



WI Nutrient Management and septage applications

LAND APPLICATION CODES

- **NR 113: Septage**
- NR 204: DOMESTIC SEWAGE SLUDGE MANAGEMENT
- NR 214: INDUSTRIAL LIQUID WASTES, BY-PRODUCT SOLIDS AND SLUDGES
- NR 518: Land Application of By-Product Solid Wastes
- NR 243: CAFOs
- **NR 151: Run Off Management**
- **ATCP 50: Soil and Water Resource Management Program**
requires nutrient management plans on farms

SEPTAGE NR 113.07(3)(e): Vector Attraction Reduction Crop to be Harvested, Animal Feed Crops 30 days • Nitrogen Availability

1. – Injection • 1 hour • No ponding
2. – Incorporation • 6 hours
3. – pH Control (lime) • pH 12 for 30 minutes

NR 113.07(3)(b) 8. Septage that is land applied based on the agronomic crop requirements may not be applied more than 10 months prior to the planting of the crop.

What Farms Need To Do

WI Agricultural Water Quality Performance Standards

NR 151 Performance Standards

- WI has minimum farm conservation standards.
- These are mandatory standards contingent on cost-sharing.
- The standards have been in effect for about 15 years, and apply to all farms. Counties are primarily responsible for implementing the standards.

ATCP 50 Describes how to do NM when offered cost share \$40/ac or without cost share if:

1. Participating in the **Farmland Preservation**
2. Regulated by **DNR WPDES** permit or **local ordinance** manure storage or livestock siting
3. Accepting manure storage cost share
4. Causing a significant **discharge**

Compliance with the current standards will help to reduce farm runoff and improve water quality.

What Farms Need To Do

WI Agricultural Water Quality Performance Standards

NR 151 Performance Standards

- Meet T for fields and pastures
- Follow 2015-590 update NM plan annually passed Jan. 2018
- Follow a 5' to 20' tillage setback from water
- Prevent direct runoff: feedlot feed, waste water, or manure storage to waters
- Limit livestock access waters to maintain banks

- Follow manure storage technical standards to prevent overflow and leaks
- Near surface water or areas susceptible to groundwater contamination
 - Do not stack manure in an unconfined pile
 - Divert clean water away from barnyards, feedlots, and manure storage
 - Targeted Perf. Std. for 16 eastern counties passed June 16, 2018

Exceeding state standards ATCP 50.04 is only allowed if approved by either DATCP or DNR. A local governmental unit is responsible for analyzing the legal adequacy of its regulations.

What's in a 590 Nutrient Management Plan?

- Follows USDA NRCS WI **590** Standard and UWEX Pub. **A2809** *Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin* **to protect farm profitability, water, and soil** with nutrient application requirements
- Conservation practices to control sheet and rill erosion to tolerable rates and prevent gullies.
- Accounts for **ALL** N-P-K nutrient applications for the crop rotation **showing adequate acreage for manure.**
- Soil test sample every 5 acres every 4 years using a DATCP certified lab.

Soil test – nutrient credits = fertilizer to apply

DATCP Certified Soil Testing Laboratories

1. A&L Great Lakes, Fort Wayne IN
2. AgSource, Bonduel WI
3. Dairyland, Arcadia WI
4. MVTL, New Ulm MN
5. Midwest Laboratories, Omaha, NE
6. Rock River, Watertown WI
7. UW-Madison Soil & Forage Analysis, Marshfield WI

All these labs are Manure Analysis Proficiency program participants

Core Nutrient Management Principles

- Nutrient applications **must not run off** the intended application site
- Control **sheet and rill soil erosion** to tolerable soil loss rates or “T” over the crop rotation
- Protect reoccurring **gully erosion** areas with perennial vegetative cover

1 TON/A = 0.046 LBS soil/SQ FT



Differences in Tilled and No Till Soils



Late summer or fall **manure or organic by-products** limit rates to 90 or 120 lbs N/ac on:

