

Soil Testing Services – Basic Soil Sampling Instructions

Sampling Basics

The reliability of a soil test is only as good as the sample you submit. The small amount of soil in the sample bag you send to the Agricultural Testing Lab must represent the entire area to be fertilized. This can be achieved by taking several composite samples of the area and mixing in a bucket until homogeneous. Avoid unusual areas such as those where fertilizer or lime has spilled. Take samples before lime, fertilizer, or manure has been added. Use only clean equipment for collecting soil samples.

Where to Sample

The area to be sampled should be as uniform as possible in terms of soil type, cropping and fertilizing history. For practical purposes it should be an area you expect to fertilize as a unit. This means separate samples for areas you plan to treat differently or believe has been amended differently. If you have a problem on part of a lawn, garden, or commercial production field, you may wish to determine if soil fertility is the cause by taking one sample that represents the good area and another that represents the concerning area.

Take a good sample

Collect a number of cores or slices by walking in a zigzag pattern over the area. Mix cores thoroughly in a clean pail for a composite lab sample. The greater the number of collected cores mixed together, the better the sample will represent the average condition of the sampled area. Consider 10 cores as the minimum for home gardens and lawns up to 10,000 square feet in size. Areas from a field or sampling area of not more than 20 acres should be represented by at least 15 to 20 samples. Any area larger than 20 acres should be split for the purposes of accurate soil testing. Choose one of the following tools:

Soil Probe or Auger A soil probe or auger, available from mail order catalogs and garden or farm supply outlets, is the best tool for sampling. An auger will be needed if the soil is very stony or gravelly. Simply push the probe (or push and turn the auger) into the soil to the desired depth, lift up to remove the core, and place it in the clean pail. Sampling depth should be 4 to 6 inches deep for lawns, turf, or other perennial sod, or tillage depth (usually 6-10 inches) for annually tilled crops.

Garden Trowel or Shovel If a soil probe or auger is not available, collect your sample by pushing the blade of a garden trowel, shovel, or spade into the soil to the desired depth. Cut out a triangular wedge of soil and set it aside (to be replaced after sampling). Now slide your blade into the soil again taking a thin (half inch) slice from one side of the hole. With a knife, trim the slice to about a 1-inch strip of soil down the center of the spade-top to bottom. Save this core as part of your composite lab sample.

Mix the sample and fill the sample bag

Make sure that all the cores are thoroughly mixed together. Wet clay soils may first require setting aside to dry. Your soil test mailer contains a plastic bag intended for one lab sample. Fill this bag about full (approximately 1 cup) with the mixed sample.

