

Soil Health Advisory Committee

August 30, 2021

Maryland Department of Agriculture



Today's agenda

- ▶ Welcome and Review of June 2021 minutes
- ▶ Public Comments (10 mins)
- ▶ *Healthy Soils Program: Proposed Incentive Options*; Alisha Mulkey, MDA (45 mins)
- ▶ Roundtable (45 mins)
- ▶ Next Steps, Kevin Antoszewski (10 mins)
- ▶ Committee Announcements (5 mins)



Public Comment



Healthy Soils Program: Proposed Incentive Options



Goals of the Healthy Soils Program

- ▶ Improve health, yield, and profitability of soils
- ▶ Increase biological activity and carbon sequestration in soils...
- ▶ Promote widespread use of healthy soil practices among farmers in the State

Incentive Concept	Brief description	Evaluation Metrics*		
		MDA capacity	Funding	Producer Experience
1) Traditional Cost-share	Use the expanded authority of the MACS program to cost-share for practice adoption	●	●	●
2) Bundled practice cost-share	Establish 2-3 practice suite implemented over contract duration	●	●	●
3) Conservation Buffer Initiative	Expand FY21 pilot program to address additional marginal lands with focus on saltwater impacted lands	●	●	●
4) Cover Crops	Expand traditional program based on SHAC recommendations (mixes, planting season, etc.)	●	●	●
5) Equipment financing	Promote LILAC opportunity and/or expand Income Tax Subtraction of conservation equipment to include roller crimper, small operation equipment needs, etc.	●	●	●
6) State certification program	Create branded farmer certification program to advance greater market opportunity (e.g. supply premiums) or other appealing outcomes (e.g. NM audits, priority program access, etc.)	●	●	●
7) Technical Assistance support	Support state's Soil Health Management Plan (SHMP) capacity via Technical Service Provider network. The SHMP is enabling document for holistic mindset, inclusive of soil health evaluations	●	●	●
8) Competitive grant fund	Create competitive grant program to fund practice adoption. Evaluation and ranking criteria could be developed with SHAC.	●	●	●
9) Small farm conservation	Establish dedicated assistance and protocol for small farm operations to complement existing programs	●	●	●

Initial discussion on June 7

Definitions: **MDA capacity** (Office of Resource Conservation) rates our current infrastructure and staffing capacity to deliver the incentive concept; **Funding** rates current (or likely) funding available to MDA for the incentive concept; and **Producer Experience** rates perceived interest or experience among producers with the incentive concept.

Synthesis: Committee Input

From June 7 Committee meeting:

- ▶ We may need to choose multiple incentive options to encourage different suites of practices
- ▶ Balance financial incentives for outcomes-based and traditional cost share
- ▶ Prefer incentive options with more eligible practices for greatest producer flexibility
- ▶ A shift in program framework is required to support soil health and resiliency



Synthesis: Committee Input

From individual and focus group feedback:

- ▶ Find ways to decrease the administrative burden on the Soil Conservation Districts
- ▶ Options should be flexible enough for producers of all types to take advantage of programs, and should also allow producers on the cutting edge to participate
- ▶ Too many certification programs can be hard distinguish and can make farmers feel like they need to prove themselves over and over again
- ▶ Financial assistance is important
- ▶ Importance of program and administrative simplicity



Synthesis: Two Big Questions

1. How does the incentive improve soil health?
2. What is the “bang for the buck”?



Proposed Incentive Options

Based on input to date, MDA proposes three options to Committee:

1. Competitive Grant Program
2. “Cover Crop+”
3. Improvements to the MACS Capital program (already in progress)

We see all three of the suggested incentives occurring simultaneously as they each complement each other and fill a different role



1. Competitive Grant Program

- ▶ Focused on small farm conservation and research
- ▶ Annual solicitation
- ▶ Producers would request funds to support on-farm conservation up to a \$ cap
 - ▶ Eligible practices would align with priority practices selected by the Committee
- ▶ Application process would be simplified to build engagement with small producers
- ▶ Contracts would have a 5 year duration
- ▶ Soil Health Card and Soil Testing (based on NRCS practice 216) over contract duration to inform producer AND program development in other elements of the Healthy Soils Program
- ▶ Continued role (potentially) of Committee



Competitive Grant Program

Project Examples

- ▶ Nutrient management trials – impacts of management on soil health, yield, carbon sequestration, etc.
- ▶ Cover Crop trials – assessment of cover crops after cash crops that don't qualify for funding under current programming; cover crop mix trials; or planting outside of currently allowed windows
- ▶ Small farm conservation – funds for producers that don't meet current acreage requirements



Competitive Grant Program

How does it improve soil health?

- ▶ Directly and indirectly
- ▶ New access to funding for small producers with the flexibility to meet their specific needs can directly improve soil health
- ▶ Research plots will have variable results
 - ▶ Projects with positive soil health outcomes can inform expansion of other healthy soils programming, creating a feedback loop between incentive options
 - ▶ MDA Nutrient Management research exemption



Competitive Grant Program

What is the “bang for the buck”?

