NC STATE EXTENSION

Collecting Soil Samples for Testing

Testing your landscape and garden soil for its nutrient status is an easy and relatively inexpensive planning tool. Yet, it is all too common for homeowners and gardeners to apply fertilizer, lime, sulfur, or other materials to their soils without knowing the current status of their soils.

Sometimes, these applications may do more harm than good. Applying too much fertilizer, lime, sulfur, and even organic matter, manures, and the like can lead to problems.

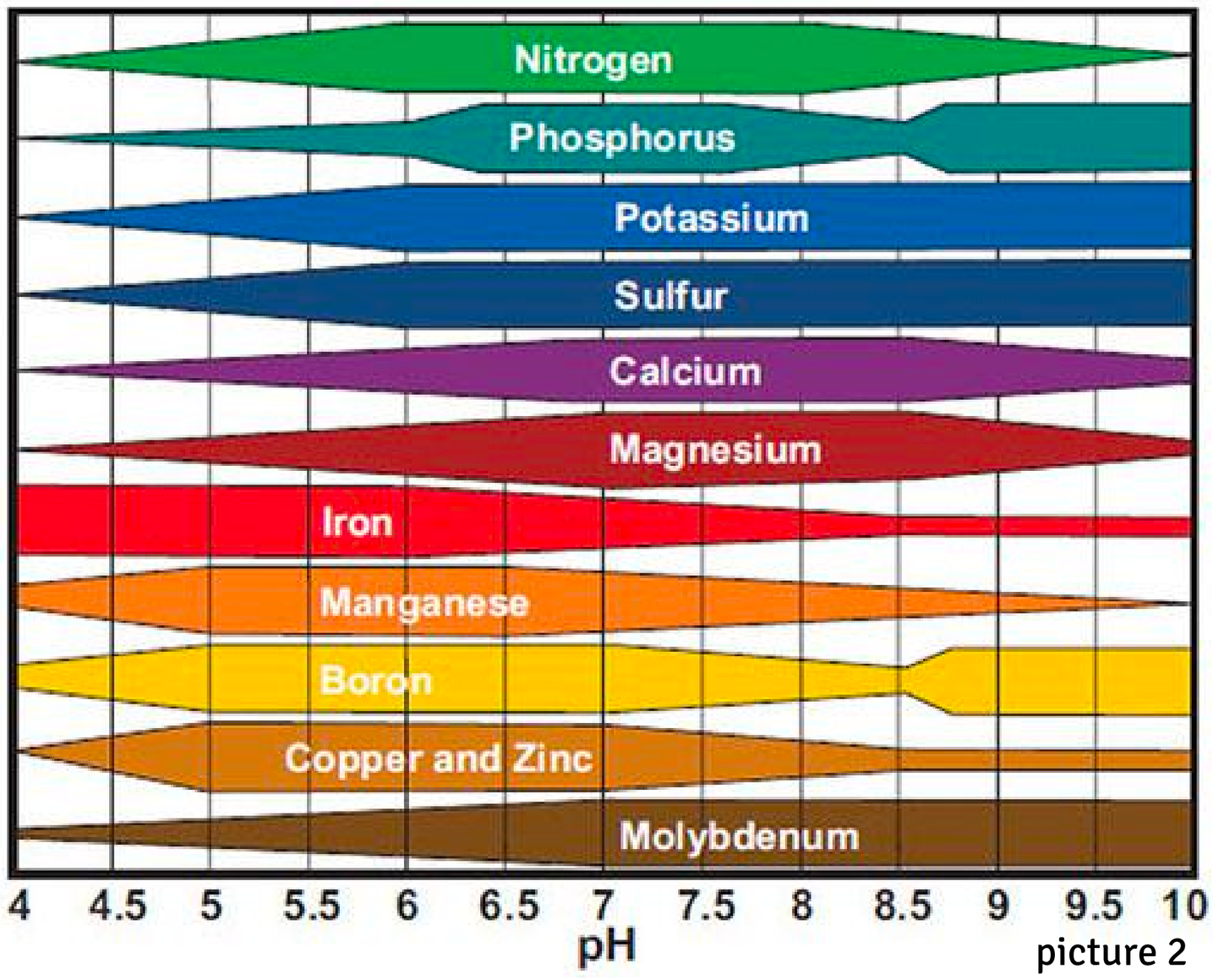
A soil test will reveal the current nutrient status in your soil and whether you need to add any amendments.

