

## Soil tests help with fertilizer decisions

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As harvest starts to wind down, it is time to start thinking about your 2018 fertilizer program. In order to ensure proper nutrient levels for your next crop, consider soil testing to determine current fertility levels and additional fertilizer requirements needed to meet your 2018 yield goal.

Soil tests are necessary to understand soil conditions that are vital to plant health. Nutrient and pH levels change over time, but tracking these changes is nearly impossible without soil tests. Testing soils every 3-5 years can help you see what deficiencies your soils may have as well as where you may be over-fertilizing, resulting in both environmental and financial benefits. Fertilizer and lime recommendations are personalized to help you get the most out of your farm.

Fall is the perfect time to conduct soil samples on your farm, as this will allow you more time to make management decisions based on the test results. Applying lime in the fall provides more time to neutralize soil acidity, making nutrients more available in the next growing season. Non-mobile nutrients such as phosphorus and potassium can also be applied in the fall when prices may be cheaper and application equipment more available.

Collecting proper soil samples is key to obtaining accurate fertilizer recommendations for your farm. To collect soil samples, split your farm into areas with similar characteristics. These characteristics can include soil type, previous management tactics, field slope, cropping history or field borders. Most soil testing labs recommend samples that represent no more than 20 acres, but non-uniform areas should have samples every 5 acres. Once your field is split into sampling grids, collect 10 to 15 soil cores 6-8" deep per area, and mix soil cores together. Mixed samples should be representative of your chosen sample area.

Once proper samples are collected, take them to your local University of Missouri Extension office where they will be shipped to a lab for analysis. Results are generally available in 7-10 days. Soil sample results provide lime recommendations to raise soil pH, fertilizer requirements for your yield goal and soil properties such as CEC and organic matter percentage that can help make management decisions.

For more information on soil testing, contact your local University of Missouri Extension office or me, Andy Luke, at (660) 425-6434 or [LukeA@missouri.edu](mailto:LukeA@missouri.edu).  
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