

**Title 15**  
**DEPARTMENT OF AGRICULTURE**

**Subtitle 20 SOIL AND WATER CONSERVATION**

**15.20.04 Nutrient Management Certification and Licensing**

**Subtitle 20 SOIL AND WATER CONSERVATION**

**15.20.07 Agricultural Operation Nutrient Management Plan Requirements**

**Subtitle 20 SOIL AND WATER CONSERVATION**

**15.20.08 Content and Criteria for a Nutrient Management Plan Developed for an  
Agricultural Operation**

Authority: Agriculture Article, §§8-801—8-806, Annotated Code of Maryland

**Notice of Proposed Action**

The Secretary of Agriculture proposes to:

(1) Amend **Regulation .11** under **COMAR 15.20.04 Nutrient Management Certification and Licensing**;

(2) Amend **Regulation .02** under **COMAR 15.20.07 Agricultural Operation Nutrient Management Plan Requirements**; and

(3) Amend **Regulation .05** under **COMAR 15.20.08 Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation**.

At this time, the proposal to amend **Regulation .02** under **COMAR 15.20.07 Agricultural Operation Nutrient Management Plan Requirements**, and **Regulation .05** under **COMAR 15.20.08 Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation**, as published in 40:2 Md. R. 162—164 (January 25, 2013) is being withdrawn.

**Statement of Purpose**

The purpose of this action is to add Supplement No. 8 (September, 2013) to the Maryland Nutrient Management Manual, which is incorporated by reference under COMAR 15.20.07.02. Supplement No. 8 (September, 2013) includes modification to the method for determining nutrient recommendations, specifically the method for the determination of phosphorus as the limiting nutrient by implementing a new Phosphorus Management Tool to replace the existing Phosphorus Site Index. This action subsequently impacts COMAR 15.20.08.05 and 15.20.04.11 by defining the method and elements for determining required nutrient recommendations in a nutrient management plan and requiring certain related reports to be filed with the Department by certified nutrient management consultants.

This proposal is part of the Department's ongoing efforts to promulgate the amendments to these particular regulations that was initiated in 2012.

## Opportunity for Public Comment

Comments may be sent to Earl F. Hance, Secretary, Maryland Department of Agriculture, 50 Harry S. Truman Parkway, Annapolis, Maryland 21401, or call 410-841-5880, or email to Earl.Hance@maryland.gov, or fax to 410-841-5914. Comments will be accepted through November 18, 2013. A public hearing has not been scheduled.

# Title 15 DEPARTMENT OF AGRICULTURE

## Subtitle 20 SOIL AND WATER CONSERVATION

### Chapter 04 Nutrient Management Certification and Licensing

Authority: Agriculture Article, §§8-801—8-806, Annotated Code of Maryland

**.01 — .10** Text unchanged.

#### **.11 Record-Keeping and Reporting Requirements.**

A. Text unchanged.

B. *Information concerning Phosphorus Management Tool.*

*(1) As specified in subsections (2) and (3) of this section, a license holder or a certified consultant who is not operating under a license shall file a report with the Department that includes certain information related to nutrient management plans developed for operations which have soils with a phosphorus fertility index value of 150 or above.*

*(2) The report shall include information that the Department determines necessary to evaluate the implementation of the Phosphorus Management Tool, as provided in the Maryland Nutrient Management Manual, Section II-C2.*

*(3) The report shall be filed on a form developed by the Department in accordance with a schedule determined by the Department.*

[B.] C. Nutrient Management License Holder Record-Keeping Requirements. A license holder shall keep:

(1) — (3) Text unchanged.

**.12 — .13** Text unchanged.

### **Chapter 07 Agricultural Operation Nutrient Management Plan Requirements**

Authority: Agriculture Article, §§8-801—8-806, Annotated Code of Maryland

**.01** Text unchanged.

**.02 Incorporation by Reference.**

The performance and technical standards provided in this subtitle are found in the Department of Agriculture's Maryland Nutrient Management Manual (November 1999), Supplement No. 1 (September 2000), Supplement No. 2 (November 2001), Supplement No. 3 (September 2004), Supplement No. 4 (November 2005), [and] Supplement No. 5 (November 2006), Supplement No. 6 (May 2009), [and] Supplement No. 7 (May 2012), and Supplement No. 8 (September 2013), which are incorporated by reference.

