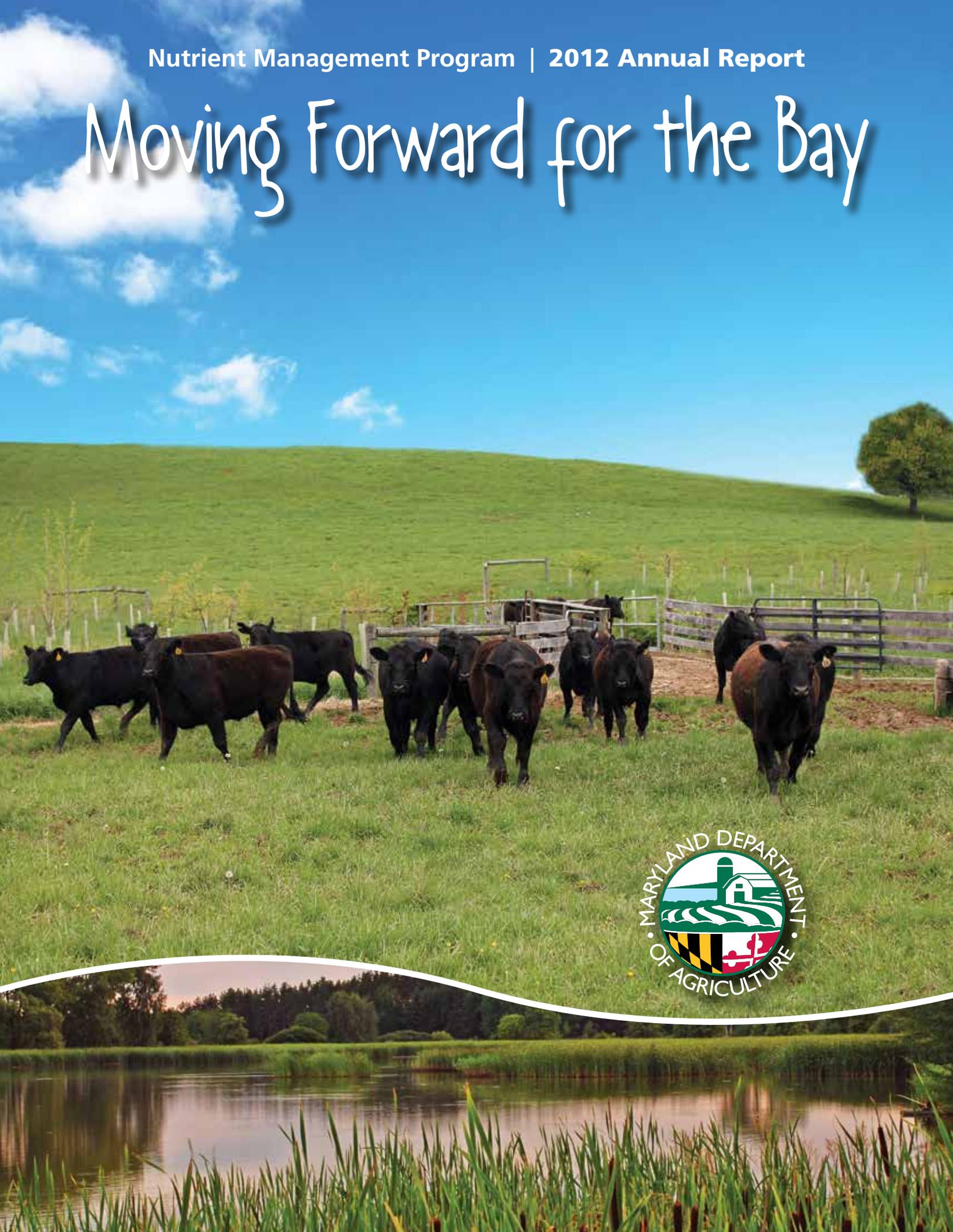


Nutrient Management Program | 2012 Annual Report

Moving Forward for the Bay



Message from Secretary Hance



They say that for every two steps forward, you sometimes need to take one step back. That certainly seemed to be the case this year as the department worked with a wide range of stakeholder groups to address divergent and at times

conflicting concerns about proposed changes to the nutrient management regulations.

