Marketing & Economics

a. What would 4 the Soil include:
   i. Increased implementation of 4 soil health principles
   ii. Enhanced cross-collaboration internally and externally
   iii. Featured 4 th Soil farmers personnel and teams
   iv. A recognized tool/label for farmers who are 4 the soil and following the soil health principles
   v. Behavior, lexicon, and expression of values

b. What would success look like to you?
   i. Clear statement from a business perspective about why soil health helps the bottom line.
   ii. Soil health is widely adapted to the point where we stop talking about it
   iii. Consumers are driven to these products from places that are using these practices
   iv. Making these practices everyday practices
   v. Adapted on rented farmland as well as owned farmland, when everyone comes around and recognizes that soil health is valuable

c. Ideas for 4 the Soil next steps and ongoing efforts for reaching a broader audience
   i. Needs or ideas:
      1. Data visualization to highlight principles and go into more detail
      2. Welcome to join discussions Wed at 2:00 PM

d. Dr. Kurt Stephenson:
   i. Doing partial budget analysis for grain farmers on the eastern part of the state. Based on field trials that Mark Reiter are doing on the shore.
   ii. Best way to present this information?
      1. Sensitivity to yields, timing, benefit rates
   iii. Update old publications ➔ carbon storage, etc.
   iv. Reviewing TMDL and water quality on the Chesapeake Bay Programs
      1. What trade-offs do we need to look at? No-till and dissolved P loss in various parts of the watershed.
   v. Q: Are there the same issues for N for no till?
      1. Primarily related to P and intensive livestock areas.
   vi. Q: 3 or 4 main practices, are your studies looking at all of these inputs?
      1. Mainly 3, cover crops, tillage practices, etc.
vii. Q: Ag is so volatile and the economics of soil health and operations can change so much, can you talk about this more? A lot of the literature is case studies and compelling, a more flexible approach to analysis so people can tailor their situation because everything is so site and farm specific.
Virginia Soil Health Coalition Quarterly Meeting
Breakout Room Notes: Training & Technical Assistance
July 26, 2021

Training & Technical Assistance

Facilitated by Soil Health Coalition Steering Committee Members:
Chris Lawrence, State Cropland Agronomist - NRCS
Brent Wills, President - VA Association of Biological Farming
Dr. Kendall Tyree, Executive Director - VA Association of SWCDs

1. What training or technical assistance needs are being unanswered in which the Soil Health Coalition can fill a niche? How do we get past the semi-random acts of soil health training presently occurring and better coordinate/collaborate/communicate these proposed efforts?

Soil health newsletter or another platform to advertise training opportunities across agencies; this problem is not limited to the Soil Health Coalition - are there existing solutions that coordinate VCE, SWCD, NRCS, etc.?

Regional calendar/schedule; share curriculum; share training best practices

Map of existing soil health demonstrations/research locations with a contact.

I heard cover crop college was successful. Was that collaborative/coordinated? The cover crop college was amazing! Doing more of these trainings - and combining these trainings with regional on-farm demonstrations so farmers can see different options - would be fantastic. Recommend focusing on “purposeful” cover crops selected to meet site-specific agronomic needs.

Responding to the second question here: In the Virginia Beginning Farmer and Rancher Coalition, we collaborated with VABF and AgrAbility on a winter series, which was a great way to build capacity and provide a consistent and clear offering to our audiences. It could be possible to start small in this way with the Soil Health Coalition collaborating with a few organizations that are going to be doing programming anyway and create a consistent arc to the offerings and to share in the marketing. It is a great way to build capacity by starting small with a few organizations already involved with the Soil Health Coalition being able to assist with backbone support. The Soil Health Coalition could do this for a few different series that have a couple or few different partners.

Can there be some soil health training for SWCD Conservation Planners on how we can encourage our producers to participate in BMP programs specifically from the soil health angle.

Multi-level support that includes TA for soil health basics as well as support for innovators on the cutting edge (researchers and farmers).
I think very simple, concise, case studies from farmers who have implemented soil health practices would be helpful. If a farmer can see the financial benefits of implementing these practices over time, they are going to be more interested in getting started. (this could be really beneficial on how the practices can offset some of the impacts of our ‘new normal’ for weather, long periods without rain, etc).

I hear from farm partners that they want the public to know what they are doing and why they are doing it. “We are all in this together” themed messaging.

More coordination between Soil & Water Conservation Districts. Don’t need information only, need coordination among our network. What works on one soil, may not work well on another. Information specific to area and those in the field. Include information on various crops/speciality specific to the areas as well. There are a number smaller operations that could really benefit from the information. There are a number of resources large operations can utilize (traditional row crops).

I think it would be helpful to learn more about the soil health benefits of specific ag bmp practices like riparian forest buffers, and how we can design/implement practices in a way that maximizes soil health.

Couple TA and training with funding for implementation - potentially delivered through SWCD partners.

