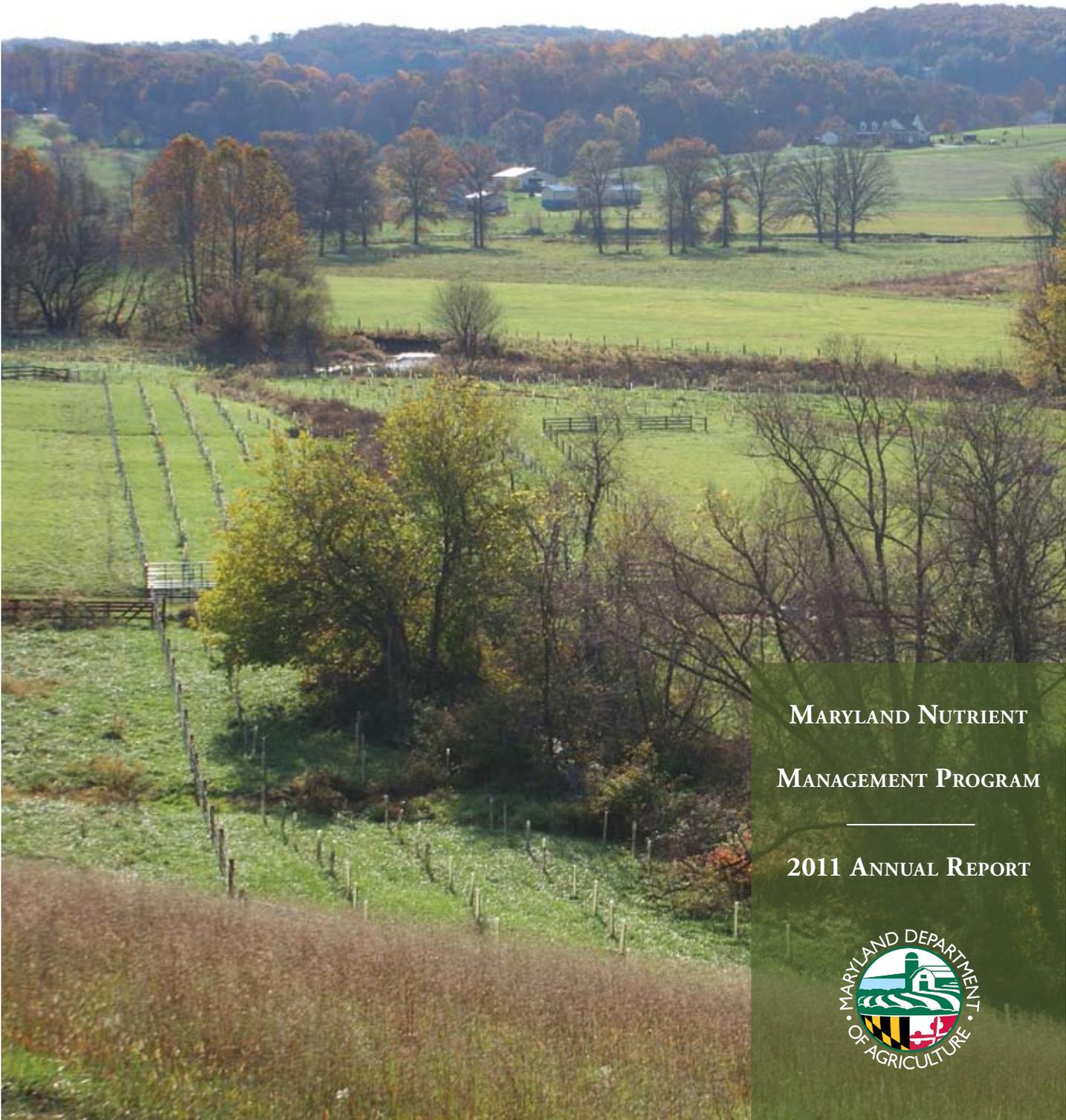




Recipe

For a Healthy Chesapeake Bay



MARYLAND NUTRIENT
MANAGEMENT PROGRAM

2011 ANNUAL REPORT



Recipe For a Healthy Chesapeake Bay



MESSAGE FROM SECRETARY HANCE

The Nutrient Management Program is a key ingredient in Maryland's recipe for a cleaner, healthier Chesapeake Bay.

