



Septage Compliance and Septage Storage



Kassie Schultz, SCR DNR Septage Coordinator

Spring Biosolids Symposium

March 17, 2026

Septage Storage

Discuss Statewide Audit

Identify common
compliance concerns

Examples

OBJECTIVE

Septage Storage

- DSPTS approved storage: 50,000 or less
- Small Storage: Less Than or Equal To 550,000 Gallons
- Large Storage-WPDES
- Mobile (Frac Tank)
- Manure Storage





Frac Tank

- Considered Septage vehicle/could function as one.
- Same requirements
 - Log requirements
 - Sticker
 - License number on side
 - Capacity
 - Condition-Wheels**
 - No environmental impacts
- Either inside or no winter storage-freezing



Scenario

- Does this frac tank meet the requirements of a septage vehicle?
- Tires are cracked/flat and septage business license is taped over



No.

- Tires need to be drivable.**
- License number needs to be easily readable.**

Small Holding tanks

Do you have a holding tank? Has it been approved?



Constructed prior to October 1, 2021

NR 113.12 (3)(a)- within 2 years

- Complete application review
- Approval letter(department)
- Update Spill plan- holding tank specific
- Management plan
- Construction inspection report
- Maintenance inspections- Monthly
- Professional inspections (1/10 years)

Constructed after October 1, 2021

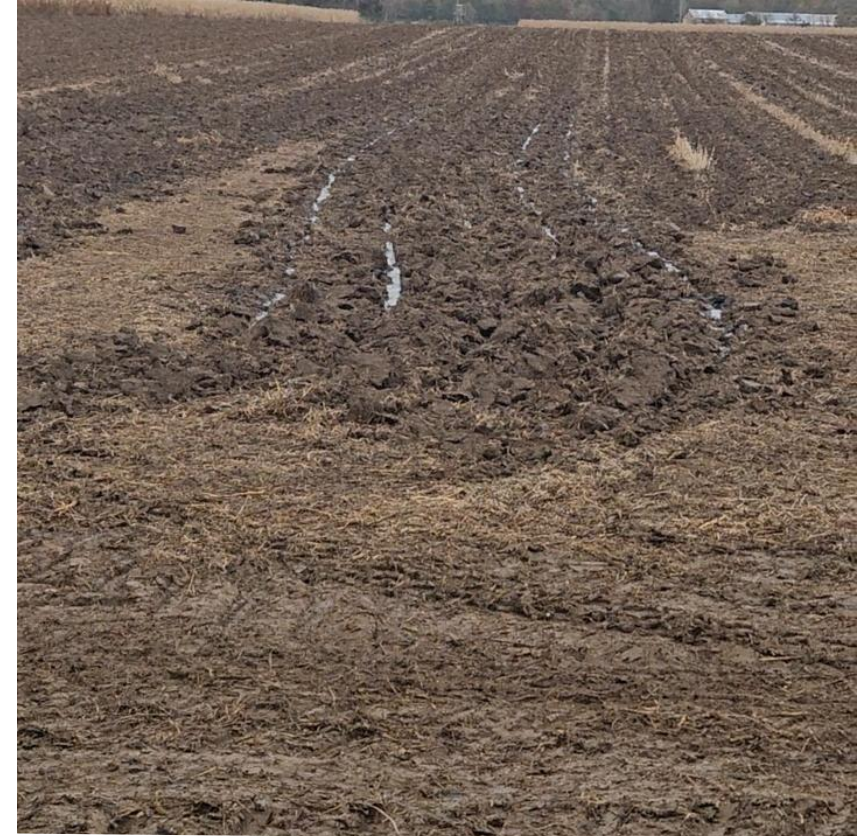
NR 113.12 (3)(c)

- Designed and constructed per NR 110, Wis. Adm. Code unless exempted;
- Separation distances met
- Plans and specifications submitted to department
- Within 60 days after construction completion and prior to use:
 - A spill plan
 - A management plan
 - If available, a copy of the construction inspection report

SEPTAGE AUDITS

- What is an audit:
 - Inspection of your business
 - Inspect vehicles
 - Review office paperwork
- 2024-2025: 52 businesses
- County wide





Common Compliance

- Litter
- Car Wash Servicing
- Pathogen Control and Vector Attraction Reduction (PC/VAR)
- Hydraulic rate
- Annual Reports



Litter Free

All landspreading fields shall be left in a litter free condition.

