

# Tech Manual Update Bulletin

*Pennsylvania's Nutrient Management Act Program*

VERSION 5

JANUARY 2012

The *Pennsylvania Act 38 Nutrient Management Program Technical Manual* has been developed in order to provide consistent program guidance, further refining the requirements in the regulations, to be utilized in the development, review, and implementation of Act 38 nutrient management plans. This update bulletin highlights the most important changes and revisions made in the new manual Version 5 released in January 2012.

## CONTENTS

Plan Updates for New Crop Years .....	1
Manure Spreader Calibration Notes Chart .....	2
Using Phosphorus Banking in Nutrient Management Plans .....	2
Residual and Available N Values .....	3
Manure Handling Information .....	3
Appendix 1 Signatures .....	4
Appendix 5: P Index Contributing Distance Language .....	4
Contact Information .....	5

## PLAN UPDATES FOR NEW CROP YEARS

The Act 38 Nutrient Management Program Technical Manual outlines two approaches for addressing the Act 38 requirement that a nutrient management plan covers three years. One option is to plan for one crop year in the initial nutrient management plan. Updates for the two subsequent crop years (based on the same soil and manure testing figures used in the initial approved plan) would be submitted annually prior to the beginning of the next crop year. Another option is to submit the complete plan for year one along with the appropriate plan sections outlined below for years two and three.

The NMP Submission section of the Technical Manual has been revised to set forth what must be submitted with these crop year update submissions. Updates for new crop years must include the Nutrient Management Plan Summary, Nutrient Management Plan Summary Notes, Appendix 3 (only first page addressing each manure group is required if manure group information has not changed), Appendix 4, and Appendix 5.

Plan updates submitted the year following the 3 year lifespan of the prior approved plan, would need to incorporate new average manure analysis information incorporating the values of the past three years), new manure group totals based on operation records, current soil test information from new soil test reports, and updated P Index factors. This new information will be used for the next 3 years of the plan.

Plan updates must be submitted to the Conservation District, but are not considered plan amendments unless changes on the plan trigger the amendment criteria. Plan updates do

not require district board approval. See Section VI – Plan Amendments and Transfers in this manual for more information on plan amendments. The NMP Submission section of the manual outlines what plan elements need to be submitted with a plan amendment.

**“NMP Submission: Required Appendices and Supplemental Information”, “Section V: Plan Review and Implementation”, “Section II, Appendix 4: Crop & Manure Management Information”, “Supplement 2: Sample Nutrient Management Plan”, and “Supplement 2: Sample Nutrient Management Plan Farmer Packet” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## MANURE SPREADER CALIBRATION NOTES CHART

The Nutrient Management Plan Spreadsheet 3.0, January 2012 now includes a “Manure Spreader Calibration Notes” chart. The Nutrient Management Plan Summary section of the Act 38 Nutrient Management Program Technical Manual has been revised to provide guidance on this new planning requirement. The primary purpose of this table is to provide an easily accessible reminder of the calibration parameters associated with the manure application rates listed in the plan summary.

This reference chart will list each manure application rate included in the plan along with the manure spreader identification, tractor identification (if applicable), and the equipment settings (speed, gear, rpm, pto, spreader, etc.) used for meeting the calibrated manure application rate.

The Commission continues to look for ways to make nutrient management plans more functional for the farmer. The program’s transition into focusing the farmer’s attention on the nutrient management plan summary is an attempt to direct the farmer to that section of the plan. The objective of the Nutrient Management Plan Summary is to provide the farmer all the necessary information needed to implement the nutrient management plan and to make it easier for the farmer to translate the plan into in-the-field actions. This new table is added to further the Commission’s efforts to make the plan more functional for the farmer.

**“Nutrient Management Plan Summary”** in the Nutrient Management Program Technical Manual has been updated to include this guidance information effective immediately.

## USING PHOSPHORUS BANKING IN NUTRIENT MANAGEMENT PLANS

Balanced manure application rates based on phosphorus (P) removal can be too low to be practical to apply with the operation’s manure application equipment. For these situations where the balanced manure application rate is too low to be practical for the available application equipment, a planned manure application rate based on up to three years of P banking can be used in a nutrient management plan when all of the following requirements are met:

1. State Conservation Commission approval is received, and
2. The annual crop net nitrogen requirement in the year of application is not exceeded, and

3. When evaluated in the P Index, the P banking manure application rate cannot result in a Very High P Index Rating.

For more specific information and guidance refer to Appendix 4 and Appendix 5 of the Act 38 Nutrient Management Program Technical Manual.