Fall N restricted soils

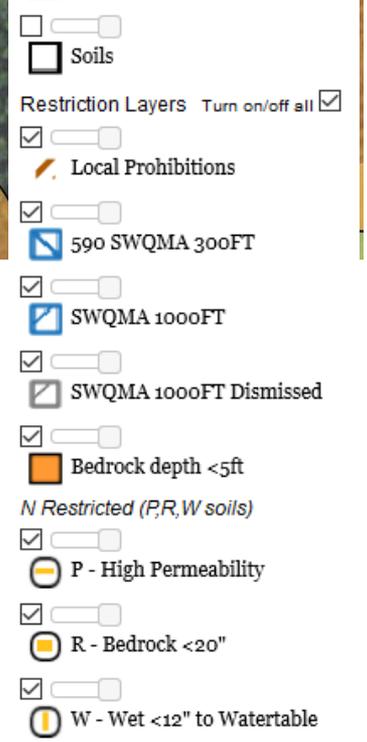
- **(P) high permeability soils**
- **(R) rock soils** with less than 20 inches to bedrock
- **(W) wet soils** with less than 12 inches to apparent water table

Depends on manure dry matter, crops, restriction



Late summer or fall **commercial N fertilizer rates** on fall seeded crops or commercial fertilizers **blends** needed based on Pub. A2809. Do not exceed **36** lbs. N/ac. on these features:

- **Soil depth 5 feet or less over bedrock**
- **Within 1,000 feet of a community well**



Septage Study

Prof. Rob Michitsch UW Stevens Point and
Dr. Laura Ward Good UW Madison

Biosolid analysis entry

? X

This calculator converts organic by-products lab analysis reports to the proper units for use in SnapPlus. The results shown in the grid below will be inserted as the available nutrient values for this nutrient source.

Source name: Organic by-Products liquid, year 2018

Source type: Organic by-products, liquid

% Solids

Total Kjeldahl Nitrogen (TKN) % dry matter

Ammonia Nitrogen (NH3) % dry matter

Organic Nitrogen % dry matter

Potassium (K), Total recoverable % dry matter

Total Phosphorus (P) % dry matter

Density lbs/gallon

| | % Total Solids | pH | EC (µS/cm) | Tap pH | Tap EC (µS/cm) | WEP (mg/L) | Ext K (mg/L) | Ext NH4+ (mg/L) | Ext NO3- (mg/L) | Carbon (%) | Nitrogen (%) |
|----------|----------------|------|------------|--------|----------------|------------|--------------|-----------------|-----------------|------------|--------------|
| Mean | 0.842 | 6.63 | 2880 | 7.45 | 1082 | 32.14 | 26.23 | 99.40 | 0.00 | 37.97 | 2.94 |
| St. Dev. | 0.938 | 0.43 | 2382 | 0.46 | 404 | 45.45 | 28.75 | 60.31 | 0.00 | 10.85 | 1.01 |
| Max | 4.960 | 7.47 | 11770 | 8.05 | 2140 | 239.00 | 136.74 | 310.00 | 0.00 | 54.73 | 5.12 |
| Min | 0.030 | 5.29 | 855 | 6.10 | 522 | 5.18 | 1.03 | 25.40 | 0.00 | 11.90 | 0.81 |

| | Al (mg/kg) | As (mg/kg) | B (mg/kg) | Ba (mg/kg) | Ca (mg/kg) | Cd (mg/kg) | Cr (mg/kg) | Cu (mg/kg) | Fe (mg/kg) | Hg (mg/kg) |
|----------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| Mean | 1758.0 | 9.3 | 44.1 | 58.7 | 30976.6 | 1.3 | 42.1 | 340.4 | 4255.4 | 54.2 |
| St. Dev. | 1078.7 | 4.7 | 77.4 | 83.2 | 14828.0 | 1.1 | 49.0 | 450.3 | 7935.9 | 49.1 |
| Max | 4619.5 | 28.7 | 448.7 | 465.7 | 57954.7 | 5.4 | 279.3 | 2614.9 | 49090.7 | 220.0 |
| Min | 186.4 | 0.0 | 8.5 | 11.2 | 9875.7 | 0.4 | 3.0 | 51.0 | 566.5 | 19.9 |

| | K (mg/kg) | Mg (mg/kg) | Mn (mg/kg) | Mo (mg/kg) | Na (mg/kg) | Ni (mg/kg) | P (mg/kg) | Pb (mg/kg) | Zn (mg/kg) |
|----------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|
| Mean | 6201.2 | 5894.7 | 116.0 | 4.9 | 29216.1 | 32.7 | 8668.6 | 9.9 | 830.2 |
| St. Dev. | 7609.9 | 4712.2 | 106.5 | 8.3 | 27089.8 | 45.3 | 6829.8 | 11.0 | 515.3 |
| Max | 46239.2 | 21627.8 | 515.0 | 42.0 | 101628.1 | 235.0 | 40834.9 | 48.5 | 2106.9 |
| Min | 1416.3 | 1309.6 | 25.3 | 0.0 | 1081.6 | 6.7 | 2276.3 | 0.0 | 124.9 |

