

# Soil Sampling Procedures for Pastures and Farms

## Number of Cores

A composite soil sample is made up of a number of individual cores taken at random over a given area. The purpose of this is to minimize the variability that exists. This variation may have been caused by previous lime and fertilizer applications or slight soil variations.

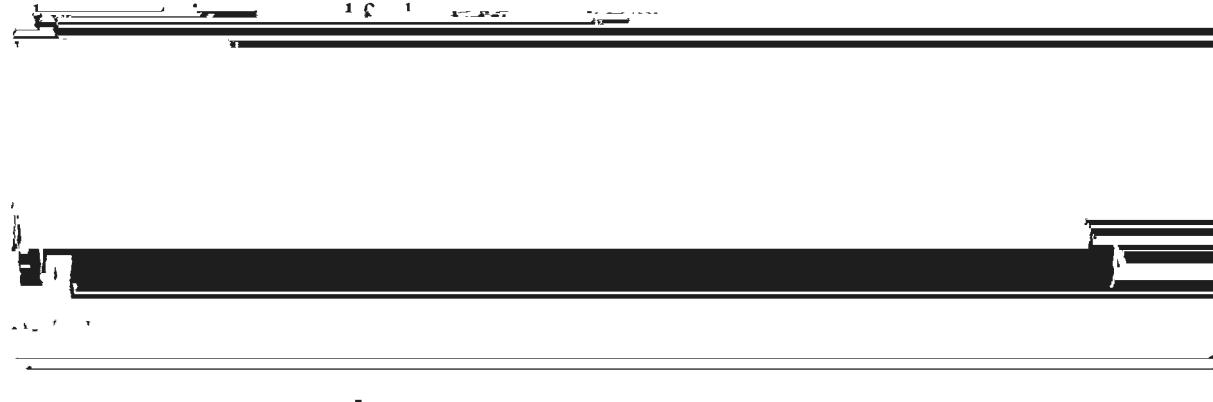
If an insufficient number of cores are pulled for a composite sample, the sample results can be misleading. It is recommended that a minimum of 10 to 20 cores be

taken for a composite sample. Previous sampling studies have shown that the number of cores required per composite sample varies with the size of the area being sampled. For example, 20 cores were required for a 20-acre field, 15 cores for a 10-acre field, and 10 cores for a 5-acre field.

The cores should be taken at random over a section of the field or plot, and should be representative of the entire area. When all of the cores have been collected they should be thoroughly mixed together. After mixing, a sufficient amount of sample is placed in the soil sample bag to fill the bag up to the "fill line." You may also bring soil samples to our office in a ziplock bag. At least one pint of soil per field is needed for a soil analysis.

soil is fertilized and cropped intensively. **Annual sampling is recommended** (1) on areas where high-value cash crops such as tobacco and vegetables are grown, (2) on areas testing high in P and K where no phosphate or potash is recommended and none is applied, and (3) on areas where the annual nitrogen application rate exceeds 150 pounds of N per acre.

Soil samples should also be taken following crops where large amounts of nutrients are removed in the harvested portion of the plant, particularly silage crops, hybrid bermuda hay, and



Keep previous soil test results from individual fields (or advise growers to keep records) and refer to them when adjusting lime and fertilizer recommendations. Large changes in pH or nutrient levels may signal that a sampling or analytical error has been made and, if not taken into account, could lead to an improper recommendation.

**Contamination**

In order to prevent contamination of the sample, clean sampling tools and collection

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For peach and orchard soils, a depth of 6 to 8 inches is recommended. For golf greens, a depth of 12 to 14 inches is recommended. For

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### **Gardens**

The recommended sampling depth for gardens is 6 inches. This is the normal spading depth of most garden soils.

### **Lawns and Turf**

Take soil samples to a depth of 4 inches. This is the actual soil depth and should not include roots or other accumulated organic material on the surface. When collecting soil plugs, remove the surface; this eliminates the contamination of the sample and will not influence the analysis. In order to take an accurate sample, use clean sampling tools. A sampling device for golf greens

### **Subsoil Sampling**

Take a subsoil sample every four to five years. This is especially important in problem areas. A subsoil sample should be to a depth six inches below plow depth or normal surface sampling depth.

### **How to Submit Samples for Testing**

A soil test is always a good starting point before investing in fertilizer or lime. For \$9, our office can test your soil and provide an exact pH and nutrient analysis with recommendations on exactly how much fertilizer and lime to apply, if any is needed. Soil test results usually are processed by our lab within 8-10 days. Please follow the procedures for taking a proper soil sample in the instructions above. Only a pint of soil that is representative of the area you are sampling (mixed from several spots at random) is all that is needed to send to the lab. One sample can represent up to 15 acres if taken properly.

You may bring the sample to our office in a zip lock bag any time Monday-Friday, 8 am–noon & 1-5 p.m. We accept cash, check and credit card payments. Check should be made out to **Rockdale County Extension/4-H**. Call our office at 770-278-7373 if you have any questions.

Address: 1261 Commercial Dr. SW, Conyers, GA 30094