

**Healthy Soils Advisory Committee**  
**Cover Crops and Conservation Tillage**  
**February 8, 2021**  
**1 PM – 3 PM**

**Attendance:** Kevin Antoszewski, Alan Girard, Alisha Mulkey, Amanda Cather, Amy Jacobs, Colby Ferguson, Cassie Shirk, Janet O’Meara, Dawn Bradley, Deborah Herr Cornwell, Dietrich Epp Schmidt, Elizabeth Hoffman, Elliott Campbell, Grace Garst, Jason Kepler, Kate MacFarland, Lisa Garfield, Phillip Bogdonoff, Ray Weil, Sean Clougherty, Susan Payne, Trey Hill, Hans Schmidt, Christopher Beck, Jen Nelson, Matt Fry, Denzel Mitchell

Alisha called the committee to order at 1 PM and opened the floor for public comments. No public comments were submitted.

After a review of google meets logistics, Alisha turned the meeting over to subcommittee 1 for a facilitated discussion focused on cover crops and conservation tillage.

Tom Croghan led the discussion for subcommittee 1 starting with a description of their preparation process. Subcommittee 1 met a total of four times in preparation, to discuss their assigned conservation practices and develop a framework for the discussion.

Conversation was divided into 4 topics: Cross cutting issues, technical details about cover crops, technical details about conservation tillage and parking lot issues (topics that came up, are worthy of discussion, but ultimately fall outside the scope of the subcommittee).

**Cross Cutting Issues:**

Tom Croghan outlined the main discussion of the subcommittee during their preparation. The subcommittee thought that there should be flexibility in the cover crop program, the cover crop program should be goal based, and implementation should be site specific (based on cropping system, seasonality, location). Tom also recognized that there is a lot of learning to do, both from members of the committee and from experts outside the committee.

Colby added to Tom’s comments about flexibility. Currently BMP’s in Maryland are looked at through the lens of water quality. As we try to expand implementation of these practices in Maryland we need to look at their impacts on air quality, soil health, etc. Colby also mentioned that smaller operations cannot participate in current programs because of size requirements.

Discussion was then opened to the rest of the committee.

Trey Hill - Having a diversity of seeds is important to benefit soil health. Regulation of seeding rates can effect yields and drive farmers away from adopting specific practices. From personal experience, having greater biodiversity can improve cover crops.

Cleo – There should be a lot of flexibility in the cover crop program. It’s best for the farmer to be able to decide what is best to use where, based on their experience farming the land. MDA already recognizes the value of early planting and late termination, but we should expand our thinking of the underlying principle. We should think about extending the cover crop program to include in season, multi-year, or year-long cover crops.

Tom – The program needs to be able to adapt to rapid changes in the climate/food/diet nexus.

Ray – It's always better to judge program success by the outcome rather than the process. Dictating seeding rates isn't a great idea as early plantings can do well with less seeds. There is also a grey line between what a long-term cover crop is and what a change in rotation is. A multi-year cover crop could be considered a change in rotation rather than a cover crop.

Colby – BMP's don't exist in a vacuum, there are multiple factors that work in tandem to create positive environmental change. Technical assistance should reflect that.

Tom – What do incentives look like? There's been conversation of a carbon market/cap and trade program. Technical assistance and equipment sharing is important. Many of the practices we are considering require specialized equipment that not all farmers have access too. Should we differentiate between human food systems and animal food systems?

Cleo – Some seeds can cost 3-4 times more depending on organic vs conventional pricing. The wet fall this year stopped her from buying more expensive seeds because the benefits didn't justify the cost this year. Should there be higher incentive payments for organic seeds?

Colby – Is there a list of certified seeds that qualify for the cover crop program through MACS?

Ray – If you make two attempts to find organic seeds for cover crops and can't, you are allowed to use untreated, non-organic seeds and keep your organic designation.

Cleo – The USDA can be sticklers and you can still lose your organic status.

