

Department of Legislative Services
 Maryland General Assembly
 2011 Session

FISCAL AND POLICY NOTE
Revised

Senate Bill 487

(Senator Middleton, *et al.*)

Education, Health, and Environmental Affairs

Environmental Matters

Fertilizer Use Act of 2011

This bill makes various changes to State law primarily related to the nitrogen and phosphorus content of specialty fertilizers labeled/intended for use on turf, labeling of specialty fertilizers used on turf, and nonagricultural application of commercial and specialty fertilizer. In addition to establishing fertilizer content, labeling, and application requirements, and other provisions, the bill also requires the Maryland Department of Agriculture (MDA), in consultation with the University of Maryland (UMD), to establish a certification program for professional fertilizer applicators as well as a public education program.

Certain parts of the bill take effect October 1, 2011, including the specialty fertilizer labeling requirements, while others take effect October 1, 2012, and October 1, 2013.

Fiscal Summary

State Effect: General fund expenditures increase by \$70,000 in FY 2013 for costs to develop the certification and public education programs. Future year expenditures reflect ongoing certification and public education costs and the cost to hire a nutrient management specialist to perform fertilizer application compliance inspections. General fund revenues increase by \$60,000 in FY 2014 and by approximately \$30,000 annually thereafter, reflecting revenues from certification fees.

(in dollars)	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
GF Revenue	\$0	\$0	\$60,000	\$30,600	\$30,900
GF Expenditure	\$0	\$70,000	\$145,000	\$145,100	\$149,500
Net Effect	\$0	(\$70,000)	(\$85,000)	(\$114,500)	(\$118,600)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

Local Effect: Although the bill authorizes local governments to enforce specified provisions, it is assumed that any local government that chooses to do so could absorb that activity with existing resources. Also, it is assumed that any increase in fertilizer costs resulting from the bill's requirements, payment of certification fees for local government employees applying fertilizer to turf, and any criminal penalties imposed for violations of the bill's provisions will not have a significant impact on local government finances.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary: The bill amends and adds to provisions of the Maryland Commercial Fertilizer Law governing the labeling, content, sale, and distribution of fertilizers and provisions of the State's nutrient management laws governing nonagricultural application of fertilizers.

Fertilizer Labeling

The bill requires that, in addition to current labeling requirements, beginning October 1, 2011, the labeling of specialty fertilizers used on turf must include the percentages of (1) total nitrogen, including the percentages of other water soluble nitrogen and water insoluble nitrogen; (2) available phosphate; and (3) soluble potash. The labeling must also include one of two statements: (1) "Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn, and sweep any product that lands on the driveway, sidewalk, or street back onto your lawn"; or (2) the environmental hazard statement recommended by the U.S. Environmental Protection Agency (EPA) for the product.

Certification of Professional Fertilizer Applicators

The bill specifies, in provisions that take effect October 1, 2012, that MDA, in consultation with UMD, must establish a program to certify professional fertilizer applicators. The certification program must include training and education in the proper use and calibration of equipment; hazards involved in, and the environmental impact of, applying fertilizer; applicable State and federal laws, rules, and regulations; the correct interpretation of labeling information; and the recommendations developed by UMD for nutrient management on turf.

MDA may charge reasonable fees, including an annual recertification fee, to cover the costs of the certification program. MDA may also require continuing education or training and may designate other entities to train, certify, and recertify applicators. MDA may also recognize the training program of an entity employing professional fertilizer applicators if the program meets departmental standards.

MDA must publish and maintain a list of all certified applicators and make the list available on its website. MDA is authorized to adopt implementing regulations.

Beginning October 1, 2013, a professional fertilizer applicator may not apply fertilizer to turf without first obtaining a certification, and a person who is not certified has to be under the direct supervision of a certified professional fertilizer applicator in order to do so.

Public Education Program

Effective October 1, 2012, MDA, in consultation with UMD, must also develop a program of public education, including the dissemination of information regarding nutrient pollution; best management practices for fertilizer use; soil testing; proper interpretation of fertilizer label instructions; and the proper use and calibration of fertilizer application equipment.

In addition, UMD must identify soil testing laboratories that (1) follow the recommended soil testing procedures for the mid-Atlantic United States; and (2) provide a report to a requestor of soil testing with the test results. UMD must also review its fertilizer turf guidelines every three years and revise the guidelines as necessary, with consideration of plant nutrient requirements and established State goals to protect water quality in the waters of the State.