Available nutrients (lbs/1000 gallons)

| | N Surface | N Incorporated | P2O5 | K2O |
|--------------------|-----------|----------------|------|-----|
| ▶ Application year | 0.7 | 1.1 | 1.1 | 0.4 |
| Second year | 0.1 | 0.1 | 0 | 0 |
| Third year | 0.1 | 0.1 | 0 | 0 |

What if the 3 apps were incorporated in hay rotation vs. corn?

| Manure / Biosolid Applications | | | | | | |
|--------------------------------|--------|---------------|------------|---------------|--------|-------|
| Source name | Season | Spread method | Area | Acres applied | Rate | Unit |
| Organic by-Products liquid | Fall | Inco... | Spreadable | 4.1 | 39,000 | Gall. |

Dominant critical soil details:
 Name: Mosinee
 Symbol: MsB Slope: 4.0
 Texture: Sandy Loam

Rotation Settings

Start Years

Contouring
 None
 On contour
 Strip crop

Filter Area
 None
 Designed, field edge
 Designed, in field

| 08 Rotation Wizard | | Calculate all years | | Add/Copy/Delete Years | |
|-----------------------------|--|--|------------------------------------|------------------------------------|------------------------------------|
| Crop Year (Fall to Fall): | 2017 | 2018 | 2019 | 2020 | 2021 |
| Crop: | Corn grain | Corn silage | Alfalfa/Brome Seeding S | Alfalfa/Brome | Alfalfa/Brome |
| Yield Goal: | 131-150 | 15.1-20 | 2.6-3.5 | 4.6-5.5 | 4.6-5.5 |
| Tillage: | Spring MB Plow | Spring MB Plow | Spring MB Plow | None | None |
| Soil Test Date: | 2016-05-30 | 2016-05-30 | 2016-05-30 | 2016-05-30 | 2016-05-30 |
| Lime Rec: | NOT MET | MET | MET | NA | |
| Irrigation / MRTN info: | <input type="checkbox"/> Irrigated 0.05/MRTN | <input type="checkbox"/> Irrigated 0.05/MRTN | <input type="checkbox"/> Irrigated | <input type="checkbox"/> Irrigated | <input type="checkbox"/> Irrigated |
| Season notes: | | | | | |
| (lbs/acre) | N P2O5 K2O | N P2O5 K2O | N P2O5 K2O | N P2O5 K2O | N P2O5 K2O |
| UW Recommendation: | 145 0 40 | 145 0 145 | 0 0 180 | 0 0 300 | 0 0 300 |
| Prior years' extra: | - 0 0 | - 43 0 | - 86 0 | - 129 0 | - 129 0 |
| 1st year UW recommendation: | 145 0 40 | 145 0 145 | 0 0 180 | 0 0 300 | 0 0 300 |
| 2nd year legume credit: | 0 - - | 0 - - | 0 - - | 0 - - | 0 - - |
| 3rd year manure credit: | 0 - - | 0 - - | 0 - - | 0 - - | 0 - - |
| This year's manure: | 43 43 16 | 43 43 16 | 43 43 16 | 27 43 16 | 27 43 16 |
| This year's fertilizer: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| 1st credits & applications: | 43 43 16 | 43 43 16 | 43 43 16 | 27 43 16 | 27 43 16 |
| (+)/Under(-) adj UW rec: | -102 43 -24 | -102 43 -129 | 43 43 -164 | 27 43 -284 | 27 43 -284 |
| Annual Total PI: | 2 | 4 | 4 | 1 | 0 |
| Particulate PI: | 1.6 | 3.2 | 3.2 | 0.5 | 0.2 |
| Soluble PI: | 0.5 | 0.5 | 0.5 | 0.2 | 0.2 |

Summary 2017 to 2021

| | | |
|---------------|-----|------------|
| Avg soil loss | 1.6 | t/ac/yr |
| Field "T" | 3 | t/ac/yr |
| Avg P Index | 2 | SCI 0.5 |
| P2O5 K2O | | |
| Removal | 290 | 965 lb/ac |
| Balance | -75 | -885 lb/ac |

Soil test P is 50 or less so no P2O5 balance target is needed.

