



Wisconsin Department of Agriculture, Trade and Consumer Protection
 Division of Agricultural Resource Management
 Bureau of Land and Water Resources
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Use this form to check nutrient management (NM) plans for compliance with the WI NRCS 2015-590 Standard.

Nutrient Management Checklist Sec. 92.05(3)(k), Wis. Stats. ATCP 50.04(3) & 51 Wis. Admin. Codes

COUNTY	DATE PLAN SUBMITTED	GROWING SEASON YEAR PLAN IS WRITTEN FOR	(from harvest to harvest)	
TOWNSHIP: (T. N.)	RANGE: (R. E., W).	CHECK ONE: <input type="checkbox"/> Initial Plan or <input type="checkbox"/> Updated Plan		
NAME OF FARM OPERATOR RECEIVING NUTRIENT MANAGEMENT PLAN			BUSINESS PHONE () -	
STREET ADDRESS		CITY	STATE	ZIP
RELEVANT REASON THE PLAN WAS DEVELOPED: <input type="checkbox"/> Ordinance <input type="checkbox"/> NR 243 WPDES or NOD <input type="checkbox"/> DATCP-FP or cost share (cs) <input type="checkbox"/> DNR-cs <input type="checkbox"/> USDA-cs <input type="checkbox"/> Other				
CROPLAND ACRES (OWNED & RENTED)				
RENTED FARM(S) LANDOWNER NAME(S) AND ACREAGE: add sheet(s) if required				
WAS THE PLAN WRITTEN IN SNAPPLUS?		<input type="checkbox"/> YES <input type="checkbox"/> NO	If yes, which software version, if known?	
CHECK PLANNER'S QUALIFICATION: <input type="checkbox"/> 1. NAICC-CPCC <input type="checkbox"/> 2. ASA-CCA <input type="checkbox"/> 3. SSSA-Soil Scientist <input type="checkbox"/> 4. DATCP approved training course <input type="checkbox"/> 5. Other approved by DATCP				
NAME OF QUALIFIED NUTRIENT MANAGEMENT PLANNER			BUSINESS PHONE () -	
STREET ADDRESS		CITY	STATE	ZIP

Use header sections to add comments. Mark NA in the shaded sections if no manure is applied.

