WI Nutrient Management 2009

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www.datcp.state.wi.us/arm/agriculture/land-water/conservation/nutrient-mngmt/planning.jsp
Nutrient Management - What’s New?

- 1.35 million acres NM plans reported in 2009 ~ same as last year
- 618 farmer wrote their own plans on 180K ac 213 more farmers than last year
- New Working Lands Initiative brings $27M to participating WI farmers
- Prelim 2010 DATCP grants $:
  - Very limited LCDs NM cost share - $3.5 M lapse for 2010
  - Same as 2009 ~$500K Implementation support: UW-Soils, UW-NPM, UW-Discovery Farms, MALWEG, Technical Colleges

### 2005-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Nutrient Management Plan Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>772,661 ac</td>
</tr>
<tr>
<td>2007</td>
<td>1,050,454 ac</td>
</tr>
<tr>
<td>2009</td>
<td>1,358,958 ac</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Farms practicing NM &amp; not in programs in thousands of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>193</td>
</tr>
<tr>
<td>2007</td>
<td>148</td>
</tr>
<tr>
<td>2009</td>
<td>163</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost Sharing Programs in thousands of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>340</td>
</tr>
<tr>
<td>2007</td>
<td>404</td>
</tr>
<tr>
<td>2009</td>
<td>523</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>NR243 in thousands of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>106</td>
</tr>
<tr>
<td>2007</td>
<td>106</td>
</tr>
<tr>
<td>2009</td>
<td>152</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>County Ord. in thousands of acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>134</td>
</tr>
<tr>
<td>2007</td>
<td>194</td>
</tr>
<tr>
<td>2009</td>
<td>296</td>
</tr>
</tbody>
</table>
2009 NM plans cover about 15% of WI cropland

Marathon NMP 136K ac, 27K ac increase from 2008 (47% of cropland)

These counties showed the greatest increase in NM acreage between 2008-09

<table>
<thead>
<tr>
<th>County</th>
<th>Increase of Cropland (ac) with NM plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kewaunee</td>
<td>47,231</td>
</tr>
<tr>
<td>Fond du Lac</td>
<td>40,432</td>
</tr>
<tr>
<td>Dodge</td>
<td>32,831</td>
</tr>
<tr>
<td>Clark</td>
<td>31,606</td>
</tr>
<tr>
<td>Manitowoc</td>
<td>29,326</td>
</tr>
<tr>
<td>Marathon</td>
<td>27,408</td>
</tr>
<tr>
<td>Door</td>
<td>23,013</td>
</tr>
</tbody>
</table>

* Polk, Eau Claire, La Crosse, Shawano, and Brown Counties increased NM plan acres anywhere from 10,000 to 20,000 acres.

NM Plan Checklists were submitted for 64 counties in 2009, 2 more than 2008 and 10 more counties since 2006.
When Are Producers Required to Have a Nutrient Management Plan?

- When offered [70%] cost-share for NM
- When accepting manure storage cost-share
- When participating in farmland preservation or Working Lands Initiative
- When regulated under a county manure storage or livestock siting ordinance
- When regulated under a DNR WPDES permit
- Are required to prevent or mitigate imminent harm to waters of the state as an emergency or interim response to a grossly negligent pollution discharge
Working Lands Initiative

Effective
July 1, 2009

Expands the existing Farmland Preservation Program ~18,000 participants

Participants with 2004 agreements or later & Exclusive Ag Zoning participants **MUST** follow ATCP 50 and NR 151 performance stds, including NM
Soil & Water Conservation

- Counties must **monitor participant compliance** every 4 years & be monitored by DATCP

- Requires landowner certification, probably using the **NM Plan Checklist** annually

- Persons under an existing FPP Agreement are subject to the standards in place when application submitted

- Persons collecting 2009 tax credits in 2010 will continue to be eligible for the new tax credits paid in 2011 based on meeting a **soil & water schedule of compliance** from the county conservation department.

