How to take a Soil Sample

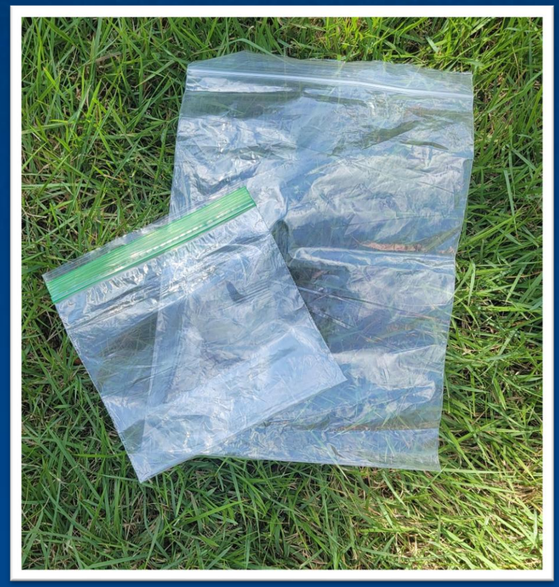
A step-by-step guide for homeowners

UF IFAS UNIVERSITY of FLORIDA

FLORIDA MASTER GARDENER VOLUNTEER

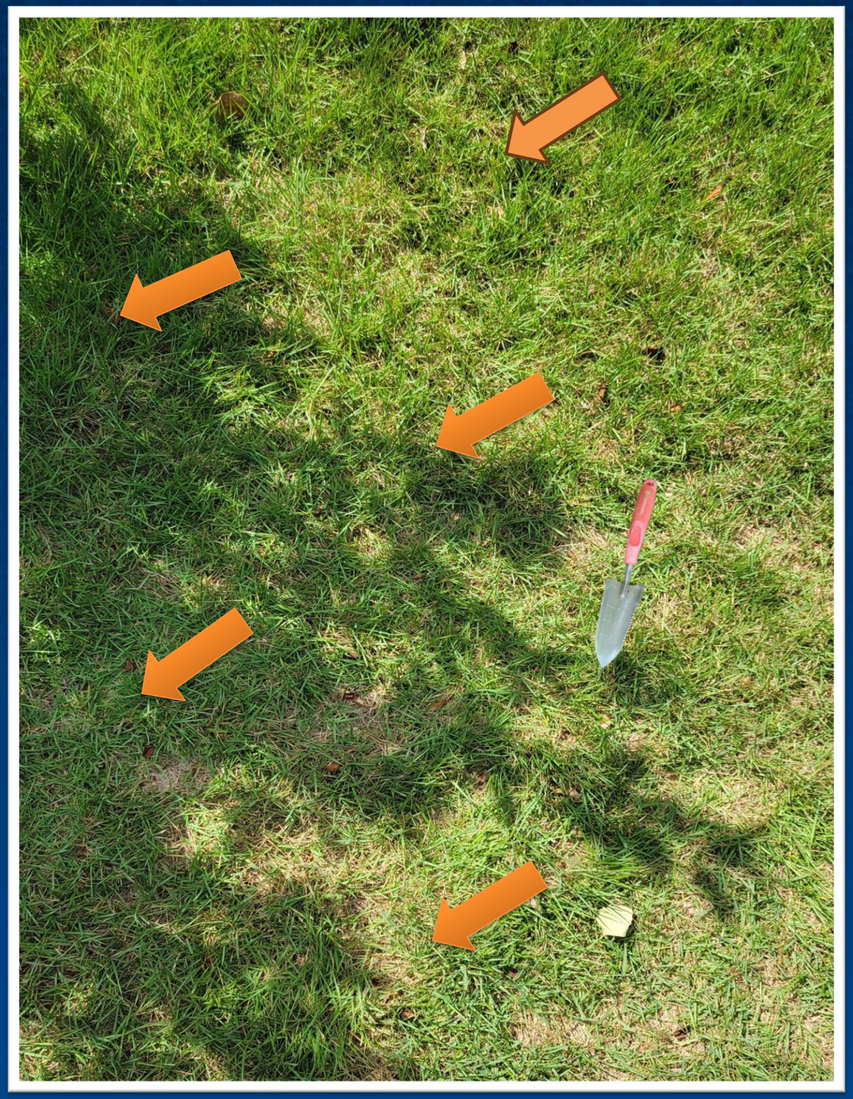
Needed Tools

- Hand shovel
- Clean bucket
- Resealable plastic bag
- Newspaper or paper bag

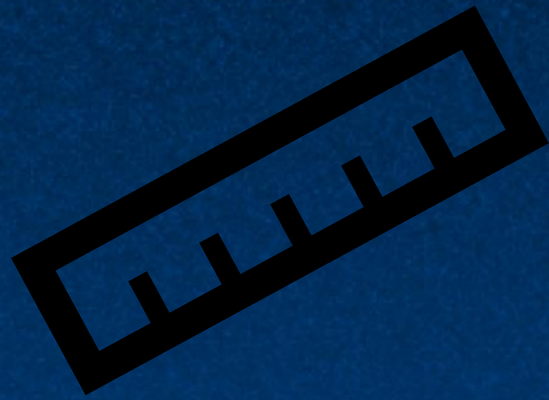


Step 1

- Remove soil from 10 to 15 locations
- Walk in a zig zag pattern



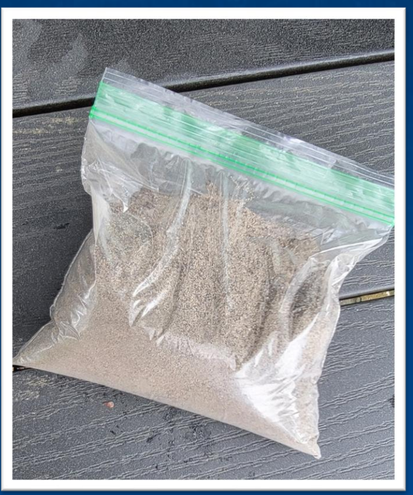
Step 2



- For lawns collect soil 2 – 4 inches deep
- For vegetable gardens collect soil 6 inches deep
- Place soil in clean bucket

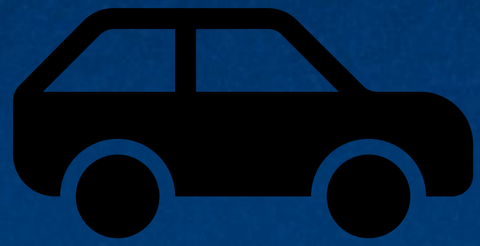
Step 3

- Remove any debris
- Mix soil
- Spread soil out to dry
- Fill bag with pint of soil (2cups)
- Submit the sample using the following information



Submitting samples for pH test in Person

- Bring the soil sample to a local county Extension office (Check with your county to make sure they accept samples to test)
- Include your name, contact, and crop information
