

HOME GROUNDS FACT SHEET



Cornell University
Cooperative Extension
Nassau County



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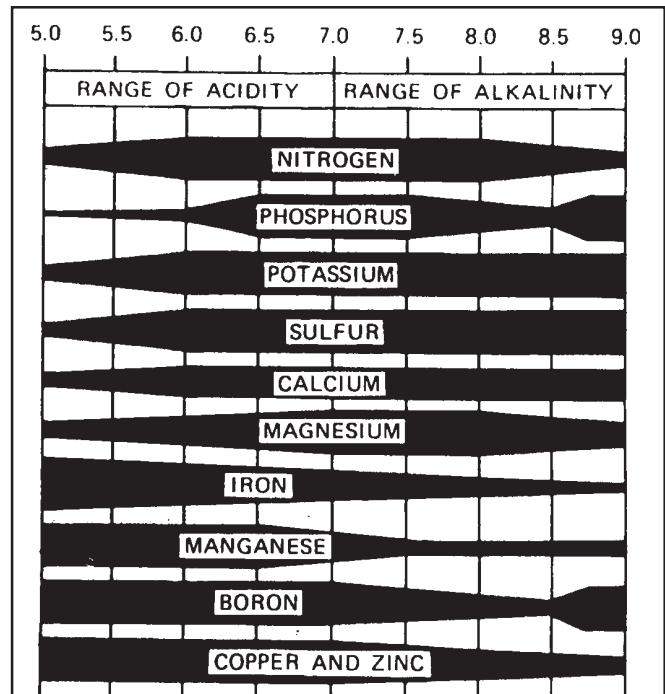
Taking a Soil Sample for a pH Test

A pH test will give you an idea of the relative acidity or alkalinity of a soil sample. It will indicate how much, if any, limestone or acidifying agent must be added to the soil to achieve the proper acidity or alkalinity for the best growth of plants. Many plants have a definite pH range where they grow best. Fertilizer applied to the soil will also be more efficiently used by plants when pH levels are optimum. Soil pH is very important. Certain nutrients are blocked or not available to plants when the pH is too high or too low. The proper pH allows the fertilizer you apply to become available to the plants. If the pH is way out of range, no matter how much fertilizer you apply, it will not be available for the plant to use. Most plants prefer a pH between 6.0–7.0 (6.5 being the optimum mean). Some exceptions are rhododendron, azaleas and blueberries. They prefer a pH between 5.0–5.5. These ericaceous exceptions need iron, which becomes more available at this pH range. (See table below). **It's very important to indicate what plants you plan to grow so the optimum pH range can be determined.**

Remember that a pH test will not solve insect, disease, or some culture problems. If you have a plant problem that you feel is associated with soil pH, bring this to the attention of the person testing the soil. Since it takes limestone three to six months to become chemically active in the soil, it is best to have a pH test done approximately six months **before** planting, i.e. in the fall, after the last garden clean-up. If limestone is required, it may be worked into the top 12" of soil before planting.

Taking the Sample

Soil samples can be taken with a trowel, spade, shovel or soil tube. A soil test is of no real value unless the sample of soil to be tested is a good representation of the conditions as they exist in the soil. This means several random "sub-samples" of each area should be taken and mixed together to give an average or homogeneous sampling of the soil. The number of "sub-



samples" depends upon the size of the area to be tested (ie. front lawn, back lawn, shade, sun, veg. garden, shrub bed, etc.), it is better to make a composite sample from each area. Label the samples in such a way that you will be able to identify each one when you receive your soil test report.

In sampling the soil of a lawn area, the samples should be taken from **beneath the sod layer**. The samples should come from below the top 4" of soil. Where a bare soil area is to be sampled, such as a flower, vegetable, shrub, or tree bed, the top 4" of soil should be scraped away before taking the sample from the next 4–6" of soil. Make sure to remove any large stones, grass or roots from sample.

Bring a half cup of dry soil in a zip-lock sandwich bag for each test. Label the bags with your name and identify the area (John Smith – front lawn).

A-1-0 KG revised RT 1/09

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Building Strong and Vibrant New York Communities

Cornell Cooperative Extension in Nassau County provides equal program and employment opportunities.

Soil Testing Sheet

FILL IN ALL UNSHADED AREAS

Name _____

Date _____

Address _____

Member Yes No

Town _____ Zip _____

Email _____

Day Phone () _____

Tester _____

The addition of lime raises the soil pH. If your soil pH is too low, it is recommended that you add lime. Lime moves through the soil very slowly; only one inch per year. Therefore, it is very important to mix the lime in when establishing an area. If your soil pH is normal do not add lime. If your lime recommendation is greater than 50 lb./1000 sq. ft. split up the lime application as to put down not more than 50 lb./1000 sq. ft. per season, per surface application.

If your soil pH is too high (one full point or higher), use a sulfur product (ie. finely ground sulfur) according to label directions to help lower the pH slowly. If the pH drops too quickly it could put the plants into shock. If your soil is extremely sandy or clayey, mix in organic matter such as compost, peat humus, or leaf mold when renovating. This helps improve the soil structure, improves soil drainage, helps hold nutrients and encourages soil organisms in the soil.

SAMPLE #1

Plants _____

check one:

Established New planting

Existing pH _____

Optimum pH _____

Soil texture: Sand Loam Clay

Lime needed: Yes No

Rate

SAMPLE #2

Plants _____

check one:

Established New planting

Existing pH _____

Optimum pH _____

Soil texture: Sand Loam Clay

Lime needed: Yes No

Rate

SAMPLE #3

Plants _____

check one:

Established New planting

Existing pH _____

Optimum pH _____

Soil texture: Sand Loam Clay

Lime needed: Yes No

Rate