- NR 113.07 (3)(b)5.

Absence of nonbiodegradable material

- Substances that cannot be broken down/decomposed by natural processes
- Toilet paper- biodegradable

Screening processes, litter removal from sites, and litter disposal.

Car Wash Servicing

- Industrial liquid waste
 - Non-domestic waste
- Regulated under NR 214 Wis. Adm. Code
- Mixed with domestic
 - More complicated



Car Wash Servicing- Septage Business

- Disposal at WWTF
- Document disposal in logs
- If Grade L business (NR 113.06(2)(b) 2.a. and b.)
 - The tank is flushed or cleaned prior to and after servicing
 - An SOP is developed, maintained, and implemented for flushing or cleaning the tank.
- The cleaning activity is logged in a daily log that includes the date, time, and disposal details of the cleaning or flushing water.



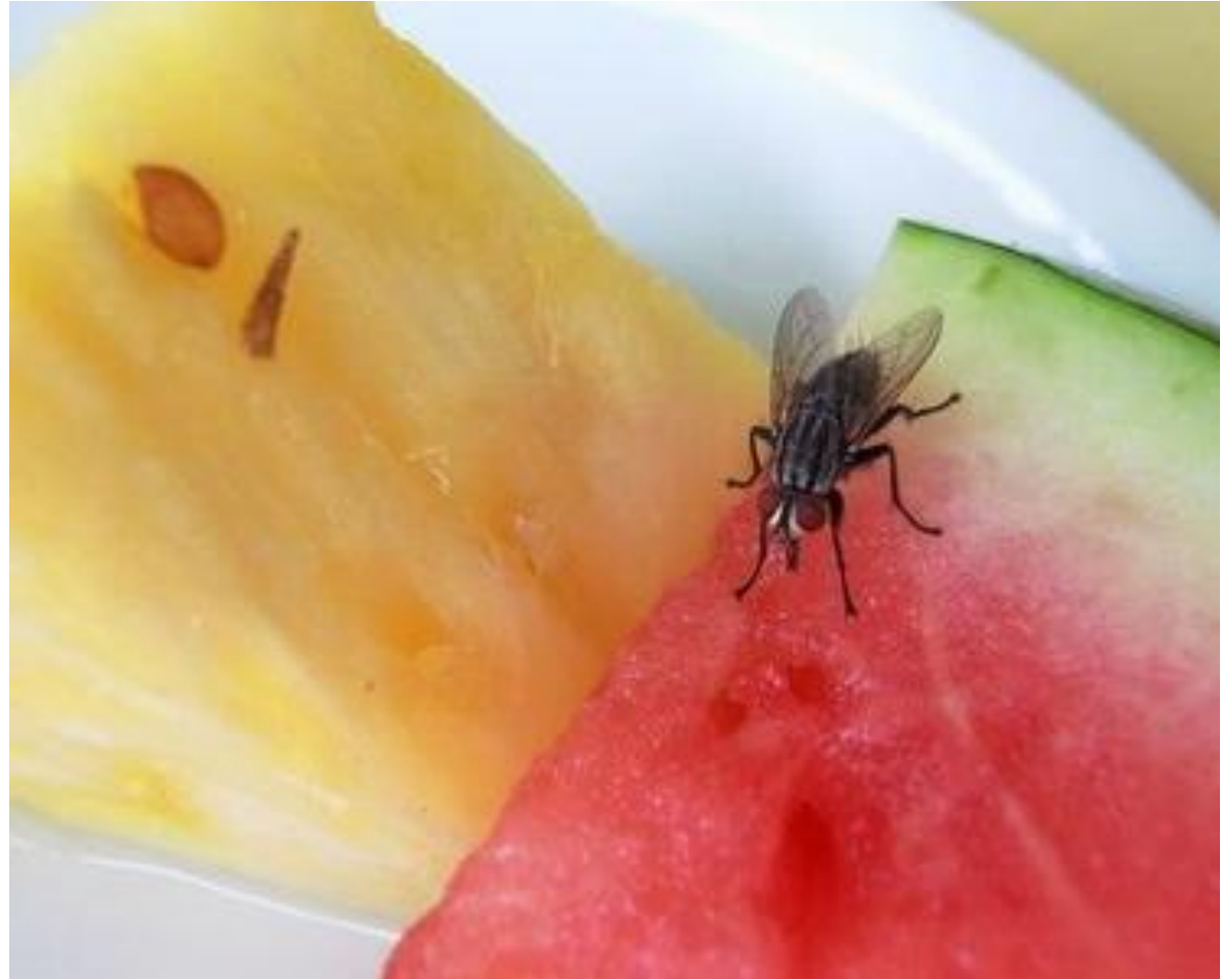
Scenario