Maryland—along with the other Bay states—is working to meet ambitious new nutrient and sediment reduction targets established for the Bay, and outlined in its Watershed Implementation Plan (WIP), the federally mandated document that serves as a roadmap to achieving water quality goals. Maryland's WIP outlines more than 50 strategies to reduce nitrogen, phosphorus and sediment entering the Bay from all sources.

Compliance assurance and enforcement of Maryland's Nutrient Management Law are key features of Maryland's WIP. During the year, MDA worked to bring all farmers into compliance with nutrient management reporting requirements. As a result, 99.9 percent of farmers have nutrient management plans and 98 percent have filed annual implementation reports with MDA describing how they used nutrients during the previous calendar year.

On-farm inspections provide greater accountability and insight into how well farmers are managing nutrients. In FY 2011, MDA inspectors conducted 450 on-farm audits to verify that farmers are using their nutrient management plans to protect water quality. Seventy percent of farmers audited passed their inspections, up from 62 percent in 2010. By the end of the fiscal year, more than half of the violations were corrected. MDA inspectors continue to work with the remaining farmers to bring them into compliance.

While a strong, effective enforcement program is essential to protecting water quality, new, more effective approaches to managing nutrients on the farm must be adopted for Maryland to meet its WIP targets. In FY 2011, MDA proposed several regulatory changes reviewed by the Nutrient Management Advisory Committee and based on the latest science. These include limits on fall fertilizer applications for small grains; the creation of a no-fertilizer application zone next to streams; consistent application method and timing restrictions for all organic nutrient sources, including animal manure, sludge, soil amendments, conditioners and food processing waste; and new rules that allow animal operations to apply a limited amount of manure to meet the phosphorus needs of their soybean crops. MDA continues to work with stakeholders to finalize these changes, which are vital in helping Maryland meet its nutrient reduction targets for the Bay.

New strides were made in managing urban nutrient sources this year. The newly passed *Fertilizer Use Act of 2011* places restrictions on the way lawn fertilizer is applied to non-agricultural properties, including lawns, parks, and golf courses. It more than doubles the number of commercial lawn care companies that will be regulated by MDA, restricts fertilizer use, and authorizes the department to establish a training, certification and licensing program for urban land managers similar to the program already in place for Maryland farmers. Additional provisions bring homeowners, fertilizer manufacturers and retailers on board with the Bay cleanup. The new restrictions are outlined in Maryland's WIP and will be phased in over the next two years.

As we move forward in our efforts to meet federal clean water standards and assign specific nutrient and sediment reduction targets locally, the Nutrient Management Program will continue to follow its recipe for a cleaner, healthier Chesapeake Bay.

Sincerely,

Earl F. Hance, Secretary of Agriculture

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 environmentally sound manner.

The Water Quality Improvement Act 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 science-based plans specify how much fertilizer, manure or other nutrient sources may be safely applied to crop fields in order to minimize environmental losses. Nutrient management plans are required for all agricultural land used to produce plants, food, feed, fiber, animals or other agricultural products.

Non-agricultural nutrient applicators, including lawn care companies, commercial landscapers, golf course managers and public groundskeepers, are required by law to follow University of Maryland guidelines when applying nutrients to lawns, athletic fields or other urban landscapes. Both agricultural and non-agricultural nutrient applicators are required to maintain records of soil test results and nutrient applications and make these records available to MDA if they are selected for audit. The program is authorized to impose penalties and fines on producers who fail to comply.

To ensure the quality of nutrient management plans, the NMP oversees a training, certification and licensing program. The program 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. The NMP 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. To assist farmers and consultants in complying with program requirements, MDA maintains six regional offices throughout the state.

Agricultural Compliance and Enforcement

In FY 2011, MDA's six nutrient management specialists worked to ensure that farmers are complying with nutrient management regulations and that water quality is not compromised. Specialists review nutrient management plans submitted by farmers, analyze Annual Implementation Reports describing how farmers use nutrients on their farms and perform on-farm inspections to make certain that plans are up-to-date and implemented properly. MDA is authorized to issue fines and penalties, take administrative actions and pursue civil and criminal proceedings against farmers who fail to comply.

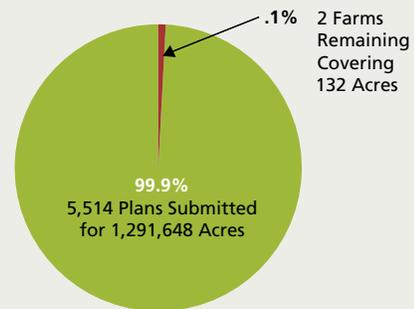
NUTRIENT MANAGEMENT PLAN SUBMISSIONS

Maryland farmers are required to submit copies of their original nutrient management plans to MDA. To date, 5,514 farmers have filed these plans with MDA. This represents 99.9 percent of regulated farm operators (5,516) and 99.9 percent of regulated acreage (1,291,780 acres). MDA is currently pursuing enforcement actions against two farmers who have not submitted nutrient management plans for 132 acres.

