Meeting Minutes

July 29, 2021

1:00 PM-2:00 PM

Ad Hoc Group- CAST CONCERNS

[**Google Drive**](https://drive.google.com/drive/folders/1kXxnS3kfEIdR1NcfPES__cif_MyCAY6X?usp=sharing)

**Summary of Actions and Decisions**

**Action:** Jackie Pickford and Loretta Collins will work to summarize the day's discussion and develop a path forward to address the request for nutrient reduction efficiencies to incentivize winter cover on dairy operations.

1:00 **Welcome, Progress Updates (15 min)**

* CAST-21 Workplan Updates
* Phase 7 Timeline
* Dairy Precision Feeding Tracking & Reporting (PA team)

Loretta Collins: PA, do you have any updates on discussions or actions regarding the dairy precision feeding BMP?

Ted Tessler: We don’t. We didn’t get approval to start using the methodology so we’re wondering if we go through the effort to collect that information? We don’t want to waste time and resources collecting the data if it’s not going to be used.

Loretta Collins: My perception was that there were still questions about the process - how it’s going to be verified, documented, etc. I would encourage you all to work with Mark Dubin about how to move forward.

Cassie Davis: Just an FYI about the Hillandale data, the WTWG is looking to make a decision on that on August 5th.

1:15 **Winter Crop Ask (40 min)**

Request category for: “Systems where dairy farmers are taking off corn silage end of August 1 to September coming back with fall manure applications and then following up that with winter forage crops. These are neither commodity or traditional cover crops, they're truly forage crops, where they're doing multi species- particularly for the reason of spring grazing or harvest as feed. They are removing these crops to cycle the nitrogen within their farming operations. Perhaps it's even better defined as what we now have as a legume or legume grass mix hay land use.”

Review of options currently available in CAST and discussion on how to address the request above.

**December 2020 AgWG**

[Ken Staver Cover Crops Presentation](https://www.chesapeakebay.net/channel_files/40309/staver_agwg_cover_crops_dec_17-2020-temp.pdf)

[December 2020 minutes](https://www.chesapeakebay.net/channel_files/40309/agwg_meeting_minutes_12.17.20.pdf)

**January 2021 AgWG**

[Charlie White presentation](https://www.chesapeakebay.net/channel_files/41822/manure_and_cover_crop_n_retention.pdf)

[January 2021 minutes](https://www.chesapeakebay.net/channel_files/41822/agwg_meeting_minutes_01.21.2021_.pdf)

Ken Staver: The tricky part is that we don’t have a good system in CAST for dealing with winter crops because the land use has to be split into two years when it enters the model, because we have a calendar year that starts and ends at some time. So the planting part of the wheat production is in the previous year. When we had the original list of land use categories, it included rotating into winter cereal grains for harvest, but we don’t have that anymore. Now we basically only have corn and soybeans, and the wheat is basically handled as a double crop year.

Olivia Devereux: I feel like you’re describing a double crop or crop rotation. I’m struggling to connect that to a cover crop.

Ken Staver: Well if you want to put haylage rotating back into silage corn and call that double crop we’d be treating that just like wheat rotating back into soybeans. What I see the big dairies doing mostly is less alfalfa and more haylage, manure, then plant silage corn. Haylage-manu-silage corn- manure - fall grain, etc...

Olivia Devereux: That just sounds like a double crop to me, and in the model because it’s annualized, it doesn't matter if it’s first or if it’s second, which I realize doesn’t reflect the real world but that’s just how it is in the model.

Ken Staver: I mean it doesn’t really matter if you call it a double crop, the fact is that you’re still following corn with a winter cereal that takes up nitrogen, so that’s essentially a cover crop practice. It’s still using a winter cereal to scavenge N and utilize manure as well.

Olivia Devereux: When we look at the amount of plant material covering the soil then that is taken into account with sediment runoff as part of a sediment calibration of the model and it’s based on the amount of double cropping. Just to offer that information out loud.

