Putting it all together:
Assembling and Delivering a Nutrient Management Plan

Fundamentals of Nutrient Management 2019
Emileigh Lucas
The Nutrient Management Planning Process

1. Collect data.
2. Collect soil samples or obtain soil tests.
3. Is FIV-P > 150 for any field?
   - YES: Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
     - YES: Calculate PSI & PMT for fields whose FIV-P > 150.
     - NO: Collect tissue samples if there are bearing perennial fruit crops.
   - NO: Are animals raised or is manure or compost used on the farm?
     - YES: Collect manure or compost sample.
     - NO: Develop recommendations.
4. Is land base adequate for manure utilization?
   - YES: There is excess manure. Provide name & address of export destination in NMP.
   - NO: Compile, review, and deliver plan.
5. Follow up.
6. Update.
Data Collection

• Property information
  ➢ farmer’s name
  ➢ farm address/mailing address
  ➢ County
  ➢ Watershed
  ➢ acres farmed
  ➢ streams adjacent to fields and pastures
Data Collection (continued):

• Account ID numbers
  ➢ tax bill or assessment
  ➢ tax office
  ➢ Real Property Search
    o Street address
    o Owner’s name
  ➢ MDP Finder Online
    o Maryland Department of Planning
# Farm Data Collection Sheet

<table>
<thead>
<tr>
<th>Operator Name:</th>
<th>Date <strong><strong>/</strong></strong>/____</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator Address:</td>
<td>Plan period <strong><strong>/</strong></strong> to <strong><strong>/</strong></strong></td>
</tr>
<tr>
<td>Home Phone:</td>
<td>New plan ______</td>
</tr>
<tr>
<td>Work Phone:</td>
<td>Plan update ______</td>
</tr>
<tr>
<td>Cell Phone:</td>
<td>Maps</td>
</tr>
<tr>
<td>Barn Phone:</td>
<td>Best time/method to contact:</td>
</tr>
<tr>
<td>E-mail:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tract #</th>
<th>Farm Name</th>
<th>Tax Account ID #</th>
<th>Stream Present? (Y/N)</th>
<th>Acres Farmed (cropland &amp; pasture)</th>
<th>Landowner's Name</th>
<th>Street Address of Land</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Plan or program participation:

- ___ Soil conservation plan
- ___ CRP/CRP (indicate on maps)
- ___ Cover Crop cost-share
- ___ EQIP Nutrient Use Efficiency
- ___ MACS cost-share
- ___ Other (specify)
Resources for data collection are available on our website:

extension.umd.edu/anmp

Under “Plan Writing Tools”

http://extension.umd.edu/learn/nutrient-management-planning-tools-handbook
1. Data Collection

Step 1. Data Collection

Collecting and carefully organizing information (data collection) from the field site along with the producer interview is the first step in developing a nutrient management plan.

The following worksheets and information sheets will assist you with the data collection step of nutrient management plan development.

- Farm Data Collection Sheet (DC-1; 07/09) download & save file before printing.
- Field Data Collection Sheet (DC-2; 09/13) download & save file before printing.
- Poultry Production and Litter Data Collection Sheet (DC-3; 02/10)
- Animal Production and Manure Data Collection Sheet (DC-4; 07/09)
- Finding Tax Account ID Numbers
- "Mapping: The Good, The Bad, and The Ugly" (Source: Nutrient Management News, MDA, Fall 2001)
<table>
<thead>
<tr>
<th>County</th>
<th>County Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegany</td>
<td>01</td>
</tr>
<tr>
<td>Anne Arundel</td>
<td>02</td>
</tr>
<tr>
<td>Baltimore City</td>
<td>03</td>
</tr>
<tr>
<td>Baltimore</td>
<td>04</td>
</tr>
<tr>
<td>Calvert</td>
<td>05</td>
</tr>
<tr>
<td>Caroline</td>
<td>06</td>
</tr>
<tr>
<td>Carroll</td>
<td>07</td>
</tr>
<tr>
<td>Cecil</td>
<td>08</td>
</tr>
<tr>
<td>Charles</td>
<td>09</td>
</tr>
<tr>
<td>Dorchester</td>
<td>10</td>
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<td>Frederick</td>
<td>11</td>
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<td>Garrett</td>
<td>12</td>
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<td>Harford</td>
<td>13</td>
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<td>Howard</td>
<td>14</td>
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<tr>
<td>Kent</td>
<td>15</td>
</tr>
<tr>
<td>Montgomery</td>
<td>16</td>
</tr>
<tr>
<td>Prince George’s</td>
<td>17</td>
</tr>
<tr>
<td>Queen Anne’s</td>
<td>18</td>
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<tr>
<td>St. Mary’s</td>
<td>19</td>
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<td>Somerset</td>
<td>20</td>
</tr>
<tr>
<td>Talbot</td>
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<td>Washington</td>
<td>22</td>
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<tr>
<td>Wicomico</td>
<td>23</td>
</tr>
<tr>
<td>Worcester</td>
<td>24</td>
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</tbody>
</table>
Data Collection (continued)

