

Nutrient Management Update



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Phosphorus Management Tool Regulations

- Immediate ban of Phosphorus on fields over 500 FIV
- 7 year phase-in.
- 2015 – Regulations in effect.
- Crop Year 2016 and 2017
 - Run both PSI and PMT when developing plans.
 - Provide farmer with potential management changes to be required under PMT.
 - Consultants will calculate an operators “Average Soil P-FIV” and report their “Tier Group” to MDA.



Phosphorus Management Tool

Overview of How it Works

MANAGEMENT

- PMT changes management requirements for farms that are required to use the tool.
- Sub-surface drainage primary driver
 - Most effects management on the Eastern shore.
 - Coincides with poultry operations and high soil P levels.
- Distance to surface water
 - Affects farms in other parts of the state.
- Builds in “incremental change”
 - Especially for operations now scoring “HIGH” (>100) in the PMT calculation.

Why is MDA collecting Soil P-FIV data?

- New PMT regulations adopted in 2015 requires consultants to report once every six years the Soil P-FIV data from NMPs they have written.
- Data will be used to identify Phosphorus Fertility Index Value levels across the state and by county.
- Data gathered from consultants was submitted anonymously, separating producer identification from his/her soil data.

Maryland Fertility Index Value (FIV) Scale

- **0 - 25 = LOW**, yield response is likely.
- **26 - 50 = MEDIUM**, yield response is possible.
- **51 - 100 = OPTIMUM**, yield response is not likely.
- **101 and greater = EXCESSIVE**, very unlikely
- **Below a P-FIV of 150, manure may be applied at a Nitrogen-based rate.**
- **A P-FIV value above 150 requires a PSI/PMT calculation before any Phosphorus can be applied.**
- **A field with a P-FIV of 500 or greater cannot receive a Phosphorus application of any kind.**

Maryland State Soil P-FIV Data Totals

(as of January 10, 2017)

Total AIR Acres (2014)	1,277,930
Total Acres Submitted	1,083,552
Percentage Reported	84.79%
Number of Fields Submitted	73,647
P FIV < 150	79.3%
P FIV 150-499	19.1%
P FIV > 500	1.6%

Data on Phosphorus Levels State-wide

- 79.24% of the acreage state-wide will not be impacted by PSI/PMT.
- 79.24% represents 858,623 acres that are <150 FIV
- 20.76% represents 224,927 acres that are >150 FIV
- MDA continues to take incremental measures to obtain the remaining information.
 - Nutrient Management Consultants
 - Maryland Certified Farmers

Lower Eastern Shore of Maryland Somerset, Wicomico, Worcester Counties

(as of January 17, 2017)

Total AIR Acres (2014)	155,770
Total Acres Submitted	140,703
Percentage Reported	90.33%
Number of Fields Submitted	8,199
P FIV < 150	30.00%
P FIV 150-499	58.85%
P FIV > 500	11.14%

Western Maryland
Allegheny, Carroll, Frederick, Garrett,
Washington Counties
(as of January 17, 2017)

Total AIR Acres (2014)	354,432
Total Acres Submitted	273,290
Percentage Reported	77.1%
Number of Fields Submitted	24,021
P FIV < 150	92.07%
P FIV 150-499	7.83%
P FIV > 500	0.10%

Data on Phosphorus Levels in Western Maryland

- 92.07% of the acreage in western Maryland counties will not be impacted by PSI/PMT.
- 92.07% represents 251,621 acres that are below 150 P-FIV.
- 7.93% represents 20,525 acres that are above 150 P-FIV.

Phosphorus Management Tool (PMT)

Preliminary Tier Group

Reporting Data

- 1,661 Operations have been reported
 - Represents one or more fields being 150 or greater
 - Represents 11,769 fields
 - Only these fields transition to PMT
 - Represents 187,870 acres

What is a “Tier Group”?

- Not all operations will implement the PMT at the same time.
- Timing is determined by an individual operators average soil P-FIV.
 - Add the P-FIV of all fields above 150 and divide by the number of those fields (not a weighted average).
 - After the average is computed, the operator is assigned to a Tier Group of A, B, or C.
 - This is done once and your NMP will tell you which Tier you are in and when you will implement the PMT.

