

Soil Sampling

Home Lawns & Gardens

By Pauric C. Mc Groary PhD

INTRODUCTION

Sample collection is the first critical step in soil testing. It is absolutely necessary to assure that the soil sample that you send the laboratory represents the area sampled. Please remember that only a few ounces of soil are being tested to determine the fertilizer and lime needs for what may be several thousand pounds of soil. Therefore, if your sample is not representative of the area you sampled, you may end up over or under-applying fertilizer and lime; consequently, leading to poor results. Finally, it is also very important to understand that we cannot analyze potting media/compost or soil mixes with less than 50% soil, like a regular soil sample as these results will be unreliable. Please contact the lab to get the appropriate test.

WHEN TO SAMPLE

Soil samples can be collected throughout the major part of the year. However, sampling should be avoided during times when the soil is excessively dry or wet. For established areas, such as lawns, trees, and shrubbery, samples should be taken once every two to three years. If new landscaping is being planned whether it's laying sod, starting a vegetable garden, putting in a flower bed or planting perennials, sampling should be carried out 6-7 months in advance to allow time for soil pH adjustments if needed. If a planting exhibits abnormal growth or discoloration a sample can be taken from around the plant/area during the growing

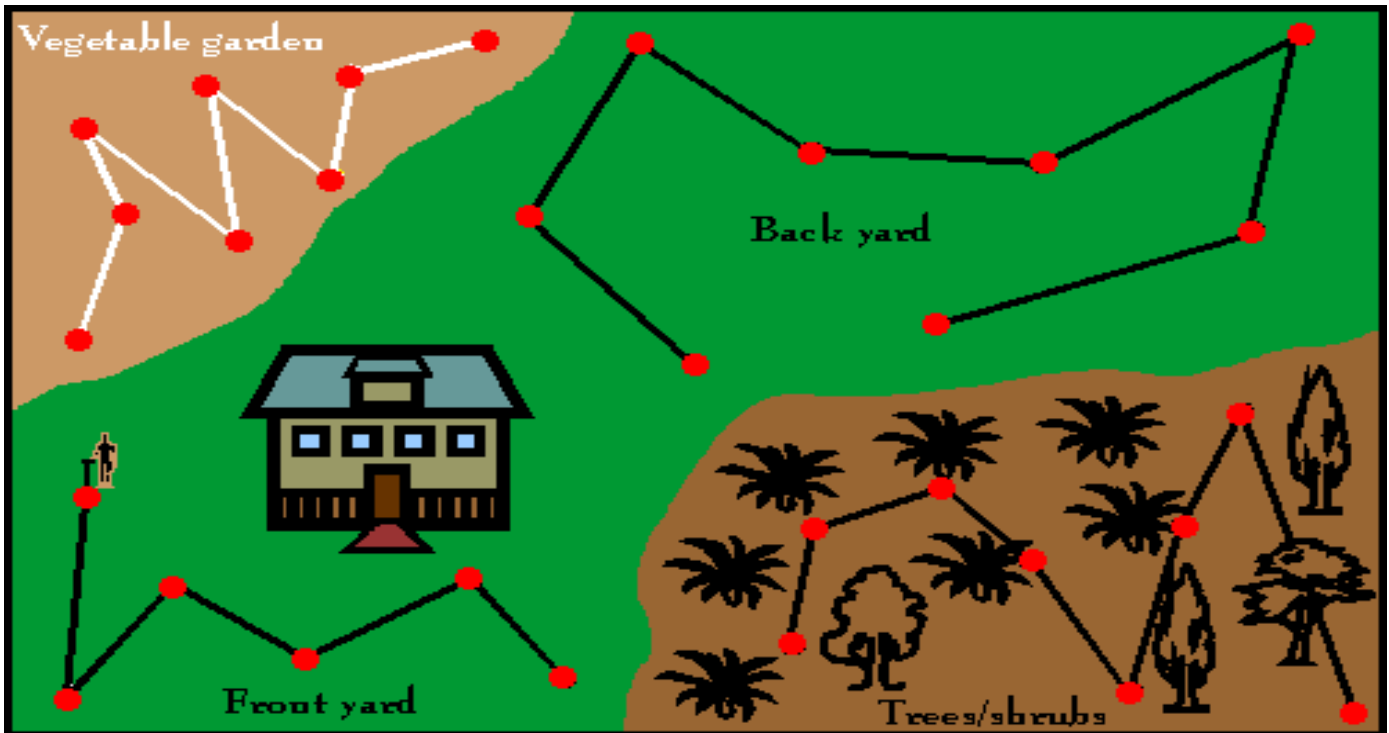
season for problem diagnosis. For recently limed or fertilized areas, delay sampling at least eight to twelve weeks after application. If you suspect nematodes, a separate soil sample is needed.