• Farm map
  ➢ road name
  ➢ property boundaries
  ➢ field boundaries
  ➢ field names or numbers
  ➢ field acreage
  ➢ streams within or adjacent to fields or pastures

Photo credit: Edwin Remsberg
Data Collection (continued)

• Map sources
  ➢ Google Earth
  ➢ a GIS-based program
    o QGIS data layers and directions on website
      • software tab
  ➢ hand drawn and FSA are passé
    o need setbacks accurately shown on map
• An example of a well done map
• Will often add tax ID
• Make as clear and simple as possible
Data Collection (for each field)

• crops to be planted
• yield goals
  ➢ farmer’s records or Web Soil Survey (WSS)
• cropping history – were any legumes grown last year or over-winter?
• organic sources applied in last 2 years?
• type of application equipment & incorporation
• stream within or adjacent to any field or pasture?
## Field Information Sheet

**Field Data Collection Sheet**

<table>
<thead>
<tr>
<th>Field #1</th>
<th>Stream Present? (Y/N)</th>
<th>Acres</th>
<th>Crop and Tillage Information</th>
<th>Operator Name</th>
<th>Intended Applications for Current Year</th>
<th>Manure &amp; Sludge History</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Crop and Tillage Information**

- **Include Double Crop & Cover Crop**
- **N & P in Starter A/ir with Herbicide**
- **App Type**
  - D or B+C
- **Manure Type**
  - Type
  - Rate
- **Time Inoc**
  - Type
  - Rate

**Tillage**

- **CV** = conventional
- **CS** = conservation
- **CT** = no-till

**Yield Goal**

- **Yield: Lb/acre**
- **Yield Goal**
- **Yield Source**
- **Yield Method**
- **Yield Factor**

**Yield Goal Source**

- **Yield Goal Source**
- **Yield Method**
- **Yield Factor**

**Tillage**

- **Tillage**
- **CV** = conventional
- **CS** = conservation
- **CT** = no-till

- **Starter s or With Herbicide**
  - **Starter s or With Herbicide**
  - **Rate of Product**
  - **Rate of Application**
  - **Rate of Application**

### Notes

- **Field #1**
- **Stream Present** (Y/N)
- **Acres**
- **Crop and Tillage Information**

### Definitions

- **N & P in Starter A/ir with Herbicide**
- **App Type**
  - D or B+C
- **Manure Type**
  - Type
  - Rate
- **Time Inoc**
  - Type
  - Rate

### Yield Goal Source

- **Yield Goal Source**
- **Yield Method**
- **Yield Factor**

### Tillage

- **Tillage**
- **CV** = conventional
- **CS** = conservation
- **CT** = no-till

- **Starter s or With Herbicide**
  - **Rate of Product**
  - **Rate of Application**
  - **Rate of Application**

###  Notes

- **Field #1**
- **Stream Present** (Y/N)
- **Acres**
- **Crop and Tillage Information**
## Finding Yield Goals in WSS

### Summary by Map Unit - Washington County, Maryland (MD0443)

<table>
<thead>
<tr>
<th>Map unit symbol</th>
<th>Map unit name</th>
<th>Rating</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2B</td>
<td>Hagerstown silt loam, 3 to 8 percent slopes</td>
<td>142.60</td>
<td>1.5</td>
<td>56.9%</td>
</tr>
<tr>
<td>S3A</td>
<td>Harwood-Funkstown silt loams, 0 to 3 percent slopes</td>
<td>120.00</td>
<td>1.1</td>
<td>41.8%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>2.5</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
The Nutrient Management Planning Process

1. **Collect data.**
   - Collect tissue samples if there are bearing perennial fruit crops.
   - Collect soil samples or obtain soil tests.

2. **Is FIV-P > 150 for any field?**
   - **YES**
     - Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
     - **YES**
       - Calculate PSI & PMT for fields whose FIV-P > 150.
     - **NO**
       - Develop recommendations.
   - **NO**
     - Are animals raised or is manure or compost used on the farm?
     - **YES**
       - Collect manure or compost sample.
     - **NO**
       - Estimate manure or compost produced or available.

