

# DAIRY SOIL & WATER REGENERATION

Building soil health to reduce greenhouse gases, improve water quality, and enable new economic benefits

## ENGAGING FARMERS

This project is engaging farmers in 5 states. In 2021, those states (below) produced more than 50% of milk in the USA.



### Wisconsin



Farmer Engaged **45**



Fields Sampled **87**



### New York



Farmer Engaged **22**



Fields Sampled **37**



### Idaho



Farmer Engaged **12**



Fields Sampled **24**

Coming Soon:



### California



### Texas

## PROJECT OUTCOMES

**1** Soil Sampling to Provide a Scientific Baseline for Soil Carbon Sequestration and Soil Health

**2** Field Research to Measure Environmental Benefits of Field Manure Use and Soil Health Practices

**3** Share Results Broadly to Support Revenue-Generating Projects and Markets

## MEASURING SOIL HEALTH AT SCALE

In a previous continental-scale project, SHI analyzed more than 30 soil health indicators from 124 long-term research sites. Four indicators were selected as a minimum suite to assess soil health and are used in this dairy project. Soil health and carbon stocks are combined with management data to understand differences between baseline and soil health promoting management systems.



### Selected Indicators:

Organic Carbon

Carbon Mineralization Potential

Aggregate Stability

Available Water Holding Capacity

These indicators reflect how management practices affect a soil's ability to:

- Resist wind & water erosion
- Store & cycle water, carbon, & nutrients
- Support biomass production
- Host biodiversity

## INFORMING FARMER DECISIONS

- Provide data to illustrate how a field's soil health and carbon stock compare to other fields in the region
- Demonstrate how management practices impact the expression of soil health
- Share concepts on building soil health through adapting management practices



Fields sampled represent a broad range of tillage practices, days with living roots, and grazing management