MDA first proposed revising its nutrient management regulations in 2011 following discussions with the Nutrient Management Advisory Committee. With the EPA-mandated Chesapeake Bay cleanup program swinging into high gear, new rules were needed to provide clear guidance and consistency in the way manure, biosolids and other organic nutrient sources are applied to the land.

In crafting the new regulations, MDA relied on the best available science from the University of Maryland. We also received input from Governor Martin O'Malley's BayStat Science Panel and listened attentively to concerns raised by environmental, agricultural and municipal stakeholders at public meetings held throughout the state. Based on feedback received, we believe our new regulations strike a balance between maximizing water quality benefits for the Bay and addressing the practical realities and economic ramifications of implementing the requirements in the field. The regulations took effect October 15, 2012 and will be phased in to allow farmers time to make needed adjustments to their operations.

While strengthening our regulations to ensure that they are effective at protecting water quality is paramount, enforcement continues to serve as the barometer of our success. In FY 2012, MDA revised the staff duties of nutrient management specialists to expand our capacity to conduct on-farm reviews. This resulted in roughly a 30 percent increase in on-farm audits over the last year. Compliance remained steady, with approximately 69 percent of audited farmers receiving passing grades.

Expired nutrient management plans continue to account for most violations and MDA is working with the Nutrient Management Advisory Committee to develop a long-term strategy to address this ongoing problem. In other areas, initial nutrient management plan submissions and annual reporting remained strong.

Despite the good progress made, challenges remain. Data management continues to be a top concern. Nutrient application information reported by farmers must be manually entered into the system. This constrains MDA's ability to quickly track and address compliance issues on rented land, which accounts for approximately 40 percent of regulated farmland. The Nutrient Management Advisory Committee has made data management a priority for 2013.

Efforts to bring lawn care professionals and homeowners on board with the Bay cleanup moved forward this year, as our Urban Nutrient Management Program got to work developing the regulations needed to implement key provisions of Maryland's new lawn fertilizer law. The *Fertilizer Use Act of 2011* more than doubles the number of lawn care professionals that MDA regulates, establishes fertilizer application restrictions and requires both homeowners and professionals to follow University of Maryland recommendations when fertilizing lawns. Additional field inspectors will be needed to handle the increase in regulated firms. I am pleased to report that during the year MDA secured a \$100,000 grant from the Chesapeake Bay Trust to implement key components of the certification program and hire an additional inspector.

On all fronts, nutrient management is moving forward for the Bay and the citizens of Maryland. Please read on to learn more about our progress during the year.

Sincerely,

Earl F. Hance



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 ensuring that farmers and urban land managers apply fertilizers, animal waste and other nutrient sources in an environmentally sound manner. All farmers grossing \$2,500 a year or more or livestock producers with 8,000 pounds or more of live animal weight are required to follow nutrient management plans when fertilizing crops and managing animal waste. These science-based plans help protect water quality by taking into account a variety of factors to determine how much fertilizer, manure or other nutrient sources may be effectively utilized and applied to crop fields. Nutrient management plans are required for all agricultural land used to produce plants, food, feed, fiber, animals or other agricultural products.

On October 15, 2012, MDA's revised nutrient management regulations became effective. The revised regulations modify how a farm nutrient management plan is developed and implemented and change the way organic nutrient sources and other materials are managed. The new requirements—which will be phased in over the next several years—are designed to help Maryland meet nutrient reduction goals spelled out in its Watershed Implementation Plan (WIP) for the Chesapeake Bay.