PMT Tier Group A

- Average soil P-FIV 150-300
 - Begins Transition Management Phase 1 in 2020
 - Three year schedule (2020 - 2022)
 - 1,313 operations reported
 - 8,220 fields reported
 - 122,705 acres reported
 - 79 % of reported operations

PMT Tier Group B

- Average soil P FIV 300-450
 - Begins Transition Management Phase 1 in 2019
 - Four year schedule (2019 - 2022)
 - 252 operations reported
 - 2,815 fields reported
 - 54,271 acres reported
 - 15% of reported operations

PMT Tier Group C

- Average soil P FIV >450
 - Begins Transition Management Phase 1 in 2018
 - Five year schedule (2018 - 2022)
 - 96 operations reported
 - 734 fields reported
 - 10,894 acres reported
 - 6% of reported operations

Phosphorus Management Tool

Overview of How it Works

7 YEAR TRANSITION SUMMARY							
	CROP YEAR						
	2016	2017	2018	2019	2020	2021	2022
Tier C - Avg. FIV P 450 and above	PSI/PMT	PSI/PMT	TM1	TM1	TM2	TM2	PMT
Tier B - Avg. FIV P 300-450	PSI/PMT	PSI/PMT	PSI	TM1	TM2	TM2	PMT
Tier A - Avg. FIV P 150 - 300	PSI/PMT	PSI/PMT	PSI	PSI	TM1	TM2	PMT
PSI = Phosphorus Site Index							
TM1 = Transition Management Phase 1							
TM2 = Transition Management Phase 2							
PMT = Phosphorus Management Tool							

** Could add time if services are not adequate.

Phosphorus Management Tool

Overview of How it Works

TRANSITION MANAGEMENT PHASES

PMT Risk Category	Transition Management Phase I	Transition Management Phase II	PMT
LOW	N-Based (not to exceed 3 Yr. C.R.)	3 Yr. Crop Removal	3 Yr Crop Removal
MEDIUM	3 Yr Crop Removal P	2 Yr Crop Removal	1 Yr Crop removal
HIGH	1 Yr Crop Removal	50% of 1 Yr C.R.	No Addtl. P

MDA Regulation Changes

- Manure applied in the spring and fall is no longer required to be incorporated into the soil. This covers the period from March 1st thru December 15th.
- Fall spreading dates reflect Sept. 10th- Dec. 15th and is the same throughout the entire State.
- Manure or any fertilizer containing Nitrogen & Phosphorus cannot be applied from Dec. 16th thru February 28th. Spreading can resume on March 1st.
- An Emergency Spreading provision under Winter application has been added.

Regulations Changes Incorporation Spring/Fall

- Organic nutrient sources shall be injected or incorporated as soon as possible, but no later than 48 hours after application, ***except* those farm operations that choose to manage their farms to obtain the benefits of no-till farming.**
- MDA reserves the right to require incorporation of organic nutrient sources on a case by case basis.

Regulation Changes

Extended Fall Spreading Date

The Fall spreading dates are now the same on both sides of the Bay.

- Fall application period is now Sept. 10th thru Dec. 15th.
- Winter period is now Dec. 16th thru Feb. 28th
- All nutrient applications in the fall and winter need to be applied to an existing crop or vegetative cover.
 - Established no later than November 15th.
 - No nutrient applications to fallow ground regardless of crop residue.

Added- No spreading on frozen (2") or snow covered (1") ground in the Spring and Fall seasons.

Added- Emergency winter applications must be made at least 100-feet from surface water.

Emergency Spreading Provisions

- Operators shall contact their MDA regional nutrient management representative for guidance.
 - Rates may not exceed the 1 year P removal or 50# of PAN of the next harvested crop
 - Any winter applied organic nutrients will be deducted from spring recommendations
 - Applications is prohibited to land with a slope greater then 7%
 - A setback of 100' from surface water shall be maintained.

Contact

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