Ken Staver: If I remember correctly, there is a small sediment value for corn silage, even though it's a low residue crop, so in some high erosion potential situations you would get some sediment and P credit versus leaving it fallow. So I guess I was saying that the simplest way of handling this is not to add a double crop but to leave the BMP as it is now. Haylage into corn silage is a really different double crop than the usual dominant practice of winter wheat harvest into double crop soybeans.

Loretta Collins: Thoughts from other folks? PA, NY, MD?

Ted Tessler: We have had issues with identifying the use of winter cover as a means to prevent soil loss and uptake N and P. The problem we’re finding is that the use of the crop (harvest/forage) is keeping it out of the traditional categories, it’s falling between the gaps so we don’t get credit. We also have problems with data collection. It would be nice to use satellite imagery to document winter coverage. All this information that we can’t get prevents a real challenge. There are also some concerns in the crediting - more credit for burning the crop than harvesting it when you’re removing the material. That doesn’t seem to make sense.

Olivia Devereux: There are a lot of other options for removal than just burning and harvesting. The TCW and others are looking at alternatives but it doesn’t tie into the N, P, sediment reductions. I feel like that should be brought up in a different discussion.

Ken Staver: If you just handle it on N, I don’t think there is a penalty on burning vs harvesting. You get the credit for that BMP. Phase 6 opened the door for fall manure.

Emily Dekar: I don’t think there’s actually a penalty for N, the penalty would be for the fact that we can report it, we’re not getting credit for it in the model if manure is applied and it’s harvested.

Ken Staver: I don’t think there’s anything in the report that says grazing or green chopping or making haylage makes this ineligible for reporting as a cover crop.

Loretta Collins: I don’t think it says either way. It only says no harvest. So maybe it’s a simple fix of just clarifying what Option 2 includes.

Ken Staver: The only tricky part with that is that there’s risk whenever there’s harvest because there’s incentives to apply inorganic N if the manure N didn’t give you the maximum economic return from that crop. Ift might be worth clarifying that if it’s working off of residual in the fall manure application, tht it gets handled as Option 2, without additional N. Once you start putting on additional N then it’s different.

Ted Tessler: Olivia, can you review the double cropping column from the ag census in what that means? Are those rules fixed in what's termed a double crop?

Olivia Devereux: That data isn’t in the Ag Census, they don’t specifically ask that question. We look at total harvested acres compared to the sum of all the crops harvested, and if the sum of the crops harvested is larger than the total harvested acres, (because there is double cropping in the watershed), that tells us how much double cropping there is in each county. If it's 1:1 then there’s no double cropping. As a partnership, we decide which crops are double cropped with each other and we have a category of first and second for order.

Olivia Devereux: There is a different nitrogen credit depending on the BMP, I posted it in the chat but the format got messed up. Basically, you’re going to get your greatest benefit from traditional cover crop that is not harvested and has no nutrients, your second greatest would be from putting on fall nutrients, and your least benefit is from a commodity crop because the assumption is that you’re applying nutrients to meet the crop needs which could lead to some nutrient loss from application.

Ken Staver: I thought the commodity crop should be handled under nutrient management. As far as I’m concerned it’s not a cover crop practice, it’s just an N application issue.

Loretta Collins: Right now the expert panel report is read as saying no harvest. Maybe we can change it to include Option 2, including forage crop option. Would that address NY and PA’s concerns?

Ken Staver: In the expert panel when we went back and added the fall manure option we didn’t go back and explicitly deal with how we defined traditional so it does still say no harvest. Should we have an asterisk by that no harvest in that case? A question of baseline might come up so we should have a rough answer to how much was being done in the baseline condition.

Ken Staver: I think short-term our best shot is revisiting the harvest option issue specifically. Creating a new land use might be a Phase 7 long-term option.

Seth Mullins: Option 2 is 70% efficiency of Option 1. How does that compare to just cereal silage corn silage rotation year after year where you don’t give the cereal silage any credit. This doesn’t seem like a new practice, maybe adding something to mix, but corn and rye silage is a pretty common thing.

