

The Importance of Soil Testing

Why is it important to soil test?

Soil analysis is a valuable tool for your farm as it determines the inputs required for efficient and economic production. A proper soil test will help ensure the application of enough fertilizer to meet the requirements of the crop while taking advantage of the nutrients already present in the soil. It will also allow you to determine lime requirements and can be used to diagnose problem areas. It is very important that your sampling technique is correct as the results are only as good as the sample you take. Soil testing is also a requirement for farms that must complete a nutrient management plan.

Sample Timing

The best time of year to soil sample is in the fall directly after the crop is removed. Since results can vary depending on the time of year, it is best to sample at the same time each year. Soil tests should be completed every 2-3 years for most crops. For crops grown on very sandy soils particularly if the crops remove large quantities of potassium such as corn silage and alfalfa, you should soil test every 1-2 years.

Tools Required

- Farm Map
- Soil Probe
- Garden Trowel
- Measuring Cup
- Spade
- Knife
- Clean Plastic Bucket
- Soil Boxes
- Sample Submission Forms

Sampling Procedure

Before you get started....

- If you do not already have a farm map, then draw one with outlined boundaries, assigning all fields a permanent number. It is important to keep this map and results in your records filing system.
- Crop history is also important information to record such as rotations, past problems, liming amounts, etc.
- Remember to repeat sampling process for each area that is different elevation, soil type, treatment history, cropping pattern, color and poorly drained land separately.

Sampling Steps:

1. Take one composite sample for every 10 ha (25 acres).
2. The number of cores in each composite sample should be at least 20 no matter how small the sampling area.

3. Samples should be taken random throughout the entire area, travelling in a zig zag pattern to ensure uniform distribution.
4. Take samples using your soil probe at a depth of 10-15 cm for sod crops and 15-20 cm for most other crops.
5. Place samples in clean plastic bucket. Remove plant residue, rocks, break clumps and mix well.
6. If the sample is wet it will need to air dry in a non contaminated area before the sample can be mixed and a composite taken.
7. The composite sample should be about 2 cups in size.
8. Place sample in box labeled with sample number, field number and your address.
9. Fill out form for sample submission. Select crop name on back of the form in order to receive a fertilizer recommendation.

Words of Caution

- Do not sample old fencerows, areas of manure/hay/ lime storage, dead furrows, and areas close to trees/roads and windrows.
- Do not sample areas of high erosion.
- Sample areas with different elevation, soil type, treatment history, cropping pattern, color and poorly drained land separately.

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