1. Does the plan include the following nutrient application requirements to protect surface and groundwater?	Yes	No	NA
<i>If no manure is applied, check NA for 1c., 1.h., 1.i., 1.n., 1.o., 1.q., 1.s.</i>			
a. Determine field nutrient levels from soil samples analyzed by a DATCP certified laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. For fields or pastures with mechanical nutrient applications, determine field nutrient levels from soil samples collected within the last 4 years according to Std. 590 and UW Pub. A2809; Soil Test Recommendations for Field, Vegetable and Fruit Crops typically collecting 1 sample per 5 acres of 10 cores. Soil tests are not required on pastures that do not receive mechanical applications of nutrients if either of the following applies: 1. The pastures are stocked at an average stocking rate of one animal unit per acre or less at all times during the grazing season. 2. The pastures are stocked at an average stocking rate of more than one animal unit per acre during the grazing season, and a nutrient management plan for the pastures complies with 590 using an assumed soil test phosphorus level of 150 PPM and organic matter content of 6%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For livestock siting permit approval, the applicant must collect and analyze soil samples meeting the requirements above in 1. b., excluding pastures, within 12 months of approval and revise the nutrient management plan accordingly. Until then, either option below maybe used: 1. Assume soil test phosphorus levels are greater than 100 ppm soil test P. Or 2. Use preliminary estimates analyzed by a certified DATCP laboratory with soil samples representing > 5 ac/sample.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Identify all field's name, boundary, acres, and location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Use the field's previous year's legume credit and/or applications, predominant soil series, and realistic yield goals to determine the crop's nutrient application rates consistent with UW Pub. A 2809 for ALL forms of N, P, and K.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Make no winter applications of N and P fertilizer, except on grass pastures and winter grains.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Document methods used to determine application rates. Nutrients shall not runoff during or immediately after application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Identify in the plan and narrative that adequate acreage is available for manure produced and/or applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Apply a single phosphorus (P) assessment using either the P Index or soil test P management strategy to all fields within a tract when fields receive manure or organic by-products during the crop rotation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Use complete crop rotations and the field's critical soil series to determine that sheet and rill erosion estimates will not exceed tolerable soil loss (T) rates on fields that receive nutrients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Use contours; reduced tillage; adjust the crop rotation; or implement other practices to prevent ephemeral erosion; and maintain perennial vegetative cover to prevent reoccurring gullies in areas of concentrated flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Make no nutrient applications within 8' of irrigation wells or where vegetation is not removed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Make no nutrient applications within 50' of all direct conduits to groundwater, unless directly deposited by gleaning/pasturing animals or applied as starter fertilizer to corn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	NA
n. Make no untreated manure applications to areas within 1000' of a community potable water well or within 100' of a non-community potable water well (ex. church, school, restaurant) unless manure is treated to substantially eliminate pathogens.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Make no manure applications to 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Make no applications of late summer or fall commercial N fertilizer to the following areas UNLESS needed for establishment of fall seeded crops or to meet UWEX Pub. A2809 with a blended commercial fertilizer. N applied in a blended commercial fertilizer shall not exceed 36 lbs. N/acre on: <ul style="list-style-type: none"> Sites vulnerable to N leaching PRW Soils (P=high permeability, R= bedrock < 20 inches, or W= wet < 12 inches to apparent water table); Soils with depths of 5 feet or less to bedrock; Area within 1,000 feet of a community potable water well. On P soils, when commercial N is applied for full season crops in spring and summer , follow A2809 and apply one of the following: <ol style="list-style-type: none"> A split or delayed 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. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Limit manure applications in late summer or fall using A2809 and the following 590 levels, whichever is less, on PRW Soils . Use ≤ 120 lbs. available N/acre on: P and R soils on all crops, except annual crops. Additionally, manure with ≤ 4% dry matter (DM) wait until after soil temp. < 50°F or Oct. 1. use either a nitrification inhibitor OR surface apply and do not incorporate for 3 days. W soils or combo. W soils on all crops. Additionally, manure with ≤ 4% DM on all crops use at least one of these practices: <ol style="list-style-type: none"> Use a nitrification inhibitor; Apply on an established cover crop, an overwintering annual, or perennial crop; Establish a cover crop within 14 days of application; Surface apply & don't incorporate for at least 3 days; Wait until after soil temp. < 50°F or Oct. 1. Use ≤ 90 lbs. available N/acre on: P and R soils on annual crops wait until after soil temp. < 50°F or Oct. 1. Additionally, manure with ≤ 4% DM use either a nitrification inhibitor OR surface apply and do not incorporate for 3 days. W soils or combination W soils manure with ≤ 4% DM on all crops .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r. Use one or more of the following practices on non-frozen soils for all nutrient applications including manure, or organic by-products with >11% dry matter within Surface Water Quality Management Area (SWQMA) 1000' of lakes/ponds or 300' of rivers: <ol style="list-style-type: none"> Maintain > 30% cover after nutrient application; Effective incorporation within 72 hrs. of application; Establish crops prior to, at, or promptly following application; Have at least 3 consecutive years no-till for applications to fields with < 30% residue (silage) and apply nutrients within 7 days of planting; Install/maintain vegetative buffers or filter strips. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Limit mechanical applications to 12,000 gals/acre of unincorporated liquid manure with 11% or less dry matter where subsurface drainage is present or within SWQMA 1000' of lakes/ponds or 300' of rivers. Wait a min. of 7 days between sequential applications AND use one or more of the practices on non-frozen soils listed in (1.r. practices 1. to 4).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. When frozen or snow-covered soils prevent effective incorporation, does the plan follow these requirements for winter applications of all mechanically applied manure or organic by-products? <i>This section does not apply to fields with winter gleaning/pasturing and meeting the N and P requirements of 590.</i>			
<i>If no manure is applied, check NA.</i>			
	Yes	No	NA
a. Identify manure quantities planned to be spread during the winter , or the amount of manure generated in 14 days, whichever is greater. <i>For daily haul systems, assume 1/3 of the manure produced annually will need to be winter applied.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Identify manure storage capacity for each type applied and stacking capacity for manure ≥ 16% DM if permanent storage does not exist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Show on map and make no applications within the SWQMA .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Show on map and make no surface applications of liquid manure during February and March where Silurian dolomite is within 60 inches of the soils surface <u>or</u> where DNR Well Compensation funds provided replacement water supplies for wells contaminated with livestock manure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Show on map and make no applications of manure within 300 feet of direct conduits to groundwater .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. 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/acre .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Make no applications of manure to fields where concentrated flow channels are present unless 2 of the following are used: <ol style="list-style-type: none"> 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; No manure application within 200 feet of all concentrated flow channels; Fall tillage is on the contour and slopes are lower than 6%. Make no applications to slopes greater than 6% (C,D,E,F) unless the plan documents that no other accessible fields are available for winter spreading AND two of the options (2.g.1. through 2.g.5.) above are implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I certify that the nutrient management plan represented by this checklist complies with Wisconsin's NRCS 2015-590 nutrient management standard.

