Manure Management Plan (MMP) Guidance (361-0300-002)

Survey Summary Results
The Manure Management Manual Technical Guidance was effective October 29, 2011.

The Department is seeking to start the revision process to this guidance document.

- Areas for improvement – clarity, readability, usability
- Better certainty for completeness – formatting and structure
- Potential to include items missed – manure spreader calibration, etc.

A survey was developed requesting feedback on revisions

- Conservation Districts, Certified Nutrient Management Specialists (public and commercial), Certified Manure Haulers and Brokers, Ag Advisory Board and Nutrient Management Advisory Board
The survey opened on October 29, 2018 and ended November 30, 2018.

- 156 survey respondents

Respondent’s Current Occupation

- 46.93% Federal Agency
- 21.23% Farmer
- 14.53% PSU
- 7.26% Hauler/Broker
- 3.91% County Conservation District
- 2.23% State Agency
- 2.23% Other
- 1.68% Certified Commercial NM Specialist

Pick Multiple (179 total responses)
Respondent’s Professional Interaction with the Manure Management Manual

- Planner: 36.84%
- Verifier: 0.81%
- BMP Designer/Engineer: 19.03%
- Implementer (Owner/Operator): 27.94%
- Hauler/Broker: 13.77%
- Other: 1.62%

Pick Multiple (247 total responses)
Number of Years Working with the Manure Management Manual

156 total responses

- 0-3 Years: 58.33%
- 3-5 Years: 17.31%
- Over 5 Years: 24.36%
5. Please rate the importance of the following revisions to the MMM:

<table>
<thead>
<tr>
<th>Revision</th>
<th>Not at all important</th>
<th>Slightly Important</th>
<th>Important</th>
<th>Fairly Important</th>
<th>Very Important</th>
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</thead>
<tbody>
<tr>
<td>Separate the packet into 4 parts (instructions, Plan, Record-keeping forms, Charts)</td>
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<td>Create a minimum threshold for the requirement to complete the MMP. Example: 8 AEU's and no ACAs.</td>
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<td>Define &quot;dense vegetation&quot;</td>
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<td>Add a signature line</td>
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<td>Move date of development to a more visible location</td>
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</table>
MMP Technical Guidance Document – Survey Questions

Create a method to encourage annual review of the Manure Management Plan (MMP)

Clarify the Manure Application Table Instructions

Make the following change to the Pasture Management Worksheet: “I am managing my pastures by maintaining dense vegetation in the pasture throughout the growing season.” should be changed to “…grazing season.”

Add an agricultural wastewater worksheet

Make the agricultural wastewater note more visible

Include a manure spreader calibration worksheet

Add a stacking/stockpiling worksheet

Make the stacking/stockpiling requirements more visible

Remove the manure storage facility freeboard record-keeping requirement

Include AEU/ac calculation box

Add a section to the instructions describing plan implementation and record-keeping

Add pasture balance to pasture management worksheet

Format the ACA worksheet so that both parts are on the same page

Add a mechanism to self-report a completed plan.
• 136 of 156 respondents believe that revisions to the MMM are needed.
• Of those 136 over half believed that the following is **Important to Very Important**
• Additions to Manure Application Tables
  • Crop types
    • Vegetables
    • Tobacco
    • Double-cropping
    • Alfalfa
    • Soybeans
    • Pumpkins
  • Manure types
    • Small Animals

• Pasture Management
  • Language should state dense vegetation is present throughout the year, rather than growing or grazing season.
  • Enhance pasture management worksheet to include BMPs, management strategies, and comments section.
  • Add N/A selection to be used if the worksheet is not applicable.
  • Create pasture management recordkeeping form
• Create Simplified small operation MMP
  • Maximum 2 pages plus map
  • Includes animal group table/AEU calculation table, manure handling for home gardens, and pasture management.

• Create eMMP
  • Potentially tie to PA OneStop
  • Plan writer could answer questions and be directed to the appropriate screens/sections to be completed based on the answers to those questions.
  • A report generated from an eMMP or a MMP electronic template should be easily modified for formatting and include an interactive table of contents.
  • Mechanism for self-reporting, record-keeping, and facility the use of NBSs for MMP development.