Authority to Establish Fertilizer Standards

The bill specifies that, except for enforcement of certain fertilizer application restrictions by counties and municipalities, MDA has exclusive authority to establish standards regulating fertilizer and its application to turf. Local government entities are explicitly prohibited from adopting laws, regulations, rules, ordinances, or standards regulating fertilizer and its application to turf. These provisions of the bill, however, do not exempt a person from complying with any provision of, or any regulations adopted in accordance with, the Environment Article. The provisions take effect October 1, 2012.

Fertilizer Content and Use

The bill specifies various requirements relating to fertilizer content and use that are applicable beginning October 1, 2013. Specialty fertilizers labeled for use on turf must meet specified content limits/requirements for water-soluble nitrogen, total nitrogen, and slow release nitrogen. “Enhanced efficiency fertilizers” are subject to separate limits relating to nitrogen. Specialty fertilizers labeled for use on turf also may not contain phosphorus except for organic and natural organic fertilizer sold to a professional fertilizer applicator or when specifically labeled for certain uses. The bill prohibits a person from offering for sale specialty fertilizer intended for use on turf that does not meet similar nitrogen content limits/requirements or, unless intended for certain uses, that contains phosphorus. A person may offer to sell an organic or natural organic fertilizer containing phosphorus to a professional fertilizer applicator, however.

“Enhanced efficiency fertilizer” is a fertilizer product that increases plant uptake and decreases the potential of nutrient loss to the environment, including gaseous loss, leaching, or runoff, when compared to an appropriate reference fertilizer product.

“Organic fertilizer” and “natural organic fertilizer” are fertilizer products derived from either a plant or animal product containing carbon and one or more elements, other than hydrogen or oxygen, that are essential for plant growth. Natural organic fertilizers contain no synthetic materials or materials that are changed in any physical or chemical manner from their initial state, except by physical manipulation.

The uses for which specialty fertilizer containing phosphorus may be labeled and offered for sale for use on turf are generally (1) when determined to be necessary in accordance with a soil test; (2) when establishing vegetation/turf for the first time; and (3) when reestablishing or repairing a turf area.

A specialty fertilizer labeled for use on turf may not be labeled for use as a de-icer, and no commercial or specialty fertilizer product may be offered for sale for use as a de-icer.

Effective October 1, 2011, the bill modifies the existing prohibition (which first took effect April 1, 2011) against the sale or distribution for use or sale at a retail establishment in the State of any fertilizer intended for use on established lawns or grass unless it is low phosphorous fertilizer. The bill eliminates the limitation of the prohibition to the sale or distribution for use or sale *at a retail establishment in the State*, instead making it applicable simply to the sale or distribution for use or sale of fertilizer intended for use on established lawns or grass.

The bill also repeals an exception from that prohibition for licensed landscaping contractors and their salespersons, employees, or other agents. The bill, however, also

specifies that the prohibition does not apply to organic or natural organic fertilizer sold to a professional fertilizer applicator.

The bill also changes various references to “phosphoric acid” under the Maryland Commercial Fertilizer Law to “phosphate,” including in the definition of low phosphorous fertilizer.

Fertilizer Application

Effective October 1, 2013, the bill establishes various restrictions on the application of commercial fertilizer and specialty fertilizer to property, including State property, which is not used for agricultural purposes. The restrictions do not apply to the application of fertilizer on commercial farms.

The restrictions replace an existing requirement under the State’s nutrient management laws that a person who applies commercial fertilizer for hire, or an employee of an owner or manager of property who applies fertilizer, to 10 acres or more of property used for nonagricultural purposes annually, or to State property used for nonagricultural purposes, apply commercial fertilizer in a manner consistent with recommendations of the UMD Cooperative Extension Service.

Restrictions specific to professional fertilizer applicators are established, as well as restrictions applicable to persons applying commercial or specialty fertilizer in general. A professional fertilizer applicator may not apply fertilizer to turf without a fertilizer application certification, unless the person is under the direct supervision of a certified professional fertilizer applicator.