.03 — .07 Text unchanged.

## **Chapter 08 Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation**

Authority: Agriculture Article, §§8-801—8-806, Annotated Code of Maryland

.01 — .04 Text unchanged.

### **.05 Nutrient Management—Required Plan Recommendations.**

A. — D. Text unchanged.

E. Determination of Limiting Nutrient.

(1) — (2) Text unchanged.

(3) If the soil sample analysis results show a phosphorus fertility index value (FIV) of less than 150, nutrient recommendations may [use] *be based on* nitrogen plant needs as the limiting factor *in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section 1-B.*

(4) Phosphorous *criteria for nutrient management plans developed before October 1, 2014.*

(a) *The phosphorus criteria in this subsection shall be followed for nutrient management plans:*

(i) *developed before October 1, 2014; and*

(ii) *implemented before December 31, 2014.*

[(a)] (b) If the soil sample analysis results show a phosphorus fertility index value (FIV) of 150 or greater, [a phosphorus site index or other phosphorus risk assessment method acceptable to the Department] *the Phosphorus Site Index*, as provided in the Maryland Nutrient Management Manual, Section II-[B]C1, shall be used to determine the potential risk of phosphorus loss due to site characteristics.

[(b)] (c) *Low Risk of Potential Phosphorus Loss.* If the risk for potential [movement] *loss* of phosphorus from the site is low according to the [phosphorus site index] *Phosphorus Site Index*, nutrient recommendations by the consultant or certified farm operator may use nitrogen plant needs as the limiting factor.

[(c)] (d) *Medium Risk of Potential Phosphorus Loss.*

*(i) Except as provided in (d)(ii) of this paragraph, [If] if the risk for potential [movement] loss of phosphorus from the site is medium according to the [phosphorus site index] Phosphorus Site Index, nutrient rates shall be based on nitrogen plant needs as the limiting factor no more than one out of every three years. Phosphorus rates for the other two years shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section I-B, whichever is greater.*

[i] Nutrient rates shall be based on nitrogen plant needs as the limiting factor no more than 1 out of every 3 years. Phosphorus rates the other 2 years shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section I-B, whichever is greater; or]

(ii) Nutrient recommendations may use nitrogen plant needs as the limiting factor if BMPs are implemented by the operator [and] *before or during the application of additional phosphorus that address site or management characteristics [to] which, according to the outcome of a recalculation using the Phosphorus Site Index, reduce the risk of phosphorus loss to low.*

[(d)] *(e) High Risk of Potential Phosphorus Loss.*

*(i) Except as provided in (e)(ii) of this paragraph, [If] if the risk for potential [movement] loss of phosphorus from the site is high according to the [phosphorus site index] Phosphorus Site Index, phosphorus rates shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing, in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section I-B.*

[i] Phosphorus rates shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing, in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section I-B; or]

(ii) If BMPs are implemented by the operator, [and] *before or during the application of additional phosphorus, that address site or management characteristics [to] which, according to the outcome of a recalculation using the Phosphorus Site Index, reduce the risk of phosphorus loss to medium, nutrient rates may be based on nitrogen plant needs as the limiting factor not more than [1] one out of every [3] three years. Phosphorus rates for the other [2] two years shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing or in accordance with recommendations described in the Maryland Nutrient Management Manual, Section I-B, whichever is greater.*

[(e)] *(f) Very High Risk of Potential Phosphorus Loss.*

*(i) Except as provided in (f)(ii) of this paragraph, [If] if the risk for potential [movement] loss of phosphorus from the site is very high according to the [phosphorus site index] Phosphorus Site Index, no additional phosphorus may be applied.*

[i] No additional phosphorus may be applied; or]

(ii) If BMPs are implemented by the operator, [and] *before or during the application of additional phosphorus, that address site or management characteristics [to] which, according to the outcome of a recalculation using the Phosphorus Site Index,* reduce the risk of phosphorus loss to high, recommended rates of application of phosphorus shall be limited to the expected amount removed from the field by the crop or plant harvest, or the amount indicated by soil testing in accordance with recommendations described in the Maryland Nutrient Management Manual, Section I-B.

