# Introducing the NYS Soil Health Initiative

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Soil health constraints, primarily associated with loss of soil organic matter and soil compaction, significantly limit farm productivity and sustainability in New York. Soils with low organic matter have lower water holding capacity and poorer drainage, and thus have less resilience to drought and flooding impacts on yield. They also are more prone to soil erosion and chemical runoff into surface waters during heavy rainfall events. Organic matter is also essential to supporting a robust population of beneficial soil organisms crucial to cycling and availability of nitrogen and other plant nutrients.

Maintaining high organic matter stores carbon in soils (organic matter is mostly carbon) that otherwise would be in the air as the greenhouse gas, carbon dioxide. In this way, soil health is a strategy for slowing the pace of climate change, while also adapting to some of the uncertainties of a changing climate, such as increased risk of drought or flooding.

Interest in soil health has expanded greatly in recent years, and today many farmers, government and non-government organizations, and researchers are evaluating winter cover crops, cropping system strategies, reducing tillage, and composts, biochar, and other amendments for improving soil health.

The NYS Department of Agriculture & Markets has funded a new Soil Health Initiative that is providing funding for new field research and outreach, and also is aimed at building on the momentum of the Soil Health Working Group, Cornell's Soil Health program, and similar efforts across the state. We are interested in expanding the list of stakeholders involved, including more fruit and vegetable growers, and looking for opportunities for collaboration and synergy with various government agencies, non-government organizations, and agriculture service providers involved with supporting good soil health practices.

One specific objective of the project is to develop a vision for the future in a "Soil Health Roadmap" document for policy-makers as well as the agriculture industry, with input from this

wide range of stakeholders, and also hold a "Soil Health Summit" in Albany by end of year 1 (tentatively May 2018).

We are providing support for trainings and educational efforts, developing new resources, and have established a new website to facilitate communication and access to information and educational materials (https://blogs.cornell.edu/soilhealthinitiative/).

We are currently conducting a farmer survey on benefits, costs, and constraints of adopting soil health practices such as winter cover cropping, reducing tillage, and use of composts, manures, biochars, and other soil amendments. Our survey is associated with a more comprehensive study on economic (and environmental) benefits of improving soil health and strategies for overcoming constraints.

Please join us! Stay tuned to our activities and other soil health events at our website. Watch for new resources, short informative videos, and upcoming webinars. Please fill out the soil health survey (available as hard copy and also available as a url link at our website).