3. **Is land base adequate for manure utilization?**
   - **NO**
     - There is excess manure. Provide name & address of export destination in NMP.
   - **YES**
     - Compile, review, and deliver plan.

4. **Follow up.**

5. **Update.**
Collecting Samples

- Collect soil samples from all fields (including pastures)
- Collect tissue samples for orchards
- Samples are valid for __________?
The Nutrient Management Planning Process

1. Collect data.
2. Collect soil samples or obtain soil tests.

- Is FIV-P > 150 for any field?
  - YES: Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150? Calculated PSI & PMT for fields whose FIV-P > 150.
  - NO: Collect tissue samples if there are bearing perennial fruit crops.
3. Collect tissue samples if there are bearing perennial fruit crops.
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   - YES: Collect manure or compost sample.
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   - NO: There is excess manure. Provide name & address of export destination in NMP.
   - YES: Compile, review, and deliver plan.
7. Follow up.
8. Update.
Is a PSI/PMT Needed?

- determine slope length and gradient
- measure distance to surface water
- measure width of field buffers
- identify tillage practices and timing
- identify crop rotation
- estimate dates of planting and harvest
The Nutrient Management Planning Process

Collect data.

Collect tissue samples if there are bearing perennial fruit crops.

Collect soil samples or obtain soil tests.

Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?

Calculate PSI PMT for fields whose FIV-P > 150.

Are FIV-P > 150 for any field?

YES

Are animals raised or is manure or compost used on the farm?

YES

Collect manure or compost sample.

Estimate manure or compost produced or available.

NO

Is land base adequate for manure utilization?

YES

Compile, review, and deliver plan.

NO

Follow up.

Update.

NO

There is excess manure. Provide name & address of export destination in NMP.

Develop recommendations.

NO
Is Manure Produced on the Farm?

• collect a manure sample if >20 AU
  ➢ as close to application as possible
  ➢ Ch.8 .05 F(3) - twice a year until uniform level is established, then every 2 years

• How much manure is generated annually?
  ➢ collect data to estimate quantity
  ➢ Excel spreadsheet on web site
## Manure Information Sheet

**Animal Production and Manure Data Collection Sheet**

<table>
<thead>
<tr>
<th>Operator Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Name:</td>
<td></td>
</tr>
</tbody>
</table>

*What months is manure spread?*

*Date of Last Spreader Calibration:*

*Do you have storage? Type: Capacity:*

*If you import manure from another farm, give the operator's name and address:*

### Livestock Information

<table>
<thead>
<tr>
<th>Livestock group</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of last manure analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average weight per animal (pounds)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of animals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full days confined during manure production period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days partially confined during manure production period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours per day confined</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Bedding Estimation

<table>
<thead>
<tr>
<th>Bedding type (straw, sawdust, etc.)</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of bedding this production period (cubic feet)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide (1) or (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Density of bedding (pounds per cubic feet)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Weight of bedding (tons)</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
You can only edit values highlighted in blue

**Farm name:**

**Manure Production period:**

- **Starting date:**
- **Ending date:**

**A. Total days in manure production period:**

**0**

**Livestock Information**

<table>
<thead>
<tr>
<th>B. Livestock group</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Average weight (lbs.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. # of animals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Animal units (AU) (C x D/1000)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F. Full days confined during manure production period</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>G. Days partially confined during manure production period</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>H. Hours per day confined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Day equivalents partially confined (G x H)/24</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>J. Total day equivalents confined (F + I)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>K. Total day equivalents unconfined on pasture (A - J)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>L. Weight of manure/AU/day (lbs.) (see Table 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Nutrient Management Planning Process

1. Collect data.
2. Collect soil samples or obtain soil tests.
3. Is FIV-P > 150 for any field?
   - YES: Calculate PSI & PMT for fields whose FIV-P > 150.
   - NO: Are animals raised or is manure or compost used on the farm?
     - YES: Collect manure or compost sample.
     - NO: Develop recommendations.
4. Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
   - YES: Collect tissue samples if there are bearing perennial fruit crops.
   - NO: Collect soil samples or obtain soil tests.
5. Are animals raised or is manure or compost used on the farm?
   - YES: Collect manure or compost sample.
   - NO: Estimate manure or compost produced or available.
6. Is land base adequate for manure utilization?
   - YES: Compile, review, and deliver plan.
   - NO: There is excess manure. Provide name & address of export destination in NMP.
7. Follow up.
8. Update.
Nutrient Recommendations

• the essence of a nutrient management plan

• the amount of a nutrients recommended for crop production at the yield goal indicated.

