

Soil Health Index

The Soil Health Index Test is an integrated approach to soil testing using chemical and biological soil test data. It is designed to mimic nature's approach to soil nutrient availability as best we can in the laboratory.

**The Index is a management guide, not a prescription.

Soil Health Parameters

Water Extractable Organic Carbon (WEOC):

The amount of organic carbon extracted from soil with water. This C pool is roughly 80 times smaller than the total soil carbon pool and reflects the energy source fueling microbes.

Water Extractable Organic Nitrogen (WEON):

The amount of the total water extractable N minus NO₃-N and NH₄-N. The WEON pool is highly related to the water extractable organic C pool and will be easily broken down by soil microbes and released to the soil in readily plant available inorganic N.

Solvita (1-day CO₂-C burst):

This is the amount of CO₂-C (ppm) released in 24 hours from soil microbes after your soil has been dried and rewetted (as occurs naturally in the field). This is a measure of the microbial activity in the soil and is highly related to soil fertility. As soil microbes grow and reproduce, they take in nutrients and give off carbon dioxide as a by-product. The greater the amount of carbon dioxide, the greater the microbial activity. In most cases, the higher the number, the more fertile the soil.

Soil Health Index:

This number represents the overall health of your soil system. It combines 5 independent measurements of your soil's biological and chemical properties. The calculation looks at the balance of soil C and N and their relationship to microbial activity. This soil health calculation index can vary from 0 to 30. We like to see this number increase over time. This number indicates the current soil health and helps identify what it needs to reach its highest sustainable state. Keeping track of this Soil Health Index will allow you to gauge the effects of your management practices over the years.

