FACT SHEET 4.2

THE IMPORTANCE OF ANNUAL SOIL TESTING

Periodic soil testing is critical in determining what nutrients your soil may need to grow healthy plants. No matter what size your garden is or what you are growing, annual soil testing is recommended as the basis for a successful crop and nutrient management program.

DID YOU KNOW?
Adding material to your soil based on annual soil test results may: Save money · Save time Produce higher crop yields · Produce healthier crops · Protect nearby waterbodies

In most cases, a routine soil analysis or standard fertility test is all you need and can be analyzed by your local Natural Resources Conservation Service (NRCS) Cooperative Extension laboratory, typically for under $20. With the results, you will receive recommendations for nutrient and pH adjustments specific to your soils and type of crop you wish to grow.

WHY DO A SOIL TEST?

- Nutrient needs of gardens can differ depending on what you grow. A soil test can help determine exactly what nutrients your soil already has and what it needs for the specific crop(s) you wish to grow. Test results are provided with fertilizer and pH adjustment recommendations.
- Soil needs can change from year to year as different plants and crops consume different nutrients in varying amounts. Soil test results can help quantify how much of each nutrient should be applied each year.
- Adding too much fertilizer to your garden can result in the transport of those nutrients to the nearest waterbody via stormwater runoff, resulting in water quality impacts. Soil testing can play a role in reducing pollution from stormwater runoff by providing you with a detailed report of the soil's specific needs, reducing the over-application of fertilizer, manure and soil amendments.
- Knowing what you need to add each year and in what quantities can significantly reduce the over-application of products, saving you time and money.
- Too much or too little of a nutrient can harm plants.
- Crops receiving the right type and quantity of fertilizer can result in higher quality plants and yields.
- Healthy plants can better defend against pests, disease, and also environmental stressors such as flooding, drought and sudden temperature changes.

CAUTION!
Retail soil tests kits that provide immediate results are often unreliable. It is recommended that soil samples be sent to your nearest NRCS Cooperative Extension for a more accurate analysis, plus they can often provide follow-up support should you have any questions.

WATER QUALITY BENEFIT
Soil testing is one of the most important steps to help ovoid over-application of nutrients which can be a major surface water contaminant resulting from hobby farm stormwater runoff.

HOW DO I COMPLETE A SOIL TEST?

Soil samples are relatively easy to collect and can be analyzed by your nearby NRCS Cooperative Extension. Directions for soil collection and preparation prior to testing can vary so be sure to obtain specific collection directions prior to submittal to help ensure accurate results. The following are general steps:

Step 1

Determine the area you want to test – soil sample collection locations should be representative of the typical garden or field conditions (avoid atypical areas).

Step 2

With a clean bucket and spade, collect 6 or more subsamples to a depth of six to eight inches and mix together in the bucket.

Step 3

Break up any lumps and remove any stones, roots, and debris.

Step 4

Spread the required sample amount (usually about 1 cup) on a clean piece of paper to dry.

Step 5

Submit the air-dried sample along with any other specific directions provided by your NRCS Cooperative Extension. Be sure to include information on the crop you will be growing (usually called the Crop Code) so the lab can provide site specific recommendations for you.

CONTACT

The NRCS has partnered with the University of Massachusetts Amherst Soil and Plant Tissue Testing Lab to offer soil testing in Massachusetts. Routine soil analysis typically takes 5 to 10 business days.

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HELPFUL LINKS
www.ag.umass.edu/services/soil-plant-nutrient-testing-laboratory/ordering-information-forms
www.ag.umass.edu/soil-plant-tissue-testing-lab/fact-sheets/interpreting-your-soil-test-results