

## Prepare the soil sample for submission to the laboratory

**5** Collect a MINIMUM of two (2) CUPS of soil per sample to send to the laboratory. Label the bag with a permanent marker including your farm name, sample location, or field name, and date sampled.



# SOIL SAMPLING

Many of these recommendations were taken from the Cornell University Cooperative Extension Agronomy Fact Sheet Series, Fact Sheet 1: Soil Sampling for Field Crops ([nmsp.cals.cornell.edu/publications/factsheets/factsheet1.pdf](http://nmsp.cals.cornell.edu/publications/factsheets/factsheet1.pdf)).

Find additional resources at:

- Agro One laboratory ([dairyone.com](http://dairyone.com))
- Cornell University Nutrient Management Spear Program ([nmsp.cals.cornell.edu](http://nmsp.cals.cornell.edu))
- your local Cornell Cooperative Extension office
- WAC's Guide to Nutrient Management Planning ([nycwatershed.org/pdfs/NM\\_Guide.pdf](http://nycwatershed.org/pdfs/NM_Guide.pdf))
- or your WAC Planner

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44 West Street Walton, NY 13856  
(607) 865-7090 • [info@nycwatershed.org](mailto:info@nycwatershed.org)

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Soil sampling should be the basis for fertility management in pastures and crop fields. Applying the correct amount of nutrients helps achieve desirable crop yields and quality forage, while protecting the environment. Sound fertility management along with good grazing management will consistently result in healthy productive pastures and crop fields, contributing to the health and well-being of your livestock.

## IN FIVE EASY STEPS





## Establish a regular sampling time

**1** To keep pastures and fields as productive as possible, sample your soils at least every three (3) years. You can sample soil at any time of year, but consistently sample around the same month, year to year. Avoid extremely wet soil conditions during sampling as well.

## Use proper sampling tools

**2** A soil auger or probe is the best tool because it collects a continuous core sample from the surface through the entire sampling depth with minimal disturbance to the soil. Use a garden spade or shovel if a probe or auger is not available. All sample tools should be clean and rust free.



The technique for using a spade is to dig a hole to the sampling depth. Cut a ½-inch thick slice of soil from the face of the hole, and trim both vertical sides of the slice from the face of the hole. Next, trim both vertical sides of the slice so as to obtain a strip of soil about 1

inch wide from top to bottom. Collect the sample in a clean plastic bucket. Avoid contaminating the sample. A small amount of manure or fertilizer residue on tools or hands can cause sample contamination.

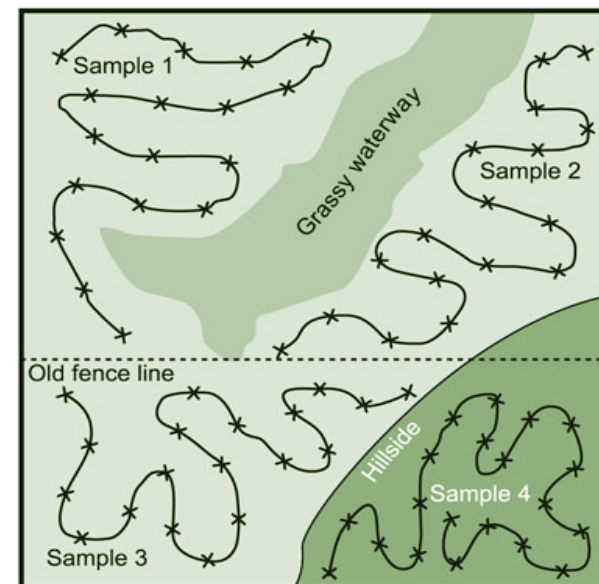
## Sample to the proper depth

**3** For pastures and cultivated areas, a sample is normally taken from the surface down six to nine (6-9) inches deep. Remove thatch and other visible manure or plant material from the sample.



## Obtain a representative sample

**4** Take your soil sample directly from the pasture, crop field, or area you intend to use. Each soil sample should consist of subsamples—a minimum of fifteen (15) taken from various locations within the sampling area. Sample each pasture, grazing area or crop field separately. Within pastures or fields, sample areas separately that have had significantly different management including grazing patterns. Smaller grass paddocks or areas of the same crop can be sampled together, if less than an acre or two combined. Collect subsamples in a zig-zag or “S” pattern through the field (see below), combining 2-3 subsamples per acre in a clean plastic pail.



Mix the samples well in a clean plastic pail before placing soil into a plastic zip-lock or other sealable bag. Avoid sampling soon after a fertilizer or manure application or a rain event. In addition, avoid these unusual areas or sample them separately:

- areas near fence lines
- old manure pile areas
- wet areas
- areas near lime rock roads
- boundaries between slopes and bottomlands
- old building sites
- places where wood piles have been burned
- severely eroded areas
- and animal feeding areas

You often can spot these areas by looking for plants growing very well or very poorly.