• recommendations are based on long-term soil fertility research.
Sources of Recommendations

• SFM-1 (agronomic crops)
• EB-236 (vegetables)
• various info sheets for minor crops

• **NuMan Pro software**
  • Maryland Nutrient Management Manual
  • Nutrient Management Web site – FAQ’s
Things to Consider When Making Recommendations

Do any fields have residual nitrogen?

• If so, residual N (a.k.a. N credits) must be estimated.

• Remember, N recs in SFM-1, EB-236 and fact sheets are “gross N” recs.
Identify the Nutrient Source

- Which fields will receive commercial fertilizer as the nutrient source?
- Which fields will receive manure as the nutrient source?
Using Manure?

For fields receiving manure

• Is incorporation required?
  ➢ within 48 hours
  ➢ unless no-till (or perennial crop)
  ➢ unless MDA specifically requires incorporation
The Nutrient Management Planning Process

1. Collect data.
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3. Collect soil samples or obtain soil tests.
4. Is FIV-P > 150 for any field? (YES/NO)
   - If YES, calculate PSI & PMT for fields whose FIV-P > 150.
   - If NO, continue to the next step.
5. Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150? (YES/NO)
   - If YES, calculate PSI & PMT for fields whose FIV-P > 150.
   - If NO, continue to the next step.
6. Are animals raised or is manure or compost used on the farm? (YES/NO)
   - If YES, collect manure or compost sample.
   - If NO, continue to the next step.
7. Collect manure or compost sample.
8. Estimate manure or compost produced or available.
9. Is land base adequate for manure utilization? (YES/NO)
   - If YES, develop recommendations and compile, review, and deliver plan.
   - If NO, there is excess manure. Provide name & address of export destination in NMP.
10. Develop recommendations.
11. Follow up.
12. Update.
Adequate Land Base or Excess Manure?

• If a producer is using manure:
  ➢ check to see if he/she have enough fields available to receive manure at the time when the manure is available.

• Complete the manure utilization and allocation summary

• Name and town of export destination if excess manure exists
# Manure Utilization Information

<table>
<thead>
<tr>
<th>Period of Application</th>
<th>Fields Available</th>
<th>Acres</th>
<th>Manure Application Rate</th>
<th>Units</th>
<th>Manure Utilization Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.00</td>
<td>10.00</td>
<td>Tons/ac</td>
<td></td>
<td>20.00</td>
</tr>
<tr>
<td>2</td>
<td>11.00</td>
<td>10.00</td>
<td>Tons/ac</td>
<td></td>
<td>110.00</td>
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<tr>
<td>3</td>
<td>6.00</td>
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<td></td>
<td>Total</td>
<td>190 Tons</td>
</tr>
</tbody>
</table>
# Manure Allocation Summary

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Period of Application</td>
<td>Spring</td>
<td>Summer</td>
<td>Fall</td>
<td>Winter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Period for Manure Generation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Manure Available for Use per Period</td>
<td>200.00</td>
<td>Tons</td>
<td>Tons</td>
<td>Tons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td></td>
<td>Tons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Manure Utilization Potential per Period</td>
<td>190.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td></td>
<td>Tons</td>
<td>Tons</td>
<td>Tons</td>
<td>Tons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Excess or Deficit (-)</td>
<td>10 Tons</td>
<td>0 Tons</td>
<td>0 Tons</td>
<td>0 Tons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>*If excess, indicate name and address of export location in cover sheet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Nutrient Management Planning Process

Collect data.

- Collect tissue samples if there are bearing perennial fruit crops.

Collect soil samples or obtain soil tests.

- Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
  - YES: Calculate PSI & PMT for fields whose FIV-P > 150.
  - NO: Is FIV-P > 150 for any field?
    - YES: Are animals raised or is manure or compost used on the farm?
      - YES: Collect manure or compost sample.
      - NO: Develop recommendations.
    - NO: Is land base adequate for manure utilization?
      - YES: Compile, review, and deliver plan.
      - NO: There is excess manure. Provide name & address of export destination in NMP.

- Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
  - YES: Calculate PSI & PMT for fields whose FIV-P > 150.
  - NO: Is FIV-P > 150 for any field?
    - YES: Are animals raised or is manure or compost used on the farm?
      - YES: Collect manure or compost sample.
      - NO: Develop recommendations.
    - NO: Is land base adequate for manure utilization?
      - YES: Compile, review, and deliver plan.
      - NO: There is excess manure. Provide name & address of export destination in NMP.

