



Farmland Preservation Conservation Standards



FARMLAND PRESERVATION PROGRAM

DODGE COUNTY, WI

Current Dodge County Participation:

Total Value of Tax Credits: \$725,478

Total Acreage Enrolled: 98159 acres

603 claims

Data from WI Department of Revenue, 2014

Landowner Participant Benefits:

-\$5.00/acre

-\$7.50/acre ← **Zoning**

-\$10.00/acre

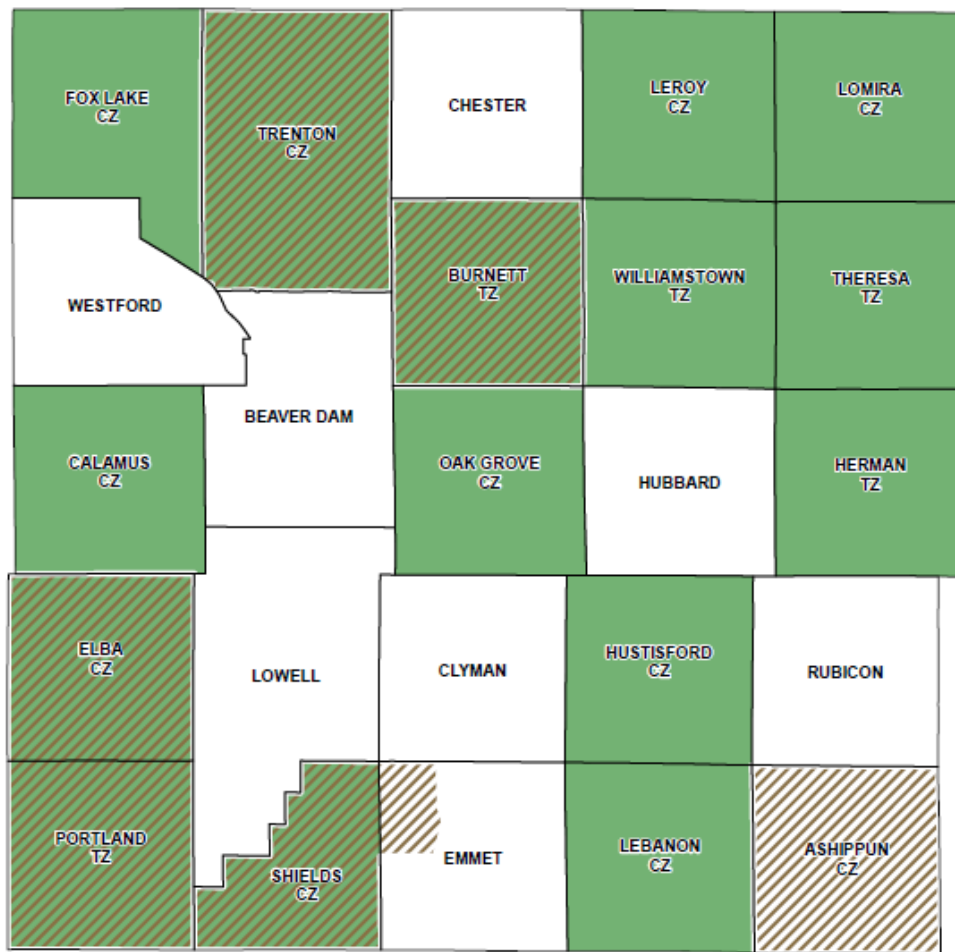
(Payment of deeded acre-not cropland acre)

Dodge County Benefits:

-Strong Ag sector economy

-Jobs

-Conservation practices get installed



Farmland Preservation Zoning
- \$7.50/acre tax credit

Farmland Preservation Zoning and Agricultural Enterprise Area
- \$10.00/acre

Agricultural Enterprise Area
- \$5.00/acre tax credit

CZ -- County Zoning | TZ -- Town Zoning

TOWN ZONING CLERKS

Burnett.....	Chris Merkes.....	(920) 210-7892
Herman.....	Diane Beine.....	(920) 387-9322
Portland.....	Nancy Thompson.....	(920) 478-3724
Theresa.....	Diane Steger.....	(920) 488-2033
Williamstown.....	Mary Dessereau.....	(920) 387-4251

Map Produced By: Jesse O'Neil, Dodge County Land Resources & Parks, November 2016





Farmland Preservation Program: Soil & Water Conservation Standards

Land Conservation uses this checklist to check for compliance with statewide soil & water conservation standards.

14 Conservation Standards Currently.

\$\$ Cost Sharing may be available to help landowners comply with the standards. Contact Land Conservation @ (920) 386-3660.