Manure / Biosolid Applications



Winter Practices Grazing Est.

| Source name | Season | Spread method | Area | Acres applied | Rate | Units | NO ₃ Inh. |
|----------------------------|--------|---------------|--------------------------|---------------|--------|--------|--------------------------|
| Organic by-Products liquid | Fall | Incor... | Spreadab | 7.4 | 39,000 | Gal... | <input type="checkbox"/> |
| | | | Spreadable | | | | |
| | | | Winter manure prohibited | | | | |

09 Rotation Wizard Calculate all years Add/Copy/Delete Years

Crop Year (Fall to Fall):
 Crop:
 Yield Goal:
 Tillage:
 Soil Test Date:
 Lime Rec:
 Irrigation / MRTN info:
 Season notes:
 (lbs/acre)
 UW Recommendation:
 Prior years' extra:
 1st UW recommendation:
 2nd year legume credit:
 3rd year manure credit:
 This year's manure:
 This year's fertilizer:
 Soil credits & applications:
 (+)/Under(-) adj UW rec:
 Annual Total PI:
 Particulate PI:
 Soluble PI:

| | 2017 | | | 2018 | | | 2019 | | | 2020 | | |
|------------------------------|--|------|------|--|------|-----|--|------|------|--|------|-----|
| Crop: | Corn silage | | | Corn grain | | | Corn silage | | | Corn grain | | |
| Yield Goal: | 15.1-20 | | | 131-150 | | | 15.1-20 | | | 131-150 | | |
| Tillage: | Spring MB Plow | | | Spring MB Plow | | | Spring MB Plow | | | Spring MB Plow | | |
| Soil Test Date: | 2016-05-30 | | | 2016-05-30 | | | 2016-05-30 | | | 2016-05-30 | | |
| Lime Rec: | 0 | | | 0 | | | 0 | | | NA | | |
| Irrigation / MRTN info: | <input type="checkbox"/> Irrigated 0.05/MRTN | | | <input type="checkbox"/> Irrigated 0.05/MRTN | | | <input type="checkbox"/> Irrigated 0.05/MRTN | | | <input type="checkbox"/> Irrigated 0.05/MRTN | | |
| Season notes: | | | | | | | | | | | | |
| (lbs/acre) | N | P2O5 | K2O | N | P2O5 | K2O | N | P2O5 | K2O | N | P2O5 | K2O |
| UW Recommendation: | 145 | 0 | 185 | 145 | 0 | 70 | 145 | 0 | 185 | 145 | 0 | 70 |
| Prior years' extra: | - | 0 | 0 | - | 43 | 0 | - | 86 | 0 | - | 129 | 0 |
| 1st UW recommendation: | 145 | 0 | 185 | 145 | 0 | 70 | 145 | 0 | 185 | 145 | 0 | 70 |
| 2nd year legume credit: | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| 3rd year manure credit: | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| This year's manure: | 43 | 43 | 16 | 43 | 43 | 16 | 43 | 43 | 16 | 43 | 43 | 16 |
| This year's fertilizer: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soil credits & applications: | 43 | 43 | 16 | 43 | 43 | 16 | 43 | 43 | 16 | 43 | 43 | 16 |
| (+)/Under(-) adj UW rec: | -102 | 43 | -169 | -102 | 43 | -54 | -102 | 43 | -169 | -102 | 43 | -54 |
| Annual Total PI: | 4 | | | 5 | | | 4 | | | 5 | | |
| Particulate PI: | 3.9 | | | 4.4 | | | 3.9 | | | 4.4 | | |
| Soluble PI: | 0.6 | | | 0.6 | | | 0.6 | | | 0.6 | | |

Dominant critical soil details:
 Name: Mosinee
 Symbol: MsB Slope: 4.0
 Texture: Sandy Loam

Rotation Settings
 Start: 2017 Years: 4

Contouring: None
 On contour
 Strip crop

Filter Area: None
 Designed, field edge
 Designed, in field

Summary 2017 to 2020

Avg soil loss: **4.0** t/ac/yr
 Field "T": 3 t/ac/yr
 Avg P Index: 5 SCI: -0.1

| | P2O5 | K2O | lb/a |
|---------|------|------|------|
| Removal | 240 | 370 | lb/a |
| Balance | -68 | -306 | lb/a |

Soil test P is greater than 50 ppm; P2O5 balance should be less than zero lb/acre.

