

Cooperative Extension

How to Take and Submit a Soil Sample

Things to know prior to submission:

1. The Cornell Nutrient Analysis Lab (CNAL) requires at least 1.5 cups of representative soil to perform proper analyses. Make sure that soil is collected from several locations within the sample site to prevent non-conformities from altering test results. These collections should be mixed together in a paper or plastic bag or bucket. Problem areas should be sampled separately.
2. Use proper sampling tools- if a soil probe or augur is not available, use a garden spade or shovel. Do not use galvanized tools, as they may contaminate the sample.
3. Avoid extremely wet soil conditions unless absolutely necessary. If it is necessary to sample wet soil, spread the sample in a thin layer on an aluminum pie pan, clean wrapping paper or waxed paper, and allow to dry out at room temperature. A fan may be used to speed this process. Do not use heat to hasten drying. DO NOT send wet samples to the laboratory for analysis. They may leak in the mail, provide inappropriate results, and delay analysis.
4. Different information sheets are used for assorted clients. Blue (Commercial) forms are used for commercial agriculture (agronomic, commercial fruit, and commercial vegetable crops). Yellow (Home Garden) forms are used for home gardens, turf, and non-commercial ornamental crops.
5. For frequent soil testers: Establish a regular sampling time. For most crops, the soil should be sampled every 2 to 3 years. For soils under intensive use, as in high-value cash crops or where nutritional problems persist, the soil should be tested prior to planting each crop. Fields should be tested at approximately the same time of year.

How to take your soil sample:

1. Make sure soil is sampled to the desired depth as described below:

Home gardens ordinarily require samples taken to the tillage depth (from 6-10 inches deep). To use a spade for sampling:

- i. Dig a hole to the desired depth.
- ii. Cut a 1/2 inch thick slice of soil from the face of the hole and trim both vertical sides of the slice so as to obtain a strip of soil about 1 inch wide from top to bottom.

For **lawns**, a sample from the upper four to six inches of soil is satisfactory. Thatch and other visible plant residue should be removed.

For **deep rooted tree and fruit crops**, two samples should be sent to CNAL:

- i. A surface soil sample from 0-8 inch depth.
- ii. A subsoil sample from 8-24 inch depth.

Samples should be sent in separate mailing bags, with separate, completed information sheets. Ensure that BOTH bag numbers are recorded on each information sheet in order to keep the samples together for analysis and recommendations output.

2. Prepare your sample for submission. Ensure they are dry, at least 1.5 cups in volume, and sealed in a plastic bag. Fill out the appropriate submission sheet (see above). Be sure to write legibly and include all contact information, crop codes, county of origin, and other necessary information. Recommendations may not be accurate if information is missing or incomplete. Before you submit/mail your sample, be sure to copy down your bag number. This ensures easy tracking of your soil sample once it reaches CNAL. Seal the form in the envelope provided, and seal the plastic soil bag in the mail bag. Do not detach the mail bag from the envelope. Fill out appropriate information on the envelope (ie: form enclosed, name and address, etc.).

3. Submit your sample. Apply correct postage to soil bag. Note that several samples can be mailed together in a carton at less cost than individual mailings. Also note that samples arrive more quickly if single soil bags are packaged in boxes or padded envelopes. To obtain the status of your soil sample, please contact the CNAL office at 607-255-4540. Please have ready the client's name, county, date of submission, and bag number.

4. Discuss your results. Your local Cornell Cooperative Extension will receive a copy of your test results. To discuss your test results and recommendations, please contact your local Cornell Cooperative Extension Agent. Follow the given recommendations and keep all test results for your own records.

5. More questions? Explore CNAL's frequently asked questions page. Alternatively, call or email CNAL at 607-255-4540 or soiltest@cornell.edu.

Submit your sample to:

Cornell Nutrient Analysis Laboratory
804 Bradfield Hall
Cornell University
Ithaca, NY 14853

<http://www.css.cornell.edu/soiltest/newindex.asp>