DIVISION OF
AGRICULTURAL SCIENCES
AND NATURAL RESOURCES
NEWS RELEASE

Healthy soil is one key to successful gardening

While it certainly helps to have a green thumb when it comes to gardening, it can be difficult to be successful without good soil.

Healthy plants require a healthy soil. Gardening enthusiasts who are unsure of how healthy their soil is can take a soil test to help determine the soil's ability to sustain your plants.

Soil testing should be viewed with the same approach as one would take toward servicing the lawn mower or car engine. If you don't know how much gas and oil are present, you check the fuel gauge and dip stick. Gardeners who want to know whether or not soil pH, available nitrogen, phosphorus and potassium exist at desirable levels for successful gardening need to test the soil. Soil properties don't change very much from one year to the next, so it isn't necessary to soil test the same area each year. It is, however, good to test every three years in an effort to provide information needed to manage a lawn and garden properly.

Plant-available nitrogen in the soil changes considerably from year to year and even within a season. Plant growth, addition of nitrogen fertilizer and decay of organic matter will all cause significant changes in available nitrogen in just a few days. It isn't necessary to test the soil within the season, or even each year, in order to monitor nitrogen needs. Instead, add small amounts of fertilizer nitrogen throughout the growing season, or aerate the soil by shallow cultivation to promote the release of organic nitrogen to improve plant growth or green color.

Homeowners and lawn care professionals must realize the spatial variability existing around the yard when collecting a soil sample. Each sample collected should represent the area to be fertilized. The fertility level in the vegetable garden may be different from that of a flower bed. Soil test parameters in the front yard may be drastically different from those in the backyard. Therefore, separate samples may need to be collected from those areas so they can be treated accordingly. Avoid sampling "odd-ball" areas. A core or slice from the surface to a depth of 6 inches should be taken from 15 to 20 locations in each area and composited into one representative sample for testing.

Soil samples may be submitted to the county Oklahoma State University Extension office. They will send the samples to the Soil, Water and Forage Analytical Laboratory for testing, and then send the results back to you with fertilizer recommendations. Soil samples are analyzed routinely for pH, nitrate nitrogen, plant available phosphorus and potassium, while secondary and micronutrients are tested on request. A number of other tests such as soil organic matter content and texture are also available through the lab.

###