

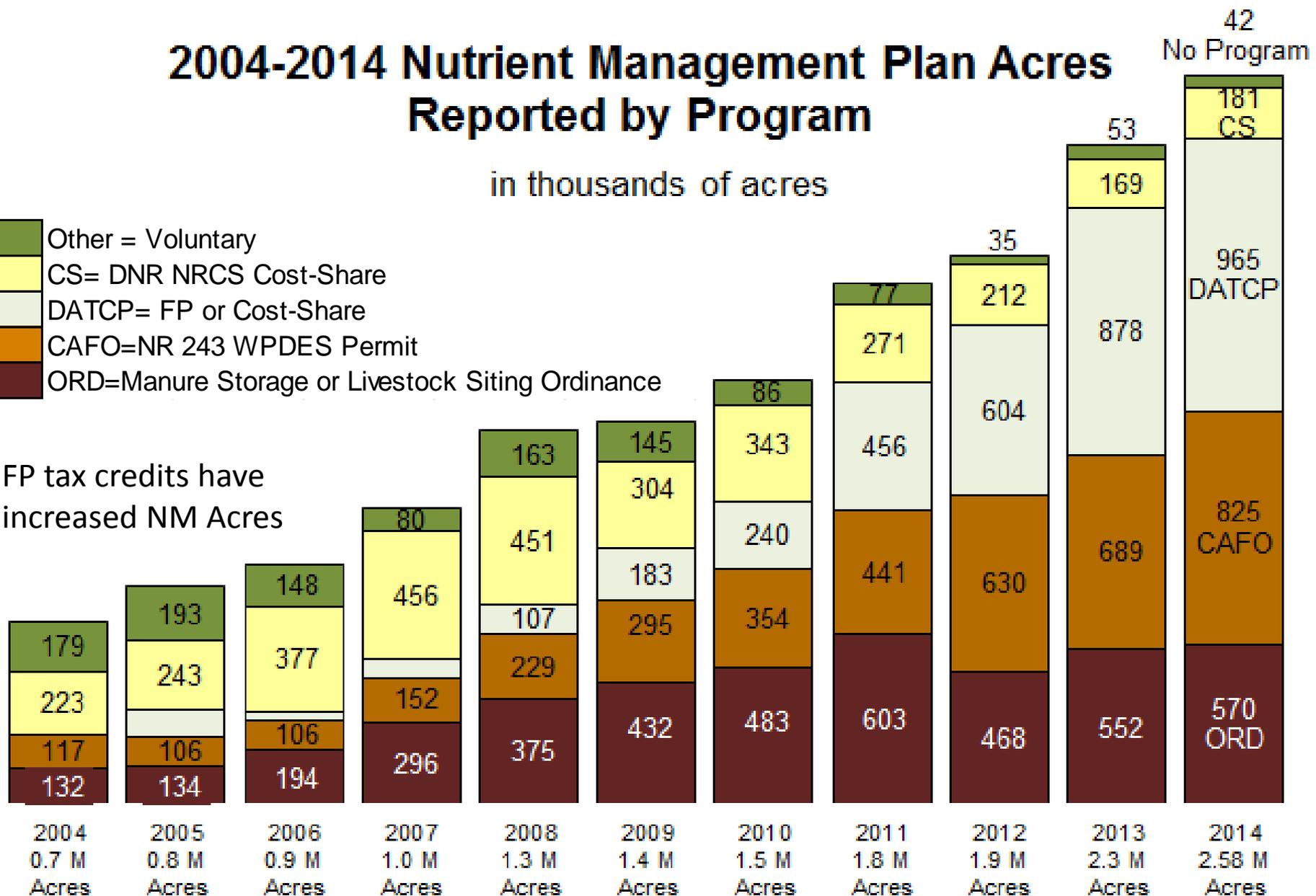
Do you still use Geo PDF maps?

2004-2014 Nutrient Management Plan Acres Reported by Program

in thousands of acres



FP tax credits have increased NM Acres



When can a NM Plan be Required?