- Smith's Septic Service has a Grade L septic business license. Today they service Sparkling Clean Carwash (non-domestic) and dispose of the waste at the local WWTF. After disposal, they immediately service several residences and land apply the waste on approved field DNR #1234. Note: Washout SOP not found in vehicle.
 - Is Smiths Septic Service in compliance?
 - Was the tank flushed/cleaned?
 - Wash out SOP

PC/VAR

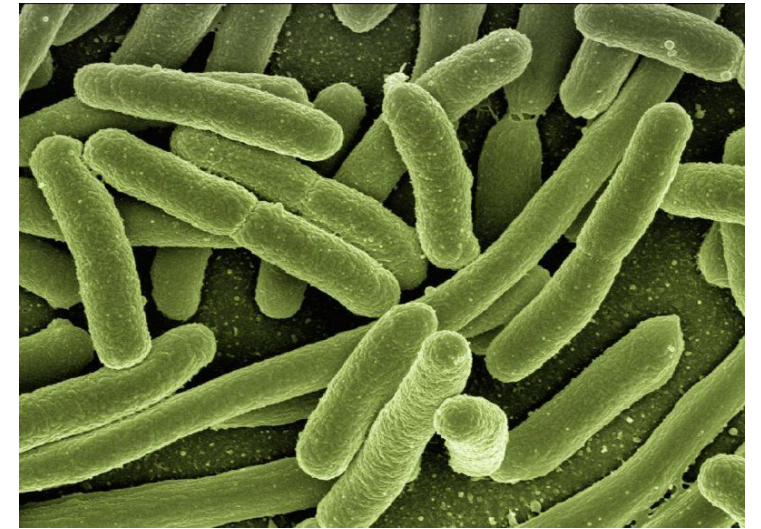
- Pathogen Control and Vector Attraction Reduction
- PC/VAR methods must be employed to protect public health and the environment.



Pathogens and Human Waste

Pathogens are disease-causing organisms

- Bacteria, protozoa, viruses, eggs of parasitic worms etc.
- Can infect humans and animals
- Examples:
 - Norovirus
 - Hepatitis A
 - E. Coli
- Pathogen Reduction:
Intended to treat and employ practices to protect public health



