Moving Ahead with the Phosphorus Management Tool

November, 2014

Moving Ahead with the PMT

- On November 14, Governor directed MDA to introduce a proposed regulation to implement a phased-in Phosphorus Management Tool
- Goal has been to adopt a regulation as part of his administration.
- Fulfills a MD commitment to EPA under the TMDL/WIP to update the current P risk assessment tool – PSI.

Moving Ahead with the PMT

- Addressing concerns related to:
  - Changes in required management
  - Impacts to the "bottom line"
  - Market value for manure as a commodity
  - Adequacy of infrastructure
    - Manure transportation and handling
  - Perceptions about P availability based on soil P FIV
    - Impacts to yields
  - Crops with high P diets
  - Adopting new technologies

Moving Ahead with the PMT

- A Phased Approach
  - Phased in time
  - Phased in "risk"
  - Phased in management requirements

Moving Ahead with the PMT

RISK PHASING

- Need to divide the farms with the greatest impact into separate groups (“tiers”) and phase in over a staggered time frame.
- Tiers to be defined based on soil test P FIV
- Determine an “average P FIV level” for each operation.
- Based on all fields with soil P FIV >150
- Calculation is done once and only used to determine which group the operation falls in.

Moving Ahead with the PMT
RISK PHASING

- Tier C =
  - Average soil P FIV >450
  - First to begin transition
  - Provided the longest time frame
    - 5 years

Moving Ahead with the PMT
RISK PHASING

- Tier B =
  - Average soil P FIV 300-450
  - Second group to start
  - Staggered to begin a year later
  - 4 years to transition

Moving Ahead with the PMT
RISK PHASING

- Tier A tier =
  - Average soil P FIV 150-300
  - Third group to transition
  - Three year schedule

Moving Ahead with the PMT
MANAGEMENT PHASING

- PMT changes management requirements for certain farms-some more than others.
- Sub-surface drainage primary driver
  - Eastern shore impacts
  - Coincides with the poultry operations and high soil P levels
- Distance to surface water
  - Affects farms in other parts of the state.
- Need to build in "incremental change"
  - Especially for operations now scoring "HIGH" (>100) in the PMT calculation.

Moving Ahead with the PMT
MANAGEMENT PHASING

- Need to provide a means to gradually change farm management current PSI to the PMT.
- Create interim or "transitional management" requirements based on PMT score.
- LOW (0-50)/ MEDIUM(50-100)/HIGH (>100) all mean something different during transition.
- Create a three-step process for transition.
  - PSI → Transition Management Phase I (TM 1)
  - TM 1 → Transition Management Phase II (TM 2)
  - TM 2 →PMT

Moving Ahead with the PMT
MANAGEMENT PHASING

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

Moving Ahead with the PMT

TIME PHASING

- 6 year phase in
- February 2015 – regulation effective
- Crop Year 2015 and 2016 –
  - Run both PSI and PMT when developing plans
  - Provide farmer management changes to be required under PMT.
  - Calculate 'Average soil P FIV" value and report to MDA by 9/30/16.
- Crop Year 2017
  - Tier C begins a 5 year transition
  - Fully implementing PMT by 2021

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TIME PHASING

- Crop Year 2018
  - Tier B begins a 4 year transition
  - Fully implementing PMT by 2021
- Crop Year 2019
  - Tier A begins a 3 year transition
  - Fully implementing PMT by 2021
- Crop Year 2021
  - All operations are fully implementing PMT

Moving Ahead with the PMT

6 YEAR TRANSITION SUMMARY						
	CROP YEAR					
	2016	2017	2018	2019	2020	2021
Tier C - Avg. FIV P 450 and above	PSI	TM1	TM1	TM2	TM2	PMT
Tier B - Avg. FIV P 300-450	PSI	PSI	TM1	TM2	TM2	PMT
Tier A - Avg. FIV P 150 - 300	PSI	PSI	PSI	TM1	TM2	PMT

Moving Ahead with the PMT
PROVISIONS

- Once the PMT is implemented AND the PMT risk category is calculated as "HIGH":

- Certified organic commodities may receive P at 1 Year Crop Removal Rate
- Crops exhibiting phosphorus deficiency using tissue analysis may receive additional P.
  - Excepting cold, wet conditions
  - May apply up to 25% of 1 Year Crop Removal

Moving Ahead with the PMT
PROVISIONS (CONT.)

- High P feeders may receive a starter P application.
  - 25% of 1 Year Crop Removal Rate
  - Applies to vegetable and tobacco crops with 40 lb. P recommendation at “Optimum” and “Excessive” soil fertility levels
- Alternative technology
  - Operations adopting technologies reducing P content by at least 75% may apply resulting organic sources at 50% of 1 Year Crop Removal.

Moving Ahead with the PMT PROCESS

- Submit to AELR Committee
  - November 14
- Publish in the Maryland Register
  - December 1
- 30 day comment period
- Adopt 45 days after publication
  - January 16, 2015

Moving Ahead with the PMT

- Copies of the proposed regulation and AELR package available on MDA's website:
- www.mda.maryland.gov
- Under "Hot Topics"