Follow up.

Update.
Assembling the Plan

• cover sheet
• nutrient application setback form
• maps
• soil test results
• tissue analysis (if applicable)
• manure analysis, generation & allocation
• recommendations (fertilizer &/or manure)
• any additional information
BRIEF DESCRIPTION OF OPERATION:

DATE OF PLAN: Date the plan was written.

DURATION OF PLAN: Date written to the date the plan expires.

SOIL SAMPLING AND TESTING: Who took the samples and where were they analyzed.

MANURE SAMPLING AND TESTING: Who took the samples and where were they analyzed.

BASIS OF RECOMMENDATIONS: Nitrogen and phosphorus – based. Address any fields that have and FIV-P of >150.
Need Help?

Technical Resources

• University of Maryland Nutrient Management Specialists

• [www.extension.umd.edu/anmp](http://www.extension.umd.edu/anmp)
Delivering the Plan

• Explain it!
• Show the farmer where to find recommendations.
• Tell them if you have given recommendations for multiple crops.
• Tell them if you have given recommendations for both manure and commercial fertilizer.
Delivering the Plan (continued)

• Mention record keeping
• Mention update requirements
• Mention the Annual Implementation Report (AIR)
• Reinforce the requirement for setbacks
• Reinforce the requirement to communicate with custom applicator about recommendations and setbacks
The Nutrient Management Planning Process

1. Collect data.
2. Collect soil samples or obtain soil tests.
3. Is FIV-P > 150 for any field?
   - YES
     - Are manure, compost, or P-bearing fertilizers intended for use on any fields where FIV-P > 150?
     - NO: Collect tissue samples if there are bearing perennial fruit crops.
     - YES: Calculate PSI & PMT for fields whose FIV-P > 150.
   - NO
     - Are animals raised or is manure or compost used on the farm?
     - NO: Collect soil samples or obtain soil tests.
     - YES: Collect manure or compost sample.
     - Is FIV-P > 150 for any field?
       - NO: Develop recommendations.
       - YES: Collect manure or compost sample.
     - Is land base adequate for manure utilization?
       - NO: There is excess manure. Provide name & address of export destination in NMP.
       - YES: Compile, review, and deliver plan.
4. Follow up.
5. Update.

Note: FIV-P indicates field inorganic P.
Follow Up Activities

• Would the producer benefit from PSNT analysis on corn fields?
• Does the producer need an FSNT on wheat or barley fields?
• Is a manure spreader calibration needed?
• Will you contact the producer to let him/her know an update is needed or should he/she contact you?
What Happens Next on the Road to Certification?

• Phase 1
  ➢ Register for the certification exam
  ➢ Pass the exam

• Phase 2
  ➢ Further training
    o How to Write a Nutrient Management Plan
Exam Prep

- Review questions available on our website (not a comprehensive list)

www.extension.umd.edu/anmp

Click on Additional Resources tab > Study Materials for the MD Nutrient Management Certification Exam
Study Materials for the MD Nutrient Management Certification Exam

The following study materials will help prepare you to take the Maryland Nutrient Management Certification Exam:

Example Questions

- Maryland Nutrient Management Certification Exam - Example Questions

Fundamentals of Nutrient Management Course

- 2017 Presentations & Video Recordings

Publications

- Mid-Atlantic Nutrient Management Handbook (PDF File)
  - Chapter 1: Introduction to Nutrient Management
    - PDF Publication
    - PowerPoint Presentation
  - Chapter 2 - Regional Landscapes and the Hydrologic Cycle
    - PDF Publication
    - PowerPoint Presentation
  - Chapter 3 - Concepts of Basic Soil Science
    - PDF Publication
    - PowerPoint Presentation
  - Chapter 4 - Basic Soil Fertility
    - PDF Publication
    - PowerPoint Presentation

Event Calendar

- May 29  | Fundamentals of Nutrient Management (Day 1)
- May 30  | Fundamentals of Nutrient Management (Day 2)
- Jun 27  | 2018 Farmers' Field Day at LESREC
- Aug 3   | Maryland Nutrient
How to Write a Nutrient Management Plan Training

- September - TBD
  - Montgomery County UME Office, Derwood, MD

- September - TBD
  - Wye Research and Education Center, Queenstown, MD
Keeping Certification Active- Training Opportunities

• Check Websites
  ➢ http://extension.umd.edu/anmp
  ➢ http://mda.maryland.gov/resource_conservation/Pages/nutrient_management_training_program.aspx
Questions?