Vector Attraction and Human Waste

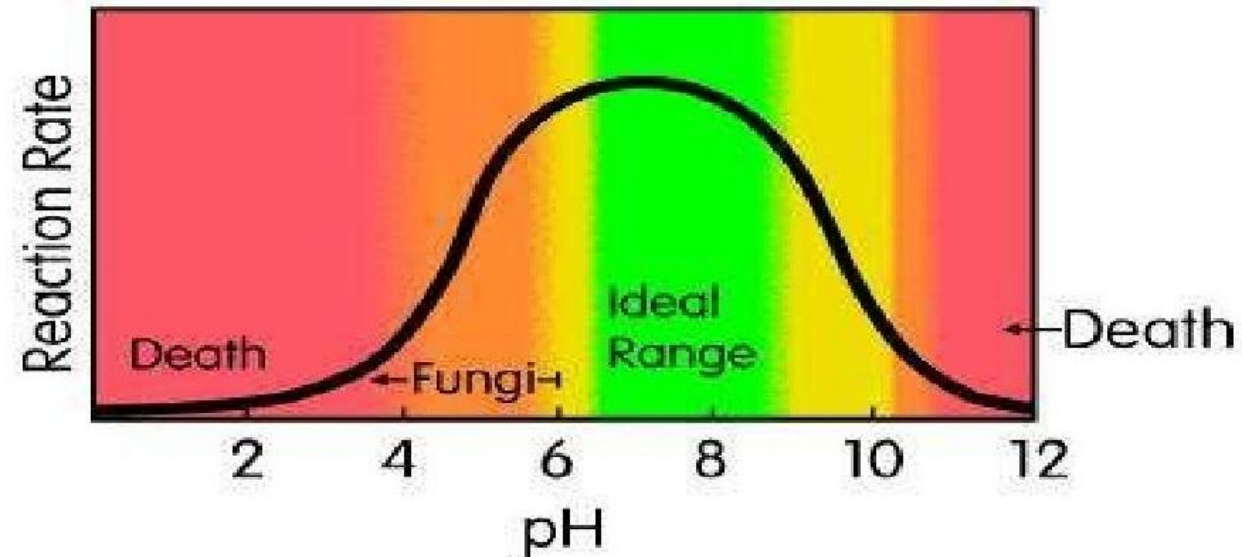


- Septage attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious disease
- Transmit pathogen to another living organism
- Flu Virus on a door handle

Vector Attraction Reduction

3 Methods, one of the following:

1. injected below the surface so no septage is on surface one hour later (barrier method, reduce exposure)
2. Incorporated-6 hours (barrier method)
3. pH is raised to 12.0 or higher by alkali addition (promotes death of microbes)



Incorporation

- Surface application followed by mixing into soil to depth of at least 4 inches
- No ponding of septage
- Within 6 hours



- Barrier methods
- Non-winter ground

Injection

- Injection to a depth of 4-12 inches



Alkaline Treatment pH Strips

- Maintain pH ≥ 12.0 s.u. for 30 min and log
 - If pH < 12.0 after 30 min. add more lime, 30 min. timer restarts, and retest
- Narrow range pH paper
- Measure to 3 significant digits
- 3 lots of narrow range pH paper



pH Meter

Notice: The Wisconsin Department of Natural Resources (department) has the authority to inspect service, disposal and other pertinent records associated with businesses or persons engaged in the business of servicing septic tanks, holding tanks, dosing chambers, grease interceptors, seepage beds, seepage trenches, seepage pits, distribution cells, privies or portable restrooms as applicable in s. NR 113.02, Wis. Adm. Code. While the use of this department-provided form is optional, businesses or persons are required to collect and maintain the necessary records pursuant to ch. NR 113, Wis. Adm. Code and 40 CFR 503, Code of Federal Regulations. This form is provided to assist businesses or persons in those record collections. The responsibility of using this form remains the responsibility of the businesses and/or persons engaged in the business of septage servicing. Records shall be certified pursuant to subd. par. NR 113.11(3)(c)3.g., Wis. Adm. Code or pursuant to 40 CFR 503, Code of Federal Regulations. Any person who violates ss. 281.17(3), 281.98, Wis. Stats, chs. NR 113 and/or NR 114, Wis. Adm. Code, is subject to forfeitures of not less than \$10 or more than \$5000 for each violation (s. 281.98, Wis. Stats.) and/or is subject to citations pursuant to ch. NR 113, Wis. Adm. Code. Each day of continued violation is a separate offense.

Business Name/License #: _____ **Period Beginning:** _____

1	2	3	4	5	6	7	8	
Meter ID	Date	Time	7.0 Buffer Solution Reading	10.01 Buffer Solution Reading	pH Results OK?		2 nd Calibration Required?	Initials
					Y	N	Y	N

Notes: _____

- Temperature correcting pH Meter
- Maintain pH \geq 12.0 s.u. for 30 min and log
 - If pH <12.0 after 30 min. add more lime, 30 min. timer restarts, and retest
- Calibrate with 2 buffer solutions (7.0 & 10.0)
 - Template log (Form 3400-229)
 - May be helpful to maintain instructions that came with meter



PC/VAR Documentation with Surface Application

Daily Log:

- Initial pH reading and time
- Record pH to 3 significant digits (e.g. 12.0)
- >30-minute pH reading and time

Records for Vector Attraction Reduction					
5	Initial pH		≥ 30 Min. pH		10 INJ/INC Time(AM/PM) Date Who
	6 Time	7 pH	8 Time	9 pH	
VAR**		Corr.		Corr.	
	Temp	Adj. pH	Temp	Adj. pH	
<input type="checkbox"/> INJ	:		:		
<input type="checkbox"/> INC					
<input type="checkbox"/> pH					