Both in the case of professional fertilizer applicators and persons applying commercial and specialty fertilizer in general, fertilizer intended for use on turf may not be applied to an impervious surface and fertilizer containing phosphorus or nitrogen may not be applied to turf before March 1 or after November 15 of any calendar year, at any time the ground is frozen, or generally within 15 feet of waters of the State (for certain application methods, the limit may be reduced to 10 feet). Professional fertilizer applicators, however, may apply water-soluble nitrogen to turf at a specified application rate from November 16 through December 1. The restrictions also include other nitrogen- and phosphorus-related limitations, include limitations specific to enhanced efficiency and organic and natural organic fertilizers, and generally require compliance with UMD recommendations. A person other than a professional fertilizer applicator may not apply fertilizer to a golf course.

A person who violates the restrictions applicable to professional fertilizer applicators is subject to a civil penalty of up to \$1,000 for a first violation and up to \$2,000 for each

subsequent violation. Each day is a separate violation, and specified limits apply. Certain considerations must be taken into account in assessing a penalty. The penalties are paid into the general fund. Penalties are not specified in the bill for the restrictions on persons applying commercial or specialty fertilizer in general. Under existing law, a person who violates any provision of the Agriculture Article, or a rule or regulation adopted pursuant to it, is guilty of a misdemeanor and unless another penalty is specified, the person, upon conviction, is subject to a fine of up to \$500 and/or imprisonment for up to three months. Second or subsequent violations are subject to a fine of up to \$1,000 and/or imprisonment for up to one year.

MDA may adopt regulations to implement the application restrictions, and counties and municipalities are expressly given the authority to enforce the restrictions applicable to persons applying commercial and specialty fertilizer in general.

Reporting the Sale of Commercial Fertilizer

The bill requires MDA to adopt regulations by October 1, 2013, to require annual reporting of retail sales of commercial and specialty fertilizer by the following sectors: lawn and turf; golf course and athletic fields; gardening; and greenhouses and nurseries.

Current Law: Each brand name and grade of commercial fertilizer must be registered with MDA before being distributed in the State. Specified labeling, recordkeeping, and reporting requirements also apply to commercial fertilizers and their distribution. MDA enforces State laws applicable to commercial fertilizer and has the authority to sample, inspect, test, and make analyses of any commercial fertilizer distributed in the State to ensure compliance with State law.

“Specialty fertilizer” means a commercial fertilizer distributed primarily for nonfarm use, such as home gardens, lawns, shrubbery, flowers, golf courses, municipal parks, cemeteries, greenhouses, and nurseries, and may include commercial fertilizers used for any research or experimental purpose.

Under the State’s nutrient management laws, farmers having a gross income of \$2,500 or more, or 8,000 pounds or more of animals, are required to have a nutrient management plan. Nutrient management plans address the amount, placement, timing, application, and management of all nutrient sources used in the farming operation. MDA certifies nutrient management consultants who provide technical assistance to farmers in the development and implementation of the plans. The law also requires that a person hired to apply commercial fertilizer, or an employee of an owner or manager of a property who applies fertilizer, to 10 acres or more of property that is not used for agricultural purposes, including private lawns, golf courses, public parks, airports, athletic fields, and

State-owned restoration areas and highway rights-of-way, must follow the recommendations of the UMD Cooperative Extension Service.

The Chesapeake Bay Phosphorous Reduction Act of 2009 was established by Chapters 278 and 279 of 2009. As of April 1, 2011, retail establishments are prohibited from selling or distributing for use or sale fertilizer intended for use on established lawns or grass unless it is low phosphorous fertilizer; however, licensed landscaping contractors and their agents are exempt. The Act defines “low phosphorous fertilizer” as fertilizer containing not more than 5% of available phosphoric acid, with an application rate of at most 0.25 pound of available phosphoric acid/1,000 square feet/application and 0.5 pound of available phosphoric acid/1,000 square feet/year.

The Act also prohibits, as of April 1, 2011, a lawn fertilizer with an available phosphoric acid content greater than 5% from being labeled for use on established lawns or grass or with spreader settings. The Act specifies language concerning fertilizer application that must appear conspicuously on the fertilizer container. Seed starter fertilizer for use on newly established lawns or turf is exempt from the labeling requirements.

The Act also required, by April 1, 2011, lawn care fertilizer manufacturers to reduce the amount of available phosphoric acid resulting from the application of their products in the State by 50% from 2006 levels; and manufacturers who begin to sell or distribute specified fertilizer in the State on or after April 1, 2010, must limit the average amount of available phosphoric acid resulting from the application within the State of the manufacturer’s lawn care products to 1.5%. Fertilizer manufacturers are required to report annually beginning in 2011 on the amount of phosphorus in the manufacturers’ lawn care products sold at retail locations in the State.

