

# American Agricultural Laboratory, Inc.

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*"Analysis You Can Grow With"®*



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## SOIL HEALTH ASSESSMENT TESTING NOW OFFERED

The NRCS has defined Soil Health as "the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans". To quantify Soil Health, three different testing methods provide indicators which show how well the soil performs its functions. Results from the three testing methods are used to calculate the Soil Health Score, a numerical rating that allows soils from different management practices to be compared. The test methods involved are listed below:

**Solvita CO<sub>2</sub>-Burst:** The amount of CO<sub>2</sub> released from soil due to microbial respiration over a 24-hour period. The test is an indicator of the potential for microbial activity and is dependent on the amount on the carbon content of the soil. Nitrogen mineralization can also be estimated.

**Water Soluble Extract:** Extraction method used to quantify nutrients in the soil which are readily available to plants and soil microbes. The following are determined from the water extract:

Total Organic Carbon

Total Nitrogen

Organic C:N Ratio

**H3A (Haney) Extract:** Extraction method developed to mimic the organic acids in root exudates which increase the availability of soil nutrients to the plant. Determined from the H3A extract:

Nitrate-N

Orthophosphate-P (by FIA)

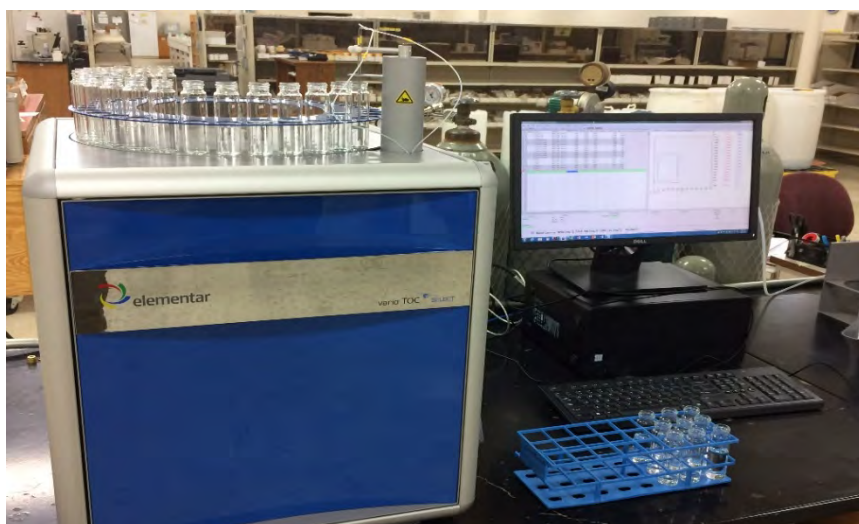
Potassium (by ICP)

Ammoniacal-N

Phosphorus (by ICP)

Ca, Mg, Na, Zn, Fe, Mn, Cu, Al (by ICP)

**Results from these methods reveal potential nutrient credits outside conventional soil testing.**



Recently installed instrument for the determination of Total Organic Carbon and Total Nitrogen.