

How Total P Applied to Land from Broilers Might Change in Phase 5.3.2

Poultry Litter Subcommittee, 04042014

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Methods

- Population: Change Inventory based on slope from annual Production (post-2007)
- Volume: Change Lbs of Litter Generated based on slope from State Templates (post-2005)
 - Baywide average used for PA and WV.
- P Concentration: Change Lbs of P Generated based on slope from State Templates (post-2005)
 - Baywide average used for PA.

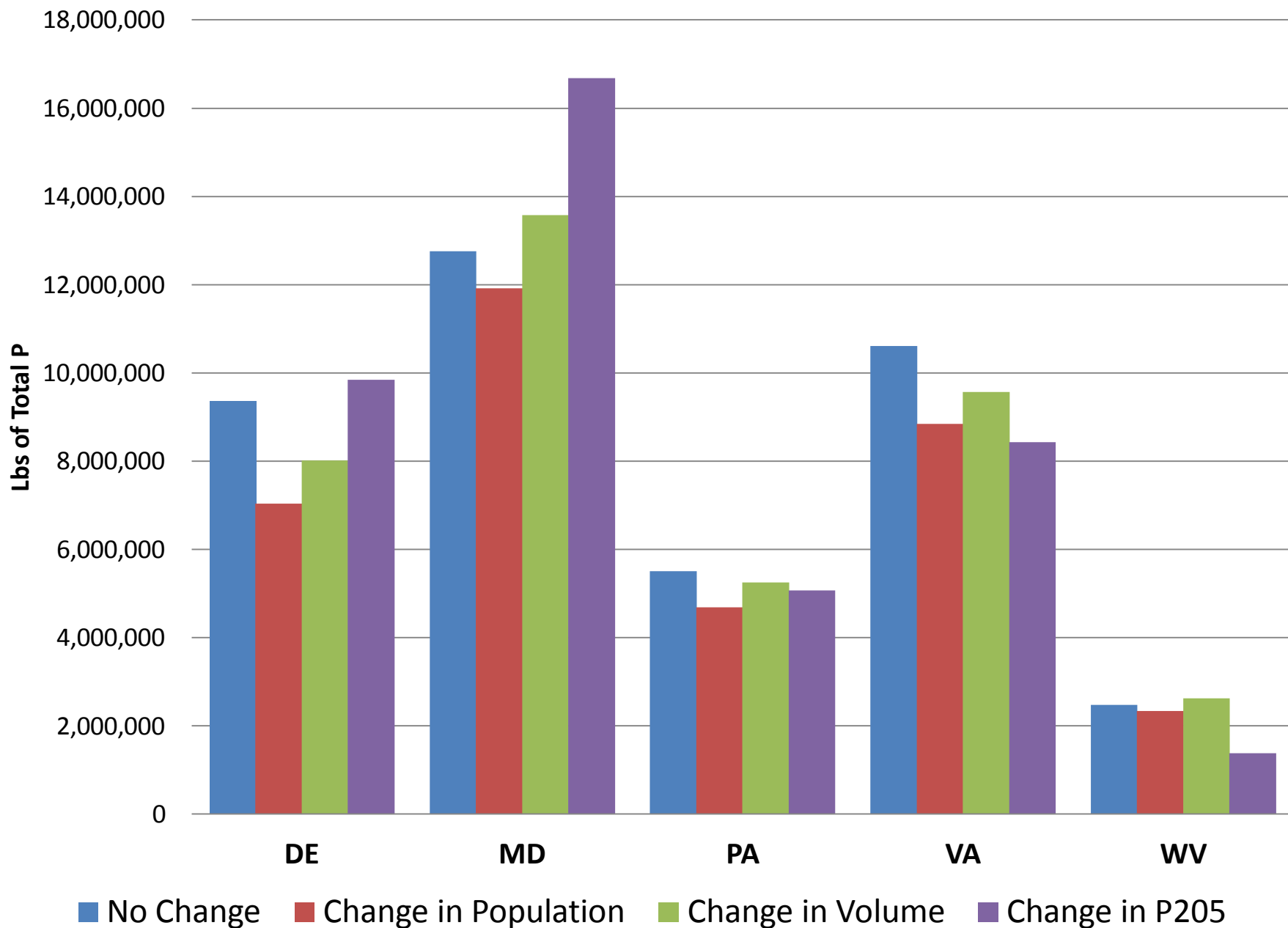
Trends in Broiler Data

State	Population Change (since 2007)	Litter Volume Change (since 2005)	P205 Change (since 2005)
DE	-24.74%	13.84%	22.91%
MD	-6.54%	13.84%	22.91%
PA	-14.91%	11.94%	-3.35%
VA	-16.65%	8.14%	-11.89%
WV	-5.29%	11.94%	-47.33%

Red indicates Bay-wide trends were used because states did not report data.

- All states are decreasing in population.
- DE/MD and VA were the only states to provide volume information.
- Changes in dry weight P205 concentrations are all over the place! But why???
- Broiler weights increased in DE/MD by 19% since 2005, but increased only 5% in VA.

Estimated Lbs of P Applied to Cropland in 2014



Changes in Total P Available from Broilers in 2014

State	Due to Population	Due to Litter Volume	Due to P205
DE	-24.74%	-14.32%	5.31%
MD	-6.54%	6.40%	30.78%
PA	-14.91%	-4.75%	-7.93%
VA	-16.65%	-9.86%	-20.58%
WV	-5.29%	6.02%	-44.16%

Red indicates Bay-wide trends were used because states did not report data.

- DE and MD see increases in total P, while VA and WV see decreases.
- PA did not provide enough data for trends, so their results are entirely dependant upon Bay-wide averages for volume and P2O5.

Likely Statement from Modeling Workgroup

- Expert panels were formed to make recommendations for Phase 6.
- Any changes to Phase 5.3.2 need to account for trends in real changes on the ground that occurred after the calibration period, not changes in accounting or methods.
- Any changes that aren't reflective of real changes on the ground will not carry over into Phase 6, and thus might give a false sense of progress or lack of progress.

Things to Consider

- What is causing the variability in data, specifically in P2O5 concentrations?
- Where were the samples collected? Do they represent the entire, statewide population of broilers? Or is a particular region influencing the data? For example, are samples from the Valley driving down numbers for VA's Eastern Shore so the statewide numbers look different from DE/MD?
- What changes have been made to feeding requirements and phytase levels since 2005?
- Better population and bird weight data may soon be gathered by NASS and the industry and be available for Phase 6.
- Should PLS delay implementation until Phase 6, and draft reporting requirements for states to report yearly volume and concentration data?