Because of their complexity, nutrient management plans must be prepared by a certified University of Maryland Extension specialist, certified private consultant for hire or farmer who is trained and certified by MDA to prepare his or her own plan. Continuing education is a key component of the program. MDA's nutrient management specialists verify that farmers are following their plans, conduct site visits, and investigate complaints involving manure and other nutrient sources.

Approximately 700 non-agricultural nutrient applicators, including lawn care companies, commercial landscapers, golf course managers and public groundskeepers, are required to take soil tests, keep fertilizer records and follow University of Maryland guidelines when applying nutrients to lawns, athletic fields or other urban landscapes. MDA reviews the records of these organizations to verify program compliance. Beginning October 1, 2013, MDA's regulatory authority will be expanded under the *Fertilizer Use Act of 2011* to include more than 1,500 urban land managers statewide who will need to be certified in order to apply lawn fertilizer.

The Nutrient Management Program receives guidance from the Nutrient Management Advisory Committee, which includes representatives from agricultural interests, environmental groups, the turfgrass industry, biosolids firms, the University of Maryland and a host of local, state and government agencies.

At a Glance

Maryland's Revised Nutrient Management Regulations

- Provide guidance and clarification on the use of soil amendments and soil conditioners
- Require organic nutrient sources to be incorporated into the soil within 48 hours of application
- Establish new limits on fall nitrogen applications for small grains
- Require farmers to plant cover crops when applying organic nutrient sources to fallow ground in the fall
- Require the establishment of a 10 to 35 ft "no fertilizer application zone" adjacent to surface waters and streams
- Require farmers to use pasture-based management practices approved by the soil conservation district to protect streams from livestock impacts
- Prohibit nutrient applications between November 1 and March 1 for Eastern Shore farmers and between November 15 and March 1 for Western Shore farmers

Agricultural Compliance and Enforcement

During the year, MDA's team of nutrient management specialists reviewed nutrient management plans and Annual Implementation Reports (AIRs) submitted by farmers and performed on-farm inspections to make certain that farmers are using valid 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.

Nutrient Management Plan Submissions—

Maryland law requires farmers to submit copies of their original nutrient management plans to MDA. By the end of the fiscal year, 99.6 percent of the state's 5,433 regulated farmers had met this requirement and 22 farmers were not in compliance. MDA initiated progressive enforcement actions against five farmers during the year and collected one \$350 fine for failure to have a plan.

Annual Implementation Reports—Farmers are required to update their nutrient management plans at least once every three years and submit Annual Implementation Reports to MDA that summarize their nutrient applications for the previous calendar year. In FY 2012, approximately 5,315 farms were required to submit these reports to MDA by the March 1 deadline. In April 2012, MDA issued warning notices to 1,586 farmers who failed to file their AIRs on time,

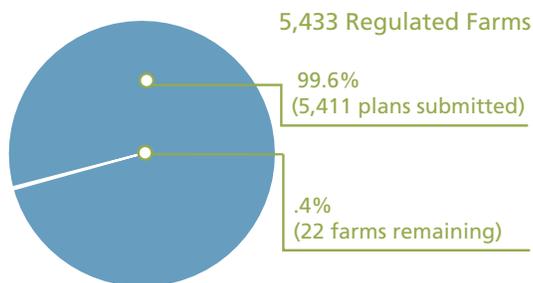
followed by 451 notices of pending fines and 127 default notices. By the end of the fiscal year, 97.8 percent of regulated farmers managing 1,264,500 acres of land had submitted their AIRs to MDA. In FY 2012, MDA collected \$10,700 in fines against 43 farmers for late or missing AIRs.

On-Farm Audits and Inspections—MDA's team of eight nutrient management specialists conducted 647 initial on-farm audits and follow-up inspections, representing roughly 12 percent of the farms regulated by the program. This represents an increase of nearly 30 percent over FY 2011. The majority of farms are selected randomly for audit, however farms with previous violations or a history of complaints are targeted for inspection.

