

Soil Health Advisory Committee

January 11th, 2021

Maryland Department of Agriculture



Today's agenda

- ▶ Public Comments: 10 Minutes
- ▶ Committee schedule and expectations: 20 minutes
- ▶ Sub-committee Breakout Sessions: 60 minutes
- ▶ Agroforestry Introduction (MDA): 20 minutes
- ▶ Committee Announcements: 10 minutes



Public Comment



Sub-Committee Assignments

Sub-committee #1

Cover Crop and Conservation Tillage

Lori Arguelles

Phillip Bogdonoff

Michael Calkins

Elliot Campbell

Tom Croghan

Colby Ferguson

Robert Hutchinson

Steven Mirsky

Jen Nelson

Ray Weil

Sub-committee #2

Prescribed Grazing, Pasture & Hay Planting, Conservation Cover and Critical Area Planting

Deborah Herr Cornwell

Steve Darcey

Steve Ernst

Matt Fry

Lisa Garfield

Grace Garst

Alan Girard

Janet O'Meara

Kate Tully

Sub-committee #3

Conservation Crop Rotation, Nutrient Management, and IPM

Chris Beck

Cleo Braver

Aaron Cooper

Kate Everts

Trey Hill

Amy Jacobs

Denzell Mitchel

Dietrich Epp Schmidt

Tim Rosen

Mike Twining



COVER CROPS

3	0.37	4
	MtCO ₂ e/ac/yr	



Definition: A small grain or legume crop generally planted in the fall to recover unused plant nutrients from the root zone, control soil erosion and improve the soil.

NRCS practice standard: 340, and multiple Conservation Stewardship Program (CSP) enhancement options

Background: Maryland has run a successful state program to incentivize cover crops since 2006 with an annual program budget of approximately \$24 million. Maryland has averaged 462,000 acres annually over the last five years, ranking us first nationally in the percentage of acres planted to cover crops according to the USDA Agricultural Census (2017).

The department continues to encourage the early establishment of cover crop varieties, and added an incentive in 2019 to encourage greater use of aerial seeding (via helicopter or airplane) to better allow early establishment of cover. The department also retained its incentive for delayed termination after May 1. This extended growing season maximizes nutrient uptake and benefits soil quality. Participation in extended season, particularly early planted cover crops, has increased each year. Interest in multi-specie cover crops has also increased annually. Federal funding for traditional cover crops is also available.

Additionally, farmers continue to plant commodity cover crops without financial assistance that also provide nutrient uptake in the fall.

Analysis: Data presented to the Committee demonstrates a positive return on investment for cover crops with continued seasonal use, and multiple benefits to the soil ecosystem. Consideration to time of planting and specie selection are especially important to maximize benefits to the soil and the operator.

Given the wide-spread adoption of cover crops within Maryland to date, what are the additional opportunities to advance cover crops acres or associated benefits? Examples to consider may include,

- Funding and incentives for the current state program best align to water quality outcomes. What are the significant elements for advancing cover crops that best align to soil health outcomes?
- Are there equipment needs or program access for smaller producers, e.g. 5 acre minimum for state program?
- Other...

Committee Option(s):

1. Option(s) including advantages and disadvantages

Committee Recommendation(s):

- Living document
- Committee work product
- Reference



Schedule

- ▶ January 11 agenda: Outline expectations for meetings and subcommittees, followed by breakout sessions for each of the three sub-committees to begin organizing ideas, roles, etc. Agroforestry intro from MDA.
- ▶ February 8 agenda: Facilitated discussion of **Cover Crops and Conservation Tillage** led by sub-committee #1, followed by brief updates from other sub-committees. Agroforestry update from MDA.
- ▶ March 1 agenda: Facilitated discussion of **Prescribed Grazing, Pasture & Hay Planting, Conservation Cover and Critical Area Planting** led by sub-committee #2, followed by brief updates from sub-committee #3. Agroforestry update from MDA.
- ▶ March 15 agenda: Facilitated discussion of **Conservation Crop Rotation, Nutrient Management, and IPM** led by sub-committee #3, followed by status updates from MDA. Agroforestry update from MDA.
- ▶ Post March 15, MDA will evaluate progress and determine next meeting date(s).



