

Northern NY Agricultural Development Program 2007-2008 Project Report

Promoting Soil Health Management in Northern New York

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Collaborator(s):

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Background:

oil degradation problems are evident on many NNY farms. With intensive crop production, significant numbers of farms are experiencing declining soil health due to soil compaction, surface crusting, low organic matter, increased pressure and damage from diseases, weeds, insects and other pests as well as a lower density and diversity of beneficial soil organisms. Growers are seeking solution to address soil problems encountered on their farms. The recently developed Cornell Soil Health Test (CSHT), which integrates physical, biological and chemical soil measurements, is being demonstrated as a useful tool to identify and manage on-farm soil constraints. In the past year, we used the CSHT to assess some of the farms in NNY. We plan to continue to engage growers in discussions on soil health assessment and management, using the information provided on the Cornell soil health test report for their fields.

More educational information is needed to promote soil health management among NNY growers. Educational tools such as fact sheets and case studies can significantly impact the adoption of better soil health management practices. These educational materials can assist county educators in disseminating information to growers in their regions and can serve as foci for discussions during field meetings.

Outreach:

Four county-based outreach events were conducted in NNY during 2008. The outreach activities generally addressed the utility of the Cornell Soil Health Test for improved soil management.

The outreach in Jefferson County took place on January 29, 2008 in La Fargeville, NY. The meeting focused on soil health improvement in both the conventional and organic systems. The meeting was attended by about 30 growers who asked question on various soil health management principles.

The outreach in St. Lawrence County took place in Canton, NY on January 30, 2008. The Canton meeting focused on the principles of soil health interpretation. About 10 growers attended this meeting.

The meeting in Plattsburg, NY took place on February 7, 2008. About 15 growers and SWCD staff attended from both Essex and Clinton Counties. The meeting focused on the importance of individual soil health indicators and how they relate to soil processes. The last county-based outreach program held in Malone, NY on February 8, 2008 covered topics on soil health, reduced tillage and compaction management. The meeting was attended by about 15 farmers.

A soil health workshop held on March 18, 2008 in Ithaca, NY was attended by over 70 CCE staff, CCA, consultants and several farmers in NY. The workshop focused on how to use the Cornell Soil Health Test for practical farm management.

We also conducted a combined soil health training session for the NY CCE field and vegetable crops educators during the annual in-service training that was held in Ithaca, NY on November 12, 2008.

During all these outreach meetings, handouts were distributed to participants and copies of the Cornell Soil Health Manual were made available to those interested.

Next steps

We intend to produce case studies of growers who have successfully implemented soil health improvement practices to help the growers in the NNY region transition to better soil management strategies. However, we have not been able to compile all information needed to complete the studies. Part of the study involves interviewing selected growers to get information on their management practices. Growers could not participate in these interviews during the growing season of 2008. We plan to finish up with the interview during this winter and travel to visit the growers in the spring to take pictures of their equipment and farming practices. We will also use the spring visit to clarify any information that we obtain through the phone interviews.

The questionnaire that was designed for the case study is attached to this report.

Acknowledgments:

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Reports and/or articles in which results of this project have already been published. Two extension articles listed below were released in 2008:

1. The Link Between Soil Health and Reduced Tillage -- Bob Schindelbeck, John Idowu and Harold van Es. What's Cropping Up? Vol. 18, No. 3, 2008 May-Jun.
http://css.cals.cornell.edu/cals/css/extension/upload/wcu_vol18no3_2008a5reducedtillage.pdf
2. How to Interpret and Use the Cornell Soil Health Test (CSHT) Report-- Robert Schindelbeck, John Idowu, Harold van Es, George Abawi, David Wolfe and Beth Gugino. What's Cropping Up? Vol. 18, No. 1, 2008 Jan-Feb.
http://css.cals.cornell.edu/cals/css/extension/upload/Interpreting_the_CSHT_Report.pdf

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Photos



Plate 1. Winter soil health meeting in Canton, NY