A central hub for information and networking related to soil health in New York

- Building on current strengths and momentum
- Coordinating and creating a Soil Health Network for information exchange, priority setting and identifying barriers and opportunities for facilitating farmer adoption of soil health practices
- Recruiting a network of farmer collaborators for sharing innovation and for monitoring and documenting soil health benefits
- Developing a “Road map” with a vision for NYS leadership in soil health that will build resilience to extreme weather events, protect our soil and water resources, and bolster farm viability
- Providing fresh outreach materials and supporting trainings, field days and soil health assessments on collaborating farms from all types of systems

Developing a Soil Health “Road map” and Coordinating a NYS “Soil Health Summit”

Providing a vision for the future, the summit will include presentations and panels composed of farmers, researchers, government and non-government organization representatives, policy-makers and other stakeholders.

Quantifying the Economic & Environmental Benefits and Identify Barriers to Adoption

Evaluating soil health economic benefits such as reducing input costs and capital investments, improved resiliency to extreme weather and new market opportunities.

Environmental analyses will include factors such as reducing erosion and chemical runoff into waterways, reducing greenhouse gas emissions and increasing carbon sequestration.

Supporting Biochar and Compost Amendment Innovation

Developing new composts and biochar products from waste materials for improved soil health and fertility.

Evaluating Novel Cropping System Diversification Strategies, Leveraging Long-term Studies

Demonstrating and evaluating various approaches to the integration of soil health practices into conventional farming systems for improving soil health, weed control and yield.

Field, fruit and vegetable cropping systems, in addition to perennial grains, are being examined.
Major Soil Health Constraints Challenge New York Farmers

Farm productivity and sustainability in NY are limited by soil compaction and loss of organic matter, two major soil health constraints:

Managing our soils for soil health offers “win-win” solutions:
- Minimizing costs to build resilience to weather extremes
- Reducing the carbon footprint and nutrient losses from agriculture
- Suppression of weeds and disease, while promoting beneficial soil organisms

Soil Health in New York

New York State remains a leader in the development and adoption of management practices for building healthy soils:
- New York State, in collaboration with the USDA-NRCS, has been at the forefront of the emerging concept of soil health
- A diverse range of interested stakeholders and practitioners implementing soil health practices and policies exists across the State
- Growing interest and evidence linking soil health and mitigation of extreme weather
- Cornell CALS is unique in providing a comprehensive and affordable soil health assessment

A more comprehensive overview of the New York State Soil Health Working Group including access to additional resources can also be found on the website or by contacting Aaron Ristow at ajr229@cornell.edu.

Typical Symptoms of Poor Soil Health

- Poorer drainage
- Lower water holding capacity
- Less resilience to drought and flooding impacts on yield
- More soil erosion and chemical runoff following heavy rainfall events
- Lower CEC and nutrient availability
- Decreased ability to support robust populations of beneficial soil organisms
- Reduced cycling and availability of nitrogen and other plant nutrients

Soil constraints can severely impact crop productivity, farm sustainability, and environmental quality. Soil health can be measured through indicators and management practices can be adjusted to alleviate these problems.