HEALTHY SOIL HEALTHY ENVIRONMENT

The Haney Test for Soil Health

Alan Sundermeier Extension Educator and Program Leader, Wood County Extension, The Ohio State University.

The Haney test was developed by Rick Haney of United States Department of Agriculture-Ag Research Service in Temple, Texas.

The Haney test uses unique soil extracts in the lab to determine what quantity of soil nutrients are available to soil microbes. This test also evaluates soil health indicators such as soil respiration (Solvita CO2 burst test) , water-soluble organic carbon and organic nitrogen and their ratio. These results indicate the amount of food that is readily available to soil microbes and is sensitive to measuring root exudates and decomposed organic material. These numbers should be used as a comparison over time to determine progress in improving soil health.

Other test results included in the Haney test are: nitrate, ammonia, phosphate, aluminum, iron, phosphorus, calcium, magnesium, and sodium.

A soil health score is calculated based on soil respiration and water extractable carbon and nitrogen. This score can be used to compare that specific soil location over time or compare between different site management practices. The goal is to improve the soil health score by utilizing soil building practices such as no-till and cover crops.

Calibration of test results is needed since the Haney test uses different extracts compared to traditional soil test labs. The numbers generated on the soil health report need to relate to how much of the fertilizer nutrient is needed to achieve potential crop yield.

Caution should be used when following the nutrient quantity available for the next crop recommendations. Use small test strips to compare the Haney nutrient rate to your normal fertilizer rate before committing large acreages.
The value of the Haney test is to determine a baseline of soil health for that location. It is important to standardize the time of year and crop rotation when comparing over time.

Resources

More information is available at:

Ward laboratory	*wardlab.com/*
Brookside Laboratory	*blinc.com/*
Midwest Laboratory	*midwestlabs.com/*