American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

NORTH CENTRAL SARE
Sustainable Agriculture Research & Education

ACS Ag Conservation Solutions, LLC
"Blending Ag Profitability While Enhancing the Environment"

FROM THE CLASSROOM TO THE FIELD:

ADVANCED SOIL HEALTH TRAINING FOR ILLINOIS AGRICULTURE PROFESSIONALS

SARE PROJECT: ENC15-143

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ABSTRACT

Soil health– what is it and how do we get it?

Traditionally, the focus on soil has been all about keeping it in place– maintaining and managing organic matter, and preventing erosion and soil compaction. The complexities of the biological properties of soil are becoming better understood and we now know we can not only protect soil, but actually rebuild soil by nurturing the dynamic and diverse ecosystem beneath our feet. Conservation and agriculture communities are hungry for in-depth and practical knowledge about soil health. Illinois needs more "boots-on-the-ground"

In response, The American Farmland Trust (AFT) led the development and implementation of an-depth training of Illinois professionals and farmers with experience in cover crops and introductory soils training. Of an initial cadre of 33 trainees, 22 completed the 18 month program which consisted of 6 -1½ day trainings. Trainees included Illinois cover crop specialists, farmers, farm managers, agricultural retailers and consultants.

"The diversity of backgrounds was a key to the success of the program as most of the trainees did not know each other prior, and represented 20 Illinois counties."

— Jen Filipiak, AFT Midwest Director

PROCESS

Leadership: The project was co-led by Jennifer Filipiak with American Farmland Trust, who provided facilitation and logistical leadership, and Dan Towery with Ag Conservation Solutions, who provided technical leadership.

Steering committee established with 15 soil health leaders

Recruitment: We recruited trainees through an application process. Our goal was to recruit 20 individuals with previous experience in soil health management practices who would commit to attending at least 4 of the 6 workshops.

22 graduated, completing at least 4 workshops

The program: Workshop topics and agendas were developed by the steering committee with leadership from NRCS' Soil Health Division.

Workshops were held on private working farms and several included public field days

RESULTS

96% of respondents said they'd use information they learned at these workshops to outreach events and learned information they intend to pass on to customers or clients.

78% said the trainings inspired them to create new outreach events in their communities.

+3,000 farmers and landowners have attended events led by graduates in 17 Illinois counties, Wisconsin, and Iowa.

86 Illinois Stewardship Alliance (partner organization & program participant) recorded much of the training and provided videos, training materials and contact information for soil health graduates to Illinois' Soil & Water Conservation Districts. The SWCD's are anxious to advance their soil health education and outreach programs.

ILLINOIS SUSTAINABLE AG PARTNERSHIP

Illinois Sustainable Agriculture Partnership (ISAP) is a collaboration of groups & organizations to address agriculture in Illinois. It was created, in part, to serve as a network hub for Illinois' new soil health specialists and house on-going training.

A second training series, modeled after this one, is being hosted by The Nature Conservancy and the Upper Sangamon Watershed, began in March 2018.

LESSONS LEARNED

Don't underestimate the value of building a community of soil health professionals. In exit interviews, almost all graduates expressed a feeling of isolation in their communities and appreciated getting to know so many others "like themselves" promoting soil health management.

We don't have all the answers regarding soil health – the science is growing every day – but the value of a peer network to discuss progress and experience cannot be underestimated.

Workshop logistics — hosting the workshops on private, for profit farms was valuable and appreciated by attendees. The most popular workshop topics were equipment needs (actually viewing and discussing seeding, tillage and other equipment) and in-depth exploration of soil biology (including a detailed discussion on arbuscular mycorrhizal fungi and learning basic identification techniques for soil micro-fauna).

To see widespread adoption of soil health management systems, we need widespread availability of technical assistance. The traditional avenues for 1:1 farmer assistance are through Extension, Soil & Water Conservation Districts and NRCS. We need those staff and more!

This diversity of backgrounds was a key to the success of the program and all these individuals are trained in soil health messaging consistent with NRCS

WORKSHOPS

Workshop #1, March 2016 "Soil Health and Sustainability" led by the central region NRCS's Soil Health Division focused on the *principles of managing for soil health*, a detailed discussion of *soil biology*, *soil health indicators and* soil health *assessment techniques* and included the use of soil pits as teaching and demonstration tools.

Workshop #2, June 2016 "Adaptive Nutrient Management for Soil Health" focused on *nutrient cycling in biologically active soils*.

Workshop #3, August 2016 "Measuring Soil Health and Alternative Farming Systems" focused on the methods of *measuring soil health*, *how to use soil health tests to guide farming recommendations*, using state "soil health cards", and *rainfall simulators as teaching tools*. Day 2 was a public field day focused on *rotational grazing and cover crops.*

Workshop #4, November 2016 "Cover Crops – becoming a master adapter" focused on cover crops and *adapting cover crop management to different soil types and farm operations*.

Workshop #5, March 2017 "Seasonal operations and strategies for soil health management" focused on *tools and equipment* including seeders, corn heads, high clearance rigs and strip till tools. Day 2 focused on seasonal management operations

Workshop #6, June 2017 "Soil Health – reaching the early majority" focused on soil biology and *messaging for typical Midwestern farmers as opposed to innovators*. The workshop bean with a public field day featuring Wendy Taheri, nationally recognized microbiologist specializing in arbuscular mycorrhizal fungi.