



# Maryland Department of Agriculture

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Nutrient Management Program

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## How to Calculate the Phosphorus Management Tool – Using NuManPro Software

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Course # 2918

### Post-Program Quiz for Agricultural NM CEUs

Complete this quiz with the information you learn from the Webinar presentations.

You must answer all the items correctly and submit this form to MDA to earn **1 Maryland Agricultural Nutrient Management continuing education credits**. Circle the correct answer for each question. You must also include your printed name and the number as shown on your Maryland NM certificate or applicator voucher, your signature, date completed and your contact information.

E-Mail [Tia.Randall-Murray1@maryland.gov](mailto:Tia.Randall-Murray1@maryland.gov) or mail completed form to: MDA Nutrient Management Program, 50 Harry S. Truman Pkwy Rm. 201, Annapolis MD 21401, This program was approved for 1 CEU. Keep a copy for your records.

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- 1) When calculating the Phosphorus Management Tool (PMT) score for a particular field, what document should serve as your main, go-to reference for calculating the PMT score accurately?
    - a) SFM-6 "The Maryland Phosphorus Site Index: An Overview"
    - b) EB-405 "University of Maryland Phosphorus Management Tool: Technical Users Guide"
    - c) NM-3 "Phosphorus Removal by Crops in the Mid-Atlantic States"
    - d) None of the above
  - 2) True or False. The Phosphorus Management Tool considers the phosphorus source, potential for transport, and associated management factors for each of 3 phosphorus loss pathways in agricultural landscapes.
    - a) True
    - b) False
  - 3) A farm operator intends to apply 6,000 gal/ac of dairy manure in the spring prior to planting his corn crop. Following corn harvest in the fall, he intends to apply another 3,000 gal/ac of dairy manure prior to planting a small grain for silage. The soil test indicates a phosphorus fertility index value (FIV-P) of 190. When developing the nutrient management plan (NMP) for the entire growing season, the nutrient management consultant should do which of the following...
    - a) Calculate one PMT score only considering the spring manure application only.
    - b) Calculate one PMT score considering both the spring and fall manure applications.
    - c) Calculate two PMT scores – the first considering the spring manure application to corn, the second considering the fall manure application to small grain for silage.
    - d) Do not calculate a PMT score.
  - 4) True or False. The *runoff* phosphorus loss pathway considers the risk sediment-bound phosphorus loss to surface waters via erosion.
    - a) True
    - b) False

- 5) Which of the following watercourses should be considered surface water for the purpose of calculating the PMT score?
  - a) Drainage ditch
  - b) Permanent stream
  - c) Concentrated flow path
  - d) All of the above
  - e) a & b only
  
- 6) True or False. For the purposes of calculating the PMT score, a concave field is one from which no or very little water escapes by overland flow.
  - a) True
  - b) False
  
- 7) True or False. The intended amount of phosphorus to be applied, from both fertilizer and organic (manure, biosolids, etc.) sources, are considered when calculating the PMT score for a particular field.
  - a) True
  - b) False
  
- 8) Which of the following are considered 'artificial drainage' when calculating the PMT score for a particular field?
  - a) Drainage ditches
  - b) Tiles drains
  - c) Moles drains
  - d) None of the above
  - e) All of the above
  
- 9) True or False. For a field on which the PMT was calculated, the phosphorus application rate recommended to be applied in the NMP can be higher than the phosphorus application rate used in the PMT calculation.
  - a) True
  - b) False
  
- 10) According to the PMT Technical User's Guide, a 'LOW' P loss rating indicates that "Total phosphorus applications should be limited to no more than a three-year crop phosphorus removal rate applied over a three-year period." What function in the NuManPro 5 software allows you to calculate crop phosphorus removal over a 3-year time period?
  - a) The 'history' function
  - b) The 'apply organics' function.
  - c) The 'rotation schedule' function
  - d) None of the above

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