- Results will be given by phone or email
- This testing will provide only the soil pH



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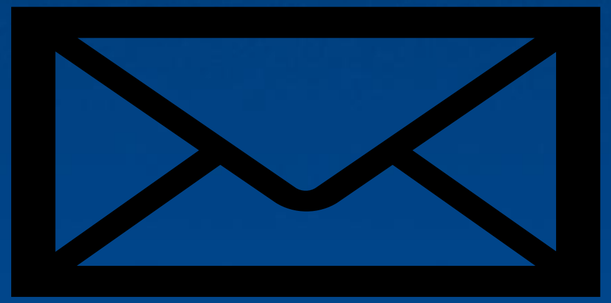
Submitting samples for pH test by Mail

- Send the sample directly to the UF/IFAS Extension Soil Testing Laboratory along with completed form SL 136 available at https://edis.ifas.ufl.edu/publication/SS187
- Submission forms and sample bags are available at local extension offices
- This testing will provide only the soil pH and lime requirements.
- The cost is $3.00
- Results will be given by mail or email



Submitting samples for Soil Fertility testing

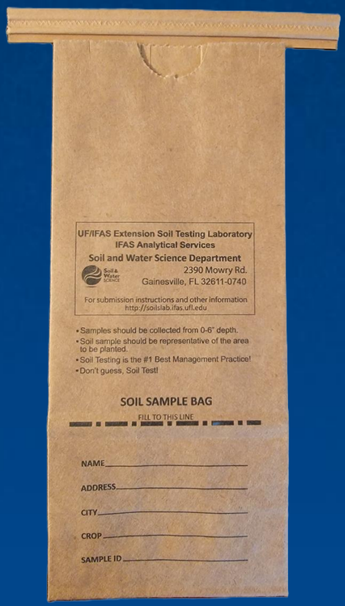
- Send the sample directly to the UF/IFAS Extension Soil Testing Laboratory along with completed form SL 136 available at https://edis.ifas.ufl.edu/publication/SS187

- Submission forms and sample bags are available at local extension offices

- This test will provide pH, lime requirement, P, K, Ca,
- Mg, S, B, Cu, Mn, Zn.