[(5) Before the deadlines set forth in COMAR 15.20.07.03 for the development of a phosphorus-based plan, a certified nutrient management consultant or certified farm operator may use:

(a) The requirements of §E(1)—(3) of this regulation as a planning tool to determine if future management changes are indicated by the P index, and if development of a phased-in approach to a phosphorus-based plan should be recommended; or

(b) §E(1)—(3) of this regulation as a guide to determine nutrient management recommendations.]

(g) *Steps to be taken if the soil analysis shows a phosphorus FIV of 150 or greater.*

(i) *Nutrient management plans based on soil samples subject to paragraph (b) of this subsection shall be developed using both the Phosphorus Site Index described in paragraph (b) of this subsection and the Phosphorus Management Tool, as described in subsection 5 of this section.*

(ii) *The operator shall be provided information by the certified consultant that outlines the changes to the operation that will be required when the Phosphorus Management Tool becomes effective, beginning on October 1, 2014.*

(h) *On or after January 1, 2015, implementation of a nutrient management plan or any portion of a nutrient management plan developed before October 1, 2014, shall be in accordance with subsection 5 of this section, without regard to when the plan was developed.*

5. *Phosphorus criteria for nutrient management plans developed on and after October 1, 2014.*

(a) *The phosphorus criteria in this subsection shall be followed for nutrient management plans:*

(i) *developed on or after October 1, 2014; and*

(ii) *implemented on or after January 1, 2015.*

(b) *If the soil sample analysis results show a phosphorus fertility index value (FIV) of 150 or greater, the Phosphorus Management Tool, as provided in the Maryland Nutrient Management Manual, Section II-C2, shall be used to determine the potential risk of phosphorus loss due to site characteristics.*

(c) *Low Risk of Potential Phosphorus Loss. If the risk for potential loss of phosphorus from the site is low according to the Phosphorus Management Tool, total phosphorus applications related to crops planted in a three-year period shall not exceed the amount of phosphorus removed by the crops over the three-year period.*

(d) *Medium Risk of Potential Phosphorus Loss.*

*(i) Except as provided in (d)(ii) of this paragraph, if the risk for potential loss of phosphorus from the site is medium according to the Phosphorus Management Tool, phosphorus rates shall be limited to the expected amount removed from the field by the crop or plant harvest immediately following the phosphorus application, or the amount indicated by soil testing, in accordance with the recommendations described in the Maryland Nutrient Management Manual, Section I-B.*

*(ii) If BMPs are implemented by the operator before or during the application of additional phosphorus that address site or management characteristics which, according to the outcome of a recalculation using the Phosphorus Management Tool, reduce the risk of phosphorus loss to low, nutrient rates may be established as provided by paragraph (c) of this subsection.*

*(e) High Risk of Potential Phosphorus Loss.*

*(i) Except as provided in (e)(ii) of this paragraph, if the risk for potential loss of phosphorus from the site is high according to the Phosphorus Management Tool, no additional phosphorus may be applied.*

*(ii) If BMPs are implemented by the operator before or during the application of additional phosphorus, that address site or management characteristics which, according to the outcome of a recalculation using the Phosphorus Management Tool, reduce the risk of phosphorus loss to medium, recommended rates of application of phosphorus shall be limited to the expected amount removed from the field by the crop or plant harvest immediately following the phosphorus application, or the amount indicated by soil testing in accordance with recommendations described in the Maryland Nutrient Management Manual, Section I-B.*

*(iii) The operator shall consider the implementation of management practices and technologies that are effective in lowering the risk of phosphorus loss, based on research and demonstration of the University of Maryland, or other land grant university, or by the United States Department of Agriculture, Natural Resources Conservation Service, National Planning Procedures Handbook and practice standards adopted for Maryland.*

*(f) On or after January 1, 2015, implementation of nutrient management plans or any portion of a nutrient management plan shall be in accordance with this section.*

F. — I. Text unchanged.

**.06 — .07** Text unchanged.