

### Instructions



### What obstacles exist to developing and integrating new poultry production management and mitigation data?

How can this be verified?

Do you have a process that exists across all watershed states?

Additional research costs money and takes time. 2025 is right around the corner.

Tendency to silo modeling and data collection, and as a result losing opportunities to collect information more strategically and effectively.

Cost

Unless it is cost shared - the practice is not scored. Most farmers do not rely on cost share to implement management practices that have an on farm benefit. We need a way to capture truly voluntary actions.

As a starting point, there need to be funds to sustain these survey efforts.

Operational scale testing to prove economic, agronomic and environmental benefit

More information is needed on cost effectiveness of mitigation strategies... i.e. \$ per pound of ammonia mitigated. What is the best ROI?



### What obstacles exist to developing and integrating new poultry production management and mitigation data?

Disease outbreaks

hard costs as well as soft costs (labor, resources - time is money too) when looking at additional litter amendments applications

The partnership should invest in these surveys so they can give appropriate credit to the industry

Why does the producer agree to the survey? and what if they say no?

Finances associated with implementing higher technology mitigation practices. Cost share for the poultry producers.

Accept data from Chesapeake Bay partners willing to participate. The entire value chain.

Follow model of turkey litter survey project (ie, public private collaboration)

Whether poultry companies and growers are willing to participate and sharing the results and results?

We should have a public data and model repository.



# What are the most critical knowledge gaps concerning the representation of commercial poultry production management and ammonia mitigation?

Local data collection

There is a lot of information available for ammonia production in the house, but it is difficult to capture ammonia release from the house. Improved efficiency of broilers (feed efficiency); litter amendment use can you get this from the companies?

Is there a Q/A/QC Process?

We have to get the best practices that are currently being used to be part of the modeling. Especially those with dual roles - ie Vegetative buffers - water quality and ammonia mitigation but only credit for water quality.

application of amendments - best timing, rates, etc

For use of LITTER AMENDMENT, what is the gaseous NH3 produced over the litter and then actual NH3 exhausted to the environment.

post cleanout what is the fate of the ammonia 'captured' in litter? Land application, storage, handling

What is the maximum benefit of ammonia mitigation practices for poultry compared to other animals, such as dairy and swine?

These need to repeated with some regularity.



# What are the most critical knowledge gaps concerning the representation of commercial poultry production management and ammonia mitigation?

A full accounting and understanding of the variables that are associated with poultry production, how the different production practices might affect ammonia generation and economical ways to mitigate ammonia.

gap in model versus measured emissions

Weekness in defining and monitoring gaseous NH3 EMISSION FROM CHICKEN HOUSE may be more closely defined by actually capturing NH3 over time, as exhausted air, with and without Litter Amendments, as well as, introduce new technology.

Who is going to pay for the BMPs?

Use of BMPs that is affortable and with appropriate ROI, like N-fertilizer capture.

How much of this data can be utilized due to privacy concerns?

Costs and benefits of litter management strategies; also different scrubber technologies, from highly lo engineered scrubbers to vegetative buffers and combinations; 2) attention to house location and how local env't can complicate mng't.



## How can the partnership help overcome obstacles to enhanced data development and implementation?

Count third party information that protects confidentiality. For example, generated by TSP's or suppliers that will certify their data

Address the spatial disconnect between nationalscale total maximum daily loads and localized land management decisions

The partnership should realize that you can't help if you don't have a good handle on what current practice is

The partnership should fund these surveys to help capture voluntary efforts in the model.

Allow more use of data beyond "publicly available"

The partnership should find a way to QA/QC these surveys to help utilize

We should have a public data and model repository.

Second the open-source, public data repo

Provide funds or find funding agencies who are willing to sponsor research, implementation, and application



# Should the partnership invest financial/technical resources into the development of commercial poultry production management & ammonia mitigation data

Yes.

Yes

Yes

Yes

Yes

Yes

Yes

Yes and accept in-kind and financial support from the full partnership.

Yes, all presenters mentioned numerous variables and a lack of accurate models - this funding could help measure different interventions and quantify their mitigation of ammonia per unit of cost.

Yes - need to build capacity on the ground for data collection and management

Collaborative approaches are good. More research is needed on these efforts to understand the fate and management of ammonia.





# Should the partnership invest financial/technical resources into the development of commercial poultry production management & ammonia mitigation data

Use funding to Build out the publicly available Bay Program model

CBP can fill in where there is a distrust in agencies.

Outreach?

Yes but keep in mind we are talking about a very small percentage of nitrogen to the bay and ammonia is an issue that the poultry industry will always be working on

Yes, if Partnership re-funds the expert panel coordination so mitigation data can be used



### How can this information inform our modeling

CBP has to be willing to accept the research data - that's often a long-term hurdle.

allow for other than "publicly available"

efforts?

Open up a dialog with the Chesapeake Bay partnership decision makers to gain their commitment on prioritizing these type of collaborative efforts.

These surveys provide an opportunity to inform the model on current management practices- in a way that 'cost share data' cannot.

Investigate linkages between house operation and watershed models to address inconsistencies, identify uncertainties, and guide research priorities - to improve these management models.

How can we help data become creditable within the Bay Program

need to see what hoops the verification group will require