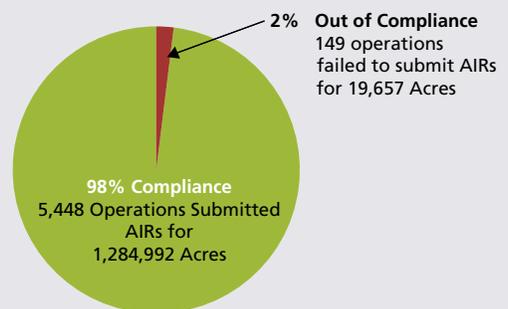
ANNUAL IMPLEMENTATION REPORTS

Farmers are required to update their nutrient management plans a minimum of once every three years and submit Annual Implementation Reports (AIRs) to MDA detailing their nutrient use. In April 2011, MDA issued 1,276 warning notices to farmers who failed to file their AIRs by the March 1 deadline, followed by 439 notices of pending fines. By the end of the fiscal

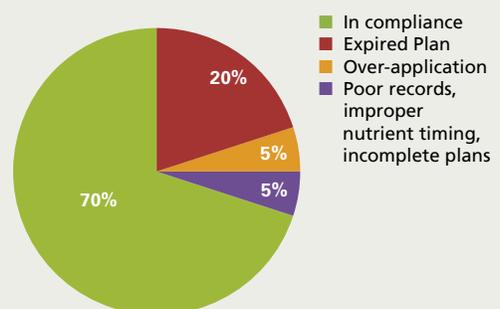
Nutrient Management Plans Submitted
(as of June 30, 2011)



2010 Annual Implementation Reports Submitted
(as of June 30, 2011)



Results of Initial On-Farm Audits for Fiscal Year 2011



year, 98 percent of regulated farmers had submitted their AIRs. In FY 2011, MDA collected \$13,250 in fines against 53 farmers who failed to submit their AIRs.

ON-FARM AUDITS AND INSPECTIONS

MDA's six nutrient management specialists conducted 450 on-farm audits and inspections in FY 2011 to verify that nutrient management plans are current, records are in line with plans, and that farmers are using plans to manage nutrients and protect environmental resources. These audits covered 97,533 acres and represented eight percent of the regulated farms. Specialists issued 132 warnings to correct major violations, documented conditions and issued timelines for minor violations to be corrected. In FY 2011, MDA collected \$1,400 in fines against four farmers who failed to take corrective actions in a timely manner. By the end of the fiscal year, 62 major violations had been corrected.

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 protect water quality. A site visit is conducted as part of the review process. In FY 2011, MDA specialists:

- Reviewed 203 nutrient management plans developed by certified consultants and farmers. Although some minor deficiencies were documented, after follow-up actions all plans complied with regulatory requirements.
- Inspected 69 commercial nutrient applicators. All were in compliance.
- Reviewed 24 nutrient management plans for farmers seeking reimbursement through the Maryland Agricultural Water Quality Cost-Share Program. All met regulatory requirements.
- Reviewed 52 nutrient management plans as part of the Maryland Department of the Environment's (MDE) cross compliance for issuing sewage sludge utilization permits. Most of the plans failed to meet MDA's standards; however, MDE is revising its biosolids regulations to assure that MDA's standards for nutrient management plans are required. The revised standards will provide better guidance and apply consistent management standards for all nutrient sources.



Urban Nutrient Management Program

ENFORCEMENT

MDA regulates individuals and companies that apply fertilizer to 10 or more acres of non-agricultural land, including private lawns and landscapes managed by commercial service companies, highway rights-of-ways, golf courses, athletic fields, school campuses and recreational areas. These urban land managers are required to take soil tests for each client or management area, follow University of Maryland Extension fertilizer and timing recommendations and keep records of fertilizer applications.

Some 700 businesses are regulated by MDA's Urban Nutrient Management Program. Each year, about 10 percent of them are selected randomly for inspection. In FY 2011, MDA reviewed the maintenance records of 27 golf courses, 30 lawn and landscape companies, and three public lands maintenance facilities. The reviews resulted in 13 warnings against three golf courses and 10 lawn and landscape companies. The most common compliance issues were lack of soil tests and over application of nutrients. Operations that failed their first inspection were given a deadline to make corrections and received a follow up inspection. By the end of the fiscal year, 18 follow-up inspections were conducted resulting in 17 satisfactory ratings and one \$250 fine for noncompliance.