We have some tools that are great at demonstrating certain soil health principles. Can the coalition recommend /develop one or two demo tools for EACH of the 4 soil health principles?

2. Who is our audience(s)? And how do we best reach them? Who do we prioritize?

Key farmers/influencers in the farming community (ex. SWCD technicians, NRCS, VCE) who can also serve as additional demonstration sites; focus in regions where there is little adoption of or understanding of these concepts.

Mentors, Mentor Program

Kids at schools FFA

First- Farmers - large and small operations, opening up beyond normal row crop rotations, animal operations

Second- SWCD/NRCS/TSPs (private consultants)
General Public

Farmers markets and community gardens would be a good place to engage the general public. Also, local news stories that feature farm leaders (mentors) and their systems - maybe set this up to be well-timed to weather events (these would be good stories during a drought).

Decision makers ([legislators], agency leads, funders)

I suggest that our primary audience is farmers as they will be the people putting these practices on the ground. Our secondary audience should be DCR, nutrient management planners, extension, SWCDs and the other individuals who provide trustworthy guidance to farmers. The tertiary audience should be those who fund these practices. I would second this assessment.

Provide an online portal/inventory or one stop shop for all things soil health for this audience. Capture and collect webinars, training, etc. Build on each other's work and learn from each other in a shared online space.

3. What are the core ideas/priorities that we want to convey related to training and technical assistance? What topics come first?

Practices that you can do on a “trial basis”. Let people know they don’t have to do it all, all at once.

I think farmers will first want to know “which of these practices can I implement without major investment or risk” and then “which of these practices will generate the greatest financial return OR decrease input cost” with the co-benefit of soil health. I second this sentiment.

Cover crop college - more opportunities for conservation professionals and farmers to participate. Target to different cropping systems? Organic, conventional, dairy, by region, etc.

Transitions and how/why to start that on your farm- can be risky, need some low risk methods/practices to try

4. What are the first steps - i.e. where do we start? What next steps do we ask the Soil Health Coalition Steering Committee to focus on?
Raise funding for integrated agronomist positions at NRCS that can lead cover crop colleges. Raise SWCD funding for operations which benefits field needs. Focus on increasing capacity to host more training/field demonstration events. Understand the need for increased funding so to better advocate for it.

An online syllabus + support to implement. VA Soil Health Coalition partners help coordinate and host training events and recruit participating farmers.

Meeting of the minds with Cooperative Extension agents to gain insight into how to do this well. Focus on field agents with experience in outreach and education. This would help with regional focus.

Online forum to help make connections, ask questions, share experiences. Allow interaction even in an online setting. Ex. NASCA Forum - https://www.nascanet.org/ask-nasca/

Can we identify the largest (most attended) field day for each major commodity or “type” of farming (Ag Expo, VSU Field Day, VT Research Field Day, etc) and ensure there is a soil health demonstration plot at each event? By piggybacking on existing events we can be more efficient and reach broad audiences.

A beginner soil health training certification class for district employees

- Ensure training is balanced between online and in person. Provide coursework in zoom, webinars but take a 2.0 session to the field when appropriate. Help us connect the dots with some of the online trainings we’ve been receiving
- Training could include:
  1) easy talking points for us to share with our producers on how our BMPs improve soil health.
  2) some intro to the science behind it
  3) some ideas way to help us advertise soil health in our specific regions

Provide a resource list of soil health advocates that can serve as mentors and partners can not just share testimonials but reach out to for peer to peer education among producers. Use the “pledge” list from 4thesoil for ways to further our work. Utilize these soil health advocates to share our story in Virginia. Tie in Clean Water Farm Awards?
Evaluation & Measurement

- I think we should refer to it as measurement or evaluation of soil health “indicators”. Because basically any assessment will not be of ‘soil health’ holistically.

- Three potential topics:
  1. Testing and interpretation of biological activity in soils
     - Can we do better than “more is good” Are there measurements we can use to define health vs unhealthy soils, either broadly across soils or within categories such as soil series
     - > (DSP) Dynamic Soil Properties Project, NRCS
     - Looking at measurable soil health properties
     - Trying to understand and document how properties change overtime with respect to management
     - Earth worm counts, infiltration rates, microbial respiration, ACE protein, POXC
       - Physical and biological properties
       - deciding on set of tests that people do commonly, good first step
       - establishing a baseline, ability to make comparisons
       - can we build upon standards that are already in place in VA
       - VA routine soil sampling
         - different sampling depth
         - cost for assessments causes difficulty for some

*important to note real world benefit of indicators
  > what are we testing and why when choosing indicators

2. Crop yield/performance as an indicator of soil health; or maybe Indirect indicators of soil health
   - CO2 burst test, different N recommendations for soil health? ACE protein, permanganate oxidizable carbon (POXC)

3. Modeling or broader (non-specific) assessment. Comet (carbon sequestration) model and soil health assessment card (Virginia NRCS working on Virginia specific card)

Participants:
- Jim Echols
- Robert Shoemaker