Vermont
NRCS Soil Health Strategy

October 8, 2021
Natural Resources
Conservation Service
nrsc.usda.gov/
NRCS Vermont Soil Health Strategy

Background

NRCS has led the Soil Health (SH) movement across this nation. Soils are connected to all NRCS resource concerns and are the basic, most vital resource that drives farm production and risk, as well as conservation. The optimal functioning of healthy soils secures national food production and restricts the level to which disasters and weather extremes impact agriculture and our society’s well-being.

Vermont wants to build on the SH movement. With this SH strategy and training, we will help NRCS and Partner Employees and producers better understand and implement SH management systems.

Continued agency leadership must focus on priority actions and leverage partnerships to implement the best, most efficient and effective investments of taxpayer dollars to create long-term, broad scale change on the landscape that provides society with all the known benefits of healthy soils. These benefits include win-win opportunities for both conservation and production as they produce the following goals through better soil function:

- improved infiltration and reduced runoff
- increased water availability and resilience to extreme weather
- reduced erosion and flooding
- improved water and air quality
- improved nutrient cycling and pest suppression
- improved habitat for soil organisms and biodiversity
- reduced input costs and improved yield and crop quality
- increased producer profits
- reduced producer and societal risk
- secure and sustained long-term food, fiber, and fuel production

Mission, Vision and Outcomes for Soil Health:

Vision: To make SH management systems commonplace on Vermont working lands.

Mission: To support the NRCS mission by providing the best available SH science, training, guidance, and technical resources to the agency’s internal and external customers to improve SH and functioning of Vermont’s working lands.

Outcomes:

- Increased and effective outreach and education to help people understand SH.
- Observed sharing between neighbors of successes and methods of improving SH.
- Staff and customers are equally as familiar with SH practices.
- Observed SH management on both cropland and pastureland.

Strategic Goals:

- Establish a Soil Health Team for Field Level support
- Establish a Soil Health Committee for State and Partnership support
- Increase NRCS and producer Soil Health knowledge and competencies
- Increase adoption of Soil Health practices
- Build on partnerships in the state
- Expand Education and Outreach
Strategic Goal: Maintain a Soil Health Team for Field Level Support

Responsible: Felix Jimenez, Meredith Albers, Sandra Primard, and Devon Brodie

State level expertise is needed from specialists (Soil Scientist and Agronomist) who can truly devote time to advancing field staff knowledge and engaging in technical exchange. Access to a specialist at the state level is critical to enable all conservation planners to obtain the necessary knowledge, skills and abilities to have meaningful dialog with customers. SH Team members will be identified by the Zone District Conservationist to assist in advancing Zone knowledge, skills, and abilities.

Objectives and actions:

1. **Field Office Zone SH Team Member Roles**
   a. Field Office members will receive additional training
   b. Zone reps will facilitate Zone feedback on the strategy, priorities, initiatives, training provided, and training needed. Strengthen interaction with the State Soil Scientist and Agronomist
   c. Promote the exchange of SH technology between staff.
   d. Use Customer, Staff, and Partner feedback or input to continually incorporate technology advancements at the farm level and in practice standards

2. **Resource Staff Member Roles**
   a. SH Team members will receive the training and support to elevate their skill level, to be able to assist other employees and partners in their respective Zone with quality technical assistance related to SH. Assigned Resource Staff members (Soil Scientist and Agronomist) will develop and provide SH training plan
   b. Resource Staff members will provide training to field staff in SH
   c. Resource Staff members will assist field staff with inventorying and addressing SH Resource Concerns
   d. Team members (State and Field) will be given enhanced opportunities to attend high level outside training, conferences or workshops.
   e. Team members (State and Field) will be expected to report on this training to ensure the information is transferred to other employees.
Strategic Goal: Maintain a Soil Health Committee for State and Partnership support

Responsible: Joe Buford and Maggie Payne.

The SH Committee consists of Vermont NRCS Leadership Staff and Partners to direct initiatives and funding and advises and solicits input from the Vermont SH Team. SH Committee is the larger body that directs where to spend money and focus efforts. The Committee helps direct the Team and the Team provides feedback to the Committee. The committee will review and prioritize future years for SH Fund Pools, meeting end of the year program deadlines and re-prioritization of the use of fiscal and staffing resources, as needed.

Objectives and actions:

1. Solicit members for SH Committee
   a. Will serve as a sub-committee to the State Technical Committee. Promote cross training of disciplines – engineers, foresters, soil conservationists, agronomists, biologists, soil scientists, partner staff, other disciplines to understand importance of SH practices and vice versa for better integration of systems.
   b. Elevate basic/fundamental soil, agronomy, and grazing knowledge across all agency planning staff by offering basics and 101 type training.
   c. Promote planner attendance at state and local workshops to improve practical knowledge of local cropping and grazing systems.
   d. Evaluate the effectiveness SH Financial Assistance opportunities annually with State Technical Committee.
   e. Use financial assistance programs to encourage adoption of new technologies and assessments that are important for identifying resource concerns and quantifying the effectiveness of a practice or system of practices to improve SH.
   f. Update resource concerns, planning criteria, and practice standards to adequately provide for SH management system planning and implementation.
   g. Prioritize the successful integration and implementation of SH management systems across state programs guidelines.