PC/VAR Documentation with Incorporation or Injection

- Identify method (INC/INJ)
- Incorporation must occur within 6 hours after surface application
 - Record date and time (am/pm)
- Record date and time (am/pm) of injection

Daily Log:

- Time (am/pm) & date

Records for Vector Attraction Reduction					
5	Initial pH		≥ 30 Min. pH		10 INJ/INC Time(AM/PM) Date Who
	6 Time	7 pH Corr.	8 Time	9 pH Corr.	
VAR**	Temp	Adj. pH	Temp	Adj. pH	
<input type="checkbox"/> INJ	:		:		
<input type="checkbox"/> INC					
<input type="checkbox"/> pH					

PC/VAR Certification Statement

- Signed by Operator-in-Charge
 - May have a certification statement cover page that covers an entire calendar year

Certification

I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in subd. par. NR 113.07(3)(d)1.a. and/or NR 113.07(3)(d)1.b. and the vector attraction reduction requirements in subd. NR 113.07(3)(e)1., NR 113.07(3)(e)2., and/or NR 113.07(3)(e)3. has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification.

Operator in Charge Certification Signature: _____ Date: _____

Operator Certification Signature: _____ Date: _____

Ref: NR 113.11(3)(c)7.a. Wis. Adm. Code

Notice: The Wisconsin Department of Natural Resources (department) has the authority to inspect service, disposal and other pertinent records associated with businesses or persons engaged in the business of servicing septic tanks, holding tanks, dosing chambers, grease interceptors, seepage beds, seepage trenches, seepage pits, distribution cells, privies or portable restrooms as applicable in s. NR 113.02, Wis. Adm. Code. While the use of this department-provided form is optional, businesses or persons are required to collect and maintain the necessary records pursuant to ch. NR 113, Wis. Adm. Code, and 40 CFR 503, Code of Federal Regulations. This form is provided to assist businesses or persons in those record collections. The responsibility of using this form remains the responsibility of the businesses and/or persons engaged in the business of septic servicing. Records shall be certified pursuant to subd. par. NR 113.11(3)(c)3.g., Wis. Adm. Code or pursuant to 40 CFR 503, Code of Federal Regulations. Any person who violates sub. 281.17(3), s. 281.98, Wis. Stats., chs. NR 113 and/or NR 114, Wis. Adm. Code, is subject to forfeitures of not less than \$10 or more than \$5000 for each violation (s. 281.98, Wis. Stats.) and/or is subject to citations pursuant to ch. NR 113, Wis. Adm. Code. Each day of continued violation is a separate offense.

Business Name/License #: Fred's Septic #505

Service Records					Records for Vector Attraction Reduction				Disposal Records				
1 Date & Time (AM/PM)	2 Owner Name Description	3 Physical Address City/Town/State	4 Gallons & Waste Type (S,H,G,P)*	5 VAR**	Initial pH		≥ 30 Min. pH		10 INJ/INC Time(AM/PM) Date Who	11 Date & Time (AM/PM)	12 Site/Field (Name & DNR #) or WWTF Name (WPDES Permit or License #)	13 Gallons	14 Initials
					6 Time	7 pH Corr. Adj. pH	8 Time	9 pH Corr. Adj. pH					
7/1/2025 9:00 AM	Jessie Wilson	N7743 County Rd X Theresa WI 53091	2000 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	:	:	:	:					
7/1/2025 11:35 AM	Kassandra Holmes	N1947 County Rd X	1500 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	:	:	:	:					
7/1/2025 2:40 PM	Mike Zimmerman	N2337 Highway 23 Theresa, WI 53091	1500 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	2:45 PM	11.7	3:10 PM	12.1		7/1/2025 3:10 PM	Field 1	5000	KS
7/2/2025 9:30 AM	Bill Probst	N2342 Highway 33 Theresa WI 53091	2000 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	:	:	:	:					
7/2/2025 12:05 PM	Heidi Winkelman	6927 Drier St Theresa WI 53091	1500 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	:	:	:	:					
7/2/2025 3:10 PM	Michelle	N4676 County Rd 4	1500 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input checked="" type="checkbox"/> pH	3:15 PM	11.7	3:45 PM	12.1		7/2/2025 3:50 PM	Field 1	5000	KS
7/3/2025 2:30 PM	Jim Baumann	1505 Bittersweet Ln. Theresa, WI 53091	2000 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input type="checkbox"/> INC <input type="checkbox"/> pH	:	:	:	:		7/3/2025 4:30 PM	Baumann P.F.	2000	KS

