



MARYLAND NUTRIENT MANAGEMENT PROGRAM

Fiscal Year 2020 | ANNUAL REPORT



Larry Hogan
Governor

Boyd K. Rutherford
Lt. Governor

Joseph Bartenfelder
Secretary

Julianne A. Oberg
Deputy Secretary



ABOUT MARYLAND'S Nutrient Management Program

The Maryland Department of Agriculture's (MDA) Nutrient Management Program protects water quality in the Chesapeake Bay and its tributaries by regulating the amount, timing, rate, and placement of commercial fertilizer products and organic nutrient sources used by Maryland farmers to grow crops, and by lawn care professionals to fertilize lawns. The program works to ensure that nutrients applied to crops and lawns are not impacting waterways. Staff works closely with poultry, dairy, and other livestock producers to make certain that animal manure is managed to protect water quality. Guidance is provided by the Nutrient Management Advisory Committee, which includes representatives from agricultural interests, environmental groups, the turfgrass industry, University of Maryland, and government agencies.

Agricultural Nutrient Management Program

Farming operations that generate \$2,500 or more in gross income or have 8,000 pounds or more of live animal weight are required to follow nutrient management plans when fertilizing crops and managing animal manure. The plans specify how much fertilizer, manure, or other nutrient sources may be safely applied to crops to achieve yields and prevent excess nutrients from impacting waterways. The program ensures that plans are developed, updated, and implemented according to state regulations. To protect the health of local farm streams, farmers must have stream setbacks and livestock exclusion measures in place. Farmers who till their soil are required to incorporate manure and other organic nutrient sources into fields within 48 hours of application and follow specific timing requirements for fall nutrient applications. To further protect waterways, farmers are banned from spreading manure on their fields in winter. In addition, fields with high soil phosphorus levels must be managed using Maryland's Phosphorus Management Tool (PMT). This phased-in requirement will be fully implemented by July 1, 2021.

Turfgrass Nutrient Management Program

Maryland's Lawn Fertilizer Law authorizes the program to train, certify, and license individuals and companies hired to apply lawn fertilizer to non-agricultural land. The training and certification program—developed in partnership with the University of Maryland Extension—focuses on fertilizer application techniques, soil science, and best management practices that can be used to protect waterways. A compliance program ensures that fertilizer applications are made following University of Maryland application and timing recommendations.



AGRICULTURAL Nutrient Management Program

Phosphorus Management Tool

Farmers with fields containing high soil phosphorus levels are required to transition to the PMT. The tool identifies fields at risk for phosphorus loss and prescribes best management practices to prevent the additional buildup in soils that are already saturated. Farm fields with soil phosphorus fertility index values of 150 or greater will need to be managed using the PMT. High soil phosphorus levels are typically found on farms that have used manure or poultry litter as a crop nutrient over an extended period of time. Future applications of manure will be limited on these farm fields.

PMT Transition Advisory Committee

This Committee provides guidance for the program. It was established in 2015, and is chaired by the Maryland Secretary of Agriculture. In December 2019, the Committee voted down a proposed one-year delay in implementing the PMT. The recommendation was then sent to Secretary Bartenfelder who agreed with the assessment. As a follow up, in December 2020, the Committee voted for a second time not to delay implementation. Again, the Secretary agreed with the recommendation. The PMT will move toward full implementation on July 1, 2021.

As of June 30, 2020:

- Soil phosphorus data for 1,120,668 acres of regulated farmland has been compiled. Approximately 20% of farm fields tested have soil phosphorus levels that require use of the PMT.
- State law requires soil phosphorous data to be collected every six years, beginning in 2015. Plans are underway for the next round of soils data due to be collected by September 2021.
- The program continues to seek out data on farms that have not yet submitted soil data.
- Three tier groups have been established for farmland required to transition to the PMT based on average soil phosphorus levels. Tiers govern how long a farmer has to transition to the PMT. All three tier groups –A, B and C– have until July 1, 2021 to fully transition to the PMT.
- Funding was provided to the University of Maryland to conduct a five-year study of phosphorous loss risk assessment tools. The study will provide important information through field tests. The university also received a small grant from a federal source to supplement the research.