Background:

Watershed Implementation Plan – Fertilizer Recommendations

The federal Clean Water Act requires states to designate intended uses for their water bodies, such as swimming and fishing, and to set water quality standards to achieve these uses. Water bodies that do not meet the water quality standards are designated as *impaired* and are assigned a Total Maximum Daily Load (TMDL) or “pollution diet,” which (1) sets the maximum amount of pollution that the water body can receive and still attain water quality standards; and (2) identifies specific pollution reduction requirements among the various contributing sources.

Since 2000, EPA has been working with watershed states and the District of Columbia to develop a Chesapeake Bay TMDL to comply with several federal court-ordered deadlines established by consent decree. That effort was significantly reinvigorated when President

Obama signed Executive Order 13508 in May 2009. In May 2010, EPA committed to establishing a final bay TMDL, which it released on December 29, 2010. Working with EPA, each watershed state and the District of Columbia submitted draft Phase I watershed implementation plans (WIPs) in September 2010, and after a comment period, submitted final WIPs in November and early December. WIPs are intended to provide a roadmap for how each jurisdiction will achieve and maintain the bay TMDL.

Maryland's WIP builds on existing State-directed restoration efforts and identifies strategy options to reduce nitrogen and phosphorus from all major sources, including wastewater, stormwater runoff, septic systems, agriculture, and air pollution. WIP strategies related to nonagricultural fertilizer use include expanding regulation of commercial fertilizer applications under the State's nutrient management laws; eliminating phosphorus in lawn fertilizers, except fertilizers used for the establishment or renovation of lawns; extending to commercial applicators the requirements for the use of low phosphorus fertilizers; allowing only slow release nitrogen in fertilizers sold for use on lawns and managed turf; prohibiting the use of any fertilizer product as a de-icer; and taxing lawn fertilizers. Maryland's WIP also recommends the revision of the UMD nutrient recommendations for managed turf to reduce nitrogen use.

This bill, to one extent or another, implements a number of these strategies related to nonagricultural fertilizer use, with the exception of imposing a tax on lawn fertilizers.

Fertilizer Restrictions in States and Local Jurisdictions

Restrictions on nitrogen and/or phosphorus/phosphate levels in fertilizer used or labeled for use on lawns and turf and/or the use of those fertilizers have been adopted in other states, such as Florida, Minnesota, Wisconsin, and New Jersey, and local jurisdictions. In Maryland, a City of Annapolis ordinance took effect January 1, 2009, prohibiting the application of fertilizer labeled as containing any amount of phosphorus (or other compound containing phosphorus, such as phosphate) on lawns, subject to certain exceptions.

State Expenditures: General fund expenditures increase by \$70,000 in fiscal 2013, which accounts for the October 1, 2012 effective date of the bill's provisions requiring establishment of the certification program and public education program and the October 1, 2013 effective date for the bill's provisions establishing restrictions on the application of commercial and specialty fertilizer. This estimate reflects the cost of contractual services for MDA to develop the required certification program for professional certified applicators (\$30,000) and the cost of conducting the public education program (\$40,000).

Certification Program	\$30,000
Public Education Program	<u>40,000</u>
Total FY 2013 Administrative Expenditures	\$70,000

In fiscal 2014, in addition to ongoing costs of the public education program and costs to implement the certification program, a nutrient management specialist will need to be hired to conduct fertilizer application compliance inspections once the fertilizer application requirements take effect October 1, 2013. The bill's fertilizer application restrictions applicable to all nonagricultural property are expected to significantly expand the number of applicators MDA currently regulates under the State's nutrient management laws.

Future year expenditures reflect a full salary (for the nutrient management specialist hired in fiscal 2014) with 4.4% annual increases and 3% employee turnover, 1% annual increases in ongoing operating expenses, and in fiscal 2014, a one-time equipment cost associated with the hiring of the nutrient management specialist.

