

# Phase 5.3.2 Nutrient Management Expert Panel Report – Tier 2 and 3

Jenn Volk, University of Delaware/WQGIT Chair

Management Board Meeting

September 30, 2015

# Decision Requested

- Does the Management Board approve the Tier 2 efficiencies for Phosphorus as recommended by the Phase 5.3.2 Nutrient Management Expert Panel?

		High-Till w/ Manure	Low-Till w/ Manure	High-Till w/o Manure	Pasture	Hay w/ Nutrients	Alfalfa	Nursery
Tier 2 Reduction from no BMP	TP	15.94	15.94	N/A	N/A	14.07	14.07	N/A

# Tier 1 Non-Visual Assessment

1. Plan is available in electronic or paper format.
2. Plan is developed cooperatively by a trained professional and the farmer.
3. Plan expiration date is no longer than three years after written.
4. Plan uses soil lab analysis from farm samples to inform application rates of nutrients.
5. Plan is implemented and followed according to the CGNAM definition and the intent where:
  - Crop yields are estimated based on records or soil productivity estimates for the entire farm;
  - Nutrient applications adhere to contemporary LGU specifications for N rate;
  - P fertilizers are applied at a rate consistent with the contemporary LGU recommendations; and
  - Nutrient application timing is considered to further reduce N and P losses.

# Tier 2 Non-Visual Assessment

*Tier 2 includes all elements of a Tier 1 plan, and the enhancements bolded below.*

1. Plan uses soil lab analysis from farm samples to inform application rates of nutrients.
  - If soil test levels of P warrant a **P risk assessment (or P-index)**, one is performed and the recommendations to reduce losses are followed for the entirety of the plan.
2. Plan is implemented and followed according to the FLNAM definition and the intent where:
  - Crop yields are estimated based on records or soil productivity estimates for **each field** using **contemporary guidelines from state programs**;
  - Nutrient application rates **do not exceed** contemporary LGU specifications for N and **P (including manure)**; and
  - Fertilizer and manure applications are **timed** and placed (e.g., lower risk times for runoff and leaching, setbacks, incorporation, etc.) to reduce risk of N and P loss.

# Tier 3 Non-Visual Assessment

*Tier 3 includes all elements of a Tier 2 plan, and supplementary records showing either:*

1. Variable rate applications of N on each field were performed resulting in a net change in N rates for the field; or
2. An Illinois Soil Nitrogen Test (ISNT), Corn Stalk Nitrate Test (CSNT), Pre-side dress Nitrate Test (PSNT), or Fall Soil Nitrate Test (FSNT) was performed resulting in a net change in N rates for the field.

# What are the reduction efficiencies a jurisdiction will be credited for implementing the tiers of Nutrient Application Management for each tier by land use?

- A jurisdiction can reduce loads from modeled agricultural land uses by percentages listed in the following table.
  - *The efficiencies build upon one another* so that, for example, Tier 2 automatically assumes that practices are in place to achieve Tier 1 credit.
- If the reduction is listed as “NA,” states cannot take credit for the BMP on this land use.
- Enhanced Nutrient Application Management and Decision Agriculture have been retired; the three tiers of nutrient application management cover on-the-ground concepts of these retired BMPs.

## Recommended & Final Efficiency Values

		High-Till w/ Manure	Low-Till w/ Manure	High-Till w/o Manure	Pasture	Hay w/ Nutrients	Alfalfa	Nursery
<b>Tier 1 Reduction from NMP</b>	TN	9.25	9.25	5	5	5	5	5
	TP	10	10	8	8	8	8	8
<b>Tier 2 Reduction from no BMP</b>	TN	<b>13.24</b>	<b>13.24</b>	N/A	N/A	<b>7.66</b>	<b>N/A</b>	N/A
	TP	<b>15.94</b>	<b>15.94</b>	N/A	N/A	<b>14.07</b>	<b>14.07</b>	N/A
<b>Tier 3 Reduction from no BMP</b>	TN	<b>15.67</b>	<b>15.67</b>	N/A	N/A	N/A	N/A	N/A
	TP	“At the time of publication of this document, the expert panel has not defined reduction efficiencies for Tier 3 Phosphorus. The Phase 6 expert panel may choose to provide credit for Tier 3 Phosphorus.”						

# Partnership Decisions to Date

- On August 24, 2015, the AgWG approved the Tier 2 and Tier 3 recommendations for nitrogen.
  - Consensus was not reached on Tier 2 recommendations for phosphorus.
- On September 3, 2015, the WTWG approved the Ph5.3.2 Nutrient Management Report in its entirety.
- On September 14, 2015, the WQGIT approved the Tier 2 and Tier 3 recommendations for nitrogen.
  - Consensus was not reached on Tier 2 recommendations for phosphorus.



# Concerns over Tier 2 Phosphorus

In a joint letter from several stakeholder groups to the Ag Workgroup co-chairs -

- “...technical concerns...regarding the credit for phosphorus reductions under Tier 2.”
- “Remaining concerns” over Tier 1 Phosphorus

Essentially, a concern for the combined Tier 1 + Tier 2 Phosphorus recommended efficiencies to OVER credit nutrient management

- Panel’s response: Tier 2 benefits will apply to a SUBSET of acres that are eligible under Tier 1.

# Concerns over Tier 2 Phosphorus

- “...respectfully request that the Agriculture Workgroup (Ag Workgroup) reject the findings of this report regarding the efficiency for Tier 2 phosphorus.”
  - NO consensus to reject Tier 2 P at either the Ag Workgroup or WQGIT
    - WQGIT members also voiced concerns over precedent being set with this panel report
  - No other alternative proposal was put forth
  - The Nutrient Management Expert Panel must now focus their attention on developing recommendations for P6
    - No time left to debate
    - Panel has exhausted their options on P5.3.2

# Nutrient Management Task Force

- Additionally, to address a request from the concerned parties, on September 28, 2015, the WQGIT approved the formation of a task force to:
  - Develop a cross walk between the states' nutrient management programs and the adopted Phase 5.3.2 nutrient management tier definitions
  - Identify information/documentation that state programs will use to determine reported acres of nutrient management implementation by the appropriate tiers referenced above.
  - Provide links to the supporting documentation from each of the states
- The Ag Workgroup will review and approve the resultant table and will pass along concerns to the WQGIT and the EPA QAPP review team

# Nutrient Management Task Force

- ***Membership***

- Ann Swanson – Chesapeake Bay Commission
- Kelly Shenk – U.S. EPA
- Marcia Fox – Delaware DNREC
- Jenn Volk – UD
- Kristen Saacke Blunk – Headwaters, LLC
- John Rhoderick – MDA
- Mark Dubin- UMD, Agriculture Workgroup Coordinator
- Lindsey Gordon – CRC, Staff

## Is the Phase 6.0 Expert Panel confined or limited by the recommendations of the Phase 5.3.2 Panel?

- The Phase 6.0 Nutrient Management Panel will benefit from the work of the 5.3.2 Panel – but will be working with an entirely different set of assumptions related to ag land uses and model considerations. No constraints or limitations, but definitely advantages from the work of the 5.3.2. Panel.

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