SHP Associate Site Soil Sampling Protocol

For the 2019 Soil Sampling year, you will be completing the following tests:

- Simplified Soil Health Sampling for Associate Sites through Ward Lab
- Selected Cornell Soil Health Indicators for Associate Sites

Objectives:
The initial objectives are to:

1. Collect grower information
2. Locate grower fields
3. Establish experiment and plot boundaries and
4. Establish baseline soil characterization for long-term soil health systems

A grower information collection protocol will be provided to collect basic cooperator information, but each grower must supply:

1. Grower name
2. Grower address (Township, county, state)
3. Field boundary GPS coordinates (four corners)
4. Testing strip boundary GPS coordinates (reference points for testing strips, in this case, boundaries for the two portions of the field where each testing strip is half of the field)

Two soil analysis labs will be utilized to analyze key variables. Protocols for each sample type are provided below.

The two soil analysis labs are the following:

1. Ward Labs for soil health and nutrient analysis:
   P, K, pH, BpH, OM, S, Zn, Ca, Mg, Na, %BSAT, CEC, aggregate stability, AWC, active carbon, and soil texture class.
2. Cornell University for selected soil health indicators: organic matter, aggregate stability, and active carbon.

After sampling, please take a picture of the completed registration form for Ward Labs and email to soilhealth@ncga.com before shipping the samples to their respective labs. Please provide the email address where we should send results.

The samples of the commercial lab will be stored as per the guidance of the Soil Health Partnership.

All soil test results will be shared back with cooperators.
Submission Addresses:

Ward Laboratories, Inc.
4007 Cherry Ave.
P.O. Box 788
Kearney, NE 68847

Cornell Soil Health Lab
G01 Bradfield Hall
306 Tower Road
Cornell University
Ithaca, NY 14853-1901

Simplified Soil Health Sampling for Associate Sites Through Ward Lab

- When possible, a sampling map will be provided to each cooperator to facilitate soil sampling (Figure 1 example)
    - Each map will have an assigned sample point within each treatment or control strip
    - Each pre-assigned sampling point will follow naming convention provided by the Soil Health Partnership and be linked to the bar code mentioned below
- All soil samples will be hand collected
    - Bags will be provided by the Soil Health Partnership
    - Each sample will be a composite of 12 soil cores, collected in a circle around the point with each composite taken 15' from the center of the circle
    - Sampling depth: 0 - 6 inches Collect GPS point in the center of 12 core sampling circle
- Labeling – Use pre-supplied adhesive labels with sample labels and barcodes
        - 01 - the control strip
        - 02 - the treatment strip
- Soil samples will be shipped (ground) to Ward Laboratories, Inc. within 24 hours of sampling [alternatively: same day].

Figure 1: Example grid sampling map individually assigned to each grower. Each sampling location will be submitted as individual samples to Ward Laboratories, Inc.

Selected Cornell Soil Health Indicators for Associate Sites

- When possible, a sampling map will be provided to each cooperator to facilitate soil sampling (Figure 1 example)
    - Each map will have an assigned sample point within each treatment or control strip
    - Each pre-assigned sampling point will follow naming convention provided by the Soil Health Partnership and be linked to the bar code mentioned below
- All soil samples will be hand collected
    - Bags will be provided by the Soil Health Partnership
    - Each sample will be a composite of 12 soil cores, with each composite taken 15' from the center of the circle
    - Sampling depth: 0-6 inches
    - Collect GPS point in the center of 12 core sampling circle
- Labeling – Use pre-supplied adhesive labels with sample labels and barcodes
    - 01 - the control strip
    - 02 - the treatment strip
- Soil samples will be shipped (ground) to the Cornell Soil Health Testing Laboratory. for the standard tests within 24 hours of sampling [alternatively: same day].