

**MINUTES OF THE MEETING OF  
THE EASTERN SHORE AGRICULTURE COLLABORATIVE (ESAC)  
NOVEMBER 3, 2008**

**INTRODUCTION**

The meeting of the Eastern Shore Agriculture Collaborative (ESAC) was held on November 3, 2008 at Chesapeake College in Wye Mills, Maryland. The meeting was facilitated by Joanne Throwe from the Environmental Finance Center. Joanne briefly reviewed highlights from the September ESAC meeting which included a discussion about the Maryland Department of the Environment's proposed Animal Feeding Operation general permit and regulations to allow a 90-day temporary storage period for chicken litter on storage piles. She also described the circumstances that brought about the October 29<sup>th</sup> scientific meeting in Annapolis. The Chesapeake Research Consortium facilitated a scientific panel of ten scientists with expertise in poultry stockpiling in order to reach consensus on procedures involved in litter stockpiling. This panel was funded by the Keith Campbell Foundation and was organized by the Environmental Finance Center. A Fact Sheet was developed which would be the focus of our discussion today and guide possible next steps.

**PRESENTATION BY DR. DAVID HANSEN, University of Delaware - Review of Scientific Consensus of Literature on Poultry Litter Storage and its Impact on Nutrient Losses**

Dr. Dave Hansen, scientist from the University of Delaware, gave a presentation about the guidelines for litter stockpiling that were developed by a select panel of scientists.

**Discussion relating to each recommendation were as follows:**

**Recommendation #1** – Dave spoke about litter stockpiling and how it relates to the overall management on the farm. He stated that temporary storage gives a good option of waiting until the right time of year to land apply the litter. He said that in the past it was hard to find studies on litter stockpiling.

**Recommendation #2** - Dave said that he is not prepared to discuss at length recommendation #2 because someone else was very involved in it. He said that a lot of conversations have been had about what comes off a stockpile vs. with what goes in the water. This is not the same thing as the nutrient getting to the water. The timing of stockpiling was discussed and an attendee asked whether the risk was higher when stockpiling was for 14 days or 195 days. It was noted that the real environmental risk happens not because the pile has been there so long but just because it is stockpiled in the first place. It was also said that a pile that has been there 90 days doesn't present any more risk than a pile that has been there for 14 days. Dave agreed.

**Recommendation #3** - Dave suggested minimizing the need for temporary storage and someone suggested maximizing the distance between the stockpile and the receiving water. An attendee remarked that the ground water in Maryland is high and it was noted that it is the same in Delaware. Someone brought up the point that because of the economic situation, litter is much more valuable now. Also noted was that phosphorous does not present much of a runoff problem. A point made by a member of the group that if people are going to be stockpiling for long periods of time, then they will be making better piles. It was noted that the key is to make a clean, high pile, and that it is hard to do this. Also noted was that the regulations in Delaware were for the stockpiles to be 10 feet apart.

**Recommendation #4** – A discussion took place regarding a farmer's litter footprint being less as you make the piles bigger and the consensus was that the piles should vary from year to year.

**Recommendation #5** - A discussion took place concerning the data which stated that there were no significant differences in covered or uncovered the piles with respect to nutrient loss. The more important

issue is what you are going to do with the piles. Covered piles should be expected to have an increased percentage of plant based phosphorous. Dave said you can't tell the difference in terms of nitrogen loss.

An attendee said they are concerned as to why the scientists wouldn't recommend storage in a shed. Dave said storage in a shed would be good but cost-prohibitive. Dave noted that the study did not include a storage shed. He said covering should help to control the ammonia and therefore control the odor.

**Recommendation #6.**- An attendee wanted to know if it would be beneficial to have something under the pile. Dave said that plastic traps water under the pile. A member of the committee added that if you have a plastic covering then you have disposal issues.

**Recommendation #7** - An attendee said that watersheds never get built after the people build the houses. A committee member said that from a lender's side he spends way more time talking about the sheds than about other things. He added that he did not think people thought about watersheds as an afterthought but that it was an important issue. Dave noted that litter management is not uniform and that things are different in recent years partially because it is harder to get good materials.

**Recommendation #8** - Dave said whenever possible, do what you can to try to get that litter covered. He stated that it reduces potential for runoff and also ammonia.

#### **Presentation by Jack Meisenger, USDA/ARS scientist**

Jack showed charts and pictures that related to stockpiling and it was noted that having a good pile promotes good nitrogen. A picture of Greg's covered pile was shown and it was said that the amount of nitrogen lost was measured.

The point was made that measuring volatilization is extremely difficult. A picture was shown of piles that you see in Arkansas and Oklahoma and it was stated that we are in a good position. Another discussion point was that in summer there is not a lot of runoff and that in the winter there is a 20-30% runoff.

