

Delaware Nutrient Management
Program
**DELAWARE CONSERVATION
PRACTICE STANDARD**
**SOIL SAMPLING AND
ANALYSIS**
(Reported by No.)

DEFINITION

Procedures to analyze soils and test their nutrient content.

PURPOSES

This practice may be applied for one or more of the following purposes:

1. Maintain proper nutrient levels in soil.
2. Avoid adding excess nutrients.
3. Increase crop production efficiency.
4. Maintain water quality.
5. Be cost effective with fertilizer.
6. Maintain or improve factors contributing to soil health

**CONDITIONS WHERE PRACTICE
APPLIES**

This practice applies where:

1. Soils may have different nutrient levels in various parts of fields
2. Farmers want to ensure they are adding the right amount of fertilizer to crops.
3. Troubleshooting: Identification of nutrient excess or deficiency affecting plant growth.
4. As part of any Nutrient Management Plan

CONSIDERATIONS

It is critical that soil samples are collected so as to accurately represent the nutrient status of the soil. A soil sample should represent an area no larger than 40 acres, and should be a sub-sampling of a minimum of 15 to 25 soil cores taken approximately eight inches deep. Smaller areas that seem different in color, texture, drainage class, management practices, and/or productivity should be sampled separately.

CRITERIA

Proficiency Testing. Soils should be tested only by labs that have enrolled as participants of a proficiency assessment program (such as North American Proficiency Testing (NAPT) or Agriculture Laboratory Proficiency (ALP) each year. This ensures that the labs remain qualified for the program and proficient in their testing. All lab results should be reported in parts per million (ppm) or University of Delaware, Fertility Index Value (UD-FIV)

REFERENCES

A description of sample collection procedures can be viewed at:

<https://cdn.extension.udel.edu/wp-content/uploads/2017/02/22053343/circular18.pdf>

<http://extension.udel.edu/lawngarden/soil-health-composting/recommended-soil-testing-procedures-for-the-northeastern-united-states/>

Recommended Soil Testing Procedures for the Northeastern United States. 2011. Northeastern Regional Publication No. 493 prepared by the Northeast Coordinating Committee for Soil Testing (NEC-1012):