

SWCD and CCE *Soil Health Assessment* *Program and Testing Services* 2021



Seeking farmers interested in FREE soil health testing on their farm!

Program Goal: evaluate, monitor, and educate farmers about soil health on their farm to facilitate the adoption of more practices that promote soil health practices.



Soil Health Assessment - Part II

- CCE Ag Stewardship/SC SWCD staff consults with producer to learn past and current operations, and future goals.
- Samples are collected and shipped by Ag Stew/SWCD staff
- Samples are analyzed using Cornell's **Comprehensive Assessment of Soil Health (CASH)** test
 - Physical indicators
 - Biological indicators; and
 - Chemical indicators
- **Results** reviewed by the producer and Ag Stew/SWCD staff
- **Recommendations** given and management strategies to improve soil health discussed.

Comprehensive Assessment of Soil Health			
From the Cornell Soil Health Laboratory, Department of Soil and Crop Sciences, School of Integrative Plant Science, Cornell University, Ithaca, NY 14853. http://soilhealth.cals.cornell.edu			
Grower: Bob Schindelbeck 306 Tower Rd. Ithaca, NY 14853	Sample ID: LLS	Field ID: Caldwell Field-Intensive management	Date Sampled: 03/11/2015
Agricultural Service Provider: Mr. Bob Consulting rrs3@cornell.edu	Given Soil Type: Collamer silt loam	Crops Grown: WHT/WHT/WHT	Tillage: 7-9 inches
Measured Soil Textural Class: silt loam Sand: 2% - Silt: 83% - Clay: 15%			
Group	Indicator	Value	Rating Constraints
physical	Available Water Capacity	0.34	37
physical	Surface Hardness	260	12 Rooting, Water Transmission
physical	Subsurface Hardness	34.0	35
physical	Aggregate Stability	15.7	19 Aeration, Infiltration, Rooting, Crusting, Sealing, Erosion, Runoff
biological	Organic Matter	2.5	28
biological	ACE Soil Protein Index	5.1	25
biological	Soil Respiration	0.5	40
biological	Active Carbon	288	12 Energy Source for Soil Biota
chemical	Soil pH	6.5	100
chemical	Extractable Phosphorus	20.0	100
chemical	Extractable Potassium	150.6	100
chemical	Minor Elements Mg: 131.0 / Fe: 1.2 / Mn: 12.8 / Zn: 0.3		100
Overall Quality Score:		51 / Medium	

FIGURE 2.14. Example summary report page for a conventional small grain operation. The report is described further on page 72, and a full report including interpretive text is included in Appendix A. Because producers generally manage soil nutrient levels and pH carefully, using standard soil testing chemical soil health is often found to be in the optimal range (100 rating and dark green in example above). Constraints are more frequently found in physical and biological health, because these aspects of soil health have not previously been tested and explicitly managed (< 20 rating and in red in example above). Orange and yellow-colored ratings should be monitored but are not necessarily a priority for management at this time.

Comprehensive Assessment of Soil Health - The Cornell Framework - 35

For more information about the CASH test visit: <https://soilhealth.cals.cornell.edu>

Interested? Contact Debbie Aller (CCE-Suffolk) at da352@cornell.edu, 631-902-1582 or Kaitlin Shahinian (SC-SWCD) at Kaitlin.Shahinian@suffolkcountyny.gov, 631-852-3289