Trey – Personal choice should not effect subsidy payments. Then we're thinking about what style of farming is better and there are convincing arguments for both sides.

#### **Technical Details about Cover Crops:**

Tom – allowing a long or all season planting may be beneficial in some systems (planting cover crops in the summer, or resting a field for a year). One distinction of the Soil Health Program could be the ability to plant cover crops all season, and not just when the soil is bare for water quality purposes. How do we bring more farmers into the current cost share program? What boundaries should we put on the program? We can draw lines between cover crop plantings for soil health and edge of field plantings for pollinator habitat.

Cleo – The striking thing about cover crops is they are great for many different outcomes. We don't want to keep farmers from planting cover crops for the reasons they want to. Cover crops sequester carbon in general, and that's one of the goals of the committee.

Tom – We do want to be more inclusive than less inclusive. Pest management can have an indirect benefit on soil health.

Cleo – Pesticide use can negatively impact soil health, so planting to reduce pesticide use has the potential to improve soil health.

Ray – Some of the discussion about beneficials can be drawn around coverage. If it's not covering the field it wouldn't count as cover cropping. Edge of field pollinators wouldn't count. It's also worth noting that some diversity has been shown to be beneficial, but more isn't always better. There is little

evidence that you get more improvement beyond 3-4 species, especially if they are from different families. We shouldn't incentivize a 20 way mix over a 10 way mix. More species may improve your ability to get a good stand, but it likely won't improve soil health linearly.

Colby – Small scale farmer's lack of eligibility is a concern. What kinds of things could we do to enroll them in programs?

Denzel – It might be more helpful if smaller growers were given a flat rate for a certain amount of coverage depending on how much land they are growing on. If you're growing on 3-4 acres, you're still buying 30-40 lbs of seeds and at that scale the margins are smaller. \$500 may not seem like much to some, but it's significant for small scale growers.

Trey – What about a program that could leverage purchasing power to get a better price and distribute seeds to smaller farmers? Extension etc can help large growers, but small farms don't always have access to the same types of resources.

Denzel – Small growers that are putting their acres into no till systems don't have access to equipment specialized for their needs. They do have technical skills, but access to programs is an issue.

Tom – In addition to carbon sequestration, the committee is also charged with improving the profitability of farmers and the health of soil microbial communities.

Cleo – It's important to include small rural growers as well.

#### **Technical Details about Conservation Tillage:**

Tom – The group focused less on conservation tillage because it's already widely used across the state. We did recognize the benefits of no-till can come from reductions in emissions rather than sequestration.

Ray – There is evidence to suggest a redistribution of soil carbon with the adoption of no-till. The difficulty of measurement contributes to our uncertainty.

Cleo – Moving to heavy mulching could help organic growers till less.

#### **Parking Lot Issues:**

Dietrich – How do we address farming systems that try to maintain living cover all year long? Is there a way we could structure the program to be available to farmers that do this?

Ray – The subcommittee was including these types of cover crops, since they're planted in a place and at a time where the soil would normally be bare.

Tom – Incentive structures will have to be considered by all groups, but were not within the capacity of the subcommittee to consider for this discussion. We'll have to continually revisit this topic throughout our conversations on the priority conservation practices. Coordination with other programs is also important to consider.

**Agroforestry Presentation:**

Kate MacFarland gave a presentation on windbreak/hedgerow establishment and alley cropping. This presentation can be found in the google drive

([https://docs.google.com/presentation/d/1\\_ADjp4TZntazcY4TDigEsiyr85OiPFA1/edit?usp=drive\\_web&oid=116738991715213723553&rtpof=true](https://docs.google.com/presentation/d/1_ADjp4TZntazcY4TDigEsiyr85OiPFA1/edit?usp=drive_web&oid=116738991715213723553&rtpof=true))

In discussion after the presentation there was concern about expansion of deer habitat and pressure, especially in central MD. Kate spoke on the site specific management of these practices and a balance between the conservation elements and profit from timber products etc for farmers.