Cover Crop/ Nutrient Management Ag BMP TAC Sub-committee Meeting
Monday August 26, 2024
DOF Training Room – Virginia Department of Forestry
900 Natural Resources Drive
Charlottesville, VA 22903
10:00am – 3:00pm

OPENING AND INTRODUCTION

The Cover Crop and Nutrient Management Subcommittee meeting was called to order at 10:06am. A quorum of 13 voting members was present. Ms. Marie Schirmacher, VA-DCR welcomed those in attendance and asked for introductions. Once introductions were complete, Ms. Schirmacher reviewed the agenda and explained she anticipated needing one more meeting to review the work of the subcommittee.

ATTENDANCE

Voting Members:

Marie Schirmacher, DCR
Allyson Ponn, Lord Fairfax SWCD
Alston Horn, Chesapeake Bay Foundation
Bob Waring, Colonial SWCD
Bryan Johnson, Virginia Farm Bureau
Buck Tharpe, Southside SWCD
Courtney Coleman, Peanut SWCD
Kemper Marable, Hanover-Caroline SWCD
Megan Trice, Shenandoah Valley SWCD
Spencer Yager, Culpeper SWCD
Steve Jones, John Marshall SWCD
Tim Talley, Thomas Jefferson SWCD
Tom Hardiman, Virginia Grain Producers Association

Voting Members Absent

Hubert Bowman, Blue Ridge SWCD

Non-Voting Members:

Olivia Leatherwood, DCR
Nick Moody, DCR
Marissa Roland, DCR
Hunter Quinones, DCR
Sara Bottenfield, DCR
Roland Owens, DCR
Stu Blankenship, DCR
Shelby Foosness, Shenandoah Valley SWCD

DISCUSS FUTURE MEETING DATES

Ms. Schirmacher asked the subcommittee members to plan on another meeting at the Department of Forestry (DOF) building. She also explained to expect only 1 more meeting prior to Full Technical Advisory Committee (TAC) meeting on Oct 29.

Please see the Cover Crop/Nutrient Management subcommittee matrix referred to below by item in the next section (Attachment 1).

REVIEW OF COVER CROP/ NUTRIENT MANAGEMENT MATRIX ITEMS

1C. The subcommittee reviewed item 1C, which suggested changing the 60% stand date in the cover crop specifications from December 15 to January 1. The suggestion went on to recommend that with the change in planting dates in recent years, stand dates should also be adjusted to match the change in dates.

There was discussion from the subcommittee about what planting dates are in the cover crop specifications and that they were changed recently in 2021. The subcommittee noted the stand dates were adjusted then when planting dates were changed. The data regarding planting dates is based on growing degree days per region and average frost dates from research done by Virginia Tech. There were questions about when the research was done and checking in to see if there have been any changes since the specifications were updated. There was discussion from the subcommittee about confirming credit would still be received in the Chesapeake Bay Model should dates be moved. The subcommittee motioned to defer item 1C to the CY25 TAC cycle in order to gather additional information from Virginia Tech about growing degree days, average frost dates, and what credit cover crops could receive if the dates were adjusted. ***The motion passed unanimously 13 to 0.***

2C. The subcommittee reviewed item 2C, which suggested revising cover crop rates to incentivize mixed species over rye. There was a scientific article included in the suggestion which suggested research shows early planted mix of brassica and rye takes up more nitrogen than rye alone (Attachment 2). Item 2C was deferred from TAC cycle CY23.

There was discussion from the subcommittee about what credit each crop receives in the Chesapeake Bay Model. Consensus was rye is the premier cover crop based on the credit it receives. The subcommittee motioned to table item 2C. ***The motion passed unanimously 13 to 0.***

3C. The subcommittee reviewed item 3C, which suggested raising the payment rate of the WQ-4 specification, since other cover crop practice rates have been raised in previous years.

Ms. Schirmacher explained producers are saving nitrogen inputs by planting legumes, and the bay model credit for legumes is very low compared to other cover crop practices. There was brief discussion about the planting dates for WQ-4. The subcommittee motioned to table item 3C, as legumes do not receive much credit in the Chesapeake Bay Model. ***The motion passed unanimously 13 to 0.***

4C. The subcommittee reviewed item 4C, which suggested removing the 300-acre cap for acres receiving manure under the SL-8H specification.