MDA Does Expect...

- ▶ Pre-meeting, sub-committee should address key analysis questions, e.g. What gaps are there to be filled that other programs don't address? Should the practice have limited implementation scenarios for soil health outcomes?
- ▶ Sub-committees to lead a facilitated discussion focused on their practices at assigned meeting and develop Options including Advantages and Disadvantages of each.
- ▶ Sub-committee should bring relevant resources to the table or share them with the Committee beforehand.
- ▶ Sub-committee members to bring their expertise to the table to help the full Committee provide relevant and actionable recommendations to the Department.
- ▶ When developing analysis and options, consider program administration complexity too.



MDA Does NOT Expect...

- ▶ Sub-committees to provide recommendations to MDA this Spring
- ▶ Sub-committees to complete the practice memos before full Committee discussion (though some Options may be drafted to spark discussion)
- ▶ Sub-committee to manage their own logistics. MDA can support setting conference call lines, invites, etc. between Committee meetings.



Guidelines for Discussion

I. Respect

Be nice and understanding.

Acknowledge your colleague's insights as well as those of previous contributors before you present your own views.

II. Community

Set and keep a professional and positive tone.

While creative and respectful discourse is encouraged, never present objections as a flat dismissal. Leave open the possibility of compromise.

There's no need to keep pressing the same objection (individually or collectively).

If the issue has been discussed, move on. There is no need for repeated objections to matters that have been adequately discussed.

III. Value Others

All questions are welcomed and all perspectives are valued.

Don't dominate the discussion, leave space for others to speak. Be mindful and try not to let your question or answer run on.

Meeting leaders should attempt to balance discussion between participants, prioritizing people who haven't spoken before, and keeping in mind the likelihood of various explicit and/or implicit biases.



Sub-committee Breakouts

60 minutes

Agroforestry Conservation Practices (NRCS)

Name	Code	Definition
Hedgerow Planting	422	Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.
Windbreak/Shelterbelt Establishment	380	Windbreaks or shelterbelts are single or multiple rows of trees or shrubs in linear configurations.
Tree/Shrub Establishment	612	Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration.
Silvopasture Establishment	381	An application establishing a combination of trees or shrubs and compatible forages on the same acreage.
Alley Cropping	311	Trees or shrubs planted in a set or series of single or multiple rows with agronomic, horticultural crops or forages produced in the alleys between the rows of woody plants.

* Practice Multi-story Cropping is not currently approved in MD



Maryland Agricultural Water Quality Cost-share (MACS) update

- ▶ MDA recently published draft regulations to update funding language:
 - ▶ Consideration for MACS funding must demonstrate a clear conservation benefit, defined as “**an improvement in the condition of the soil, water or other such natural resource of the State, and includes, among other beneficial effects, improved water quality, improved soil health, reduced soil loss, and restored wetlands.**”
- ▶ Expansion would allow greater program opportunity to address co-benefits
- ▶ December 2020 recommendation of the State Soil Conservation Committee to adopt practices 380 (Windbreak), 612 (Tree/shrub establishment), 422 (Hedgerow planting), and 381 (Silvopasture) for MACS funding
- ▶ Recommendation will be submitted to Sec. Bartenfelder for approval along with practice criteria for SCDs



Agroforestry pilot projects

- ▶ MDA plans to partner with DNR and UMD to develop agroforestry demonstration sites:
 - ▶ Grant opportunity
 - ▶ State park lands and private farms
 - ▶ Goal to demonstrate different types and stages of such practices for easier learning opportunity
 - ▶ Goal to develop carbon sequestration protocols for such practices



Committee Announcements

10 minutes