Agricultural Compliance and Enforcement

Maryland farmers are required to follow nutrient management plans that specify the amount, timing, and placement of nutrients for each crop. These plans are prepared by University of Maryland Extension advisors, certified private consultants, or farmers who are certified to develop plans for their operations. Farmers are required to update their nutrient management plans before they expire, submit Annual Implementation Reports (AIRs) summarizing nutrient applications for the previous year, and most importantly, follow their nutrient management plans. The program's team of eight nutrient management specialists analyzes AIRs and conducts site visits to verify that operators are following their plans.

Nutrient Management Plans

New farming operations are required to submit copies of their initial nutrient management plans to MDA. This is the first step toward achieving compliance. The program locates new farming operations and works with operators to bring them into compliance with the requirements.

Annual Implementation Reports

Farmers are required to submit AIRs to MDA by March 1, summarizing nutrient applications for the previous calendar year. By the end of the fiscal year, approximately 96% of regulated farmers managing about 1.3 million acres had submitted these reports. During the COVID-19 pandemic, operators were given additional time to submit late or missing AIRs without penalty. Farms that are no longer in operation are required to contact MDA to avoid compliance warnings.

On Farm Audits and Inspections

- 720 on-farm audits were conducted by MDA's team of nutrient management specialists. This figure represents a decrease from FY19 due mainly to COVID-19 restrictions on travel and in-person meetings.
- Virtual reviews were initiated during the last quarter of the fiscal year. The program will continue to offer this option to farmers who want to take advantage of the technology.
- The program worked on protocols for on-farm reviews and resumed a limited number of visits in June 2020. Sixty-eight percent of audited farms were in compliance. The program actively pursues full compliance for all audited operations.
- \$10,800 in fines were issued to 12 operators for violations. The majority of the violations were for expired, missing, or incomplete NMPs.

| Year | Tons of litter remaining in the house from last year (N-P) + (R-S) (previous year) | Total tons of litter present in the house this year (K) + (M, this year) | % of partial or total litter to be removed this year in excess of cakeout/crustout (enter % of N removed) | Tons of litter removed this year (N x O)/100 | Flocks this Year |
|------|--|--|---|--|------------------|
| 2011 | 0 | 373 | 50 | 186 | 6 |
| 2012 | 186 | 559 | 50 | 279 | 7 |
| 2013 | 280 | 699 | 50 | 326 | 7 |
| 2014 | 326 | 723 | 100 | 349 | 7 |
| 2015 | 350 | 373 | 50 | 723 | 7 |
| 2016 | 0 | 559 | 50 | 186 | 7 |
| 2017 | 186 | | | 280 | |

Certification, Licensing and Education

To ensure the quality of nutrient management plans, the Nutrient Management Program oversees a training, certification, and licensing program for nutrient management consultants and farmers who want to prepare their plans. The following activities took place in FY20:

Nutrient Management Exam Training

The program trains and certifies consultants to provide farmers with nutrient management plans that balance nutrient inputs with crop requirements. During the fiscal year, the program offered a two-day training session and exam for prospective consultants. Following the exam, 24 new consultants were certified to write nutrient management plans for farmers. An additional 120 certifications were renewed.

University of Maryland Consultant Program

The program funded 20 University of Maryland Extension advisors in FY20. These advisors provide farmers with nutrient management plans free of charge.

Farmer Training and Certification

The Nutrient Management Program and University of Maryland Extension train and certify farmers who want to become certified to write nutrient management plans. Regional workshops are offered for farmers managing livestock, poultry, crop, and nursery and greenhouse operations. To become certified, farmers must learn the

basics of nutrient management planning, pass a specialized nutrient management exam, and work with a nutrient management specialist or Extension advisor to develop their plans. Twenty farmers were trained and certified to write nutrient management plans for their operations during the year, and 64 operators met recertification requirements.

