



Evolving to Meet Chesapeake Bay Restoration Goals

Nutrient Management Program | 2013 ANNUAL REPORT



Message from Secretary Hance



Farming and science have evolved over the years to produce healthier crops, higher yields and improvements to farm management practices that protect our vital soil and water resources. In Fiscal Year 2013, the Maryland Nutrient Management Program took a giant leap forward for the Chesapeake Bay restoration effort by implementing new regulations that are among the strongest in the nation and are based on the best available science and latest advances in environmental research and technology.

On October 15, 2012, following nearly two years of planning and review, MDA's revised nutrient management regulations went into effect. The new regulations provide enhanced protections for Maryland's streams, rivers and the Chesapeake Bay by requiring farmers to incorporate manure and other organic nutrient sources into the soil, establish no-fertilizer application zones next to streams, and limit livestock access to waterways. The new regulations also limit fall nitrogen applications for small grains and prohibit manure applications to fields in winter beginning in 2016.

Asking farmers to change the way they have managed manure resources for generations is a tall order, and we are always mindful of the impact that new regulations may have on a business. To protect the long-term viability of our family farms, MDA structured a phased implementation schedule that gives farmers time to secure newly enhanced cost-share funds provided through the Maryland Agricultural Water Quality Cost-Share (MACS) Program and technical assistance needed to make changes to their operations and comply with the new requirements.

Manure incorporation and the limits on fall nitrogen applications took effect in fall 2012 with setbacks and stream protection measures coming on board in January 2014. The winter ban on spreading manure

will be phased in beginning July 1, 2016, with complete implementation by March 1, 2020. Additional regulatory changes concerning updates to the Phosphorus Management Tool were proposed in FY 2013, but not finalized. When fully implemented, the entire suite of new regulations will propel Maryland forward in meeting nitrogen and phosphorus reductions included in its Watershed Implementation Plan (WIP) to protect and restore the Chesapeake Bay.

Ensuring farmer compliance with nutrient management regulations—old and new—is paramount to the program's success. In FY 2013, MDA inspectors conducted more than 700 on-farm audits representing 14 percent of regulated farms. Seventy-three percent of the farms audited received passing grades. Compliance with reporting requirements also remained high, with 98 percent of farmers submitting required information on nutrient applications made during the year.

In the urban arena, MDA submitted regulations required to establish key provisions of Maryland's new lawn fertilizer law, which directs MDA to establish a certification and licensing program for lawn care professionals. During the fiscal year, testing and training materials were developed in cooperation with the University of Maryland and by June 2013, a testing and certification program was in place and ready to roll out. In addition, a comprehensive education program was launched during the year to inform homeowners and do-it-yourselfers about new rules they must follow when fertilizing their lawns beginning October 1, 2013.

All in all, the Nutrient Management Program continued to evolve in FY 2013 to protect water resources and meet Maryland's Chesapeake Bay restoration goals. Please read on to learn more.

Sincerely,

Earl F. Hance
Maryland Agriculture Secretary



About Maryland's Nutrient Management Program

The Maryland Department of Agriculture's (MDA) Nutrient Management Program (NMP) protects water quality in the Chesapeake Bay and its tributaries by ensuring that farmers and urban land managers apply fertilizers, animal waste and other nutrient sources in an effective and environmentally sound manner. The program carries out its mission through regulatory activities, a certification and licensing program for consultants and farmers, training and education programs and a turfgrass nutrient management program.

The Water Quality Improvement Act (WQIA) of 1998 requires all farmers grossing \$2,500 a year or more or livestock producers with 8,000 pounds or more of live animal weight to follow nutrient management plans when fertilizing crops and managing animal waste. These plans—developed by MDA-certified consultants and farmers—specify how much fertilizer, manure or other nutrient sources may be safely applied to crops to achieve yields and prevent excess nutrients from contaminating waterways. Nutrient management plans are generally required for all agricultural land used to produce plants, food, feed, fiber, animals or other agricultural products.

To ensure the quality of nutrient management plans, the NMP oversees a training, certification and licensing program. The NMP supports ongoing research and field testing of innovative nutrient reduction strategies and works closely with local, state and federal agencies to coordinate research needed to meet Maryland's Chesapeake Bay restoration goals and milestones.

The NMP receives guidance from the Nutrient Management Advisory Committee, which includes representatives from agricultural interests,

environmental groups, the turfgrass industry, biosolids firms, University of Maryland and a host of local, state and government agencies. To help farmers and consultants comply with program requirements, MDA maintains six regional offices statewide.