- The cost is $10.00

- Results will be given by mail or email



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Revised January 2024 SL136

Mailing Address (please print legibly)

Name _____ Date _____

Address _____

_____, FL Zip _____ Phone _____

Email* _____
*Please provide an email address to receive your results faster.

Signature _____
(Signature only required for UF personnel for approval of chartfield charges)

UF/IFAS Analytical Services Laboratories
Extension Soil Testing Laboratory
2390 Mowry Road/PO Box 110740/Wallace Building 631
Gainesville, FL 32611-0740
Email: soilslab@ifas.ufl.edu Website: http://soilslab.ifas.ufl.edu

Landscape and Vegetable Garden Test Form

Note: This lab only tests samples from Florida.

Direct any questions about this test or the interpretation of the results to your local UF/IFAS Extension agent.

INCLUDE ½ PINT OR 1 CUP OF SOIL PER SAMPLE

Note:

- Consult an expert to determine if plant growth problems require soil testing.
- These samples will not be tested for nematodes, disease organisms, or chemicals other than those listed on this form.
- Commercial producers should use the Producers Soil Test Form SL135 (http://edis.ifas.ufl.edu/ss186).

Step 1. Collect samples from your landscape or garden. See the instructions at the bottom of this page.

Step 2. Choose **EITHER** Test A or B, **but not both**, for all samples.

Test A. The pH and Lime Requirement Test provides the following information:

- Soil pH
- Lime Requirement

Test A is appropriate if you do the following:

1. Use only complete fertilizers (such as 16-4-8)
2. Follow the generic fertilizer recommendations found in UF/IFAS landscape and vegetable garden publications
3. Need only the soil pH test

Test B. The Soil Fertility Test provides the following:

- Soil pH
- Lime Requirement
- P, K, Ca, Mg, S, B, Cu, Mn, and Zn

Test B will enable you to tailor your use of single-element fertilizers based on existing soil fertility status. However, if you use a complete fertilizer, such as 10-10-10, the extra tests for extractable P, K, Mg, and Ca are of little value.

Fill in all requested information, using one line per sample. Use additional forms for more than 5 samples.

Remember: Choose either test A or B for each sample.

Lab Use Only	Your Sample ID	County	Crop Code(s) (See back of form)	Estimated Acreage	Cost of Test A (Circle appropriate amount.)	OR	Cost of Test B (Circle appropriate amount.)
					$3	OR	$10
					$3	OR	$10
					$3	OR	$10
					$3	OR	$10
					$3	OR	$10

Check ○ Money Order ○ Cash ○ Total _____

Please enclose payment and this sheet in the same package as sample(s).
Please make checks and money orders payable to **UNIVERSITY OF FLORIDA.**
Samples will not be processed without payment. Do not send cash through the mail.

How to Sample Your Lawn or Garden

Obtain samples of soil from 10 to 15 different spots in the area you wish to test **(a minimum of ½ pint or 1 cup)**. When you sample a lawn, take the soil from the upper 2–4 inches. When sampling a vegetable garden or landscape plants, take soil from the upper 6 inches. If soil is wet, spread soil on clean paper or other suitable material to air dry.

Figure 1. Use a soil probe for faster soil sampling.

Figure 2. If you don't have a soil probe, use a hand trowel, shovel, or other garden tool. Trim out soil of uniform thickness to the recommended depth.

Figure 3. Place 10–15 soil cores into a plastic bucket; mix, dry, and transfer to a bag.

Information and Crop Codes for Landscape and Vegetable Garden Test Form

RELATIONSHIP OF SOIL TESTING TO LAWN MAINTENANCE OR VEGETABLE GARDENING

Single-Element Fertilizers and Complete Fertilizers

People have different opinions about lawn or landscape care or garden productivity because they have different skills, training, and experiences. This diversity shows in the management levels observed in any neighborhood. However, most people are able to grow beautiful lawns and productive gardens by applying the UF/IFAS recommended amount of a complete fertilizer (a fertilizer that contains nitrogen, phosphorus, and potassium). This method of fertilization saves time and effort for most homeowners compared to using single-element fertilizers. If you use complete fertilizers, testing only for soil pH and lime requirement is your best testing plan (Test A). A soil fertility test is worth the extra fee only if you have access to single-element fertilizers and you wish to use more carefully estimated amounts of P and K in your fertilization program (Test B).