Members of the subcommittee presented to the group that in the Whole Farm Approach (WFA), there is no acreage cap on manure application. There was discussion that manure should only be applied if it's within a producer's nutrient management plan. DCR staff informed the subcommittee that no credit is

received in the Chesapeake Bay Model for acres with manure applied. There was discussion from the subcommittee suggesting the cap on manure application needs to be consistent between the SL-8H and WFA specifications. By consensus, the subcommittee agrees to move to the next matrix item and return to item 4C at the end of the meeting, once DCR staff confirmed there was no manure cap in WFA.

5C. The subcommittee reviewed item 5C, which suggested including additional cover crop plants for use in the cover crop specifications with an enclosed table showing the recommendations from the Sustainable Agricultural Research and Education (SARE) organization (Attachment 3)
Ms. Schirmacher reviewed the table of cover crop comparisons between SARE Manual and VACS specifications, highlighting that many are overlapping. She also highlighted SARE's work is nation-wide; many of the suggested crops would be better suited to tropical and sub-tropical climates. VACS is a statewide program and needs to consider different climates between Virginia's regions. Most summer cover crops are already covered in the SL-8A. There was discussion from the subcommittee about Hunter Frame and Mark Rider's cover crop research at VT and how that may be helpful to have before moving this item forward. There was also discussion from the subcommittee that if additional cover crop plants are added into the specifications, they have to be checked against the Chesapeake Bay Model report to make sure they are valid, otherwise they cannot be used if they do not receive credit. The subcommittee agreed to revisit item 5C next meeting after collecting additional information from Hunter Frame regarding cover crop plants and potential credit in the Bay Model can be gathered.

6C. The subcommittee reviewed item 6C, which suggested incentivizing rye and triticale under SL-8H the same way they are under the SL-8B. The subcommittee discussed how the harvestable cover crop, SL-8H, is paid at a lower rate due to being able to harvest as well as the decreased credit in the Bay Model. The producer is already saving costs. DCR Data Services explained only one acreage gets reported under SL-8H, so species does not matter. There was discussion from the subcommittee regarding different cover crop strains and nutrient uptake, but it was reiterated only one acreage was reported to the Bay Model. The subcommittee motioned to table item 6C. ***The motion passed unanimously 13 to 0.***,

7C. The subcommittee reviewed item 7C, which suggested clarifying in the cover crop specifications that only the application of Nitrogen and Phosphorus are restricted. Allowing the application of potassium and other micro-nutrients that are not water quality impairments should be acceptable.
The subcommittee discussed the Chesapeake Bay Model, reemphasizing the model only considers Nitrogen, Phosphorus, and sediment. There was discussion from the subcommittee about what situation would have brought this suggestion up. There was discussion from the subcommittee to insert the language under B.2., "no nitrogen or phosphorus sources are allowed between harvesting of previous crop and March 1 of next calendar year. No nutrients are allowed at planting." The subcommittee was reminded any changes in the SL-8B should be carried over into the WFA specification. The subcommittee proposed DCR staff review the cover crop specifications to see which this language change would need to be applied to, as well as give Data Services time to confirm if there are any issues with the Bay Model credit if the specification is altered. By consensus, the subcommittee will review item 7C again at the next meeting once additional information is received.

8C. The subcommittee reviewed item 8C, which suggested revising or clarifying the recommendation from the 2023 TAC cycle to add cost-share for precision soil sampling in the NM-5P specification.

The subcommittee reviewed the current NM-5P specification and confirmed there is no per sample cost-share available on any soil sampling. There was discussion from the subcommittee regarding costs of samples from commercial companies. There was further discussion regarding the zone sampling acreages and editing language to increase acreage from 1 to 4 acres to 1 to 5 acres to be reflective of what is actually happening in the field. There was discussion from the subcommittee about what commercial companies charge for sampling, citing the work also includes creating and receiving maps, with an additional cost when the company revisits the operation for fertilizer application. There was discussion about what credit is received in the Bay Model from enhanced nutrient management, with DCR Data Services explaining there is no distinction between a regular soil test and an enhanced test. The subcommittee motioned to table item 8C with the assertion soil sampling per test is the cost of doing business. ***The motion passed unanimously 13 to 0.***

