

A Guide to Soil Sampling

Results from a soil test can be valuable information when making decisions about the fertility of your soil and health of your crops. However, the validity of test results depends largely on the how a soil sample is collected and how it is tested.

Timing, method and tools are all important factors that can influence the quality, validity and usefulness of the sample and subsequent test results.

TIMING

Plan to collect a soil sample a few months before planting in a new area. This will give you time to devise a plan and apply correctives before planting.

Sample established areas at least once every two to three years. You can sample at any time of the year, as long as conditions are conducive. If an established area exhibits abnormal growth or plant discoloration, take a soil sample right away. You may want to submit matching plant tissue samples or separate soil samples for nematode assay. For areas recently limed, manured or fertilized, delay sampling at least six to eight weeks.

EQUIPMENT

While you can use either a soil probe, an auger, a spade or shovel, a soil probe is the preferred tool for collecting the best soil sample.

Tools should be either stainless steel or chrome-plated. Do not use brass, bronze, or galvanized tools because they will taint samples with iron, copper and/or zinc. If a shovel or a spade is used, dig a V-shaped hole to sample depth of 6-8", then cut a thin slice.

SAMPLING AREA

A soil sample should represent the area from which it is taken. If one part of your sample area seems healthy and another has issues, sample healthy and unhealthy areas separately even if both are the same type of area (e.g. cabbage, garlic or corn). For pastures, avoid taking cores near shade trees, water sources and winter feeding areas.

SAMPLING DEPTH, PATTERN and METHOD

Sample to the depth of incorporation, usually six to seven inches. For pasture area, do not take too shallow a sample as this can overestimate the soil fertility level due to manure deposits in the field.

Scrape away any surface debris then sample to a depth of four to six inches. Avoid zones where recent applications of fertilizer and other amendments have been applied.



Using a zigzag pattern across the sampling area, randomly select spots from which to collect 15 to 20 soil cores. Each sample should represent only one soil type or area (e.g., a vegetable garden or soy bean field). Place all the cores for one sampling area in a plastic or stainless steel bucket and mix thoroughly. Use the mixture in the bucket to fill a soil sample bag about two-thirds full.

Avoid using a bucket that was used to hold fertilizer or other chemicals. If you must use this type of bucket, wash it thoroughly before using it for soil samples.

SAMPLE STORAGE and LABELING

Put samples in designated bags supplied by the receiving lab.

Use a ballpoint pen to label each sample bag and complete the soil test request form. Do not use felt tip pens since most of them do not contain waterproof ink or they can bleed through the bag and potentially taint the sample. Bags labeled with a pencil can be very difficult to read if the bag becomes dirty or wet.

Attach a test order form to the outside of the shipping bag or put them inside the shipping box next to or on top of the samples. Do not put order forms inside the sample bag(s) as ink and other foreign substances on the paper can taint your sample.

Don't use sample bags as mailing containers. Ship samples in a sturdy, corrugated cardboard box.

WHAT TO HAVE TESTED

Regardless of the cost, you want the soil test results to be useful so, don't just order the basic test. You'll definitely want the water soluble test and you'll want to have the soil tested for micro-nutrients. Consider adding Cobalt and Molybdenum to your test to make it complete.

TOO BUSY? WE CAN HELP!

If you are too busy to collect samples, we are happy to come and sample a field or your whole farm and deliver the results to you within two weeks. Call or write to us today to find out more about our comprehensive soil and tissue analysis services.



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