



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 phosphorus 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 phosphorus levels (Fertility Index Value of 500 or greater on a soil test) are already banned from receiving additional phosphorous applications.

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 1,120,668 acres of regulated farmland. The data indicate that most farm fields are not at risk for phosphorus loss and may still benefit from manure as a crop fertilizer.

- **Approximately 20 percent of farm fields tested have soil phosphorus levels that will require use of the PMT.**
- **The program continues to target farms that have not submitted soils data for audits and inspections.**

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.

- The highest risk group (FIV 450-499) began transitioning to the PMT in 2018. It includes 96 operations managing 10,894 acres.
- The medium risk group (FIV 300-449) begins transitioning to the PMT in 2019. It includes 252 operations managing 54,271 acres.
- The low risk group (FIV 150-299) will begin transitioning to the PMT in 2020. This group includes 1,313 operations managing 122,705 acres. By January 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

PMT Advisory Committee

The PMT Advisory Committee met in November 2018 and voted to have an economic analysis performed. Such an analysis is allowed under Maryland's Phosphorus Management Tool regulations. Once the results of this economic analysis are available, the Committee may ask the Secretary to provide farmers with a one-year extension to implement the PMT.

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 poultry litter and livestock 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. This amount is based on the square footage of their poultry houses in Maryland. When poultry litter is transported, the poultry grower must be under contract with a participating poultry company to be eligible for funding. Poultry companies do not provide funding to transport livestock (non-poultry) manure. Livestock manure transport is funded entirely by the state. Farms impacted by the PMT receive priority funding.



Maryland's poultry industry employs 6,355 people and generates an additional 11,600 jobs in supplier and ancillary industries with average wages and benefits of \$64,120 a year, or total wages of \$1.15 billion.

There are about 2,400 chicken houses owned and operated by Maryland family farms serving five poultry companies (called "integrators") on the Eastern Shore.

Status

- During FY 2018, the transport program moved a total of 249,421 tons of manure. Of the total, poultry litter accounted for 61,463 tons while non-poultry manure accounted for 187,958 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 \$429,000.
- The total cost of transporting poultry litter in FY 2018 was \$1,045,878. Of that amount, the state paid \$592,002 and poultry companies paid \$453,876.
- Since the program began, poultry companies have contributed \$6.5 million while the state has contributed \$9.7 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.