• Excel format should be available.
• Base the plan on soil and manure tests.
  • Add record keeping form to encourage regular testing

• Include a Generated Manure Table and Manure Balance.

• Clarify what is meant by acres available for manure application and pasture acres.
  • It is possible that pasture acres are counted twice if they are mechanically applying manure to the pasture.
    • An AEU/ac calculation would solve this problem.

• Clarify that solid manure storages are required to be listed on the Manure Storage Facility Worksheet.

• Modify record-keeping forms for the crop year.

• Provide an emergency response plan worksheet.

• Provide guidance on mortality composting.
• Maintain consistency between Act 38 regarding
  • Setbacks
  • Winter application
  • Manure stacking/stockpiling

• Consideration for non-land-applied export
• Create worksheet for imported manure.
• Create worksheet for exported manure.
• MMM should be abandoned and replaced with Act 38 equivalent
111 of 156 (71%) respondents ranked the establishment of a minimum threshold for the requirement to complete the MMP as **Important-Very Important**. The breakdown of the desired threshold is as follows:

- 41.82%: No Minimum Threshold
- 38.18%: 8 AEUs and no ACAs
- 11.82%: Less than 8 AEUs and no ACAS
- 8.18%: Other includes the following:
  - Less than 1.2 AEUs and no pollution events or ACAs
  - Less than 2 AEUs and no ACAs
  - 3 AEUs and no ACAs
  - 4 AEUs and no ACAs
119 of 156 (76%) respondents ranked the clarification of the Manure Application Tables as Important-Very Important. The breakdown of points to clarify is as follows:

Other includes the following:
- Simplify
- Differentiate the P and N charts
- Eliminate the tables
- Add crops/manure types
- Address phosphorus recommendations and limits
- Provide calculation space
- Account for manure applied on pastures
88 of 156 (56%) respondents ranked the creation of a method to encourage annual review as Important-Very Important. The breakdown of suggested methods is as follows:

- Add a reminder to record-keeping forms: 30.00%
- Add reminder to instructions: 5.83%
- Add reminder to plan summary: 4.17%
- Method to encourage annual review is not necessary: 30.00%
- Other: 30.00%

Other includes the following:
- Review every 5 years
- All operations should submit an Act 38 Plan; eliminate the MMP.
- Do not require annual review
- Provide examples of what management changes would trigger an update.
- Add update sheet to record-keeping forms where they can write the date they reviewed their plan

NOTE: Some answered the question as though annual review was required to be conducted by the CD.
• 34 of 156 respondents are farm owners or operators.
• The 34 owner/operators, also comprise:
  • 15 planners
  • 7 verifiers
  • 6 BMP designer-engineers
  • 2 hauler/brokers
• 26 believe revisions are needed
• 8 do not believe revisions are needed
  • Of those 8, 5 still believe it is important-very important to include an AEU/ac calculation box
• Majority of owner/operators, verifiers, planners, and respondents overall believe a revision is necessary.

• Even those that do not believe a revision is necessary, a majority identified Important-Very Important revisions to be addressed.

• A greater percentage of owner/operators (24%) do not believe a revision is necessary than verifiers (9%) and planners (13%)
  • Owner/operators may be more cautious about making revisions to the MMM
• The most respondents in all groups identified the inclusion of an AEU/ac calculation box as the Important-Very Important except owner/operators.

• The most owner/operators identified adding a section to the instructions describing plan implementation and record-keeping as Important-Very Important.

• Increasing the visibility of the agriculture wastewater note was identified by the majority of owner/operators, verifiers, and planners.
  • A majority of verifiers and planners would like to see an Agricultural Wastewater Worksheet created.
Increasing the visibility of the **stacking/stockpiling** note was identified by the majority of owner/operators, verifiers, and planners.

- A majority of owner/operators, verifiers, and planners would like to see a **Stacking and Stockpiling Worksheet** created.

The following were repeatedly mentioned in the additional comments.

- eMMP
- Small operation MMP
- Include a generated manure table
- Additions to Manure Application Tables
- Changes to Pasture Management Worksheet
- Clarification of acres for manure application
Contact Information:

Jill Whitcomb
Environmental Group Manager
Nonpoint Source Compliance Section
jiwhitcomb@pa.gov
(717) 783-5205