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# Don't guess— soil test!

Plant scientists know that lawn and garden plants require 18 nutrients for healthy, productive growth. Your lawn and garden soil environment is a reservoir that houses these nutrients, providing the platform for plant roots to acquire them. Understanding each individual plant's needs and the type of soil you have is the first step in properly managing soil fertility.

Home gardeners may work in rich and productive lawn and garden soils, needing little or no enhancements. Others may work in poor or depleted soils, needing replenishment. When gardeners approach plant care without conducting a baseline soil test, they risk overfertilizing the soil. Overfertilization can not only negatively affect plant growth and create an imbalance in the soil environment but can also pollute our local water resources.

Michigan State University (MSU) provides an easy-to-use soil test kit, the Home Lawn and Garden Soil Test Mailer. Use it to process any type of home soil sample (lawn, vegetable garden, tree, shrub, flower, and tree fruit or small fruit). Based on your soil test results, you will receive a custom fertilization program to meet the needs of your plants and safeguard the environment.

Get the kit online from the MSU Extension Bookstore (<http://bookstore.msue.msu.edu/>). The cost is \$25 plus shipping. You may also order from your local MSU Extension office.



## Lawn or garden questions?

Visit [migarden.msu.edu](http://migarden.msu.edu).

Call toll-free 1-888-678-3464.

Find out more about Michigan Fresh at  
[msue.anr.msu.edu/program/info/mi\\_fresh](http://msue.anr.msu.edu/program/info/mi_fresh).

# Don't guess – soil test!

## Why should I soil test?

- Understand the gardening process. Testing every third year helps gardeners make intelligent decisions. The most important reason to soil test is to have a basis for intelligent application of fertilizer and lime.
- Know your soil. Soil testing is an important diagnostic tool to evaluate nutrient imbalances and understand plant growth.
- Determine pH levels. With knowledge of soil pH through testing, gardeners can adjust it to the optimum range (6.0–7.0), which makes nutrients more available for plant growth.
- Protect the environment. Testing helps gardeners avoid contaminants that can enter our surface and ground waters by overapplication of phosphorous or nitrogen fertilizers.
- Save money. Why apply what you don't need?

## What will I find out from my soil sample?

- The Home Lawn and Garden Soil Test Mailer results will determine your soil type, pH and level of organic matter, and provide you with a reading for nutrients including phosphorus, potassium, calcium and magnesium. The results will also provide a recommendation for nitrogen and will determine how much lime you should apply based on the type of plant you specify.

## How do I take a soil sample?

- Determine which one lawn or garden area you would like to test.
- Using a spade or trowel, collect 10 random soil samples from the area and place in a clean pail.

- Each sample should be a slice of soil as deep as the plant roots go (3 to 4 inches deep for lawn; 7 inches deep for gardens and all other plants).
- Remove plant debris, roots and thatch from the sample.
- Combine the 10 random samples in the pail, mix thoroughly and remove approximately 1 cup of mixed soil. If the soil is wet, spread it on paper and allow it to air dry overnight before filling the sample bag. Do not use artificial heat such as from a microwave or hairdryer as it will skew test results.
- Fill the reclosable plastic bag included in the soil test mailer with the dry soil sample, and seal carefully.
- Place the bag inside the white postage-paid envelope and put in your mailbox for pickup.

## How long before I receive my test results?

- You should receive test results in about 2 weeks. The lab analysis takes 3 to 5 working days from the time it receives your sample.

## What else should I know about my test results?

- Remember MSU recommendations are in pounds of nutrient needed, not pounds of fertilizer to be applied.
- Your results will also include an area calculator that helps you determine how many square feet you need to apply fertilizer.

For more information on a wide variety of smart gardening articles, or to find out about smart plants, smart soils or smart lawns gardening classes and events, visit [www.migarden.msu.edu](http://www.migarden.msu.edu)