Of the 542 initial visits made to farmers in FY 2012, 353 were found to be in compliance with the major provisions

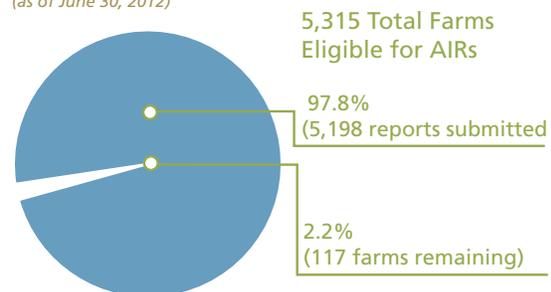
Nutrient Management Plans Submitted

(as of June 30, 2012)



Annual Implementation Reports (AIRs) Submitted for Calendar Year 2011

(as of June 30, 2012)

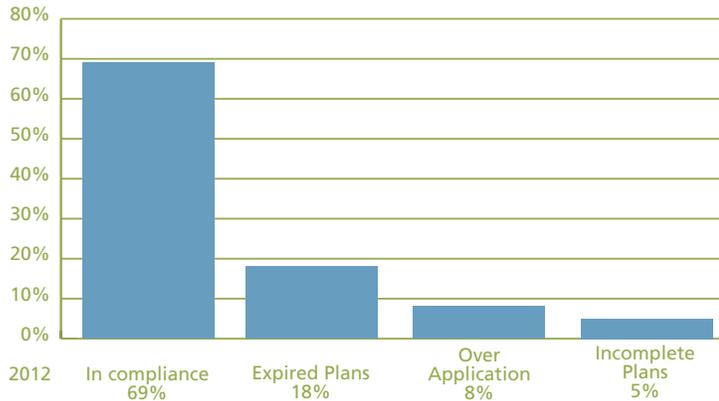


of the regulations. Specialists issued 189 warnings to correct major violations, documented conditions and issued timelines for minor violations to be corrected. Sixty percent of the warnings were issued for expired plans.

Follow-up inspections determined that 20 percent of the non-compliant operators had corrected problems and

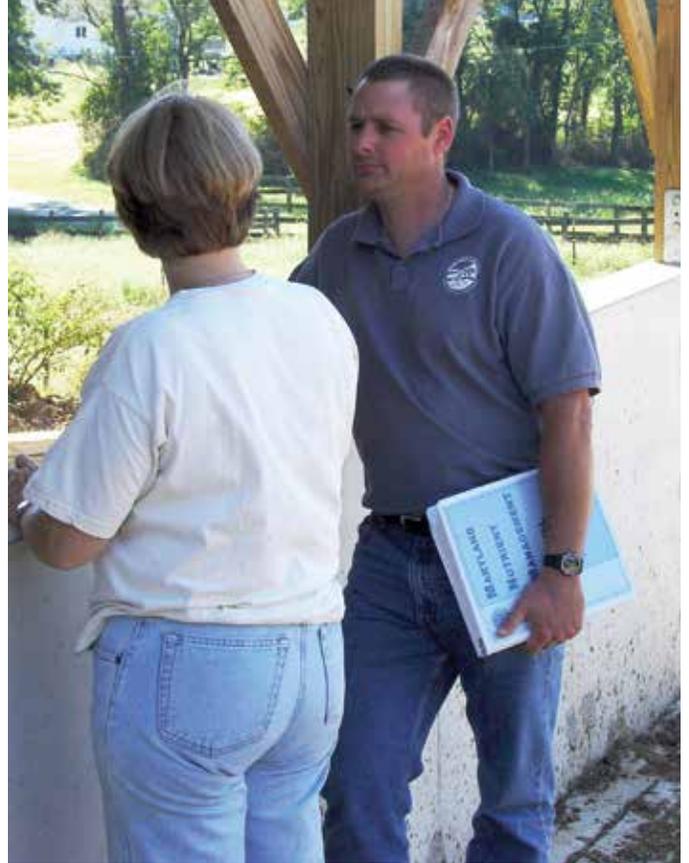
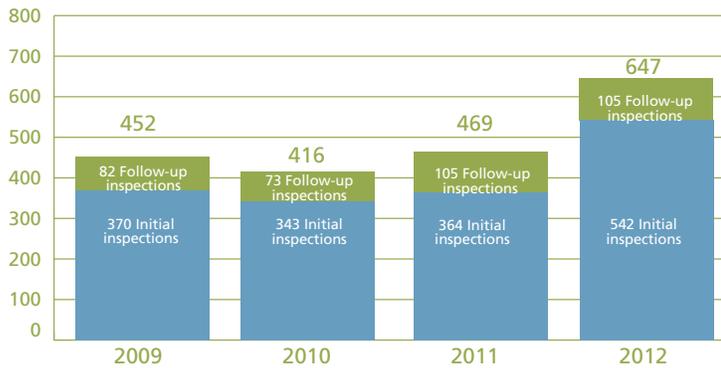
Results of On-Farm Audits