Qualified NM planner signature Required for livestock siting permits: NAICC-Certified Professional Crop Consultant, ASA-Certified Crop Adviser, or SSSA-Soil Scientist	
Qualified NM farmer-planner or Authorized operator signature - receiving and understanding the plan	Signature and date if reviewed for quality assurance

Using the NM Checklist to Review a SnapPlus Nutrient Management (NM) Plan

The information found on the NM Checklist is used to show the plan meets the WI NRCS 2015-590 NM Technical Standard and it is recorded to track the progress of Wisconsin NM planning. NM planning is one of the best practices farmers can use to ensure profitability, reduce excess nutrient applications to cropland, and reduce water quality impacts. Any NM Checklist submitted to your local agency may be selected for a quality assurance review.

On the NM Checklist, circle the planner's qualification found in ATCP 50.48. Certified planners can be verified through the NAICC, CCA, and SSSA. Farmers can sign off on their own plan if they received training within the last four years. For a livestock siting permit, a qualified nutrient management planner other than the farmer must sign-off on the plan.

To review any item and determine compliance with the 590 Standard do the following:

1. Pair the NM Checklist item number with the corresponding sections below.
2. Run the SnapPlus reports abbreviated in each section and defined on the bottom of page 2.

Shaded sections 1c., 1.h., 1.i., 1.n., 1.o., 1.q., 1.s. and all of 2. are for farms with manure or organic by-product applications. Skip these shaded sections if no manure or organic by-products are applied.

Checklist 1. Does the plan include the following nutrient application requirements to protect surface and groundwater?