New Agricultural Regulations Take Effect

On October 15, 2012, MDA's revised agricultural nutrient management regulations became effective. The revised regulations modify how a farm's nutrient management plan is developed and implemented, change the way organic nutrient sources are managed, require farmers to protect streams from nutrient inputs, limit fall nitrogen applications for small grains and prohibit manure applications to fields in winter beginning in 2016. The requirements are being phased in over the next several years. Additional regulatory changes concerning updates to the Phosphorus Management Tool were proposed in FY 2013, but not finalized.

Turfgrass Nutrient Management Program Overhauled

In 2011, Maryland passed the Fertilizer Use Act. Its aim is to reduce the amount of nutrients washing into the Chesapeake Bay from non-agricultural sources—mainly lawns and other managed grassy areas. The new law took effect October 1, 2013 and limits the amount of nutrients contained in lawn fertilizer products used by homeowners and lawn care professionals. Under the new law, lawn care professionals are required to be licensed and certified by MDA to apply fertilizer to properties that they manage.

Agricultural Compliance and Enforcement

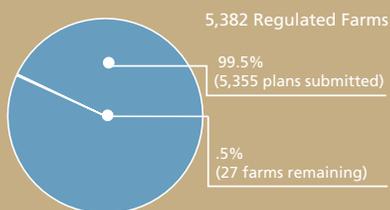
During the year, MDA’s team of nutrient management specialists examined nutrient management plans and Annual Implementation Reports (AIRs) submitted by farmers and performed on-farm audits to make certain that farmers are using admissible plans to manage nutrients. MDA is authorized to issue fines and penalties, take administrative actions and pursue civil proceedings against farmers who fail to comply with nutrient management requirements.

Nutrient Management Plan Submissions—Maryland farmers are required to submit copies of their initial nutrient management plans to MDA. By the end of the fiscal year, 99.5 percent of the state’s 5,382 regulated farm operators had met the requirement. During FY 2013, MDA initiated progressive enforcement actions against 27 operators.

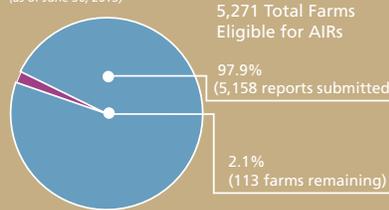
Annual Implementation Reports—Farmers are required to keep their nutrient management plans updated and submit Annual Implementation Reports (AIRs) to MDA by March 1 summarizing their nutrient applications for the previous year. In April 2013, MDA issued warning notices to 1,417 farmers who failed to file their AIRs on time, followed by 376 notices of pending fines and 153 default notices. By the end of the fiscal year, approximately 98 percent of regulated farmers managing about 1.3 million acres of land had submitted their AIRs. In FY 2013, MDA collected \$6,750 in fines for late or missing AIRs.

On-Farm Audits and Inspections—MDA’s seven nutrient management specialists conducted 738 on-farm audits in FY 2013, representing about 14 percent of regulated farms. The majority of farms are selected randomly for audit; however, farms with previous violations or complaints filed are targeted for inspection. As part of the inspection process, specialists educate farmers on technical and regulatory requirements and provide advice on required record keeping systems. Specialists issued 189 warnings to correct major violations and documented minor violations to be corrected. Follow-up visits confirmed that 37 percent of the operators had come into compliance, with the remaining operators progressing through the enforcement process. In FY 2013, MDA collected \$1,700 in fines from farmers who failed to take corrective actions in a timely manner.

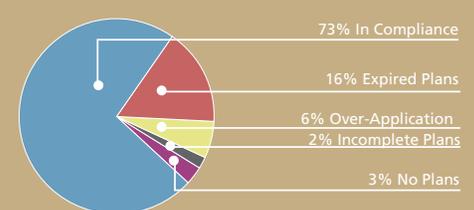
Nutrient Management Plans Submitted
(as of June 30, 2013)



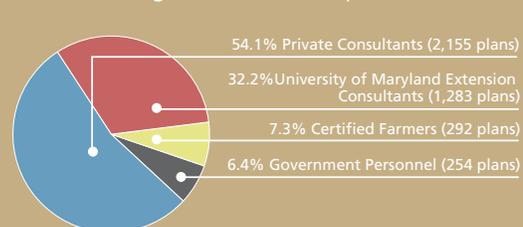
Annual Implementation Reports (AIRs) Submitted for Calendar Year 2012
(as of June 30, 2013)



Results of On-Farm Inspections
(Fiscal Year 2013)



Nutrient Management Plan Development



Percentage of On-Farm Inspections and Follow-up Visits
(Fiscal Years 2009-2013)



Agricultural Certification and Licensing Program

Consultant Certification

The Nutrient Management Program trains and certifies qualified applicants to provide farmers with nutrient management plans that balance crop nutrient needs with environmental protection. Proper storage, handling and application of commercial fertilizers, biosolids and animal manure are emphasized. In FY 2013, MDA certified 18 new consultants who passed the Nutrient Management Certification Exam, bringing the number of individuals who have successfully completed the program to 1,187.