FARMLAND PRESERVATION PROGRAM CONSERVATION STANDARDS CHECKLIST AND COMPLIANCE SCHEDULE

Owner Name: _____ Operator Name: _____

Participating Land Location:

Township: _____ Section #: _____ Total Acres: _____

Township: _____ Section #: _____ Total Acres: _____

Township: _____ Section #: _____ Total Acres: _____

Township: _____ Section #: _____ Total Acres: _____

Date of Review: _____ Reviewer Name: _____

Wisconsin Act 28 (2009-2011 State Budget Bill) made changes to the Wisconsin Farmland Preservation Program that require all program participants to comply with statewide soil and water conservation standards. A summary of these state soil and water conservation standards is provided on the back. The checklist below identifies the status of your compliance with statewide soil and water conservation standards of the Farmland Preservation Program. Items that are checked "Yes" indicate that you are currently in compliance with that particular conservation standard, and that you need to maintain compliance with that standard in the future. Items that are checked "No" indicate that you are currently not in compliance with that particular conservation standard, and that you need to bring your farm into compliance with that conservation standard by the date indicated under the column titled "Compliance Date". Items that are checked "NA" currently do not apply to your farm operation, but may be applicable if your operation changes in the future.

<u>Soil & Water Conservation Standard</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>Compliance Date</u>
1. Cropland Erosion at Tolerable Rate (Using RUSLE2)				
2. Cropland Gully Erosion is Under Control				
3. Livestock Access to Water Bodies Under Control				
4. New/Altered Manure Storage Built to Standards				
5. Existing Manure Storage Facilities Not Leaking				
6. Existing Manure Storage Facilities Not Overflowing				
7. There Are No Manure Piles In WQMA's*				
8. Landowner Has a Nutrient Management Plan				
9. There is No Manure Storage Needing To Be Closed				
10. There is No Direct Feedlot Runoff to Surface Waters				
11. Feedlot Clean Water is Diverted from WQMA's*				
12. A 5-Foot Tillage Setback Exists By All Surface Waters				
13. All Cropland and Pastures Have "PI" of 6 or Less				
14. There is No Significant Discharge of Process Wastewater				

* WQMA stands for Water Quality Management Area and means "the area within 1,000 feet from the ordinary high water mark of navigable waters that consist of a lake, pond or flowage ... and the area within 300 feet of the ordinary high water mark of navigable waters that consist of a river or stream ...; and a site that is susceptible to groundwater contamination, or that can be a conduit for contamination to reach groundwater".



Farmland Preservation Program: Soil & Water Conservation Standards

Land owners (or their operators) must comply with the following conservation standards:

- 1. Conservation plan. Crop rotation and tillage show soil meets “T”.**
- 2. No Gully erosion. Grassed waterways in concentrated flow channels.**
- 3. Livestock access areas to waters of the state have adequate sod/vegetative cover.**
- 4. New/altered manure storage structures must be built to standard.**
- 5 & 6. Existing manure storage facilities must not leak or overflow.**
- 7. No unconfined manure piles in Water Quality Management Areas.**
- 8. Nutrient management plan.**
- 9. Unused manure storage facilities must be properly closed.**
- 10. No direct runoff from a feedlot to surface waters.**
- 11. Clean water must be diverted from feedlots, manure storage & barnyards in water quality management areas.**
- 12. 5 foot tillage setback from surface waters.**
- 13. All cropland and pastures have phosphorus index of 6 or less.**
- 14. No significant discharge of “Process Wastewater”.**



Farmland Preservation Program: Soil & Water Conservation Standards

1. Conservation plan. Crop rotation and tillage methods show soil erosion meets tolerable level.

- Crop Rotation
- Contour farming
- Contour Strip-cropping
- Residue Management
- Mulch tillage, Strip-Till & No-Till planting
- Cover crops





Farmland Preservation Program: Soil & Water Conservation Standards

2. No Gully erosion. Grassed waterways in concentrated flow channels.





Farmland Preservation Program: Soil & Water Conservation Standards

3. Livestock access areas to waters of the state have adequate sod/vegetative cover.

Stream banks protected with adequate vegetative cover to prevent erosion or fence cattle out.





Farmland Preservation Program: Soil & Water Conservation Standards

4. New/altered manure storage structures must be built to standard.





Farmland Preservation Program: Soil & Water Conservation Standards

5. Existing manure storage facilities must not leak.





Farmland Preservation Program: Soil & Water Conservation Standards

6. Existing manure storage facilities must not overflow.





Farmland Preservation Program: Soil & Water Conservation Standards

7. No unconfined manure piles in Water Quality Management Areas. (300 feet from a stream or river, 1000 feet from a lake, pond or flowage, or areas susceptible to groundwater contamination.)