<p>1a. FM6 shows the soil testing laboratory used. These are the current DATCP certified soil testing labs: A & L Great Lakes Laboratories (Fort Wayne, IN), AgSource Soil & Forage Lab (Bonduel, WI), Dairyland Laboratories (Arcadia, WI), Rock River Laboratory (Watertown, WI), UW Soil & Forage Lab (Marshfield, WI) and Minnesota Valley Testing Laboratories-MVTL (New Ulm, MN).</p>	<p>1f. NM2 will flag if winter fertilizer applications do not meet 590 and UW Pub. A2809 limits. FM8 and NM5 shows application seasons by year. Open FM8 in Excel to sort by applications, season, crop, or rates.</p>
<p>1b. NM2 flags if soil samples are not current or exceeding sampling requirements. For fields or pastures with mechanical nutrient applications, soil samples should be collected within the last 4 years according to Std. 590 and UW Pub. A2809 typically collecting 1 sample per 5 acres. Non-responsive fields for P and K can have more than 5 acres per sample. See A2809 for specifics. Soil samples can be grouped for contour strips. Tested samples are then copied into the respective fields to meet the 5 acres per sample. Open FM6 in Excel and sort by P or K levels to correlate the soil test reports to the sampled field.</p> <p>Soil tests are not required on pastures that do not receive mechanical applications of nutrients if either applies:</p> <ol style="list-style-type: none"> 1. The pastures are stocked at an average stocking rate of one animal unit per acre or less at all times during the grazing season. 2. The pastures are stocked at an average stocking rate of more than one animal unit per acre during the grazing season, and a nutrient management plan for the pastures complies with 590 using an assumed soil test phosphorus level of 150 PPM and organic matter content of 6%. 	<p>1g. Nutrient application rates may be mentioned in the Farm screen's narrative that is printed in NM1. NM4 shows the Nutrient screen's manure production, storage, spreaders, loads hauled, calibration methods, and equipment. NM5 shows application method and rates for nutrients sorted by crop. Rates should be realistic.</p>
<p>1c. NM2 flags if soils tests are not meeting Std. 590 and UW Pub. A2809 requirements. For plans not meeting these requirements and seeking livestock siting permit approval, the applicant must collect and analyze soil samples meeting the requirements in UW Pub. A2809 within 12 months of permit approval and revise the nutrient management plan accordingly. Until then, either option below maybe used: 1. Assume soil test phosphorus levels are greater than 100 ppm soil test P, or 2. Use preliminary estimates analyzed by a certified DATCP laboratory with soil samples representing > 5 ac/sample.</p>	<p>1h. All manure needs to be allocated for each year of the rotation to show that the farm has adequate acres to comply with 590. NM2 will flag if applications do not meet 590 and UW Pub. A2809. NM4 shows if all the manure has been allocated every year and the percent of manure collected. If not 100% collected, the plan should explain where the rest is going. The actual manure production is determined as the plan is implemented. The manure estimator can be used for the first year of the plan, updating the plan actual rate estimates.</p>
<p>1d. NM 1, 3, and 5 will show field identification and acres. See SnapMaps for field's identification, restrictions, location, and boundary. Use NM1 for crops, tillage, and the farms acreage for each crop over the rotation. See NM3 for 590 restrictions, crops, and tillage over the rotation.</p>	<p>1i. NM2 and NM3 provide 590 compliance checks. When fields receive manure or organic by-products during the crop rotation, all sources of P need to be applied in each year of the rotation for an accurate P assessment. These reports show compliance for both P management strategies. Only 1 strategy is required for each farm. PI Strategy: The average PI values for up to an 8-year rotation in each field shall be 6 or lower and may not exceed a PI of 12 in any individual year. Soil test P: SnapPlus calculates P target levels for the rotation length set by the planner for each field using these 590 requirements: If soil test P is 50-100 ppm, then P applications must equal crop removal rates for the rotation. If soil test P is >100 ppm, and applications are necessary, applications shall be 25% less than the annual crop removal over a rotation length of 8 years or less.</p>
<p>1e. NM2 will flag if applications do not meet 590 and UW Pub. A2809. NM5 shows predominant soil, yields, planned applications, and nutrient credits for a selected year. Open FM8 in Excel to sort by applications, season, crop, or rates.</p>	<p>1j. NM2 and NM3 show compliance for both P management strategies and tolerable soil loss (T) over the crop rotation. Compare these to the SnapMaps soil selection. Fields exceeding "T" should not receive nutrient applications. Verify on the SnapMaps Fields tabs that critical soils information has been imported back to the SnapPlus Fields tab. If data is bold, then it has not been imported and should be explained.</p>

Checklist 1. continued

Does the plan include the following nutrient application requirements to protect surface and groundwater?

Page 2

Many of the application restrictions mentioned on this page show up on report NM3. SnapMaps can automatically mark the spreading restrictions in 1p.,1q.,1r., and 1s. in the *Restriction Features* box on the Fields tab when the maps are downloaded into your SnapPlus database. See SnapPlus Help menu for instructions.