This publication describes the best practices when you sample your soils.

Soil sample fees: April 1 - November 30 - FREE | Dec 1 - March 31 - $4 per sample

Soil pH

pH is a measure of the acidity or alkalinity of the soil and can range anywhere from 3.0 (acidic) to 10.0 (alkaline). Most plants grow best when the pH is between 5.5 and 6.5. At levels higher or lower than this, several important nutrients become unavailable to plants, even if they are present in the soil (picture 2). Adjusting soil pH can dramatically improve plant performance.



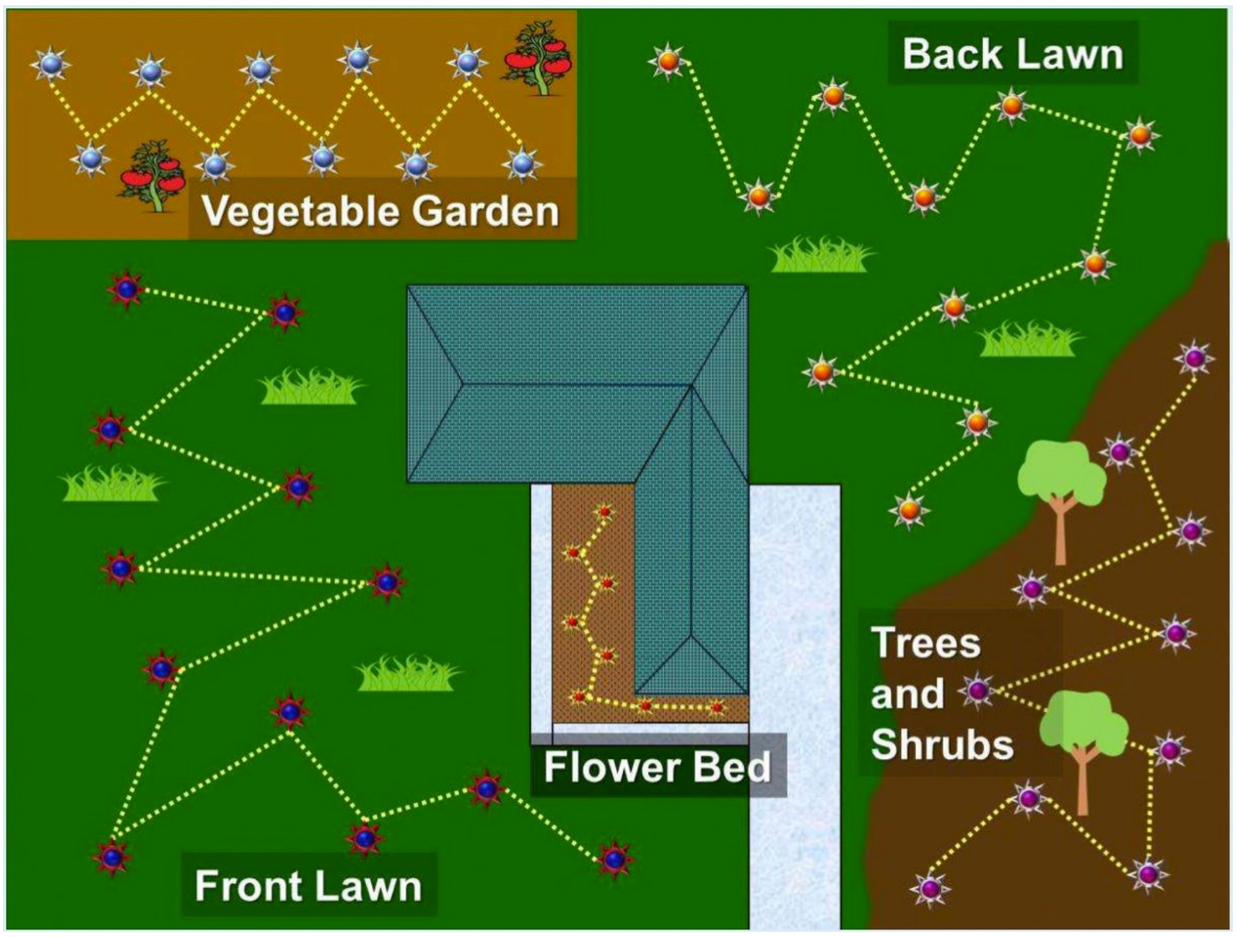
picture 2

How to Sample

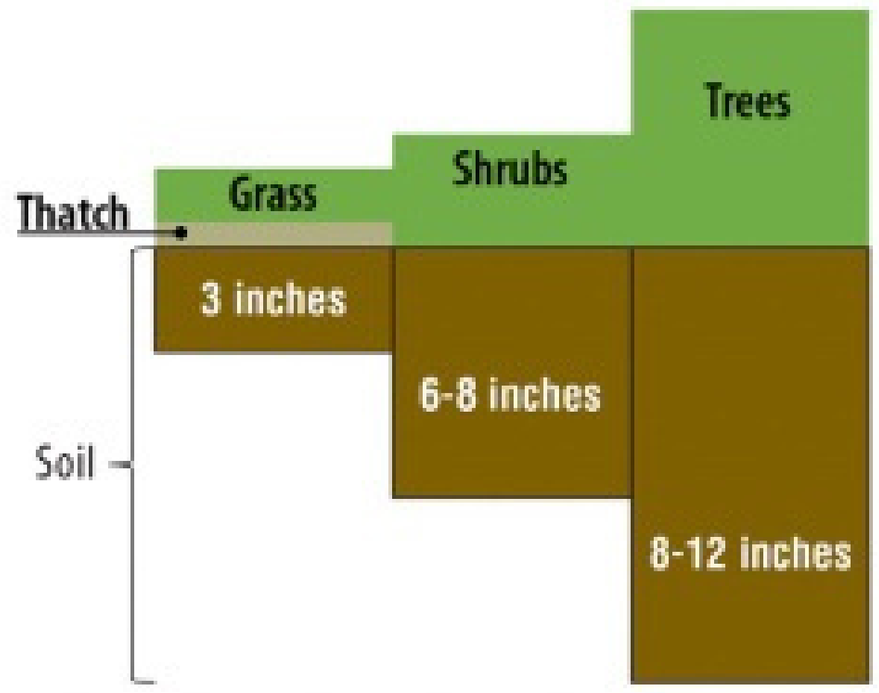
WHEN: Soil testing should be completed at least 3-6 months before starting any home or gardening project and every 2-3 years thereafter. However, if you have plant problems or plants that have specific fertility and soil pH requirements, you should test more often. Avoid taking soil samples of saturated soils or right after a rainfall event.

WHERE: Identify unique areas you wish to sample (picture 3). Unique areas should represent only one soil type and planting type, for example:

- Lawn
- Landscape trees & shrubs
- Vegetable garden
- Flower bed
- Fruit trees



picture 3



picture 4

Use appropriate tools such as a soil probe, hand spade, garden trowel, shovel, and a clean plastic bucket. Avoid galvanized, brass, and bronze tools that could possibly contaminate the sample.

For each unique area collect at least 12-15 soil cores (small slices with a spade, trowel, or shovel) from random spots. Combine the soil cores in a clean plastic bucket and mix thoroughly. Lawns should be sampled at 4" deep, landscape beds 6-8" deep, and fruit trees 8-12" deep (picture 4).

Place your sample in a soil sample box and fill to the red line. Use one box for each unique area and complete the information section below the red line (picture 5). Complete the soil sample form and deliver the box and form to the Sampson County Extension Office.


picture 5