Nutrient Applicator Voucher Training

Farmers who apply nutrients to 10 or more acres of cropland are required to attend an applicator training course once every three years. The program partners with University of Maryland Extension to conduct a series of statewide voucher training sessions. During the year, 129 new vouchers were issued and 601 vouchers were renewed.

Continuing Education

Certified consultants are required to take 12 hours of continuing education credits every three years. During the year, 115 continuing education events were attended by 3,069 individuals. Many of these training events were offered virtually.





Nutrient Management Offices

HEADQUARTERS

50 Harry S. Truman Parkway
Annapolis, MD 21401
410-841-5959

WESTERN MARYLAND

Allegany, Garrett and Washington counties

P.O. Box 459
Hancock, MD 21750
410-279-3506

Carroll and Frederick counties

92 Thomas Johnson Drive, Ste 110
Frederick, MD 21702
410-353-4320

CENTRAL AND SOUTHERN MARYLAND

Anne Arundel, Howard and Montgomery counties

92 Thomas Johnson Drive, Ste 110
Frederick, MD 21702
410-507-4811

Baltimore, Cecil and Harford counties

P.O. Box 850
Bel Air, MD 21014
410-991-3114

Calvert, Charles, Prince George's and St. Mary's counties

P.O. Box 652
Leonardtown, MD 20650
410-980-9479

EASTERN SHORE

Caroline and Dorchester counties

P.O. Box 340
Marydel, MD 21649
410-353-5660

Kent, Queen Anne's and Talbot counties

P.O. Box 549
Cordova, MD 21625
410-279-4003

Somerset, Wicomico and Worcester counties

27722 Nanticoke Road, Unit 2
Salisbury, MD 21801
410-507-4949



Turfgrass Nutrient Management Program

Maryland's Lawn Fertilizer Law requires turfgrass professionals to be certified by MDA or work under the direct supervision of an individual who is certified. The law applies to professionals hired to fertilize home lawns and individuals responsible for turf management at golf courses, public parks, airports, athletic fields, businesses, cemeteries, and other non-agricultural properties. Lawn care professionals and homeowners are required to obey fertilizer application restrictions, use best management practices when they fertilize lawns, observe fertilizer blackout dates, and follow University of Maryland fertilizer recommendations. Here's a look at what happened in FY20:

New Legislation

Governor Hogan signed HB 161 of 2020 (Nutrient Management – Nonagricultural Fertilizer Application – Requirements and Penalties) into law making it illegal for lawn care companies to operate without a fertilizer business license. The action strengthens MDA's ability to enforce the law.

Fertilizer Applicator Exams

Five professional fertilizer applicator exams were offered across the state and attended by 109 lawn care professionals. The program issued 862 business licenses and 1,435 Professional Fertilizer Applicator Certificates. An additional 1,463 lawn care company employees have been trained to apply fertilizer under the supervision of a certified professional.

Training, Certification, and Licensing

To renew their certificates, professional fertilizer applicators are required to complete two hours of continuing education each year. Six recertification classes were offered during the year. The program also approved training opportunities offered by private industry and trade groups. Two additional live webinars were added to the schedule in spring. As a result of the COVID-19 pandemic, the June 30 expiration date for licenses and certifications was extended for 30 days.

Annual Activity Reports

License holders are required to file an annual activity report with MDA by March 1. The report covers activities that took place the previous calendar year. By June 30, 2020, the program had received activity reports for 795 businesses representing an 88% compliance rate.

Enforcement Activities

During the year, the program conducted 233 record reviews, with 80% of the firms in compliance. On-site reviews were suspended in March due to COVID-19, and later conducted electronically. A limited number of on-site reviews resumed in June.

Homeowner Outreach

The program continued to educate citizens about Maryland's Lawn Fertilizer Law through partnerships with the University of Maryland Master Gardeners, news releases, social media, and the web.