Soil and Plant Nutrient Testing Laboratory
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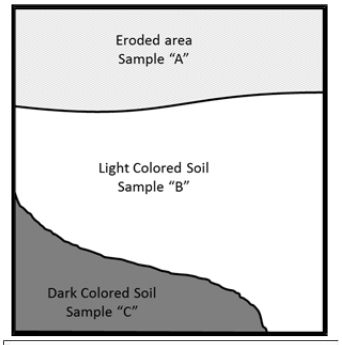
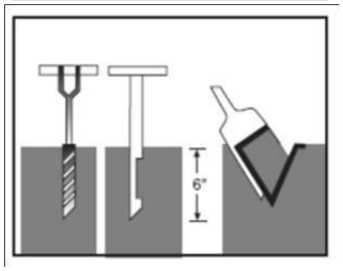
Soil Sampling Instructions

The most critical step in soil testing is collecting the sample. It is important that you take the necessary steps to obtain a representative sample; a poor sample could result in erroneous recommendations.





The first step is to determine the area that will be represented by the sample. Soil physical appearance, texture, color, slope, drainage, and past management should be similar throughout the area. It may be helpful to draw a map of the property and identify areas where you will collect samples. Using a clean bucket and a spade, auger, or sampling tube collect 12 or more subsamples to a depth of six to eight inches (four to six inches for turf) from random spots within the defined area. Avoid sampling field or plot edges and other non-representative areas. Avoid sampling when the soil is very wet or within six to eight weeks after a lime or fertilizer application.

Next, break up any lumps or clods of soil, remove stones, roots, and debris, and thoroughly mix subsamples in the bucket. Once the sample is thoroughly mixed, scoop out approximately **one cup** of soil and spread on a clean sheet of paper to air-dry. A fan set on low will help speed the drying; do not apply heat. **Do not submit wet soil samples to the lab.**

Place approximately **one cup** of your dry sample in a plastic zip-lock bag. Label each zip-lock bag with your sample ID (you create this) and complete the submission form.

Complete all information on the sample submission form (found on our website). Provide your contact information, including a phone number and email address, under "Main contact." If you would like a copy of your results sent to anyone else, include their contact information under "Send copy to." Enter your Sample ID using the same name you labeled your samples with. Please include the approximate area represented by each sample. This information is useful to the lab and will be reported with your results. A rough approximation is adequate (i.e., +/- 1000 square feet for turf or +/- one acre for row crops).

Be sure to specify a Crop Code for each sample; without a Crop Code, the lab cannot provide lime and nutrient recommendations. Crop codes are listed on the second page of the submission forms. Finally select any optional tests you would like in addition to routine soil analysis. A brief description of these is proved below.

Send your sample(s), completed submission form and payment to the address listed on the front. Enclose check payable to UMass with your order. Please include $2 for postage and handling if you would like your results sent by US Mail.

Soil Test Descriptions & Fees

Routine Soil Analysis

Standard fertility test: $20.00

Includes pH, acidity, Modified Morgan extractable nutrients (P, K, Ca, Mg, Fe, Mn, Zn, Cu, B), lead, and aluminum, cation exchange capacity, and percent base saturation. Recommendations for nutrient and pH adjustment are included with results.

Optional Additional Soil Analysis

Soil organic matter: $ 6.00

Measurement of soil organic matter by loss on ignition at 360° C. This measure is useful for evaluating soil quality and nutrient supplying capacity. A measure of soil organic matter is also required to determine the effective rate for certain herbicides.

Soluble salts: $ 6.00

Measure of electrical conductivity of a 1:2 soil:water extract. This test is used to determine if salinity levels are high enough to limit plant growth. Sources of soluble salts in Northeastern soils include fertilizers, animal manure, compost, runoff from surfaces treated with de-icing salts, and poor quality irrigation water.

Soil nitrate: $ 8.00

Measurement of nitrate nitrogen (NO_3-N) using an ion specific electrode. Due to the inherent variability of soil NO3- N in our climate, these results are not directly used to make nutrient recommendations. However, under certain conditions this test may provide useful information for nutrient management.