- Persons not claiming 2009 tax credits paid in 2010 **must be certified by the county** as meeting the soil & water conservation standards to be eligible for the new tax credits paid in 2011.
Checking Compliance

– Crop rotation meeting T with Dominant Critical Soil

– Follow UW soil test recs from a certified lab (5 ac samples for responsive fields)

– Manure allocation matching production for the rotation

– Winter/other spreading restrictions followed
Tax Credits

• Current FPP tax credits
  – Located in exclusive agricultural zoning district or Farmland preservation agreement
  – Agreement term = 10 to 25 years
  – Average credit $650/yr ~$3.30/acre

• New Working Lands Initiative tax credits
  – Increased value of credit (Available: 2010 tax year)
    ➢ $5.00/acre if farmland preservation agreement in Agricultural Enterprise Area AEA (15 year agreements) after July 1, 2009
    ➢ $7.50/acre if located in a Certified farmland preservation zoning district
    ➢ $10.00/acre if agreement in AEA and zoning
Agricultural Enterprise Areas

- Area devoted primarily to agricultural use and locally targeted for agricultural preservation
- FPP agreements after July 1, 2009 must be within an approved AEA - Petitioners to DATCP from the municipality of at least 5 owners of eligible farms located in a contiguous area - primarily in agricultural use, preference to areas of at least 1,000 acres
- State designates, amends or deletes through Administrative Rule, Public hearing, Legislative notice
Grant Program - Purchase of Agricultural Conservation Easements

- Voluntary
- Protects agriculture
- Deed restriction
- Permanent

- $12 million available to provide matching grants
  - 50% matching grants and pay transaction costs
- Establishes a Working Lands Trust Fund
  - Funds deposited here may be used for future purchases

Web: http://workinglands.wi.gov
2009 NM Quality Assurance Plan Review

• 13 of 20 (65%) plans met the N rec. A 5% improvement over last year.

• 5 of 20 NM plans reviewed by the QAT didn’t use Snap Plus (4 were farmer written plans)
Improved NM Plan Components

8% improvement for fields meeting T

29% improvement in spreader calibration

23% improvement with plans mentioning wells
**Dominant critical soil**

the most erosive soil that covers 10% or more of the field. Usually determined by slope (A, B, C, D or E) and/or the soil map unit’s “T” level. 6/20 plans used this soil type ↓ 14%

**Soil Testing**

responsive fields must be 1 sample/5ac. 10/20 plans followed 5 ac requirement ↓ 10%

**Waterway protection**

mentioned in 10/20 plans ↓ 38%

**2008 Year**

T and P management is for the whole rotation. Account for all the manure and P fertilizer. Amend plans annually with crops, applications, and management used. 11/20 plans included P management ↓ 13%
Pastures

• Applications made by grazing animals can use the **Snap Plus Grazing Calculator** to explain & manage where all the manure is being applied.

• Include in NM plans:
  – Winter pastures near streams, and
  – pastures with any mechanically applied nutrients
Maps need to have field boundaries & names & acres

Note restrictions for each field in the plan

45%, 9/20 NMPs included
SWQMA info ↓ 35%

55%, 11/20 included Fall N
Restricted soils ↓ 17%

65%, 13/20 explained
winter restrictions ↓ 19%

80%, 16/20 properly
applied in winter ↓ 8%
Spreading Restrictions

Place reminders of spreading restrictions in the Field screen notes or in the Cropping Screen.

This will show up on the Snap Plus Spreading plan & NM Plan Sorted by Crop Report to help follow 590.
590 GeoPDFs

- “590” section level Spreading Restriction Maps Online
- Contain all 590 mapable restrictions and setbacks
- Editable
- GIS-like layers
- Consistent product

Spring 2010
- Incompatible Adobe Reader version fix
- 2008 imagery
- More readable soil map units
- Imported layers will print

www.manureadvisorysystem.wi.gov
Choosing Your Map

NRCS 590 Nutrient Application Restriction Maps

**Select your preferred search method by clicking your county on the map, or by clicking the "Select by Township/Range/Section" tab.**

Click your County or Select by Township/Range/Section

Click on your county in the map below to view a county map displaying the civil townships: navigate to the township and section of interest to download a map. (system requirements)

**If you know the Township/Range/Section number:**

Select the appropriate combination for your parcel in the boxes below and click "Download Map".

If you select a county/township/range/section combination that does not exist, an error message will appear.

- This page will help you identify sections using the PL55 system.
- This page will help you learn more about the PLSS system

<table>
<thead>
<tr>
<th>County</th>
<th>Township Number</th>
<th>Range Number</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Download Map

If the selector boxes don't work in your browser, try here.

Back to...

- Home Page (this site)
- DATCP Nutrient Management
- DATCP MMAS Page

Information & Supporting Materials
- Soil Descriptions by County
- Restrictions Guidance
- System Requirements
- Contact Information

How-Tos
- Use GeoPDFs
- Identify PLSS sections
GeoToolbar

- Draw Field Boundaries
- GeoPolygon
Change GeoPolygon Color

- Hover over line
- Right click to get options
- Choose “Properties”
Field Verify

Verify all restricted areas to ensure map accuracy & identify other risk areas such as concentrated flow channels, sinkholes, karst areas, wells!!