Farmland Preservation Program: Soil & Water Conservation Standards

8. Nutrient management plan. Includes livestock farms and crop farms.

- Maps
- Soil samples
- Nutrient crediting for manure and legumes
- UW recommendations to determine optimal fertilizer rates
- Phosphorus strategy
- Grassed waterways to protect concentrated flow areas from gullies.

Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin

Carrie A.M. Laboski and John B. Peters



SOYBEAN MANURE information

ESTIMATED AVAILABLE NUTRIENT CONTENT*
1st Year (2nd Year)

Manure units:	time to incorporation			P ₂ O ₅	K ₂ O
	> 3 days	1 hr-3 days	< 1 hr		
Solid, >20% DM	2(1)	3(1)	3(1)	3	6
Solid, 13-20% DM	2(1)	2(1)	2(1)	3	5
Liquid, 4-11% DM	7(2)	10(2)	12(2)	6	17
Liquid, <4% DM	4(1)	6(1)	7(1)	3	11
Dairy					
Solid	3(1)	4(1)	5(1)	6	10
Liquid	5(2)	6(2)	8(2)	6	12
Beef					
Solid	7(2)	9(2)	12(2)	10	6
Liquid, fresh, indoor pit	17(4)	22(4)	28(4)	14	22
Liquid, fresh, outdoor pit	7(2)	9(2)	12(2)	6	8
Liquid, farrow-nursery, indoor pit	8(2)	10(2)	14(2)	6	10
Chicken					
Solid, chicken	24(5)	27(5)	29(5)	35	26
Solid, turkey	26(5)	28(5)	31(5)	35	25
Liquid	6(1)	7(1)	7(1)	6	7
Horse					
Solid	2(1)	3(1)	4(1)	5	6

* Because manure nutrient content can vary greatly, manure analysis is encouraged.

ALFALFA

Yield/pul (Dwt/acre)	Very Low	Low
1.5-2.5	65	55
2.6-3.5	88	70
3.6-4.5	96	80
4.6-5.5	105	95
5.6-6.5	120	110
6.6-7.5	138	120
7.6-8.5	145	135
8.6-9.5	155	145
10.0-11.0	160	145
11.1-12.0	235	220
12.1-13.0	295	280
13.1-14.0	355	340
14.1-15.0	415	400
15.1-16.0	475	460
16.1-17.0	535	520
17.1-18.0	595	580

HOW TO DETERMINE MANURE APPLICATION RATE

- Figure load size: Weigh spreader in tons for solid or semi-solid manure. Use 10% tare capacity in gallons for liquid manure.
- Determine field acreage: $\text{field length (ft)} \times \text{field width (ft)} = \text{acres}$
 $< 42,540 \div 100 = \text{acres}$
- Calculate manure application rate: $\{(\# \text{ of loads}) \times \text{load size}\} = \text{tons or gallons} / \text{acre}$
 field acreage

Legume Range:
Where an alfalfa stand is to be maintained for more than three years increase the annual top-dress P₂O₅ by 20%.

Apply 80 lb N/acre in the seedling year of grass or soils with less than 2% organic matter.

This publication is available from the Nutrient and Pest Management (NPM) Program. For more copies, please contact us at: email: npm@dnr.wisconsin.gov phone: (608) 265-2640 website: www.dnr.wisconsin.gov

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NPM Program Contacts:
Nutrient Region: Ann Kella (715) 424-3111
East Central Region: Kory Dilling (608) 262-3184
North Central Region: Kim Meyer (608) 297-2010
South Central Region: Kim Meyer (608) 297-2010
West Central Region: Kim Meyer (608) 297-2010
Southwest Region: Kim Meyer (608) 297-2010

SNAP-Plus

Wisconsin's Nutrient Management Planning Software



More on Nutrient Management

■ Crop Fertility Plan

- Crop nutrient needs
- Soil test levels
- Legume and/or manure credits
- Commercial fertilizers to balance crop nutrient needs

■ Manure Management Plan – Your Risk Management Plan

- Total manure produced
- Rate of application
- Timing and placement
- Manure spreading maps
- Keep manure from contaminating surface & groundwater



More on Nutrient Management: Manure Spreading

KEY TO MANURE SPREADING RESTRICTION MAPS

NON-FROZEN/WARM WEATHER RESTRICTIONS

Manure applications in the following areas are restricted as described below:

