

# EnSoil Algae Significantly Boosts Soil Health Indicators in 2025 Iowa Corn Trial

## Haney/SLAN Test Results

Treatments	Organic Carbon (ppm)	Soil Respiration (CO <sub>2</sub> -C kg)	SLAN % Change	Phosphorus % Change	Potassium % Change	Haney Soil Health Score
Untreated	179	24	40	25	15	5.4
EnSoil	213	34	130	160	21	7

**EnSoil treatments improved key soil health measures—raising organic carbon, microbial activity, nitrogen, phosphorus, and potassium availability, and overall soil health scores.**

### Results

#### Carbon (WEOC):

- **Untreated control:** 179 ppm
- **EnSoil Algae treatment:** 213 ppm
- **Summary:** WEOC increased by 34 ppm in the EnSoil-treated plots, indicating greater availability of easily accessible carbon for soil microbes.

#### Soil Respiration (CO<sub>2</sub> Burst):

- **Untreated control:** 24 kg CO<sub>2</sub>-C
- **EnSoil Algae treatment:** 34 kg CO<sub>2</sub>-C
- **Summary:** Soil respiration was higher in the EnSoil-treated plots, showing increased microbial activity and improved overall soil biological health.

#### SLAN (% Change):

- **Untreated control:** 40%
- **EnSoil Algae treatment:** 130%
- **Summary:** SLAN increased dramatically with EnSoil treatment, reflecting a major boost in microbial nitrogen cycling and availability in the soil.

**Trial Description:** This set of data was collected by Guy Fishman, who submitted Haney Soil Tests and SLAN nitrogen tests on 7/19/2025 from a corn plot treated with EnSoil and a 60 acre untreated check plot that did not receive EnSoil.

**Application Description:** EnSoil was applied at the V2 and V6 stages at a rate of 8 oz per acre.



## Trial Design

**Grower:** Guy Fishman

**Location:** Aurelia, IA

**Haney Soil Tests Submitted:**

**Before Treatment #1:** 6/9/2025

**After Treatment #2:** 7/18/2025

**EnSoil Algae Treatment:**

- EnSoil Algae was applied at the V2 and V6 growth stages of corn.
- Application rate: 8 ounces per acre.

**Untreated Control:**

- This plot did not receive any EnSoil Algae application and served as the comparison baseline

**Goal:** The goal of the trial was to evaluate the impact of EnSoil Algae application on key soil health indicators and compare those outcomes to untreated control plots in a corn field. Specifically, the trial aimed to measure the change over time in microbial activity, nutrient cycling, and overall soil health using Haney Soil Health Tests and SLAN nitrogen tests.

**Measurements Taken:**

- **Water Extractable Organic Carbon (WEOC)**
  - Measures the amount of readily available organic carbon in the soil, which supports microbial activity.
- **Soil Respiration (CO2 Burst)**
  - Indicates microbial activity by measuring the amount of carbon dioxide released from the soil.
- **SLAN (% Change)**
  - Soil Labile Amino Nitrogen test, used to estimate the availability of nitrogen being cycled by soil microbes.
- **Phosphorus Levels**
  - Measures available phosphorus in the soil, an essential nutrient for plant growth.
- **Potassium Levels**
  - Measures available potassium in the soil, another key plant nutrient.
- **Haney Soil Health Score**
  - An overall score reflecting the biological, chemical, and physical aspects of soil health.
- **Seed Crack Levels in Corn**
  - Assessed as a plant health indicator, comparing treated and untreated plots.