FERTILIZER USE ACT OF 2011

Signed into law by Governor Martin O'Malley on May 19, the *Fertilizer Use Act of 2011* expands MDA's regulatory authority to include more than 1,500 urban land management companies statewide. Beginning in 2013, these urban land managers will need to be certified, trained and licensed by MDA before they can apply nutrients to non-agricultural properties. The new law also limits the amount of nutrients in fertilizer products used by homeowners and lawn care professionals, imposes new labeling requirements and directs MDA to conduct a fertilizer education program for homeowners. In FY 2011, the Nutrient Management Program began work on the certification and homeowner aspects of the law, which will be phased in over the next two years.

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 2011, 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

MDA funded 21 University of Maryland consultants in FY 2011. These consultants work in Extension offices statewide to develop nutrient management plans for farmers. In FY 2011, MDA maintained its funding level for this program

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 2011, MDA trained and certified 86 farmers to write their own nutrient management plans. To date, 414 farmers have been certified 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 2011, MDA and UME conducted 39 voucher training sessions attended by 751 individuals.

NUTRIENT APPLICATOR TRAINING FOR NON-AGRICULTURAL APPLICATORS

MDA provides training to lawn care workers who apply nutrients to private lawns, golf courses, recreation fields and other public lands. Participants learn how to take a soil sample, understand a fertilizer label, measure a lawn, interpret soil test results and calibrate a spreader. During the year, 121 participants attended three training sessions offered in English and Spanish. Although this training is not currently required by law, interest remains high and sessions are fully booked.

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 2011, MDA and UME spon-

continued



sored 36 education classes on nutrient management topics and approved an additional 46 courses and field events sponsored by other recognized organizations. About 700 individuals attended training classes.

NUTRIENT MANAGEMENT EXAM TRAINING

MDA provided a two day training course for 31 individuals planning to take the certification exam.

NUTRIENT MANAGEMENT TRAINING FOR SOIL CONSERVATION DISTRICT PERSONNEL

MDA offered a one-day training course to help prepare 30 soil conservation district technicians to assist animal operations with the development of comprehensive nutrient management plans required by MDE's Confined Animal Feeding Operation Permit.

Data Management

In FY 2011, the Nutrient Management Program continued to emphasize and build upon systems that make it easier for farmers to report nutrient management progress. Electronic reporting enables MDA to streamline its tracking and data collection system while providing accurate, verifiable data to the Chesapeake Bay Program Office for use in updating the Bay model. In FY 2011, 228 farmers submitted their AIRs to MDA electronically, a ten-fold increase over 2010.

Regional Nutrient Management Offices

Region 1: Allegany, Garrett and Washington counties

Maryland Department of Agriculture
Nutrient Management Program
3 Pershing Street, Room 100
Cumberland, MD 21502
301-722-9193

Region 2: Carroll, Frederick, Howard and Montgomery counties

Maryland Department of Agriculture
Nutrient Management Program
92 Thomas Johnson Drive, Suite 110
Frederick, MD 21702
301-694-9290, ext. 136 or 137

Region 3: Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties

Maryland Department of Agriculture
Nutrient Management Program
50 Harry S. Truman Parkway
Annapolis, MD 21401
410-841-5934

Region 4: Baltimore, Cecil and Harford counties

Maryland Department of Agriculture
Nutrient Management Program
19 Newport Drive, Suite 106
Forest Hill, MD 21050
410-838-6181, ext. 118

Region 5: Caroline, Dorchester, Kent, Queen Anne's and Talbot counties

Maryland Department of Agriculture
Nutrient Management Program
28577 Mary's Court, Suite 4
Easton, MD 21601
410-822-8120 or 410-822-8126

Region 6: Somerset, Wicomico and Worcester counties

Maryland Department of Agriculture
Nutrient Management Program
27722 Nanticoke Road, Unit 2
Salisbury, MD 21801
410-677-0802



Maryland Department of Agriculture

Office of Resource Conservation

Nutrient Management Program
50 Harry S. Truman Parkway
Annapolis, MD 21401
www.mda.state.md.us

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*
Earl F. Hance, *Secretary*
Mary Ellen Setting, *Deputy Secretary*



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