9C. The subcommittee reviewed item 9C, which suggested adjusting the language in the SL-8A specification to add language for summer cover following a small grain cash crop, late harvest, etc., in addition to the current language. 9C also suggested raising the payment rates by $20 to encourage cover.
Mr. Bob Waring, Colonial SWCD, presented background on this item, suggesting incentivizing the SL-8A specification in order to garner interest in producers participating in this practice. There is potential for other applications beyond summer cover and soil health. There was discussion of what credit the program receives in the Bay Model for this specification, which was discovered to be almost none for any of the crops. The subcommittee motioned to tabled item 9C due to lack of credit received in the model under the SL-8A. ***The motion passed 12 to 0 with 1 abstention.***

10C. The subcommittee reviewed item 10C, which suggested changing the early planting date for cover crop to November 1 and the standard date to November 20 for both the Coastal Plain and Piedmont areas. There was discussion from the subcommittee regarding the previous changes to the cover crop specifications, citing a change in planting dates was made two years ago and took into account data from Virginia Tech regarding growing degree days and average frost dates in each region. The subcommittee felt data is needed from Tech if cover crop dates need to change. The subcommittee motioned to table item 10C. ***The motion passed.***

11C. The subcommittee reviewed item 11C, which suggested a legume mixed with a cereal grain be able to receive a planting bonus similar to the rye planting bonus in WFA. The subcommittee discussed how this item is more a soil health initiative, rather than one tied to water quality. The subcommittee motioned to table item 11C. ***The motion passed unanimously 13 to 0.***

At 11:40, the subcommittee agreed by consensus to revisit items 4C and 8C and the specifications referenced to see if additional changes or discussion was needed.

The subcommittee revisited the NM-5P specification to review the definition of grid sampling. As discussed previously in the meeting, grid samples are typically 1 to 5 acres or intervals of 2.5 acres. Changing the definition is more reflective of what producers are actually doing in the field. The subcommittee motioned to change the language in the NM-5P, section B.7 and the VACS Manual glossary from 4 acres to 5 acres. ***The motion passed unanimously 13 to 0.***

The subcommittee reviewed the definition of zone sampling from the NM-5P specification and glossary. The current language in the glossary defines zone sampling by soil type and no larger than 20 acres in size. There was discussion from the subcommittee on soil maps and how they are not intended to be used for zone sampling on a large scale. The subcommittee discussed yield data as more accurate. The subcommittee motioned to update the definition of zone sampling to include yield history data. ***The motion passed unanimously 13 to 0.***

The subcommittee revisited item 4C for discussion deferred from earlier in the meeting. DCR staff confirmed the acreage cap on manure was removed from the WFA but did not know why and wanted to review further. DCR staff also reviewed data from VACS program contracts showing 56,000 acres had manure installed, 2800 of which were reported as on-farm. The subcommittee directed DCR staff to gather additional information as to why the cap was removed in WFA and discuss further at the next meeting.

SCHEDULE NEXT MEETING

There was discussion of next meeting dates, consensus being Mondays work best, but the current room was unavailable for any date. Mr. Bryan Johnson, Virginia Farm Bureau, offered Farm Bureau's meeting space in Richmond, dependent upon subcommittee and room availability. Ms. Schirmacher and Mr. Johnson will communicate with the subcommittee about a future date via email.

PUBLIC COMMENT/QUESTIONS

There was no public comment.

The subcommittee motioned to adjourn at 12:06pm. ***The motion passed unanimously 13 to 0.***

Attachment 1

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2024 (CY24) TAC					
Item #	**Ag. BMP**	**Suggestion to the TAC**	**TAC Recommendations**	**DCR Supports**	**FY2026/2027**
1C		Change the 60% stand date from Dec. 15 to Jan. 1. For all VACS cover crop practices: Due to the change in planting dates in recent years, we recommend adjusting the date producers must achieve a good stand and good growth of vegetative winter cover, by a minimum of 2 weeks, to match the adjustment made to the cover crop planting dates. It was the recommendation of Frank Long, Virginia Cooperative Extension Agent, to extend the date as far out as February or March to be comparable to our partner agency's cover crop standards. The meeting attendees discussed the likelihood of such a radical change being made, which is why we are making the suggestion to correlate to the planting date change, as a minimum. This will allow the producers planting cover crops up to the November 30th planting deadline sufficient time to achieve a good stand and good growth to meet the 60% coverage requirement. The specification could read: "A good stand and good growth of vegetative winter cover must be obtained by December 31 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice."			
2C		Revise cover crop rates to incentivize mixed species over pure rye. Research shows early planted mix of brassica and rye takes up more nitrogen than rye alone https://acsess.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/jeq2.20342			
3C	WQ-4	Consider increasing the payment rate for the WQ-4 practice. Other cover crop practice rates have recently been increased and it would be appropriate to increase this practice's rate as well.			
4C	SL-8H	Consider removing the 300 acre cap for acres receiving manure for the SL-8H practice.			
5C		The current Agricultural Best Management Practices (BMP) includes several important practices for the use of cover crops. The types of cover crop plants are largely based on grains, some legumes, and some brassicas. There is room for improvement. The Sustainable Agriculture Research and Education (SARE) organization also recommends the use of cover crops, but their recommended list of plants is more extensive than the current Ag BMPs. The enclosed table shows the differences. Also, under SARE's manual the use of the cover crops is more diverse. The increased plant diversity has several			

