Agricultural Nutrient Management Program

Who Needs a Nutrient Management Plan?

- producers with a gross annual income of $2500 or more OR
- livestock operations with 8 or more animals units (1 animal = 1,000 pounds of live animal weight)

What Does the Planning Process Involve?

Record:

1. field histories (past crop & organic nutrient applications)
2. tillage practices
3. preferred organic nutrient application techniques, timing of application and time until incorporation

Sample & analyze:

1. soil (every 3 years)
2. manure (annually)
3. tissue (every 3 years if growing perennial fruit)

Estimate residual nitrogen from leguminous crops & organic nutrient sources

Identify realistic yield goals

Calculate University of Maryland Phosphorus Management Tool (UM-PMT), if applicable

Who Develops a Plan?

Plans are developed by:

- University of Maryland Extension nutrient management advisors
- private sector nutrient management consultants
- certified farmers
Phosphorus - Too Much of a Good Thing?

- phosphorus is essential for all life forms
- too much phosphorus in fresh surface water upsets the balance
- phosphorus enrichment of surface water causes eutrophication

How Does Phosphorous From Agricultural Fields Get Into Surface Water?

- fields can lose particulate phosphorus through erosion
- water flowing over phosphorus enriched soils can dissolve the phosphorus and transport it to surface water in runoff
- phosphorus in surface runoff, erosion & subsurface flow can lead to eutrophication

Support Services

In addition to writing nutrient management plans, nutrient management advisors can provide instruction & assistance on:

- yield checks
- soil sampling
- manure spreader calibrations
- soil nitrate testing
- Pre-sidedress Nitrate Test (PSNT)
- Fall Soil Nitrate Test (FSNT)

Do You Apply Nitrogen in the Fall?

A FSNT measures the concentration of soil nitrate to determine whether a fall nitrogen application is needed at the time of planting:

- test is conducted for wheat and barley grown for grain
- starting fall 2013, this test is required

Do You Use Manure on Your Corn Crop?

A PSNT can determine if sidedress nitrogen is needed and at what rate:

- test is conducted when corn is 6 - 12 inches tall
- contact a nutrient management advisor for sampling instructions and to schedule testing before corn reaches 6 inches
What is the UM-PMT?

- a tool for assessing potential for phosphorus loss from fields as eroded soil, surface runoff, and subsurface drainage

When is it needed?

- each field with a soil test Fertility Index Value for phosphorus (FIV-P) of 150 or above will need a UM-PMT evaluation if phosphorus in any form will be applied

What information is needed for UM-PMT determination?

- crop rotation and tillage practices
- rate, method and timing for intended phosphorus fertilizer application and intended organic nutrient application

The outcome of the UM-PMT can be influenced by management.

<table>
<thead>
<tr>
<th>Potential for Phosphorus Loss</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>• Phosphorus applications to crops grown in a three-year period shall not exceed the amount of phosphorus removed by the crops over the three-year period.</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>• Phosphorus application shall be limited to the expected amount removed from the field by crop harvested in the year of application or the amount indicated by soil testing.</td>
</tr>
<tr>
<td>HIGH</td>
<td>• No phosphorus should be applied to this site.</td>
</tr>
</tbody>
</table>

You can find more information about nutrient management at the Agricultural Nutrient Management Program’s website:

www.extension.umd.edu/anmp

The University of Maryland Extension programs are open to any person and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry, national origin, marital status, genetic information, political affiliation, and gender identity or expression.