrient management. Modifications to soil pH, such as through the application of lime, are achieved by neutralizing soil acidity to raise soil pH, a chemical reaction that takes time in the soil. Lime applications can take more than six months to fully react in the soil, making fall applications preferable to get the maximum impact spring crops.

Crop advisors and agronomy retailers are great resources to help collect and analyze the data that can go into nutrient management decisions. Contacting these resources to build a plan for how to best management nutrients can help them begin collecting necessary data in order to make accurate, informed plans. Few management options have the demonstrated pay-back that nutrient management offers, with the environmental benefits to match.