Spring MB plow: Spring moldboard plowing followed by disking (tandem light finishing) and field cultivation before planting



Are septage apps required to be part of a NMP? ATCP 50.04(3)(g)

- The plan shall be consistent with any nutrient management plan required under ch. NR 113, 204, or 214 if the landowner applies septage, municipal sludge, industrial waste, or industrial by-products to the land and in accordance with s. [ATCP 65.22 \(6\) \(c\)](#). [ATCP 65.22\(6\)\(c\) Wis. Admin. Code](#) states “There shall be no mixing or storage of human waste or septage with animal manure on a dairy farm.”
- A landowner is **not required** to have a nutrient management plan ...if the **landowner applies primarily septage**, municipal sludge, industrial waste, or industrial byproducts according to ch. NR 113, 204, or 214.

Are septage apps required to be part of a NMP?

YES. All applications of N, P, K must be included.

Does the 590 standard need to be followed for septage apps?

Probably. It is not likely that septage will be the main nutrient source if we use this analysis on corn.

| Soil ¹ | | Previous Crop | | N:Corn Price Ratio | | |
|--|---|---------------|---|---------------------------------------|---------------------|------|
| | | | | 0.05 | 0.10 | 0.15 |
| | | | | total lb N/acre to apply ² | | |
| LOAMY: HIGH YIELD POTENTIAL SOILS | Corn, forage legumes, legume vegetables, green manures ³ | | 190 ³ 170 ---- 210 ⁴ | 165 155 ---- 180 | 150 140 ---- 160 | |
| | Soybean, small grains ⁴ | | 140 125 ---- 160 | 120 105 ---- 130 | 105 95 ---- 115 | |
| LOAMY: MEDIUM YIELD POTENTIAL SOILS | Corn, forage legumes, legume vegetables, green manures ³ | | 145 130 ---- 160 | 125 115 ---- 140 | 115 105 ---- 125 | |
| | Soybean, small grains ⁴ | | 130 110 ---- 150 | 100 85 ---- 120 | 85 70 ---- 95 | |
| SANDS/LOAMY SANDS | Irrigated—all crops ⁵ | | 215 200 ---- 230 | 200 185 ---- 210 | 185 175 ---- 195 | |
| | Non-irrigated—all crops ⁵ | | 140 130 ---- 150 | 130 120 ---- 140 | 120 110 ---- 130 | |

The Nutrients Analysis Matters

2018 UW Stevens Point Analysis

0.7 srf, 1.1 inc N -1.1 P2O5 - 0.4 K2O lbs/1000 gal.

- **Low** use 3 applications @ 13,000/week=39,000 gal/a
27 lbs N srf – 42 lbs P2O5 – 15 lbs K2O/acre
- **High** use 5 applications @ 13,000/week=65,000 gal/a
45 lbs N srf – 72 lbs P2O5 – 25 lbs K2O/acre
- **Ag rate** 18 applications @ 13,000/week=234,000 gal/a
164 lbs N srf – **257** lbs P2O5 – 94 lbs K2O/acre 18 apps hard to do in wet years

Corn removes 70 lbs P2O5/a/y. Use septage once every 4 yrs.

590 Protecting surface and ground water

Winter, when temperature or snow prevents effective incorporation:

No commercial N or P fertilizer application except on pastures and winter grains.

- Farms mechanically applying manure or organic by-products must have a Winter Spreading Plan: amount available storage, winter applied, or generated in 14 days, whichever is greater.
- Do not exceed the P removal of the following growing season's crop. Limit liquid manure applications to 7,000 gal/acre. All winter manure applications 60 lbs. of P₂O₅/ac or less.
- Do not apply within **300 feet** of direct conduits to groundwater.
- Do not surface apply **liquid manure during February and March** on:
 - **DNR Well Compensation** areas funds provided to replace wells when contaminated with livestock manure or
 - **Silurian dolomite within 5 feet** of soils surface.
- Do not apply **where concentrated flow channels are present** (options 1.- 7.) or on **slopes > 6%** (options 1.- 5.) unless 2 practices are used:
 1. **Contour buffer strips or contour strip cropping**
 2. **Leave all crop residue and no fall tillage**
 3. **Apply manure in intermittent strips on no more than 50% of field**
 4. **Apply manure on no more than 25% of the field during each application waiting a minimum of 14 days between applications**
 5. **Reduce manure app. rate to 3,500 gal. or 30 lbs. P₂O₅, whichever is less**
 6. **No manure application within 200 feet of all concentrated flow channels**
 7. **Fall tillage is on the contour and slopes are lower than 6%**