Loretta Collins: Yeah I think that’s what Ken was saying. It’s acknowledging something that has been common practice for a long term.

Ken Staver: The only thing I would say that’s a little problematic is the way that USDA data is reported, it’s not reported as a system it’s reported separately. We have to have some way to connect them.

Loretta Collins: Sounds like we have two things: a) potentially in the future, having a Phase 7 discussion dealing with the mechanics of what we need to tweak in the model, and then b) immediate needs of providing clarity through an asterisk for that BMP Option 2.

Ken Staver: Loretta, do you know anyone in the dairy field that can take a stab at an estimate of continuous corn silage that has a haylage in there vs one that does not? Or something to explain what the current state is on the ground to explain how many acres this is, how big of an issue this is. It might help inform the discussion.

Loretta Collins: Okay, so you want to know the current trends of dairy rotation and the scope of room for improvement.

Emily Dekar: In NY, if there’s an opportunity to get funding to plant cover crops then we would have way more farms that would be willing to do so.

Mark Dubin: Dr. Ishler has information on change in rations for winter crops in dairy.

Ken Staver: P interests have pushed for more on-farm forage.

Loretta Collins: So it sounds like NY is looking to incentivize some sort of winter cover on dairy operations and they are saying this would help us encourage improvement. In PA, I don’t know what that looks like. I’m assuming there are some issues with that. Do we propose a tweak to the Option 2 BMP or do we need more information first on what the current state is (ground cover on these systems in the winter)?

Ken Staver: Well who would make the decision to change the definition?

Olivia Devereux: Wasn’t that what the expert panel meant? In the past, we’ve just put out a memo clarifying what the expert panel meant. But if they didn’t intend that then it’s another thing altogether.

Ken Staver: I don’t know how easy it is to amend it or what the rest of the committee thinks.

Mark Dubin: The panel was also working on the backs of multiple panels beforehand, so the definition of excluding forage production has been something engrained ever since I can remember.

**Action:** Jackie Pickford and Loretta Collins will work to summarize the day's discussion and develop a path forward to address the request for nutrient reduction efficiencies to incentivize winter winter cover on dairy operations.

1:55 **Review of Actions (5 min)**

2:00 **Adjourn**

**Meeting Chat**

*From Olivia Devereux to Everyone: 01:38 PM*

BMPFullName BMPShortName LoadSource HydroGeomorphicRegion AvgNitrogenEfficiencyPct AvgPhosphorusEfficiencyPct AvgSedimentEfficiencyPct

Cover Crop Commodity Normal covercropcomnormal Double Cropped Land Piedmont Crystalline 10.00 0.00 0.00

Cover Crop Traditional Wheat Normal Other covercroptradwno Double Cropped Land Piedmont Crystalline 24.00 0.00 0.00

Cover Crop Traditional with Fall Nutrients Wheat Normal Other covercroptradnutwno Double Cropped Land Piedmont Crystalline 17.00 0.00 0.00

*From Loretta Mae Collins to Everyone: 01:40 PM*

Double-cropping presentation

<https://www.chesapeakebay.net/channel_files/40307/agwg_20201013_updated.pdf>

*From VANESSA VANNOTE to Everyone: 01:52 PM*

Stepping off the meeting, thanks Loretta!

*From Elizabeth Hoffman, MDA to Everyone: 01:52 PM*

We in Maryland would be in support of allowing this practice to be reported under BMP Option 2, traditional cover crops with fall nutrients, allowing that forage does not kick out those under the notation of harvest

*From Cassandra Davis to Everyone: 01:59 PM*

I have to hop off for another meeting. Thank you!

*From Ted T to Everyone: 02:01 PM*

I like what Elizabeth suggests...

**Participants**

Jackie Pickford, CRC

Loretta Collins, UMD/CBPO

Emily Dekar, Upper Susquehanna Coalition

Seth Mullins, VA

Brady Seely, PA SCC

Ken Staver

Elizabeth Hoffman, MDA

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