(as of June 30, 2012)



Number of On-Farm Inspections

(fiscal years 2009-2012)



met program requirements by the end of the fiscal year. Farmers with outstanding violations are in various stages of the enforcement process.

In FY 2012, MDA collected \$1,100 in fines from six farmers who failed to complete timely corrective actions.

Nutrient Management Plan Reviews—MDA nutrient management specialists review nutrient management plans prepared by certified consultants and farmers to ensure that they meet regulatory standards and are effective in protecting water quality. A site visit is conducted as part of this review process. In FY 2012, MDA specialists reviewed 95 plans developed by certified consultants and farmers. Approximately 95 percent of these plans met regulatory requirements. Additionally, 23 commercial nutrient applicators were inspected and found to be in compliance.





Urban Nutrient Management Program

Key Features of Maryland's New Lawn Fertilizer Law

- Requires lawn care professionals to be certified and licensed by MDA to apply lawn fertilizer
- Requires homeowners and professionals to follow University of Maryland fertilizer recommendations when applying nitrogen and phosphorus to lawns
- Requires fertilizer to be kept away from streams, sidewalks and driveways
- Prohibits most lawn fertilizer products from containing phosphorus
- Establishes blackout dates when fertilizer may not be applied
- Prohibits using fertilizer to de-ice walkways and driveways

Maryland's New Lawn Fertilizer Law

MDA's Urban Nutrient Management Program spent much of 2012 gearing up to implement the phased in requirements of Maryland's new lawn fertilizer law, the *Fertilizer Use Act of 2011*. The law requires MDA—with technical guidance from the University of Maryland (UME)—to establish a training, certification and licensing program for lawn care professionals and to conduct a homeowner education program on Bay-friendly fertilizer practices. During the year, a \$100,000 grant was secured from the Chesapeake Bay Trust to establish the training program and develop a database to track urban progress in meeting the goals of Maryland's Watershed Implementation Plan. In addition, work was begun on the regulations needed to implement the certification program. In partnership with UME, MDA produced and updated several homeowner publications to reflect the new requirements and established a dedicated web site for program updates. The law is being implemented in phases and takes effect fully October 1, 2013.

Urban Enforcement

Non-agricultural land encompasses a wide range of properties, including private landscapes managed by commercial lawn care companies, highway rights-of-way, golf courses, athletic fields, school campuses and recreational facilities. MDA's Urban

Nutrient Management Program currently regulates approximately 700 individuals and companies that apply fertilizer to ten or more acres a year, a figure that will more than double next year when Maryland's new lawn fertilizer law takes effect. In FY 2012, the records of 41 golf courses, 27 lawn and landscape companies and 3 public lands maintenance offices were reviewed. The reviews resulted in 22 warnings for non-compliance. More than half of the violations were due to lack of soil tests. Other violations included over-application of nutrients or a combination of violations. Operations that failed their inspections were required to secure soil tests or adjust fertilization rates for subsequent applications. By the end of the fiscal year, 12 follow up inspections were conducted resulting in 11 satisfactory ratings. MDA collected one \$250 fine in FY 2012.

