Soil Test Form

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Soil testing is an excellent measure of soil fertility. It is a very inexpensive way of maintaining good plant health. The standard soil test provides the status of phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), pH, cation exchange capacity, lime requirement index, and base saturation. With a representative soil sample and an accurate test, sound fertilizer recommendations can help gardeners and growers improve plant quality and productivity, and save money, too. Cost: $20.00/sample. Payable by cash or check (made out to OSU Extension).

Date _____ email Address _____

Name _____ Phone _____

Address _____ City _____ Zip _____

#1 Sample Name _____

Soil Use Description (past and future) _____

_____

#2 Sample Name _____

Soil Use Description (past and future)_____

_____

#3 Sample Name _____

Soil Use Description (past and future)_____

_____

What Soil Sampling Tools Do I Need?

1. **Soil Probe**. These tools quickly extract samples to a consistent depth simplifying the job. Purchasing a soil probe is a good investment for horticulture professionals and serious gardeners. Figure 4 shows examples of typical probes. Figure 5 shows how a soil probe is used to collect a soil sample beneath turf.
2. **Garden Spade, Knife or Hand Trowel**
   A garden spade, soil knife, or hand trowel as shown in Figure 6 can also be used to take thin slices or sections of soil for gathering samples. These tools require more time, effort and skill for taking precise soil samples compared to a soil probe. However, they are simple and effective. They are cost effective.

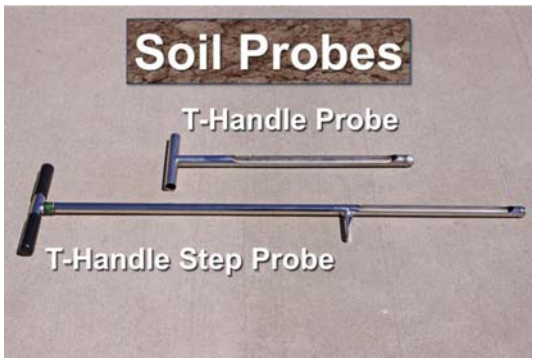

Figure 4: Soil probes provide a simple method for collecting soil samples *Photo by Joe Boggs.*

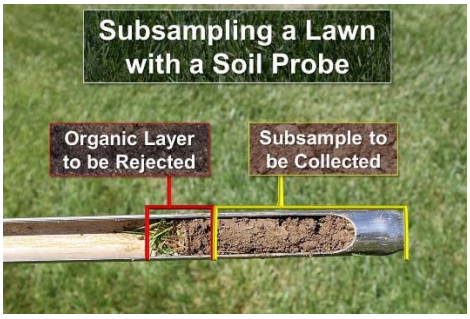

Figure 5: Using a soil probe for soil sampling in turfgrass. *Photo by Joe Bogg.*

Figure 6: Using a hand trowel for soil sampling. *Photo by Joe Boggs.*

Figure 7: Soil samples should be collected in a clean plastic bucket. *Photo by Joe Boggs.*

3. **Plastic Bucket**
   Soil samples should be collected in a clean plastic bucket or box as shown in Figure 7. Metal buckets, such as aluminum or zinc plated buckets, should never be used as the metals may influence test results.

How Do I Take Soil Samples?

The validity of results depend on sample quality. Fertility varies throughout a lawn, landscape or garden. Thus, the sample must be representative of the entire area. Submitting a *composite sample* reduces the influence of fertility variations. A composite sample is a number of individual subsamples randomly collected over the entire test area. Subsamples are mixed together. Just under 1 pint, is sent as a representative sample to the lab. Figure 8 shows examples of subsample numbers and patterns to create a composite sample. The number of subsamples depends on area size. General: 5-10 subsamples for flowerbeds and 10-15 samples for larger areas (lawns). Subsamples should be taken at random in a zigzag pattern over the entire area. Each subsample should have same depth and volume.

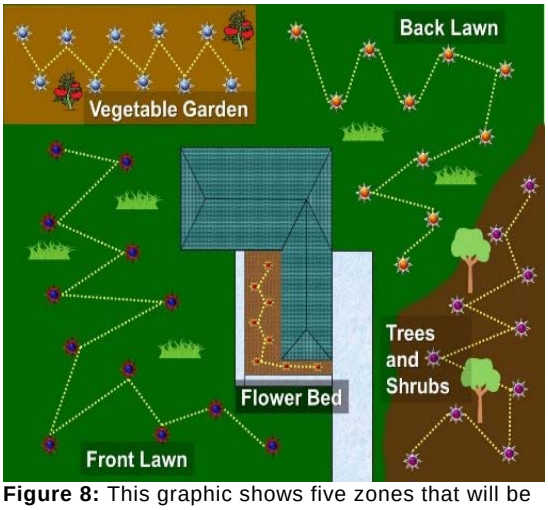

Figure 8: This graphic shows five zones that will be soil tested. The stars in the graphic show where the subsamples should be taken. The subsamples should be taken in a zig-zag pattern, shown by the yellow-dotted lines. *Graphic by Joe Boggs.*

Soil Sampling Tips:

1. Separate soil tests should be used for (Figure 8 shows different zones for soil sampling):
   - Areas that have received different applications for soil fertility programs.
   - Soils distinguishable by color (i.e., light vs. dark), drainage or other factors.
   - Different types of plant cultivation (i.e., turfgrass, vegetable, trees/shrubs, etc.).
2. Sample when soils are suitable for spading or plowing.
3. Organic matter on top of the soil should not be included in samples. Organic matter can affect soil test results. This includes plants (e.g., turfgrass plants), the typical 1" or less "organic layer" typically found over Ohio soils, mulch, thatch, etc. Coarse organic matter, such as mulch or thatch, should be removed before taking a sample.
   **Organic layer included in subsample (Figure 5 or 6) should be removed prior to dropping in plastic bucket. Sample root depth – 5-8' for trees, shrubs, flowerbeds and vegetable gardens, 3-4' for lawns. Sample vegetable garden between rows to avoid fertilizer bands where applications were made directly to plants.

Selections from: ohioline.osu.edu – Soil Testing Factsheet