TOOLS YOU WILL NEED

A soil probe, garden trowel or a spade are all the tools you need to take the individual cores that will make up a sample. In addition, you will need a clean, dry plastic bucket to mix the sample cores. **Do not** use brass, bronze or galvanized tools or buckets as they may contaminate the sample, causing misleading results. In order to mail the sample, soil sample bags and submittal forms will be needed. Soil sample bags and submittal forms can be obtained by calling the lab. However, to expedite the process a "quart sized ziploc bag" can be used instead, and a submittal form can be printed from our website under the lawn and garden tab.

GETTING STARTED

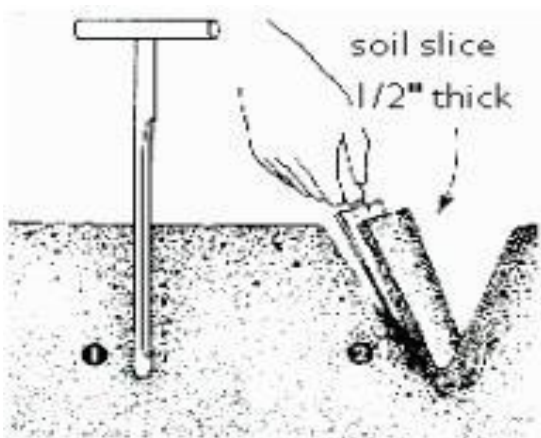
Once you have decided what time of year you need to sample, the next step is to decide how you are going to divide your yard/garden areas up so you get representative samples and results that are applicable to the soil and crop that you sample. Each sample should represent only one soil type or area-for example, a lawn, shrub beds or vegetable garden (Figure 1).



TAKING THE SAMPLE

After identifying the different areas to sample, it's time to put your tools to use and get dirty! You can take the sample with a soil probe, garden trowel or a spade.

(1) Soil probe: push the probe into the soil to the recommended depth (See next section). Repeat 10-15 times in a zigzag fashion within each sampling area and mix the sample together in a clean bucket.



(2) Shovel or spade: Dig a V shaped hole to sample depth, and then cut a thin slice as shown below.

Repeat 10-15 times in a zigzag fashion within each sampling area and mix the sample together in a clean bucket. For A17 or A05 test packages, provide 1 quart (1 liter) of soil. For the S3M test package send 1 pint (500 mL) of soil. Fill and send the soil in Waypoint Analytical soil sample bags or quart size ziploc bags.

Don't forget to write an ID on the bag that you can understand and won't rub off or smear e.g. Front yard, Back vegetable garden etc.



SAMPLING DEPTHS

For lawns, sample to a depth of four to six inches, excluding any thatch, and sample in a zigzag pattern. Similarly, for a vegetable garden, sample to a depth of four to six inches in a zigzag pattern. For flower beds, remove any mulch, then sample to a depth of four to six inches in a zigzag pattern. Additionally, for trees and shrubs remove any mulch and sample to a six to 8 inch depth under the drip line of established trees (under the tips of the longest branches) all the way around the tree or just outside the root ball.

FILLING IN THE SAMPLE INFORMATION

This is one of the most important steps in taking and submitting a soil sample. If not completed properly, this may delay the results or lead to the wrong recommendations! In order to get the best experience it's important that you make sure, your name, address, and phone number are legible. If you would like to receive your results by e-mail you need to also include your email address as shown in red on the form below. For payment at our California locations, please call your local office. For payment at our other locations, you can include a check, or write your credit card number on the form.

After getting your personal information on the form, the next step is to fill in the Sample Id. As previously mentioned it's important you pick an Id that will help you remember where the sample came from e.g. Front yard, Back vegetable garden etc. Also, you need to make sure that the ID on the form matches the ID on the bag.

As far as choosing a test, the A17 is a general test that addresses concerns for many

California and SW USA clients. The S3M package is more suited for areas where water quality, salinity, and high pHs are not a concern. The S3M will therefore be more appropriate east of the Mississippi River. More information regarding our soil test packages is available at our website:

<http://www.waypointanalytical.com/HomeOwners#>

It is important to know that the AO5-2, A17, or AO5 packages from our California locations are data only. If you require recommendations, these can be provided. These recommendations are customized specifically for your situation but do incur an additional cost. S3M packages provided at our other locations only include general recommendations that are not as specific to your situation.

If you require recommendations, please indicate the crop on the submittal form e.g. existing lawn, new installation, trees, shrubs, groundcover, vegetable garden etc.

WHAT'S NEXT?

After we receive your sample, you should get an e-mail confirmation if you have provided an e-mail address. On this notification will be your account number, report number, and number of samples submitted and the date when you should receive the results and when we received the sample. Generally, you should receive the results three days after receiving this confirmation. However, if you did not provide an e-mail address it takes about five to six days after we receive the sample for you to receive your results. If you do not receive your results within the above time frames, please feel free to contact the lab. Finally, after getting the report back if you have any questions regarding the testing methods, nutrient ranges or recommendations please feel free to call the lab and ask to speak with our agronomist.