University of Maryland Extension Consultant Program

Twenty-one University of Maryland Extension (UME) consultants were funded by MDA in FY 2013. These consultants provide farmers with nutrient management plans free of charge.

Farmer Training and Certification

MDA and UME train farmers who want to become certified to write nutrient management plans for their own farms. Farmers undergo about 11 hours of classroom instruction and practice in writing plans specific to their operations. In FY 2013, 32 farmers were trained and certified to write their own nutrient management plans. To date, 488 farmers have been certified to develop nutrient management plans for properties that they own or manage.



Agricultural Nutrient Management Education Programs

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. In FY 2013, MDA and UME conducted 27 voucher training sessions attended by 528 farmers seeking to obtain or renew their vouchers.



Continuing Education

Consultants certified to prepare nutrient management plans for farmers are required to take 12 hours of continuing education credits every three years. In FY 2013, MDA and UME sponsored 38 education classes on nutrient management topics. MDA approved an additional 53 courses and field events sponsored by other recognized organizations. The sessions were attended by 1,241 individuals.



Nutrient Management Exam Training

MDA provided a two-day training course for individuals planning to take the certification exam. Eighteen new consultants were certified following the exam.



Key Features of Maryland's Lawn Fertilizer Law

(Effective October 1, 2013)

- Limits the amount of nutrients contained in lawn fertilizer products used by homeowners and lawn care professionals
- Expands MDA's regulatory authority to include more than 1,500 lawn care professionals statewide and directs the department—with guidance from the University of Maryland—to establish a training, certification and licensing program for these professionals
- Authorizes MDA to impose civil penalties against lawn care professionals of up to \$1,000 for the first violation and \$2,000 for each subsequent violation
- Requires MDA to publish a list of certified professional fertilizer applicators for the public
- Requires MDA and the University of Maryland to educate homeowners on new fertilizer application rates and restrictions, best management practices, and fertilizer blackout dates



Turfgrass Nutrient Management Program

MDA's Turfgrass Nutrient Management Program has been helping to protect waterways from excess lawn fertilizer for more than a dozen years. Authorized by the Water Quality Improvement Act of 1998, the program regulates about 700 individuals and companies that apply fertilizer to ten or more acres of turf a year, including golf courses, parks, recreation areas, athletic fields, business properties, school campuses, cemeteries, highway right-of-ways and private lawns. Regulated firms and individuals are required to follow University of Maryland (UMD) fertilizer and timing recommendations, keep records of fertilizer applications, and make these records available to MDA inspectors.

Enforcement—In FY 2013, the records of 11 golf courses, 10 lawn and landscape companies, and one public lands maintenance office were reviewed by the Turfgrass Nutrient Management Program. The reviews resulted in two warnings for non-compliance. Both companies cited lacked required soil tests. Operations that failed their inspections were instructed to obtain soil tests or adjust fertilization rates for subsequent applications. By the end of the fiscal year, eight follow-up visits showed that all operations had come into compliance. MDA collected \$750 in fines in FY 2013.

Maryland's New Lawn Fertilizer Law—The Fertilizer Use Act of 2011—otherwise known as Maryland's Lawn Fertilizer Law—significantly strengthens MDA's Turfgrass Nutrient Management Program by expanding its regulatory authority to include more than 1,500 lawn care professionals and grounds

managers who will need to be licensed and certified to apply lawn fertilizer to properties that they manage, regardless of size, beginning October 1, 2013. In addition, the law requires both homeowners and lawn care professionals to obey new fertilizer application restrictions, use best management practices when applying fertilizer to lawns, observe newly designated fertilizer blackout dates, and follow University of Maryland fertilizer recommendations. MDA—with technical guidance from UMD—is charged with establishing a training, certification and licensing program for lawn care professionals as well as a public education program for homeowners.

In FY 2013, MDA's Turfgrass Nutrient Management Program worked closely with UMD to develop an 84-page training manual to assist lawn care professionals preparing to take the certification exam. The manual was posted on MDA's website in June and by the end of the fiscal year, a comprehensive training, testing, certification and licensing program for lawn care professionals was launched. To help educate the public on responsible fertilizer use, a four-week radio public education program was implemented during April 2013 in three major markets: Baltimore, Annapolis and Washington, D.C. News releases, fact sheets and posters on how to fertilize lawns responsibly were developed and distributed statewide.

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Turfgrass Nutrient Management Program

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