- ▶ Variable
- ▶ Some projects will inevitably be more impactful than others
 - ▶ Selection and ranking criteria in consultation (potentially) with Committee
- ▶ Small-scale nature of the grants will limit the risk of negative soil health outcomes



2. “Cover Crop+”

- ▶ Leverages the success and familiarity with current Cover Crop program
- ▶ Implementation of **multispecies and/or extended season cover crops** over a 5 year contract, with some flexibility
- ▶ Ability to integrate livestock
- ▶ Fixed base rate annually + potential for an ecosystem service payment
- ▶ Additional ecosystem service payment option for stacked conservation
- ▶ Soil Health Card and Soil Testing over contract duration
- ▶ Program would be in addition to the annual Cover Crop program, not a replacement – we need to be mindful of annual cover crop roles in meeting WIP goals



“Cover Crop+”

How does it improve soil health?

- ▶ Directly – soil armor, living roots, biodiversity
- ▶ Changes in management of cover crops will likely lead to increased biomass and increased soil organic matter
- ▶ Thinking about practices over a longer timescale rather than annually
- ▶ Addition of other priority practices to build whole-farm decision making



“Cover Crop+”

What is the “bang for the buck”?

- ▶ High
- ▶ Current engagement with the Cover Crop program is high
- ▶ Shifting management to focus on co-benefits is a win-win
- ▶ Producers and SCDs are familiar with the current program, increasing likelihood of participation



3. Ongoing Improvements to the MACS Capital Program

- ▶ Retain the MACS Capital program “as is” to recognize the co-benefits of nutrients and soil carbon obtained by implementation
- ▶ Recent accomplishments related to soil health:
 - ▶ Updated regulations for “conservation benefits”
 - ▶ Newly eligible practices include Agroforestry and additional fencing for prescribed grazing
 - ▶ Plan to add Alley Cropping to the list of eligible practices
 - ▶ Up to 100% Costshare on key practices
 - ▶ Program equity evaluation
 - ▶ Forthcoming: new flat rate structure



MACS Capital Program

How does it improve soil health?

- ▶ Program now explicitly recognizes co-benefits of conservation
- ▶ Accomplishments will increase on-farm perennial cover and promote prescribed grazing infrastructure
- ▶ Agroforestry:
 - ▶ Increase above ground biodiversity and biomass
 - ▶ Potential income diversification for the farmer



MACS Capital Program

What is the “bang for the buck”?

- ▶ Moderate
- ▶ Woody biomass plantings have high carbon sequestration potential per unit, but plantings can be expensive and maintenance intensive
- ▶ Agroforestry practices provide soil health and carbon sequestration benefits of edge-of-field practices in-field
- ▶ Prescribed grazing can be highly variable



Key considerations

- ▶ Funding for all incentives options is being evaluated
 - ▶ Cover Crops
 - ▶ Chesapeake and Atlantic Coastal Bays Trust Fund @ \$200K
 - ▶ Ecosystem service payments
- ▶ MDA capacity exists currently to implement these incentives in pilot phase
- ▶ All proposed incentives can advance conservation on leased lands
- ▶ Proposal has been vetted with and has the support of the Governor's office



Why are there no measured outcomes based payments?

- ▶ The scientific community has not reached a consensus on the best test or metric(s)
- ▶ Capacity to collect data necessary to validate outcomes for all enrolled fields
- ▶ Producer risk tolerance
- ▶ Future payments for outcomes are a possibility under the “Cover Crop+” incentive
- ▶ MDA commits to collaboration with academic partners on data to build collective knowledge





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Committee Roundtable (45 mins)

Potential Guiding Questions

- ▶ Has MDA adequately captured feedback from the Committee? Did we “hit the mark”? Does this proposal achieve the goals of the Healthy Soils Program?
- ▶ What do you like about these initial ideas?
- ▶ Where does the initial proposal fall short?
- ▶ Are some members interested in continuing in an ongoing Advisory role --> annual meeting



Roundtable

45 minutes



Committee Next Steps

- ▶ Synthesize today's feedback
- ▶ Re-engage through three Subcommittees over next 3-4 months:
 - ▶ Refine proposal details
 - ▶ Integrate incentive concepts back into Conservation Practice memos – clarify audience
 - ▶ Draft recommendations
- ▶ MDA drafting program report of process and recommendations
- ▶ Fall 2021 listening sessions for small farm conservation – expect to hear from us!
- ▶ Next full Committee in winter



Committee Announcements

5 minutes



The priority conservation practices (and NRCS practice code) identified by the SHAC are:

- ▶ No Till (329)
- ▶ Reduced Tillage (345)
- ▶ Nutrient Management (590)
- ▶ Integrated Pest Management (595)
- ▶ Conservation Crop Rotation (328)
- ▶ Cover Crops (340)*
- ▶ Forage & Biomass Planting (512)*
- ▶ Conservation Cover (327)*
- ▶ Critical Area Planting (342)*
- ▶ Prescribed Grazing (528)**
- ▶ Agroforestry: Alley Cropping (311)
- ▶ Agroforestry: Hedgerow Planting (422)*
- ▶ Agroforestry: Windbreak/Shelterbelt establishment (380)*
- ▶ Agroforestry: Silvopasture (381)*
- ▶ Agroforestry: Tree/Shrub Establishment (612)*

Practices marked with an asterisk (*) are current Maryland Agricultural Water Quality Cost-Share (MACS) eligible practices.

**To support Prescribed Grazing, current MACS eligible practices would include Fencing (382), Watering Facility (614), Spring Development (574), and Stream Crossings (578).