- Farms can be required to implement nutrient management with a \$28/ac NM cost share offer or if:
 - Causing a significant **discharge**
 - Regulated by local manure storage or livestock siting **ordinances**, or by a DNR WPDES permit
 - Accepting manure **storage cost share**
 - Participating in the **Farmland Preservation Program**

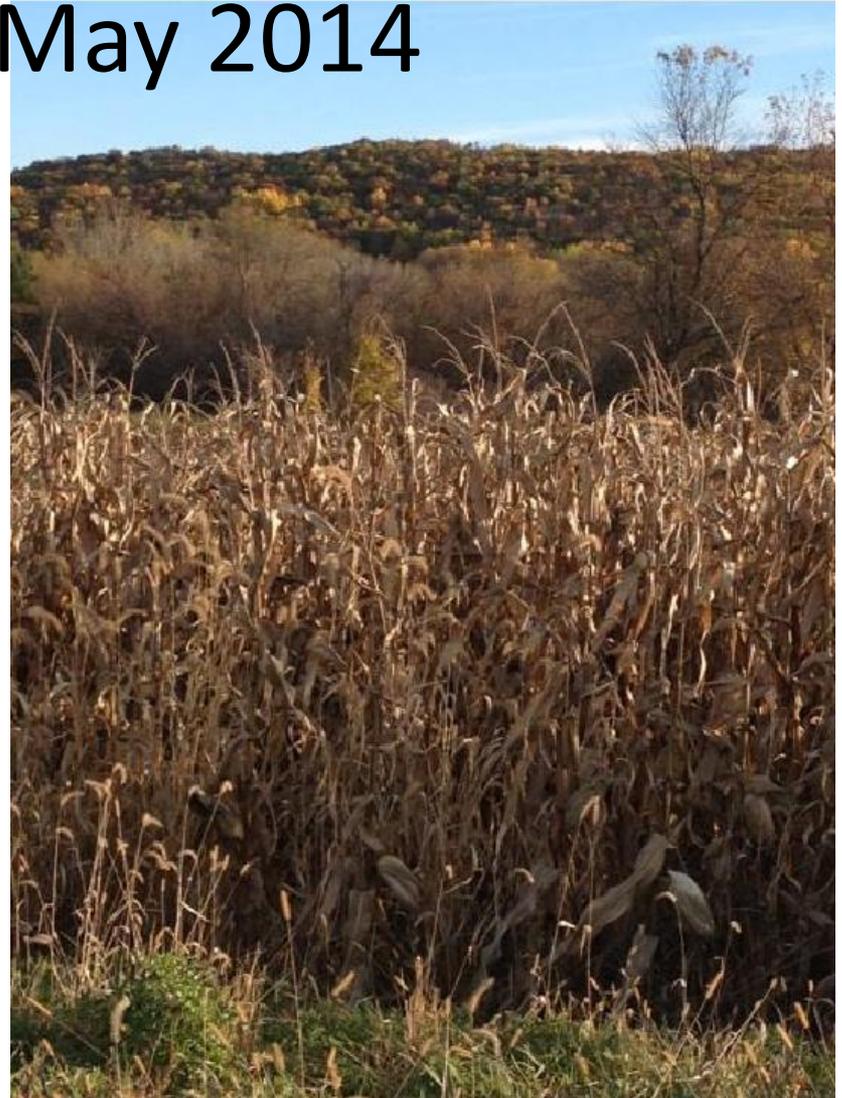


ATCP 50, Wis. Admin. Code was passed by the legislature in May 2014

Farmland Preservation program participants will start complying with the new performance standards in 2016 with up to 5 years to comply as required by the county.

County conservation staff will work with farmers to add to the farm's current practices

- the ***Tillage Setbacks*** of 5' up to 20' from surface waters and the
- ***Phosphorus Index*** for cropland and pastures and
- control of ***process wastewater***.