It appears that UMD, which currently provides educational programming related to proper use of fertilizers on crops and turf grass, would likely have a significant role in the development and implementation of the certification program. Legislative Services notes that UMD has estimated the costs of the certification program, if it had primary responsibility for its development and implementation, to be higher than the amount estimated to be needed by MDA, requiring a portion of the time of a tenured professor in the first two years and ongoing personnel costs for two additional positions and operating costs. Because MDA has the primary responsibility under the bill for establishing the certification program, however, it is assumed for the purposes of this fiscal and policy note that program costs will be closer to the amount estimated for MDA. To the extent costs are higher, they would be offset by higher certification fees (discussed below under *State Revenues*).

MDA indicates that enforcement of the bill's content and labeling requirements could be accomplished as part of existing inspection processes with existing personnel. Further, any database modifications necessary to manage the sector-specific retail sale information for commercial and specialty fertilizer required to be reported under the bill are expected to be met with existing resources.

It is assumed that any increase in fertilizer costs resulting from the bill's requirements, payment of certification fees for State employees applying fertilizer to turf, and any criminal penalties imposed for violations of the bill's provisions will not have a significant impact on State expenditures.

State Revenues: General fund revenues increase by \$60,000 in fiscal 2014, and by approximately \$30,000 each year thereafter, which assumes professional applicators meet the bill's requirement for certification by October 1, 2013, by becoming certified in the first quarter of fiscal 2014. The estimate assumes fee revenue lags development expenditures by one year but that sufficient fees will be charged to fully cover the costs of the certification program. To the extent costs are higher, fee revenue will be higher. The certification fee revenue is assumed to be paid into the general fund because a special fund is not created to hold the fee revenue, and the provisions in the bill relating to the certification program (including the authorization to charge reasonable fees to cover the costs of the program) are established within Title 8, Subtitle 8 ("Nutrient Management") of the Agriculture Article, which contains an existing provision requiring all moneys collected under the subtitle to be deposited in the general fund.

It is assumed that any civil or criminal penalties imposed for violations of the bill's provisions will not have a significant impact on State revenues.

Small Business Effect:

Fertilizer Applicators

Small business fertilizer applicators will incur the costs of certification and recertification fees charged for the professional fertilizer applicator certification program. MDA indicates that there are currently at least 965 businesses that will be required to be certified as professional applicators under the bill. If \$60,000 in certification fees is collected in fiscal 2014, the certification fees for each business will be at most \$62 on average for initial certification.

The bill's prohibition against application of fertilizer containing phosphorus or nitrogen to turf before March 1 or after November 15, though allowing for water-soluble nitrogen to be applied to turf from November 16 through December 1 at a specified application rate, may adversely affect some fertilizer applicators that would otherwise apply fertilizer outside of those time periods. The limitations could result in lost revenue and longer seasonal layoffs for employees of affected businesses.

Fertilizer Manufacturers

Small business manufacturers of fertilizer labeled for use on turf may be meaningfully impacted by the bill. To the extent manufacturers do not already offer products that comply with the bill's content requirements, they will need to modify fertilizer manufactured for sale in the State. Presumably costs may also be incurred to modify product labels to comply with the bill's additional labeling requirements, which take

effect October 1, 2011. Costs associated with meeting the content and/or labeling requirements of the bill, however, are unknown.

MDA indicates that certain manufacturers may be able to meet the requirements with minimal adjustments to their current product lines, while others are likely to incur costs to make production, labeling, and marketing adjustments to comply with the bill's requirements.

Fertilizer Retailers

Based on indications from MDA, retailers of fertilizer are not expected to be significantly impacted by the bill's fertilizer content and labeling requirements. MDA indicates that manufacturers have demonstrated the capacity to make adjustments to formulation and labeling in order to be competitive in the marketplace and the bill's requirements are therefore not expected to affect the availability of fertilizers to Maryland retailers.

MDA indicates that it currently collects point-of-sale data for fertilizers sold in the State, but that retailers will need to devise the means necessary to meet the sector-specific reporting requirements of the bill. Presumably this will not have a significant fiscal impact on small business retailers.

Additional Information

Prior Introductions: None.

Cross File: HB 573 (Delegate Hubbard, *et al.*) - Environmental Matters.

Information Source(s): Maryland Department of Agriculture; University System of Maryland; Maryland Department of Transportation; Department of Natural Resources; Department of General Services; Maryland Department of the Environment; Baltimore, Howard, and Montgomery counties; cities of Frederick and Havre de Grace; Maryland Association of Green Industries, Inc.; Department of Legislative Services

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