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Tier Group Assignment and Implementation (1/16/2020 Update)

Introduction:

The 2015 update to Maryland's Agricultural Nutrient Management regulations introduced a multi-year process for farmers with high phosphorus soils to transition from the Phosphorus Site Index to the Phosphorus Management tool. This was done by sorting operations into "tier groups."

Definitions:

Term	Definition
Fertility index phosphorus (FIV-P)	An alternative method for expressing the relative level of plant available P measured by soil testing
Farmer	The individual for whom a nutrient management plan is written; the individual in charge of primary decision making for an operation
Operation	All of the agricultural fields and properties managed by a farmer
Phosphorus Site Index (PSI)	A phosphorus risk tool that is used to help identify critical source areas on a farm by determining the level of P movement from the site and providing recommendations to minimize the risk of phosphorus losses; required for fields with FIV-P ≥ 150
Phosphorus Management Tool (PMT)	The revised phosphorus risk tool, which uses updated science relative to site and source factors; will be the new tool required for fields with FIV-P ≥ 150 once transition is complete in 2022
Tier	A grouping of operations based on the average FIV-P from the 2016 nutrient management plan for all fields ≥ 150, used to determine when and how the farmer must fully implement PMT
Transition Management Phases	Two time periods of transition (TM1 and TM2) toward full implementation of the PMT; P application restrictions may become more severe as a farmer moves from TM2 To TM2; depends upon Tier and year.

Applicability: Any farmer who has *any* field(s) with a FIV-P ≥ 150 is in a tier

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Process for tier group assignment:

The following table describes how tier groups are assigned:

When the simple average FIV-P for all fields over 150 in 2016 was...	Then the client is in...
150-299	Tier A
300-450	Tier B
>450	Tier C

Note:

- If the client did not have a plan in 2016, use soil tests that were taken within three years of 2016 to calculate the simple average
- If the client did not have a plan in 2016 **and** no soil tests are available from within 3 years of 2016, use the soil tests from the current planning year to calculate the simple average
- If a client did not have any fields ≥ 150 FIV-P in 2016, but subsequent soil tests show fields with FIV-P ≥ 150, the client should be assigned a tier group based on the analyses that first showed fields with FIV-P ≥ 150.

Transition Process:

- The transition from PSI to PMT will occur gradually between 2018 and 2022
- A combination of PMT score and TM phase governs how much P-bearing nutrient source can be applied to each field each year during the transition.

The following table outlines the schedule of transition from the PSI to the PMT, which is based off of Tier Group and year (Crop Year - July 1 – June 30. Example - Crop year 2020 begins July 1, 2019 and ends June 30, 2020):

Tier group	2018	2019	2020	2021	2022
C	TM1	TM1	TM2	TM2	PMT
B	PSI	TM1	TM2	TM2	PMT
A	PSI	PSI	TM1	TM2	PMT

The following table describes the phosphorus application limitations of the Transition Management Phases 1 and 2 (TM1 and TM2) as farmers move toward full implementation of the PMT:

PMT Score	TM1	TM2	PMT
Low	P crop removal for rotation of crops for three years (May be repeated each year a client is in TM1)	P crop removal for rotation of crops for three years (May be repeated each year a client is in TM2)	Total P applications related to crops anticipated to be planted in a 3-year period shall not exceed the amount of P removed by the planned crops for 3-year period

Transition Process:, continued

PMT Score	TM1	TM2	PMT
Medium	P crop removal for rotation of crops for three years (May be repeated each year a client is in TM1)	P crop removal for rotation of crops for two years (May be repeated each year a client is in TM2)	Expected P crop removal of up to two crops, within one year, immediately following P application
High	P crop removal of two crops, within one year, immediately following P application	50% P crop removal of up to two crops, within one year, immediately following P application	No P-bearing materials may be applied

Nutrient Management Consultant Requirement:

Until the client enters a transition management phase, nutrient management consultants must calculate both the PSI and PMT for each field where P-bearing nutrients will be applied and FIV-P is ≥ 150 (or the farmer wishes to apply P beyond recommended rates)

Additional Resources:

This table provides links to publications and resources that may provide more in-depth information on this topic:

Description	Link
MDA regulations: COMAR 15.20.08	http://mda.maryland.gov/resource_conservation/Documents/15.20.08.pdf
MDA: Nutrient Application Requirements	http://mda.maryland.gov/resource_conservation/Documents/nm_manual/1-D1-1-1D1-6.pdf
MDA's Nutrient Management Update 2017 Presentation	https://extension.umd.edu/anmp/workshop-webinar-materials/regulations-and-policy
ANMP: Nutrient Management Planning Tools Handbook Chapter 6 (PSI and PMT)	https://extension.umd.edu/learn/6-calculating-phosphorus-site-index