590 Standard

www.snapplus.wisc.edu

Nutrient Limits to All Fields

Nitrogen (N), Phosphorus (P₂O₅), Potassium (K₂O):

- Show adequate land for manure produced
- Develop, implement, and annually update when necessary the NMP.

Account for the source, rate, timing, and method of application for all major nutrients consistent with:

- 590 standard; soil tests taken every 5 acres every 4 years; and nutrient application in UWEX Pub. A2809 *"Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin."*
- Proposed addition - Documented deficiency caused by excessive rain and limit app to 40 lbs. available N/ac. Or use 2 or more Adaptive Management tools in the Tech Note to exceed the 40 lbs. N/ac rate.
- Pasturing allowed near wells, in SWQMA, and on all slopes in winter - following 590



Proposed Changes to 590 Standard

All Seasons Manure and Other Nutrient Applications Are Prohibited on:

- Surface water; saturated soils; areas of active snow melt where water is flowing; concentrated flow channels, except to provide nutrients for establishment and maintenance of a conservation practice; where vegetation is not removed.
- A potable well; direct conduits to groundwater; area within 50' of direct conduits to groundwater, unless directly deposited by gleaning or pasturing animals; within 8' of irrigation wells.
- Fields exceeding tolerable soil loss (T) over the crop rotation.
- Areas within 1000' of a public water supply designated as a Community potable water well; Or areas within 250' of a Non-community potable water well (church, school, and restaurant) unless manure is treated to substantially eliminate pathogens.
- Areas locally delineated by the Land Conservation Committee or in a conservation plan as areas contributing runoff to direct conduits to groundwater unless manure is substantially buried within 24 hours of application.



Proposed 590 Changes



Fall, Spring, Summer Manure and Other Nutrient Are Applied in the Surface Water Quality Management Area (SWQMA), use one or more of the following:

- Install/maintain vegetative buffers or filter strips.
- Maintain $\geq 30\%$ cover after nutrient application.
- Effective incorporation within 72 hours of application.
- Establish crops prior to, at, or promptly following application.
- Apply nutrients within 7 days of planting on long term no-till ground with < 30% residue. *Min. of 3 consecutive previous years No-Till*

Mechanical Applications of Unincorporated Liquid Manure 11.0% or less dry matter in the SWQMA, OR Where Tiled, use one or more of the following:

Limit applications of liquid manure to 12,000 gallons per acre per application.

- No applications are allowed on saturated soils.
- No ponding of manure is allowed at the application site.

Stop applications see V.A.1.n. to address ponding, drainage to subsurface tiles, or runoff of manure.

Sequential applications may be made to meet the nutrient need consistent with 590. Wait a minimum of 7 days between sequential applications.

Proposed 590 Changes

All Farms Mechanically Applying Manure or Process Wastewater Must Have a

Winter Spreading Plan Identifying:

- Application areas in compliance with 590 criteria, including a minimum of 14 days of manure and process wastewater generated by the farm or all anticipated to be spread during winter which ever is greater. Follow Plans and Specifications.
- Quantity of storage/stacking for each manure type applied on the farm.
- A minimum of three temporary manure stacking sites for manure that is 16% or more solids without permanent storage. No more than two stacking sites per 40 acres per year, to provide an alternative to winter spreading. Consistent with stacking requirements NRCS 313 standard.

When frozen or snow-covered soils prevent effective incorporation at application:

- Do not apply within the Surface Water Quality Management Area.
- Do not exceed the P removal of the following growing season's crop when applying manure. Liquid manure applications are limited to 7,000 g/acre. All winter manure applications are not to exceed 60 lbs. of P₂O₅ per acre. The balance of the crop nutrient requirement may be applied the following spring or summer.
- Do not apply N and P in the form of commercial fertilizer, except grass pastures and on winter grains that do not fall within a prohibition area.

