MDA Soil Health Advisory Committee

Meeting Minutes – March 2, 2020

Meeting minutes from the December meeting were approved by motion and consent of the Committee.

Members of the general audience were provided an opportunity for public comment, but there were no interested participants. The Committee proceeded to planned presentations.

First, Alisha Mulkey, MDA, presented "Conservation Practices for Maryland's Soil Health program." Slides included a brief review of the December meeting presentation and comments offered by Committee members since December. Comments were organized into a table with four categories – inputs, activities, metrics, and outcomes – and aligned to future topics for the Committee to consider. These topics are 1) what do we currently know about Maryland farms relevant to soil health? 2) what activities are needed to increase adoption of soil health practices? and 3) how do we measure soil health? Topic #1 will be considered today. The objective for the meeting was to review a menu of conservation practices associated with soil health and, with context provided about Maryland farms, begin to prioritize practices for future discussions.

Data was presented from the 2017 USDA Ag Census to depict current and historical trends in farm operations, crop acreages, and operation sizes in Maryland. Key findings suggest farm growth is happening at the ends of the range (small and large operations) while the number of mid-size operations decrease. The Ag Census also confirms most Maryland farms include harvested cropland. The primary commodity crops are corn and soybean (400,000-500,000+ acres each). Vegetable acres are nearly 30,000 acres on 954 farms and permanent pasture is 133,000 acres. Next, adoption of two key conservation practices was summarized. Conservation tillage data from the Ag Census was shared, and cover crop data from the state's cost-share program. Clarification questions from the Committee on each data set was addressed.

While Maryland has some of the highest adoption rates nationally for conservation tillage and cover crop, the Committee will need to consider a full menu of conservation practices that may benefit soil health. Committee members were provided a handout listing conservation practice names and descriptions overlaid with a scoring matrix of four lenses – NRCS resource concern, carbon sequestration potential, water quality, and the national "quadrant" project explained next.

Dr. Kate Tully, UMD, presented "Evaluating the potential of conservation programs to improve soil health and environmental outcomes in the US." This research is a collaborative national project team seeking to identify soil health practice support from federal funding programs. The research team evaluated spending from the Environmental Quality Incentive Program (EQIP) as the major conservation program for working lands and paired it with classifications of potential outcomes around practice type, soil health, ecological management, and adaptive management. For the soil health evaluation, practices were ranked by their ability to increase biodiversity and minimize erosion and were placed within a quadrant (score 1-4). Kate outlined the methodology and data sources for each component, and answered clarifying questions from the Committee.

Following the presentations, Committee members were referred back to their matrix handout that included the menu of conservation practices and the summarized scores for the four lenses to begin the roundtable discussion. The question before the Committee was, **based on the background/context information provided today about Maryland farms and benefits of conservation practices, how does the Committee wish to begin prioritizing the conservation practices for future discussion?**

Prioritizing is key given the breadth and magnitude of what could be covered by the Committee. Committee member feedback is summarized below:

- Consider adding an economic metric to the matrix to evaluate likelihood of adoption by farmers. Need Venn diagram of circles with all metrics (Wickersham)
- Start evaluating missing data sets and start tracking, e.g. orchard operations (Leibman)
- Try to assess the cost to implement these practices to help us secure funding (Ferguson), and we should also consider one time vs maintenance costs (Croghan)
- Are we looking at practices in isolation? Should we consider all co-benefits? (Leibman)
- Focus on large acres (corn/soybeans) because its most cost effective and gives us greatest return (Fry)
- As it relates to the state's GHG reduction plans, how many tons of carbon need to be annually sequestered? (Croghan). The potential amount is currently not quantified in the state's draft plan for agriculture, but MDE recommends an ambitious goal for our sector and to act as a leader in this effort (Beck)
- Concerned about creating a solution without a problem. Will these adoption of practices become regulatory? (Ernst). MDA has no intention of pursuing a regulatory route with our producers (Mulkey)
- Do we need a survey to determine producer interest in these practices? (Wickersham)
- Recognize where MD producers are on the soil health continuum. Suggested a survey to the Committee members to continue prioritization discussion (Thompson)
- Focus on effectiveness. Corn/Soybeans greatest acres and have largest impact. Decisions are best left to the farmers but we need to be leaders (Twining)
- Small farms don't necessarily have the same opportunities for resources. Small farms generally have greater risks (Leibman)
- Suggest looking at number of operations, not just crop acres as it relates to carbon sequestration potential (Braver)
- Selecting a strategy depends on your goal. If climate outcomes are the priority, more acres are better. But if it's a water quality priority, then it depends on your location within the watershed. For any strategy, don't rely solely on models. They need to be better ground truthed (Weil)
- The Committee should spend additional time calculating the risks and concerns over adoption among farmers (Croghan)

Discussion concluded with plans to develop an online survey tool for Committee members to continue the discussion and prioritization exercise. MDA would summarize the findings and share prior to a future meeting.

The meeting ended with announcements from the Committee members. Dr. Everts, UMD, announced the Harry Hughes Center would be hosting two summer interns. It is likely their work efforts could support the Committee. The next meeting is anticipated in early April but Alisha Mulkey will coordinate with members for best available dates. Documents from today's discussion will be added to the Google Drive.