



# Implementation Update: The Phosphorus Management Tool February 2016

## Background

Under the Clean Water Act, the U.S. Environmental Protection Agency has set limits on the amount of nutrients and sediment that can enter the Chesapeake Bay. The six Bay states and the District of Columbia have developed Watershed Implementation Plans outlining strategies to achieve these pollution limits. Maryland Department of Agriculture staff worked with local soil conservation districts to complete the agricultural component of the plan. Maryland's Phosphorus Management Tool (PMT) regulations — a component of the state's Watershed Implementation Plan — were developed in consensus with agricultural and environmental stakeholders. The regulations became effective June 8, 2015.

## The Phosphorus Management Tool (PMT)

The PMT is an updated tool that uses the latest scientific findings to identify the potential risk of phosphorus loss from farm fields and prevent the additional buildup of phosphorus in soils that are already saturated. Farms that are over certain thresholds will be limited in how much phosphorous can be applied to their fields. High soil phosphorus levels are typically found on farms that have used manure or poultry litter as a crop nutrient over an extended period.

- The PMT only impacts farm fields with high soil phosphorus levels (Fertility Index Value of 150 or greater).
- Fields with the highest phosphorous levels (Fertility Index Value of 500 or greater on a soil test) have been prohibited from receiving any additional phosphorous since June 2015.

## An Update

The PMT regulations call for a phased-in approach to give farmers time to modify their management practices, if necessary. The PMT regulations also require the department to compile comprehensive information on soil phosphorus conditions for every farm field in the state. That information will help the department determine what, if any, programmatic changes need to be made to help farmers comply.

**To date, the department has compiled soil phosphorus data for 850,000 acres of Maryland farmland. This data indicates that:**

- 82 percent of farmland does not have phosphorous levels high enough to be impacted by the PMT.
- 1.1 percent of farmland in Maryland is now banned from receiving additional phosphorus applications because it has a Fertility Index Value of 500 or greater.

The PMT categorizes farmland into three tiers (high, medium and low) based on average soil phosphorus levels. These tiers govern how long a farmer has to transition to the PMT.

- By September 1, 2016, every farm field in the state with a Fertility Index Value of 150 or greater will be placed into one of the three tiers based on soil test data.
- Implementation of the PMT will begin to phase in for high risk farms in 2018. (They have more time because they will have to make the most significant management changes.)
- By January 1, 2022, all farm fields with high soil phosphorus levels will be required to fully implement the PMT, unless the deadline is extended.



# Implementation Update - Continued

## On-Farm Economic Impact Study

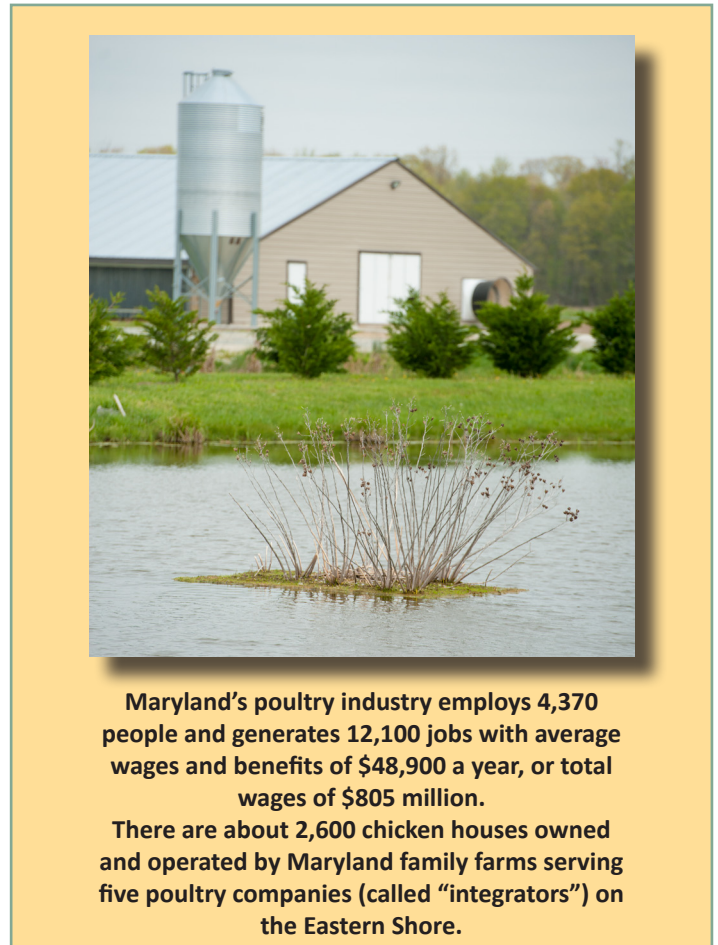
The PMT regulations also require the department to conduct an on-farm economic impact study to determine how these regulations will impact farmers at the farm level. Eight farms are now participating in this economic impact study and are fully implementing the phosphorus management requirements this year and next year. Data from that study is not yet available.

## Manure Management

Most manure generated by livestock is used as fertilizer – either on the livestock farmer’s own farm or on another farm. Manure is also used by mushroom growers and alternative use facilities. In whatever manner it is used, manure is a valuable commodity that either makes or saves a farmer money. Manure generated by livestock and poultry farms in Maryland is being used in accordance with nutrient management plans.

## The Manure Transport Program

The Maryland Department of Agriculture’s Manure Transport Program, founded in 1999, provides funds for farmers to transport manure to other farms or facilities where it can be used in accordance with an approved nutrient management plan. Poultry companies voluntarily pay part of the cost of transporting poultry litter generated by their growers. Poultry companies commit an amount to the program based on the square footage of their houses in Maryland. The program is voluntary, however, when the manure is transported, the poultry sender must be under contract with a poultry company to be eligible for funding. (Livestock farmers may receive up to 87.5 percent cost share for manure transport.) Farms impacted by the PMT receive priority under the Manure Transport Plan.



**Maryland’s poultry industry employs 4,370 people and generates 12,100 jobs with average wages and benefits of \$48,900 a year, or total wages of \$805 million.**

**There are about 2,600 chicken houses owned and operated by Maryland family farms serving five poultry companies (called “integrators”) on the Eastern Shore.**

## Status

- **During FY 2015, the transport program moved a total of 167,237 tons of manure. Of the total, poultry litter accounted for 54,380 tons while non-poultry manure (mostly dairy cow manure) accounted for 112,857 tons.**
- **The program pays 87.5 percent of the cost of transporting dairy manure. The farmer pays the rest. Last year, the dairy portion cost the state about \$300,000.**
- **The total cost of transporting poultry litter in FY 2015 was \$900,086. Of that amount, the state paid \$490,538 and poultry companies paid \$409,547.**
- **Since the program began, poultry companies have contributed \$5.1 million while the state has contributed \$6.5 million to the Manure Transport Program.**
- **Every eligible farmer who has requested help transporting manure has received it.**

## A Note about Nutrient Management Plans

All farms that gross \$2,500 a year or more or manage at least 8,000 pounds of live animal weight are required, by law, to operate their farms in accordance with a nutrient management plan approved by the department. These science-based plans, written by trained consultants, specify how much fertilizer, manure, or other nutrients may be safely applied to crops to achieve yields and prevent excess nutrients from impacting waterways. Farmers are also required to submit Annual Implementation Reports summarizing their nutrient applications for the previous calendar year.

