

Soil sampling

Overview

Fertilizer programs should begin with accurate soil testing. Growers who can self-sample reduce costs and better understand their soil situations. Review best practices so your samples lead to more reliable results and more educated management decisions.

What you should know

- Soil probes are easy to use and most are graduated for gauging depth. If using a shovel, ensure you take an even vertical slice. Mix soil cores in a bucket to create a commingled sample for drying and mailing.
- There are two types of sampling techniques: randomized and grid. Randomly collecting and mixing 15 – 20 soil cores from across a 10- to 20-acre field is the quickest way to create a sample. Grid sampling evenly distributes samples across the field to characterize variability. However, collecting several more samples is expensive and time-consuming.
- Sample between former crop rows and avoid problem areas such as wet spots, fencerows or old burning areas.

Action steps

1. **Adjust sampling depth by tillage:** For conventional and minimum-till, sample at a 6-inch depth. No-till fields should be sampled at 2 inches for lime recommendations and at 4 – 6 inches for fertilizer recommendations.
2. **Sample in the off-season:** Sampling right after harvest gives you more time to analyze data and develop a fertilizer plan. Soils with optimal nutrient levels should be sampled at least every three years, or every time the crop is rotated.
3. **Choose a trusted laboratory:** Compare cost, turnaround time and experience levels with your soil types, and find a lab that has an accredited quality control program.
4. **Interpret results:** Raw data from a soil analysis is not helpful without recommendations for specific lime and fertilizer applications, which are calibrated from historical yield response and raw soil test data.



Thoroughly mix soil cores in a bucket to produce a more representative sample.



30-Second Summary

- Soil sampling helps you better understand conditions and make educated decisions about fertilizing.
- Using either the random or grid methods, make sure samples are representative of your fields and drawn from the proper depth.
- Work with a trusted soil testing lab and interpret the results in context with historical yield data.

NOTES:

For more information, contact:



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