

Responses to Comments Received re: Poultry Nutrient Report

Updated March 6, 2015

Comments that Require Substantive Changes/Decisions

State nutrient concentration values, rather than watershed-wide nutrient concentration values should be used for broilers. –MD

- Decision needed by group on whether to use state concentrations or Bay-wide concentrations.
- Group decided to use Bay-wide concentrations for states with no data, and state-specific concentrations for states with data – February, 2015

Suggested adding the recommended Bay-wide trend to all nutrient concentration graphs – VA

- Decision needed by group on whether to use state concentrations or Bay-wide concentrations.
- Group decided to use Bay-wide concentrations for states with no data, and state-specific concentrations for states with data – February, 2015

Do layers from Ag Census really represent only egg-layers? If the Ag Census represent layers/breeders could VA, WV data be combined to generate a Bay-wide concentration? - VA

- No. A change will be made to the text. The Ag Census defines layers as “table-egg type layers, hatching layers for meat-types, hatching layers for table egg types, and reported bantams.”
- Yes. Now that the interpretation has been made, we can use the 1,100 samples from VA and WV to generate Bay-wide concentrations for layers. Both statewide and Bay-wide concentration tables will be provided in the revised document.

Pullets and layers produced by Wenger Feeds (the main feed suppliers for layer and pullet feed used in MD) have been fed phytase since July, 2008. This reduction in P due to phytase should be accounted for in the calculation if possible. – MD

- Group needs to decide whether or not to include phytase reductions in those bird types which do not have concentration data.
- Group decided to apply the Bay-wide reductions in layer P concentration to the USDA value for pullets. The USDA value will represent the value used from 1985 through 1995. The Bay-wide percent change in layer P each year will be applied to the pullet P value from 1996 through 2013. February, 2015

Should we conduct a literature search to summarize the average pounds of litter produced per layer and pullet? – Glenn Carpenter

- To date, the group has recommended using ASABE, 2005 values where others are not available. It is up to the group to determine if a literature search should be conducted for layers and pullets, or if ASABE, 2005 is adequate until regional data is gathered.

- Group agreed not to conduct a more extensive literature search at this time, but to use the USDA approach for pullets and the PLS data for layer concentrations. February, 2015

All the factors in the equations are inter-related, and are even related to some factors not specifically quantified in the document such as flocks per year and cleanout frequency. It would not be appropriate to only update one factor, such as concentration, without also assessing how the other factors change. This could lead to an over or under estimation of poultry litter nutrients in the future.

– Jen Nelson

- The document will be edited to acknowledge that these factors are inter-related. Jen will also develop a future analysis section that describes the values that should be collected by states in the future, and recommends analyzing ALL values for updates in the Model, rather than only updating a single value.

Responses to other Comments

Does average bird slaughter weight vary by state or county? – VA

DE and MD data should be separated as broiler weights differ across these two states. – MD

- Average bird slaughter weight currently varies by state in the NASS Poultry Production and Value Summary (<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1130>). Thus, the average litter produced per broiler will differ each year in each state. A MD broiler in 2014 will not produce the same amount of litter as a DE broiler or a VA broiler in the same year.
- The Penn State/NASS/industry effort to collect better production data may yield countywide bird slaughter weights.

Should average bird slaughter weight be renamed average live weight? – MD

- NASS uses these two terms interchangeably, but other publications do not. For example, average bird weight in ASABE publications represents the average weight on any given day during a bird's life. The DE poultry litter estimate equation (http://extension.udel.edu/ag/files/2012/12/LitterQEst_MultiYear-as-of-2010.xls) uses the term, average bird market weight. To avoid confusion, I recommend we use the term, **average bird market weight**.

Need to justify why VA and WV turkey litter is combined, or break out the data into two graphs and justify why the AMS recommends combining the data for a single trend – VA

- Edit to be made.

Provide justification for the use of 6 significant digits in concentration data – VA

- Edit to be made.

WV N Concentration for Broiler Litter graph is incorrect as it matches DE/MD graph – WV

- Edit to be made.

Edits are needed to the Populations Sections to make the equations more understandable for the public – WV

- Edits to be made.

Future changes within poultry industry (litter production and concentration data, composting/clean out practices, genetics, etc.) should influence future model results. – MD

- Group agrees. All jurisdictions should continue to collect litter mass data from manure haulers or growers as well as nutrient concentration data for all bird types. These data should be reviewed periodically by the Partnership to determine if changes are needed within the Model to reflect changes within the industry. The group is prescribing that process, but does suggest that it may be good to review the new numbers for inclusion in the Model once every Milestone period (once every two years).

The note in the comparison chart in the Comparing Methods should be updated to indicate there was concern with this 15% loss factor in the Phase 5.3.2 Model. – Jen Nelson

- The note will be edited to indicate that storage and handling loss factors may change in the Phase 6 Model depending upon recommendations from the Ag Modeling Subcommittee and the Animal Waste Management Systems BMP Panel.

Did the samples include poultry litter cake? – Glenn Carpenter

- Some states divided samples out into in-house, uncovered stack, covered stack and roofed storage. MD/DE assumed the average, annual concentrations, moisture and litter amounts represented all potential sample types.

Market Weights for turkeys have increased significantly over the past 30 years, and it is likely that N/bird has increased while N/lb of market weight has decreased. – Glenn Carpenter

- Unfortunately, there is no way to tie litter production to pounds of turkey at this time. More turkey litter data is required before litter estimates per lb of bird weight can be made.

Other Changes

- **Added a description of why recoverability factors are needed to estimate nutrients when as-excreted manure values are used (for turkeys, pullets and layers).**
- **MD recommended adding a sentence regarding clean-out times, and other things which may contribute to a rise in P concentrations. The following sentence was added: “The AMS also acknowledges that changes in nutrient concentrations could be related to changes in**

management techniques within houses, including decreasing clean-out frequencies and changes to in-house composting techniques (among other contributing factors).

- MD recommended adding letters from DPI, VPF and Wegners as an appendix.
- John Rhoderick requested a description of the effort underway between the industry, Penn State, USDA and the CBP to collect detailed poultry production information in the future. A description of the effort was added to the future data submissions section.
- Curtis Dell recommended “year-end inventory” be defined. A footnote was added to both instances where this term appears in the report.