As with any chemical, proper handling and application of recommended fertilizer amounts will minimize any potential hazard to you or the environment.

Lime Requirement

Most garden plants respond unfavorably when soil pH is too high or too low. You should test your soil pH every 2–3 years to minimize plant growth problems relating to soil pH. The pH of your soil and a lime requirement test are the only accurate means to determine if your lawn, landscape, or garden will benefit from the addition of lime.

Soil Testing as a Diagnostic Tool

The main purpose behind soil testing procedures is to establish lime and fertilizer needs of a crop before planting. Most research efforts have been directed to that goal. When production problems occur, many people feel that a soil test is the best diagnostic tool. However, soil testing is useful in diagnosing crop production and growth problems only under special circumstances. Make sure to do the following:

1. Consult an expert to help you interpret your soil test results.
2. Ask the expert about other possible causes. In many cases, additional tests are also needed, such as plant analysis, nematode analysis, etc.
3. Maintain complete and orderly records of all management practices.

TAKING A REPRESENTATIVE SOIL SAMPLE

Tools

1. Digging implement, such as a soil probe, a spade, or a regular garden hand trowel (Figures 1 and 2)
2. Plastic bucket
3. Clean shopping bag or some newspaper
4. Soil sample bags for each of your soil samples (one per sample), and a shipping box to send samples to the UF/IFAS Extension Soil Testing Laboratory. Soil sample bags and submission forms are available for free at your local UF/IFAS Extension office (Ziplock bags may also be used). This office is also a good source of many UF/IFAS publications to help you with lawn care and home gardening.

Sampling

1. Use your digging implement to obtain a small amount of soil from 10–15 spots over the area you wish to test. When you sample a lawn, take soil from the upper 2–4 inches (Figures 1 and 2). Sample a vegetable garden or landscape plants by taking soil from the upper 6–8 inches.
2. As you take each small sample, place it into the plastic bucket (Figure 3). Space your sampling sites throughout the area. Do not include soil from any problem spots in the regular samples. Submit soil samples from problem spots as separate samples.
3. After sampling, mix the soil in the bucket with your hand so that all the soil is well blended.
4. Take about 1 pint (2 cups) of the blended soil and place it on the shopping bag or newspaper to air-dry. Return any soil remaining in the bucket to the lawn or vegetable garden.
5. While the soil is drying, fill out the requested information in the soil test package, both on the form and on the sample bag. A list of the various lawn types and landscape plants for which recommendations are available can be found in Table 1.
6. When the soil is dry, transfer about **½ pint (1 cup) of soil** into the labeled sample bag.
7. Include these items in the shipping box:
   - Your labeled soil sample(s)
   - This Landscape and Vegetable Garden Soil Test Form (SL136)
   - A check or money order payable to **University of Florida**.

Mail your sample to:
UF/IFAS Analytical Services Laboratories
Extension Soil Testing Laboratory
Wallace Bldg. 631, 2390 Mowry Road
PO Box 110740
Gainesville, FL 32611-0740

Test Results

A soil test report, including notes to help you use these results to your best advantage, will be emailed/mailed to you in 3–6 days after your sample arrives at the UF/IFAS Extension Soil Testing Laboratory. Contact your local UF/IFAS Extension office if you have questions about the soil test report.

Table 1. List of lawn types and landscape plants for which recommendations are available. Please record the applicable code numbers on page 1 of this form under Crop Code(s). *(You may select up to 6 crop codes per soil sample at no additional charge.) **(If desired crop is not listed contact your local UF/IFAS Extension office for recommendation.)

Crop Code	Lawns
72	Bahiagrass
73	Bermudagrass
74	Carpetgrass
75	Centipedegrass
76	Ryegrass
77	St. Augustinegrass
78	Zoysiagrass
Crop Code	**Landscape Plants and Vegetable Gardens**
603	Landscape azaleas, camellias, gardenias, hibiscus or ixora
67	Blueberries
62	Dooryard citrus
602	Woody ornamentals or trees in the landscape
90	Vegetable garden

Useful Links

https://edis.ifas.ufl.edu/publication/SS480

https://edis.ifas.ufl.edu/publication/SS187

https://areacalculator.sdsolutions.com

https://soilslab.ifas.ufl.edu/

https://sfyl.ifas.ufl.edu/media/sfylifasufledu/duval/urban-forestry/Why-Soil-pH-Matters.pdf