

SOIL HEALTH BENCHMARK STUDY

VEGETABLE FARM HIGHLIGHTS

Farmers participating in our Soil Health Benchmark Study are closely monitoring the health of their soils over time. This helps them learn how to continuously improve their production methods to leave the land they steward better than they found it.

SOIL HEALTH SCORE

Compiling results from decades of research, Cornell University's Soil Health Lab developed a soil health rating scale. The scale measures a comprehensive array of chemical, physical, and biological features that indicate how healthy a soil is.



Healthy soil feeds **nutrients** to plants naturally, reducing the need for fertilizers.



It also fosters a thriving community of **beneficial organisms** that naturally defend crops from pests and diseases.

STUDY PARTICIPANTS

73

ON A SCALE OF 0-100

AVERAGE FARM*

50

ON A SCALE OF 0-100

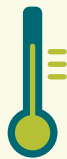
* Calculated by Cornell University's Soil Health Lab for similar soil types.

ORGANIC MATTER LEVEL

Organic matter is formed when plant debris and animal manure decay over time. Small increases in organic matter have significant implications for improving soil health.



Organic matter rapidly absorbs water during heavy rains, and slowly releases water during dry spells, helping crops **withstand damage** from severe weather.



And it helps **mitigate climate change** by securely storing carbon in the soil.

STUDY PARTICIPANTS

3.9%

AVERAGE FARM*

2.5%

* Compared with data from Natural Resources Conservation Service for similar soil types.

DAYS OF LIVING COVER

Days of living cover refers to the number of days farmers keep live plants growing in their fields – or, in other words, the number of days fields are not left bare.



Keeping fields in living cover **protects nutrient-rich topsoil** we rely on for our food from erosion.



Also, living cover **keeps waterways and drinking water clean** by helping fields better absorb and filter stormwater.

STUDY PARTICIPANTS

181

DAYS PER YEAR

AVERAGE FARM*

156

DAYS PER YEAR

* Pennsylvania benchmark for corn and soybean farms planted without cover crops, estimated with National Agricultural Statistics Service data.