**“Section II, Appendix 4: Crop & Manure Management Information” and Appendix 5: Phosphorus Index” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## RESIDUAL AND AVAILABLE N VALUES

The Penn State Agronomy Guide provides two tables of values for determining the amount available manure nitrogen and the amount of residual manure nitrogen. Table 1.2-14 provides values based on typical percentages of ammonium nitrogen and organic nitrogen in manure. Table 1.2-15 provides for calculating a more refined estimate of residual manure nitrogen that utilizes the chemical manure analysis including the actual amount of ammonium N and organic N in the manure.

Table 1.2-15 must be used for atypical manures such as compost, separated manures, or manures that have been treated so as to alter the typical ratios of ammonium and organic nitrogen. Table 1.2-14 cannot be used for atypical manures. This guidance applies to both the available and residual nitrogen values.

The Act 38 Nutrient Management Program Technical Manual, Appendix 4 has been updated to provide additional clarity on the guidance outlined above and to address which table can be used for typical manures. The following paragraph has been added to Appendix 4:

“Values from Tables 1.2-14 and 1.2-15 for manure N availability and residual manure N may be used interchangeably in one nutrient management plan or with one field **for typical manures only.**”

On any typical operation, based on this guidance, Table 1.2-14 typical manure values could be used on a portion of fields and Table 1.2-15 atypical manure values on the remainder. In addition, the available nitrogen values and manure residual values on a single field using typical manure do not need to come from the same table.

**“Section II, Appendix 4: Crop & Manure Management Information” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## MANURE HANDLING INFORMATION

The purpose of the Operation Description in Appendix 2 of the Act 38 Nutrient Management Plan is to provide the plan reviewer and others reading the plan a clear understandable description of the management of animals, manure and crops on the operation. Those reading this description should be able to visualize the practices and management on the operation.

The manure handling information requirements in the Operation Description section of Appendix 2 have been revised to ensure that this part of the operation is fully and accurately

described. Specifically a brief description for the various manure groups, mortality compost and any atypical manure produced on the operation has been included.

This description will document the current manure handling processes used within the approved plan for future reference, and it will help the plan reviewer understand how the manure moves and is handled on the farm from the time it leaves the animal to when it is taken to the field or delivered to an importer.

**“Section II, Appendix 2: Operation Information” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## APPENDIX 1 SIGNATURES

The ‘specialist’ and ‘operator’ signature language in the Nutrient Management Plan Agreement and Responsibilities (Appendix 1) has been revised to strengthen the importance in affirming that a planner has discussed the content and implementation of the plan with the operator; the operator will implement the plan and, where applicable, the operator will use a commercial manure hauler or broker that holds a valid and current certification issued by the Pa Department of Agriculture.

Securing specialist and operator signatures in Appendix 1 of an Act 38 nutrient management plan is an important step in the planning process that can alleviate future problems with approval and implementation of the plan particularly in the administrative completeness determination of an initial plan submission and the overall accuracy of the submitted plan. The Act 38 Nutrient Management Program Technical Manual provides expanded discussion underscoring and reinforcing the importance of completion of signatures prior to submission of a nutrient management plan.

**“Appendix 1, Nutrient Management Plan Agreement and Responsibilities” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## APPENDIX 5: P INDEX CONTRIBUTING DISTANCE LANGUAGE

Appendix 5: P Index Contributing Distance language has been revised to remove discussion and explanation of Act 38 100 ft. setback and 35 ft. buffer criteria for cropland and pastures. This information remains in the NMP Summary portion of the Technical Manual and should be referenced in the NMP Summary.

The revised Contributing Distance language specifically addresses criteria to be used in determining the appropriate Contributing Distance category as part of a P Index evaluation. It is important to note that the criteria for making this determination have not changed.

**“Appendix 5: Phosphorus Index” in the Nutrient Management Program Technical Manual** has been updated to include this guidance information effective immediately.

## CONTACT INFORMATION

The complete Act 38 Nutrient Management Program Technical Manual is available on the program website: <http://panutrientmgmt.cas.psu.edu>

For more information on the Pennsylvania Nutrient Management Program contact:

State Conservation Commission  
Nutrient Management Program  
2301 N. Cameron Street, Room 310  
Harrisburg, PA 17110  
717-787-8821  
717-705-3778 (FAX)

In order to receive this update bulletin the State Conservation Commission must have a current email address. Please send all email and other address changes to Michael Aucoin at the above address or [maucoin@pa.gov](mailto:maucoin@pa.gov)