Urban Nutrient Management Training

In FY 2012, MDA provided two training sessions in Spanish for 54 lawn care technicians who apply nutrients to private lawns, golf courses, recreation fields and public lands. Participants learned how to take a soil sample, understand a fertilizer label, measure a lawn, interpret soil test results and calibrate a spreader. A third training session was held to update approximately 90 company managers and turfgrass professionals on regulatory issues and nutrient recommendations.





Certification and Licensing

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 2012, MDA certified 20 new consultants who passed the Nutrient Management Certification Exam, bringing to 1,169 the number of individuals who have successfully completed the program.

University of Maryland Consultant Program

Twenty University of Maryland consultants were funded by MDA in FY 2012.

Farmer Training and Certification

MDA—in partnership with the University of Maryland Extension (UME)—offers a training program for farmers who want to become certified to write their own nutrient management plans. Participants undergo about 11 hours of classroom instruction and practice in writing plans specific to their operations. In FY 2012, MDA trained and certified 44 farmers to write their own nutrient management plans. To date, 455 farmers have been certified by MDA to develop nutrient management plans for properties that they own or manage.

Education Programs

Nutrient Applicator Voucher Training

Individuals who apply nutrients to 10 or more acres of cropland are required to attend an applicator training course once every three years. In FY 2012, MDA and UME conducted 31 voucher training sessions attended by 722 individuals seeking to obtain or renew their vouchers.

Continuing Education

Consultants and farmers certified to prepare nutrient management plans are required to take continuing education courses in order to keep abreast of the latest nutrient management technologies and regulations. In FY 2012, MDA and UME sponsored 44 education classes on nutrient management topics and MDA approved an additional 32 courses and field events sponsored by other recognized organizations for continuing education credit. Some 1,145 individuals attended MDA/UME training classes.

Nutrient Management Exam Training

MDA provided a two-day training course for 25 individuals planning to take the certification exam. Approximately 72 percent of these individuals passed the exam. Following the exam, UME organized plan-writing workshops using NuMan Pro, the nutrient management software program.





Maryland Department of Agriculture Nutrient Management Offices

WESTERN MARYLAND

Allegany, Garrett and Washington counties
3 Pershing Street, Room 100
Cumberland, MD 21502
301-722-9193

Frederick and Montgomery counties
92 Thomas Johnson Drive, Suite 110
Frederick, MD 21702
301-694-9290, ext. 137

CENTRAL MARYLAND

Baltimore, Cecil and Harford counties
19 Newport Drive, Suite 106
Forest Hill, MD 21050
410-838-6181, ext. 118

Carroll and Howard counties
92 Thomas Johnson Drive, Suite 110
Frederick, MD 21702
301-694-9290, ext. 136

SOUTHERN MARYLAND

**Anne Arundel, Calvert, Charles,
Prince George's and St. Mary's counties**
26737 Radio Station Way, Suite B
Leonardtwn, MD 20650
301-475-8402, ext. 122

EASTERN SHORE

**Caroline, Dorchester, Kent,
Queen Anne's and Talbot counties**
28577 Mary's Court, Suite 4
Easton, MD 21601
410-822-8120 or 410-822-8126

Somerset, Wicomico and Worcester counties
27722 Nanticoke Road, Unit 2
Salisbury, MD 21801
410-677-0802, ext. 4



Maryland Department of Agriculture

Office of Resource Conservation

Nutrient Management Program
50 Harry S. Truman Parkway
Annapolis, MD 21401
www.mda.maryland.gov



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Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Earl F. Hance
Secretary

Mary Ellen Setting
Deputy Secretary

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