This is an evolving project and we want your input!

Questions and problems with the maps should be directed to:

Sara Walling, DATCP
608-224-4524
Sara.walling@wisconsin.gov
Snap Plus Plan Development & Updates

Use the Rotation Wizard to track manure & fertilizer application for multiple fields & years

**Cropping Screen**

**Rotation Wizard**

**Choose button**

1. Add crops & applications
2. Change crops or applications
3. Delete crops or applications
4. Edit rotational settings
5. Edit MRTN
Cropping Screen

Rotation Wizard

Button 1.
Add crops & applications

1. Edit Rotations
2. Select New to make rotation
3. Add crop to rotation
4. Add nutrient application(s) to the crop year & check apps in Step 4
### Cropping Screen Rotation Wizard Button 2.

**Step 1** Choose what operations to do...

- Add crop and application data to fields
- Change existing crop data or applications for fields
- Delete crop and application data from fields
- Edit rotational settings for fields
- Edit MRTN data for fields

**Step 2** Select the fields you'd like to change cropping data for...

**Change which type of data**
- Cropping data
- Applications

Start changes with year **2008** and continue changes through year **2008**

Choose which fields to include in this operation...

<table>
<thead>
<tr>
<th>Unselected</th>
<th>Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
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<td>14</td>
<td></td>
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<td>15</td>
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<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>
Step 1  Choose what operations to do...

- I'd like to
  - Add crop and application data to fields
  - Change existing crop data or applications for fields

Cropping Screen Rotation Wizard Button 2.

Select

4. Current & previous crops

4. Delete/Add application source, season, method & rate

### Step 3  Change application data where ...

<table>
<thead>
<tr>
<th>Crop is</th>
<th>and prior crop is</th>
<th>and two year prior crop is</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>Alfalfa</td>
<td>Any</td>
</tr>
</tbody>
</table>

(Check for this crop sequence in the fields and years selected.)

Selected years are 2008 to 2008

<table>
<thead>
<tr>
<th>Change application data to ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Delete all existing applications first</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source class</th>
<th>Source type</th>
<th>Source name</th>
<th>Season</th>
<th>Spread method</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manure/Biosolid</td>
<td>Dairy, liquid</td>
<td>Dairy Pit</td>
<td>Fall</td>
<td>Unincorporat</td>
<td>5000</td>
</tr>
</tbody>
</table>
Cropping Screen
Rotation Wizard
Button 2.

Select

1. Cropping data or Applications
2. Date range
3. Fields
4. Current and previous crops
5. Change Crop, Yield Goal, Tillage, Soil Test Date, Irrigation, Legume Credit, Season Notes
### Manure / Biosolid Applications

<table>
<thead>
<tr>
<th>Season</th>
<th>Source name</th>
<th>Spread method</th>
<th>Rate</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Dairy Pit</td>
<td>Unincorporat</td>
<td>5000.0</td>
<td>Gallons/acre</td>
</tr>
</tbody>
</table>

### Fertilizer Applications

<table>
<thead>
<tr>
<th>Season</th>
<th>Fertilizer Name</th>
<th>Spread method</th>
<th>Rate</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>Potassium chloride</td>
<td>Unincorporat</td>
<td>250</td>
<td>lbs/acre</td>
</tr>
<tr>
<td>Spring</td>
<td>Ammonium sulfate (AMS)</td>
<td>Unincorporat</td>
<td>50</td>
<td>lbs/acre</td>
</tr>
</tbody>
</table>

### Crop: Alfalfa

#### 2007
- **Yield Goal:** 4.6-5.5
- **Tillage:** None
- **Soil Test Date:** 4/25/2007
- **Crop:** Alfalfa

#### 2008
- **Yield Goal:** 4.6-5.5
- **Tillage:** None
- **Soil Test Date:** 4/25/2007
- **Crop:** Corn grain

### Fertilizer Application

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>P2O5</th>
<th>K2O</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>0</td>
<td>35</td>
<td>300</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
<td>35</td>
<td>300</td>
</tr>
</tbody>
</table>

### Season Notes
- **2007:** Applied 5,000 gals.
- **2008:** Not Met
Summary

• Farmers writing more plans
• WLI will be a big work load in counties with zoning, better than cost sharing, less paper work
• Need to use Dominant Critical Soil to start planning to have correct soil loss and N recs
Summary

- Spread all the manure & fertilizer each year of the rotation to have an accurate P assessment
- Use the new spreading restriction maps & identify other risk areas such as concentrated flow channels, sinkholes, karst areas, wells
- Use Snap Plus and the Rotation Wizard to make planning and updates quicker