1k.	NM1 shows the narrative. It should include comments if grassed waterways are needed. Use contours; reduced tillage; adjust the crop rotation; or implement other practices to prevent ephemeral erosion; and maintain perennial vegetative cover to prevent reoccurring gullies in areas of concentrated flow. Grassed waterways should only receive nutrient applications during their establishment.	1o.	Manure or organic by-product applications to locally delineated areas must be substantially buried within 24 hours. These areas are identified by the conservation office as contributing runoff to direct conduits to groundwater and the narrative should mention this requirement.
1l.	NM2 will flag if applications are applied where the crop is not harvested. Nutrient can't be applied within 8' around irrigation wells or where vegetation is not being removed .	1p.	NM2 will flag if applications of a blended fall commercial N fertilizer exceeds 36 lbs. of N per acre on: N restricted soils (P, W, R Soils), soils with depths of 5 feet or less to bedrock, and areas within 1,000 feet of community wells. NM3. will show the fields that contain N restricted soils. If the plan uses SnapMaps, verify that the necessary features have been imported back to the SnapPlus Fields tab. If data is bold, then it has not been imported yet.
1m.	Make no nutrient applications within 50' of all direct conduits to groundwater , unless directly deposited by gleaning/pasturing animals or applied as starter fertilizer to corn.	1q.	NM2 will flag if manure applications in late summer or fall exceed A2809 and 590 levels on P,R,W Soils .
1n.	NM2 will flag if untreated manure sources are applied near community wells . Only the community wells are in SnapMaps, Non-community wells need to be identified by the planner. Planners will need to add treated manure sources that have substantially eliminated pathogens in the nutrient screen.	1r.	NM2 will flag if non-frozen soils have applications in the Surface Water Quality Management Area (SWQMA) require conservation practices.
		1s.	NM2 will flag if mechanical applications of unincorporated liquid manure exceeds 12,000 gallons/ac where subsurface drainage is present and/or in the SWQMA .

Checklist 2. When frozen or snow-covered soils prevent effective incorporation, does the plan have winter spreading applications for all mechanically applied manure or organic by-products?

Nutrient over-applications will show up on report NM2. This section does not apply to manure deposited through winter gleaning/pasturing of plant residue and not exceeding the N and P requirements of this standard.

2a.	NM6 shows manure quantities planned to be spread in the winter . Applications should match the quantities that need to be applied.	2e.	NM2 flags if areas within 300 feet of direct conduits to groundwater receive winter manure applications. If applications can't drain to well it should be noted in the plan.
2b.	NM4 shows storage capacity . It should correspond to the NM6 requirements.	2f.	NM2 flags if winter manure applications 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/acre .
2c.	NM 2 flags if mechanical applications of manure are applied in the winter in the SWQMA .	2g.	NM2 flags if winter manure applications do not use 2 practices listed in NM Checklist when a field's slope is > 6% or has concentrated flow areas.
2d.	NM2 flags if mechanical applications of liquid manure occur during February and March where Silurian dolomite is within 60 inches of the soils surface or where DNR Well Compensation funds provided replacement water supplies		

SnapPlus report abbreviations referenced above:

Necessary 590 Reports:

NM1: Narrative & Crops Report
NM2: Compliance Check
NM3: Field Data & 590 Assessment
NM4: Manure Tracking
NM5: Spreading & NM Sorted by Crop
NM6: Winter Spreading Plan

Optional 590 Reports:

NM6: DNR CAFO Annual Spreading
NM7: Animal Units
NM8: DNR Daily Log
NM9: DNR CAFO Nutrient Balance
NM10: CAFO Emergency Spreading
FM1: Annual Manure Production
FM2: Applications Summary
FM3: Producers Plan
FM4: Crop Production Trends
FM5: Lime Report
FM6: Soil Test Summary

FM7: Soil Test - Sample Log
FM8: \$Spreading Plan
FM9: Nutrient Management Plan
FM10: Annual PI
SL1: Soil Conservation
SL2: Annual Soil Loss
SL3: Transect Survey
WQ1: P Trade
DD1: Annual Cropping Data
DD2: Applications Data
DD3: Precision Recommendations