Proposed 590 Changes

When frozen or snow-covered soils prevent effective incorporation at application:

Do not apply nutrients to fields with slopes greater than 6% unless the plan documents that no other accessible fields are available for winter spreading AND 2 of the following are implemented:

- **Contour buffer strips or contour strip cropping;**
- **Leave all crop residue and no fall tillage;**
- **Apply manure in intermittent strips on no more than 50% of field;**
- **Apply manure on no more than 25% of the field during each application waiting a minimum of 14 days between applications;**
- **Reduce manure app. rate to 3,500 gal. or 30 lbs. P2O5, whichever is less**

Do not apply nutrients to fields where concentrated flow channels are present unless 2 of the following are implemented:

- **No manure application within 200 feet of all concentrated flow channels;**
- **Fall tillage is on the contour and slopes are lower than 6%; or**
- **Same red options above**

Do not surface apply liquid manure during February and March on areas depicted on the 590 spreading restriction maps as areas where DNR Well Compensation funds provided replacement water supplies for wells contaminated with livestock manure or where Silurian dolomite within 60 inches of the soils surface.

Do not apply manure within 300 feet of direct conduits to groundwater.



Proposed 590 Changes

Limit Nutrients to Groundwater

On N restricted soils which include high permeability soils (P), or rock soils with less than 20 inches to bedrock (R), or wet soils with less than 12 inches to apparent water table (W), or areas within 1,000 feet of a community potable water well, use guidelines from UW Pub. A2809 or rates specified below:

In late summer or fall: No commercial N applications should be applied on areas identified as having soil depth of 5 feet or less over bedrock, P, R, W soils, areas within 1,000 feet of a *community potable water well*, except where needed for establishment of fall seeded crops or blended commercial fertilizer materials are needed to meet UWEX Pub. A2809 guidelines. For these exceptions, the N application rate shall not exceed 36 lbs. N per acre and all nutrients must be credited towards the requirement of the crop.

When manure with > 4.0% solids is applied on W soils or combination W soils, use rates that will not smother crops and limit the available N to no more than **120 lbs./acre.**

Manure with < 4.0% solids or less reduce applications to **90 lbs.** per acre of available N; Or apply no more than **120 lbs.** of N per acre and at least one of the following practices:

- Use a nitrification inhibitor.
- Apply on an established cover crop, or an overwintering annual, or perennial crop.
- Establish a cover crop within 14 days of application.
- Surface apply and do not incorporate for at least 3 days.
- Delay application until October 1 or soil temperatures are less than 50°F.



Proposed 590 Changes

In late summer or fall:

When manure with > 4.0% solids is applied on P and R soils

Prior to October 1 and soil temperatures are greater than 50°F

- For perennial or overwintering annual crops, including cover crops, use rates that will not smother these crops and limit available manure N to **60** lbs. per acre.
- For annual crops, delay applications until after soil temperatures are less than 50°F and follow V.B.1.a.4.

After October 1 or soil temperatures are less than 50°F

- For perennial or overwintering annual crops, including cover crops, use rates that will not smother these crops and limit available manure N to **120** lbs. per acre.
- For annual crops, limit available manure N to the lesser of **90** lbs. per acre or N applications rate guidelines specified in UW Pub A2809.
- Manure with 4.0% solids or less, add either practice to the above rates: use a nitrification inhibitor, Or surface apply and do not incorporate for at least 7 days.

In spring and summer: On R, W, and combination soils, when commercial N is applied, do not exceed the crop N rate guidelines from all sources.

On P soils, when commercial N is applied for full season crops, do not exceed the crop N rate guidelines and apply one of the following management strategies:

- A split or delay N application to apply a majority of crop N requirement after crop establishment.
- Use a nitrification inhibitor with ammonium forms of N.
- Use slow and controlled release fertilizers for a majority of the crop N requirement applied near the time of planting.



Summary

- Help us make rules that make sense and protect agriculture, soil, and water
- Control soil erosion
- Help keep farmers eligible for Farmland Preservation tax credits

590 Timeline

- August Broad Review
- Sept.-Dec. Comment Review
- NRCS will adopt for EQIP
- Incorporate in ATCP 50, 51 2017