1. Soil Types w/ Potential to Leach to Groundwater = No manure shall be applied prior to September 15th on idle cropland having soils with less than 20 inches to bedrock, or soils with less than 12 inches to apparent water table, or within 1,000 feet of a municipal well when soil temperatures are above 50 F and crops will not be planted until the following spring (except for liquid manure when a nitrification inhibitor is used and manure is applied at a rate of less than 120 pounds available N per acre)
2. SWQMA's = Surface Water Quality Management Areas - Defined as areas within 300 feet of a river, stream or ditch; and/or areas within 1,000 feet of a lake, pond or flowage - manure can only be applied if one or more of the following are implemented:
 - a. Manure is injected or incorporated within 72 hours
 - b. More than 30% crop residue cover remains on the soil surface after application
 - c. Cover crops are established promptly after application
 - d. A permanent vegetative buffer is established next to the nearby surface water
3. Environmentally Sensitive Areas = Areas within 200 feet of wells, sinkholes, closed depressions, tile inlets, surface fractured bedrock, sand/gravel pits and rock quarries - no manure can be applied unless it is injected or incorporated within 72 hours



KEY TO MANURE SPREADING RESTRICTION MAPS

FROZEN/SNOW COVERED RESTRICTIONS

Do not apply manure in the following areas when soil is frozen and/or snow covered:

1. Slopes Greater than 9% = Crop fields with slopes greater than 9% (except for slopes up to 12% where cropland is either contour strip cropped or contour farmed)
2. SWQMA's = Surface Water Quality Management Areas - Defined as areas within 300 feet of a river, stream or ditch; and/or areas within 1,000 feet of a lake, pond, or flowage
3. Environmentally Sensitive Areas = Areas within 200 feet of wells, sinkholes, closed depressions, tile inlets, surface fractured bedrock, sand/gravel pits and rock quarries (Note: It is also strongly recommended that manure not be winter spread on cropland located within 50 feet of and draining toward road ditches and property/fence lines)





Farmland Preservation Program: Soil & Water Conservation Standards

9. Unused manure storage facilities must be properly closed.





Farmland Preservation Program: Soil & Water Conservation Standards

10. No direct runoff from a feedlot to surface waters.





Farmland Preservation Program: Soil & Water Conservation Standards

11. Clean water must be diverted from feedlots, manure storage & barnyards in water quality management areas. (300 feet from a stream or river, 1000 feet from a lake, pond or flowage, or areas susceptible to groundwater contamination.)



Farmland Preservation Program: Soil & Water Conservation Standards

12.5 foot tillage setback from surface waters.



Farmland Preservation Program: Soil & Water Conservation Standards

13. All cropland and pastures have phosphorus index of 6 or less. (6 lb/acre of Phos. runoff?).

Field: 02 Farm name: Robert's.farmTables.1-18-2017.snapDb
 Location: H:\current2016-17 Nutrient programs\Jan. 18, 2017 NM workshop

Trients | Cropping | Daily Log | Reports

OM	P	K	County	Acres	Pred. Soil	Symbol	Group	Texture	Field Rest.
3.1	44	98	Dodge	15.0	Lomira	LvC2	L	Silt Loam	

Calculate all years | Add/Delete Years

Year	Crop	Planting Date	Irrigated	0.1/MRTN	N	P205	K2O
2012	Corn grain	2012-12-05	<input type="checkbox"/>	0.1/MRTN	0	0	0
2013	Corn grain	2012-12-05	<input type="checkbox"/>	0.1/MRTN	165	0	90
2014	Soybeans 15-20 inch row	2012-12-05	<input type="checkbox"/>	0.1/MRTN	0	0	130
2015	Corn grain	2012-12-05	<input type="checkbox"/>	0.1/MRTN	120	0	90
2016	Corn grain	2012-12-05	<input type="checkbox"/>	0.1/MRTN	165	0	90

Dominant critical soil details:
 Name: Lomira
 Symbol: LvC2 Slope: 7.0
 Texture: Silt Loam

Rotation Settings
 Start: 2010 Years: 7
 Contouring: None
 On contour
 Strip crop
 Filter Area: None
 Designed, field edge
 Designed, in field

Summary 2010 to 2016
 Avg soil loss: 3.0 t/ac/yr
 Field "T": 5 t/ac/yr
 Avg P Index: 3 SCI: 0.5
 P205 K2O
 Removal: 420 685 lb/ac
 Balance: -307 -341 lb/ac

Soil test P is 50 or less so no P205 balance target is needed.

SNAP-Plus

Wisconsin's Nutrient Management Planning Software

Farmland Preservation Program: Soil & Water Conservation Standards

14. No significant discharge of “Process Wastewater”. (Silage leachate & milkhouse waste).



Rainfall Simulator



Cover Crops, Residue

**Less Residue, no
residue**



**Runoff Unacceptable
Little Infiltration**