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		advantages to soil enrichment. A richer diversity of a mix of cover plants reportedly can produce better soil organic matter and deeper root structures. Expand the number of cover crop plans included in the Virginia Ag BMPs based on the SARE manual.			
6C	SL-8H	Incentivize Rye and Triticale under the SL-8H the same way they are under the SL-8B. Many producers who plant rye and triticale for harvest are utilizing the crop as on-farm feed and then spreading on-farm generated manure back on the fields ahead of the cash crops.			
7C		Clarify in the cover crop specification that only the application of N and P are restricted. Allowing the application of potassium and other micro-nutrients that are not water quality impairments should be acceptable.			
8C	NM-5P	Revise/clarify the CC/NM subcommittee's recommended from 2023 to add cost share for precision soil sampling to the NM-5P. *[Deferred in 2023]* NM-5P: C. Rates 2. No per sample cost-share is available for zone/grid (subfield) soil fertility testing. Costs associated with zone or grid (subfield) soil sampling and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of $6.00 per acre. New soil sample commercial laboratory results (within the program year the payment is being made) must be provided for reimbursement.			
9C	SL-8A	Adjust SL-8A - add language for summer cover following a small grain cash crop, late harvest, etc., in addition to the current language. Raise rates by $20 for each payment rate to encourage cover.			
10C		Change the early planting date for CC to Nov. 1 and the standard date to Nov. 20 for both the Coastal Plain and Piedmont areas.			
11C		Request that a legume mixed with a cereal grain be able to receive a planting bonus similar to the rye planting bonus.			

MATRIX OF DEFERRED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	**Ag. BMP**	**Suggestion to the TAC**	**Reason for Deferring**

MATRIX OF TABLED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	**Ag. BMP**	**Suggestion to the TAC**	**Reason for Tabling**

Attachment 2

https://acsess.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/jeq2.20342

Attachment 3

Cover Crop Plant Comparison

Plan Options under Current VA Ag BMP	SARE Cover Crop Plant Options
Tetraploid Rye (pure strain only)	Rye
Winter Rye	Winter rye
Winter Barley	Barley
Winter Annual Ryegrass	Annual ryegrass
Winter Wheat	Wheat
Winter Hardy Oats	Oats
Small Grain Mixtures	Cover Crop Mixtures
Small Grain Mixtures with a) legume†	Cover Crop Mixtures
Small Grain Mixtures with b) forage radish	Cover Crop Mixtures
Small Grain Mixtures with c) canola or rape	Cover Crop Mixtures
Triticale	Triticale
Forage Radish	Oilseed (forage) radish
Forage Radish 1) mixture with grass or legume†	Cover Crop Mixtures
Winter-hardy Brassica (canola/rape)	Rapeseed
Winter-hardy Brassica (canola/rape) and 1) mixture with grass or legume†	Brassicas
Crimson Clover	Crimson clover
Austrian Winter Pea	
Hairy Vetch	Hairy Vetch
	Field peas
	Subterranean clover
	Balansa clover
	Berseem clover
	Cowpeas
	Sunn hemp
	Velvet beans
	Lablab beans
	Pigeon peas
	Red clover
	Sweet clover
	White clover
	Sudangrass and sorghum-sudan hybrids
	Millets
	Buckwheat
	Cover Crop Mixtures

† - legume = Crimson Clover, Austrian Winter Pea, or Hairy Vetch