2. Increase SH training availability and quality across agency and partner staff to build Knowledge, Skills, and Abilities
   a. Encourage state specialists to obtain and maintain professional certification and continued education (e.g. American Society of Agronomy Certified Crop Advisor: Sustainability Specialty (ASA-CCA-SPP))
   b. Recruit skilled educators and provide them with effective presentation, media and educational skills training
   c. Nominate staff for training cadres like 3-day SH and Sustainability for Field Staff Course
   d. Record Modules and make them available online to increase availability of classroom-based lessons that complement high quality field-based learning
   e. Explore/create MOU’s and agreements with key partners to help host and/or deliver introductory and advanced SH events and training.
Strategic Goal: Increase NRCS and producer Soil Health knowledge and competencies

Responsible: All Team Members and Field Representatives

Agency and key partner staff are SH experts and leaders that collaborate effectively. Training is required for each NRCS planner to attend regularly to maintain continuity of message and remain in the forefront of advancing technologies.

Objectives and actions:

1. Prioritize and Coordinate State-Sponsored Training relating to Planner Certification:
   - Soil Health and Sustainability Course
   - Basic Soils & Web Soil Survey
2. Provide training on the SH Assessment and Pasture Condition Scoresheet
3. Provide training on understanding SH tests
4. Provide higher level training with Zone Reps
   a. Including supplies
   b. Trainings for conservation planning staff with visiting speakers and specialists
5. Provide Soil Health Training at Staff meetings
6. Provide resources regarding Soil Health via new NRCS Vermont Resource Conservation and Soils Channel
7. Identify Soil Health training, outreach and education needs across the state.

Strategic Goal: Increase adoption of Soil Health practices

Responsible: Felix Jimenez, Sandra Primard, Meredith Albers, Devon Brodie

SH is foundational to nearly every aspect of conservation planning and implementation of NRCS programs. Assuring the integration of SH science and technology into policy and program guidelines will result in greater adoption of SH management systems on working lands.

Objectives and actions:

1. Include Soil Health practices in Technical Trainings
2. Include Soil Health outcomes in annual business and strategic planning opportunities
3. Provide list of Soil Health practices currently available for adoption
4. Develop practice schedules for Soil Health practices in Vermont
5. Create fact sheets on new practices to provide to producers
6. Continue highly successful outreach with more in-depth opportunities
7. Identify nationally available Soil Health practices where their adoption would benefit Vermont.
8. Identify and advise on the soil health practices in Vermont.
9. Provide benchmark soil conditions for a variety of soil types in Vermont for planners and landowners to reference when evaluating fields for Soil Health assessments.
10. Track and share rate of adoption of Soil Health practices individually and when installed as part
of a system.

**Strategic Goal: Build Partnerships**

**Responsible: Joe Buford and Maggie Payne**

Agency is recognized by partners and the public as a leader in SH.

Objectives and actions:

1. Encourage planner and customer participation in partner events in SH, such as workshops put on by UVM Extension.
2. Annually assess need for more SH outreach with all key partners.
3. Develop workshops and events with partners for staff and the public on SH and publicize on shared calendars.
4. Work with partners through the SH Committee to develop and prioritize initiatives and funding opportunities throughout Vermont.
5. Build partnerships in the National Cooperative Soil Survey to improve soil health and dynamic soil property data in soil survey products.

**Strategic Goal: Expand Outreach and Education in Compliance with Title 230 - Equal Opportunity**

**Responsible: All Team Members and Field Representatives**

State supports SH education, collaboration and outreach efforts and assures messaging is communicated consistently as key mechanisms to educate producers, conservationists, and the general public about SH management systems in Vermont.

Objectives and actions:

1. Communicate timely information on SH during recurring calls or meetings with stakeholders, boards and partners.
2. Dedicate State Technical and Discipline Lead time and resources to support soil health activities in Vermont.
3. Share SH strategies with stakeholders, boards, and partners during the soils subcommittee meetings.
4. Provide outreach and education regarding SH principles for agricultural producers throughout State.
5. Develop annual calendar of general SH outreach events (farmers markets, schools, fairs, festivals, etc.) and seek volunteers across the partnership to share the workload associated with attending multiple events. Consider seeking an Earth Team volunteer to take the lead in this action.
6. Outreach reports will be filed in Records Management S:\NRCS\NRCS VT State Office\_RECORDS MGMT\230 Equal Opportunity\230-15 Civil Rights Compliance.