590 criteria for surface water protection

Nutrients Applied In **Surface Water Quality Management Area (SWQMA)** **1000'** from ponds or lakes and **300'** from rivers or streams

In fall, spring, summer use 1 or more of the following:

- Effective incorporation within 72 hours of application
- Establish crops prior to, at, or promptly following application
- Install/maintain vegetative buffers or filter strips
- Maintain $\geq 30\%$ cover after nutrient application
- Apply nutrients within 7 days of planting on fields with $< 30\%$ cover and have 3 or more consecutive years of no-till *example corn silage*
- In the **SWQMA** or **where subsurface drainage is present** limit mechanical **applications of unincorporated liquid** manure with 11.0% or less dry matter to 12,000 gals/acre. Sequential applications may be made to meet the nutrient need waiting at least 7 days between applications. Visually monitor accessible tile outlets before, during, and after applications for discharge of liquid manure or organic by-product. If a discharge is observed, stop applications.

Winter - when temperature/snow prevents effective incorporation:

- Do not **mechanically** apply nutrients within the **SWQMA**; but gleaning or **pasturing** animals are allowed in **SWQMA** and on all slopes in winter while following 590.



Septage vs Manure/organic by-products

| NR 113 septage application restrictions | Setback | NM Plan application restrictions |
|---|---|--|
| No app bedrock, groundwater | 0-3' 0-2' 0-5' Silurian | NR 243 and NR 151.075 Silurian Winter, 590 no liquid Feb.-March |
| | Bed Rock 0-20" Wet 0-12" | 590 limit fall N to 90 or 120 lbs/a, remainder of N need can be applied in spring |
| No app High Permeability | >6"/hr top 36" more soils | 590 high Permeability soil limit fall N to 90 or 120 lbs/a >6"/hr top 20" & >0.6"/hr in all parts of the upper 40" |
| Field slope 10K/a winter | 0-2% no slope | 7K/a all slopes & 2 practices |
| Field slope 13K/a/wk no winter | 6 -12% no slope | |
| Setback from municipal well Public well Other well, sinkhole non winter Sinkholes winter | 1000' 1000' 250' 100' 250' 50' 750' 300' | untreated manure untreated manure conduits to groundwater conduits to groundwater winter |
| Perennial water setback 0-12% slope 0-2% winter | 100-200' 0' 750' 300-1000' | 590 liquid surf limit 12K/a/wk winter |
| Intermittent streams 0-12% | 25-100' 21-100' | NR 243 no manure near navigable water, conduit to, and wetlands |

Nutrient apps to sub fields



Nutrients | Cropping | Records | Reports

Home 2

| Nutrient type | Units | Area | Acres applied | Rate | Available annual volume | Planned applications | Remaining volume |
|-------------------|-------|--------|---------------|------|-------------------------|----------------------|------------------|
| Beef, grazing | Ton | Entire | 21.5 | 150 | 0 | 110 | -110 |
| Dairy, semi-solid | Ton | Entire | 21.5 | 150 | 1,711 | 1,809 | -98 |
| Total | | | | | 1,711 | 1,919 | -208 |
| Remaining | | | | | 0 | 0 | 0 |

Units in lbs/ton or lbs/1000 gallons

Soil: ZtA, ZITTAU Soil Test P: 12 K: 128 Crop Year: 2019

Acres: 21.5 Crop: Oat-Pea Forage w/ Alfalfa Seeding Spring Prev: Corn grain Field Over(+)/Under(-) Application (lbs/acre) N: 10 P2O5: -30 K2O: 143

Apply Nutrient System **Field Restrictions** Manure / Biosolid Applications Winter Strategies Grazing Est. Fertilizer Applications

| Source name | Season | Spread method | Area | Acres applied | Rate | Units | NO ₃ Inh. | Actual |
|---------------|--------|---------------|-------|---------------|------|--------|--------------------------|--------------------------|
| Dairy Semi... | Wi... | Uninc... | Sp... | 17.2 | 10 | ton... | <input type="checkbox"/> | <input type="checkbox"/> |

Winter Spreadable

| Source name | Season | Spread method | Area | Acres applied | Rate | Units | Time | Actual |
|---------------|--------|---------------|--------|---------------|------|---------|------|--------------------------|
| Potassium ... | Sp... | Unincor... | Entire | 21.5 | 150 | lbs/... | | <input type="checkbox"/> |

Entire field
Manure prohibited
Winter manure prohibited

Entire field
Manure prohibited
Winter manure prohibited