The water table chart was discussed. Jack highlighted the period from December to March and said that that is when nitrates are moving. It was noted that the best thing to do is to keep litter off the ground when there is a lot of run-off and percolation. Jack said that Ken Staver was the one that ran the study. He also said that many things go into this study.

A table from another study with tilling or no tilling was shown and it was noted that in the study with no tilling a large increase in runoff was shown. Jack said that with full tilling you can reduce the amount of nitrogen.

#### **Group Discussion**

Following Jack's presentation, Joanne Throwe opened the floor up for discussion. She said they wanted to touch on education and technical information. She also mentioned that there was a lot of information to digest and the following points were discussed:

In terms of looking at recommendations it was asked what some of the areas of clarification might be. Kelly Sherk brought up the topic as to what are the most important uses of research. She said she wants to know what to modify and wants to come to some conclusion

Tim Pilkowski gave an overview on cost share; discussed whey storage, poultry pads, and composting. He said he wants to be there with the poultry industry. Tim said they are starting an alternative use program to supplement the amount of nitrogen they can apply. He mentioned taking the manure and recycling it or going to a mushroom facility. Tim said the main idea is to take the manure and get it out of the watershed.

Cleanup was discussed and it was noted that from a Tyson standpoint they don't have a hand in how farmers clean up. A representative from Perdue stated it was the same for them.

Joanne Throwe asked how many farmers are actually composting. It was said that in-house composting was a cost-effective approach. Someone asked the question as to how many farmers are cleaning out per year so that clean out could be coordinated with the ideal time for land application. It was mentioned that Perdue cleanouts can go anywhere from 12 months to 5 years. Dave said the point is how much of a load there is to the environment from temporarily stockpiled litter. Kelly said the big picture is that you don't want to have excess litter on the land. Dave said the point was trying to figure out land application. Kelly said she wanted to talk about what is practical or not. Joanne asked how we get this to be done by the farmers. Jim Lewis said not to apply fertilizer in winter months and to keep piles 100 feet away from water. Joanne asked how many farmers are still doing non-conical shaped piles and the answer was not many.

The issue of nitrogen and phosphorous in the bay and that there is a desire to reduce that load was discussed. It was noted that the poultry industry is doing what it can. It was also mentioned that practices to reduce loading need to be looked at. It was noted that the bigger issues are proper placement of a pile in proximity to the water table vs. number of days that a stockpile should remain. Dave said that was without question and that you have to see what doesn't cause the worst case scenario. Ashley Toy from EPA Region 3 passed around some pictures of inspected facilities. She noted the pictures were of stockpiles too close to a stream, snow-covered and close to a ditch. Ashley stated stockpiles are loosely defined in the recommendations and that these are environmental problems.

Tim Pilkowski said the reason the group came together is to decide whether stockpiling is significant in impacting the environment. Ashley said those piles are not the only piles that EPA sees. She said that the word "pile" is very narrow. Tim said that farmers told him they are stockpiling litter; he thinks it has to do with the economy. He said he made recommendations to the farmers and they said they will comply. Jim Lewis said people that are making bad piles should be reported to someone. He pointed out that one of the pictures shown might not actually have any violations. Dave Hansen said that they were very specific with this and that people have to be "hammered" if they have piles everywhere.

Joanne said they should all be getting together to discuss what the regulations should say and an attendee stated that the permit should be about how to build a pile and seasonality and storage and they would write rules relating to seasonality and not to how long it 's stored. He said if you look at MAFO, they are very on target. Joelle Hervic asked about plastic at the base of the pile. Josh said you can't spread plastic. Dave drew a picture to illustrate the point about plastic.

After general discussion it was noted that if the group agrees with the recommendations, that they should sign off on it and send it to EPA and other agencies and that they could be studied further later. It was said that the word also needs to get out to the farmers; to make sure the BMPs are there and to make sure farmers know what a good pile looks like. Doug Parker suggested getting a cover letter out from the group. Kenny Bounds said he thought a cover letter and letter about enforcement is fine. Dave said that he thinks they can make a pretty strong statement that the times of piles being there are not significant

Jim Lewis said that he doesn't understand new regulations. He asked what he should tell a farmer when there is a conflict between EPA and MDA. It was stated that until the EPA changes their guidance they are putting themselves at risk. Josh McGrath said their focus was the impact on environment. In regards to discussing an underneath liner for the piles, he said an underneath liner is going to stop farmers from complying. He also said that cover or no cover had no effect on water quality. Someone said there were tests with covered and uncovered piles and that covering was unrelated to its impact on water. A comment was made about car wastes more nitrogen coming to these meetings than anything that the manure will do.

It was noted that most farmers think of manure as a liability and it should be presented as an asset to the farmers. It should be kept in mind that someone would pay for this as a resource. An attendee said in changing the way people look at manure, they would think that here you have this asset, and if you take the

time to pile it up properly, you are going to retain much more of the investment. Josh said most farmers will listen and want to know how to do it better. Joelle said she has concerns based on this study. Joanne said there were additional studies used and the list would be available to everyone soon. Josh said they have been through the literature. Joelle said a lot of emphasis seems to be on Greg Binford's report. - Ashley Toy said the recommendations are not spelled out and there seemed to be a lot of assumptions. She said she had a question about how it relates to soil testing and how will we decide the tilling issues.

Joanne Throwe said that she needs the recommendation letter to come from the ESAC group and that it could not come from her organization. She asked if anyone wanted to take the lead on drafting a letter since there seemed to be quite a lot of support for the idea. A few people were assigned this task and would follow up with other members soon. It was said that the agriculture community is comfortable with this. d Kathy Phillips expressed her concern and said there are a number of problems with the document. She said she wouldn't be comfortable signing off on parts that said they need more research. Joanne asked again what the group wanted to do and there were only a few people in the room who mentioned that they had reservations about a letter of support to MDE on these recommendations. Joanne thanked everyone for their patience and said that she would be responsible for collecting comments, both positive and negative, from the group and distribute them to the scientists for review.

35 attendees at the November 3, 2008 ESAC meeting

<b>F Name</b>	<b>Last Name</b>	<b>Position</b>	<b>Company/Affiliation</b>
Jenn	Aiosa	Maryland Senior Scientist	Chesapeake Bay Foundation
Doug	Baxter		Tyson Foods, Inc.
Kenny	Bounds	Vice President, Government Affairs Officer President	MidAtlantic Farm Credit LEAD Maryland Foundation
Mark	Davis	Deputy Sec.	Delaware Dept. of Agriculture
Jennifer	Dindinger	Communication/Outreach Coordinator	Harry R. Hughes Center for Agro-Ecology, Inc.
Ben	Fertig	Graduate Assistant	UMCES
Suzy	Friedman	Project Manager -- Agricultural Projects	Center for Conservation Incentives at Environmental Defense
Dave	Hansen	Scientist	University of Delaware
Joelle	Hervic	Senior Attorney, CAFOs	Waterkeeper Alliance
Lynne	Hoot	Executive Director	Maryland Association of Soil Conservation Districts
Jim	Lewis	Senior Agent, Agriculture & Natural Resources & County Extension Director	Caroline County Extension
Ann	Lynne		
Dave	Maravel		Delaware Vegetable Association
Bill	Massey		Mountaire Farms
Eileen	McLellan	Chesapeake Bay Project Coordinator, Land, Water and Wildlife Program	Environmental Defense
Connie	Musgrove	Senior Research Coordinator	UMD Center for Environmental Science
Doug	Parker	Associate Professor	UMD Agricultural and Resource Economics
Michelle	Perez	Senior Analyst	Agriculture and Natural Resources Environmental Working Group
Kathy	Phillips	Executive Director	Assateague COASTKEEPER Assateague Coastal Trust
Tim	Pilkowski	Conservation Agronomist	MD NRCS
Royden	Powell	Acting Assistant Secretary	MD Department of Agriculture

<b>F Name</b>	<b>Last Name</b>	<b>Position</b>	<b>Company/Affiliation</b>
David	Redinger	Complex Safety & Environmental Manager, Temperanceville Complex	Tyson Foods, Inc.
Kevin	Sellner	Director	Chesapeake Research Consortium
Kelly	Shenk	NSC Coordinator	EPA Chesapeake Bay Program Office
Beth	Sise	Environmental Manager	Mountaire Farms
Jeff	Smith	Corporate Environmental Manager	Perdue Farms Incorporated
Ed	Stone	Deputy Sec.	MDE
Pat	Stuntz	Program Officer	Keith Campbell Foundation for the Environment
Jack	Tarburton	Representative	Perdue Farms Incorporated
Joanne	Throwe	Assistant Director	University of Maryland Environmental Finance Center
Jennifer	Timmons	Extension Specialist for Poultry	Maryland Cooperative Extension-Lower Eastern Shore
Ashley	Toy	NPDES Enforcement State Coordination Team leader, Pennsylvania and West Virginia	EPA Region 3
Mark	Zolandz		EPA Region 3
Jack	Meisenger	Scientist	USDA/ARS
Josh	McGrath	Scientist	University of Maryland