*S = Septic tank (990); H = Holding tank (995); G = Grease Interceptor (997); P = Portable restroom waste (998); Other (Specify)

**Vector Attraction Reduction: INJ = Injection; INC = Incorporation; pH = Alkali Addition

Certification

I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in subd. par. NR 113.07(3)(d)1.a. and/or NR 113.07(3)(d)1.b. and the vector attraction reduction requirements in subd. NR 113.07(3)(e)1., NR 113.07(3)(e)2., and/or NR 113.07(3)(e)3. has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification.

Operator in Charge Certification Signature: _____ Date: _____

Operator Certification Signature: Kate Schmitt Date: 7/3/2025

• Scenario:
Surface
Application

Scenario: Incorporation

State of Wisconsin
 Department of Natural Resources
 dnr.wi.gov

Septage: Servicing and Land Application Log
 Form 3400-227 (11/22) Page 1 of 3

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Business Name/License #: _____

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					6 Time	7 pH Corr. Adj. pH	8 Time	9 pH Corr. Adj. pH					
5/25/2025 7:30am	Jane Smith	12 hill road West Bend WI	12,000 Gal <input checked="" type="checkbox"/> S <input type="checkbox"/> H <input type="checkbox"/> G <input type="checkbox"/> P	<input type="checkbox"/> INJ <input checked="" type="checkbox"/> INC <input type="checkbox"/> pH	:		:		Inc 10:00am 5/25/2025	5/25/2025 8:30am	DNR 12345	12,000	KS
			Gal	<input type="checkbox"/> INJ	:		:						



Hydraulic Rate

- 13,000 gal/acre/week
- 39,000 gal/year
- Limited: Nitrogen need of the crop
- Lance will discuss high use fields

Scenario



- Jim Bob Septic surface applies septage. They use a homemade splash plate but don't know the exact rate in which they land apply.
- What they do know:
 1. Their truck is 4,000 gallons. (Always have a full tank).
 2. Their splash plate has a spray of 20' wide
 3. They travel 600' length during land application

Is Jim Bob Septic over applying?

Jim Bob Septic

Area Spread:

$$600 \times 20 = 12,000 \text{ sq ft}$$

Convert Sq.Ft to acres:

$$12,000 \times 1 / 43,560$$

$$12,000 / 43,560 = 0.275$$

Hydraulic Rate:

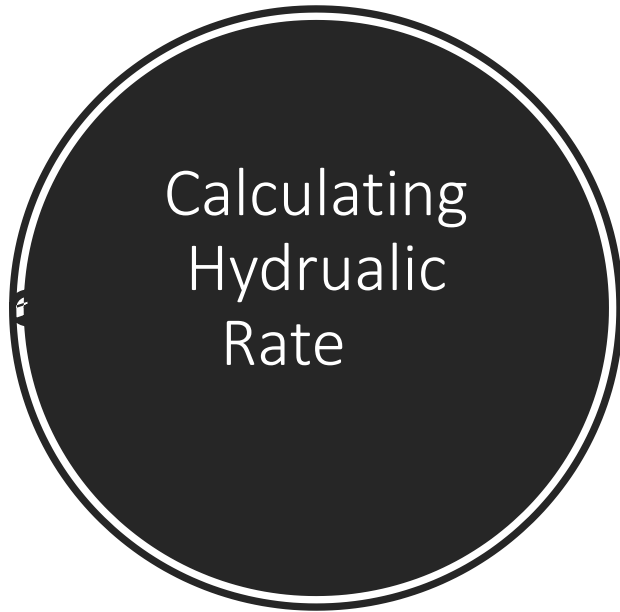
$$4,000 / 0.275 =$$

14,545 gallons per acre

Knowns:

- 4000 gallons
- 600' length
- 20' width
- 1 acre= 43,560 sq ft





Application Method: Splash Plate

Truck Capacity: 4,000 gallons

Area Spread

Area = length x width

Area = 14,000 sq. ft.

Convert Square Feet to Acres

14,000 sq. feet x 1 acre/43,560 sq. feet

14,000/43,560= 0.321 Acres

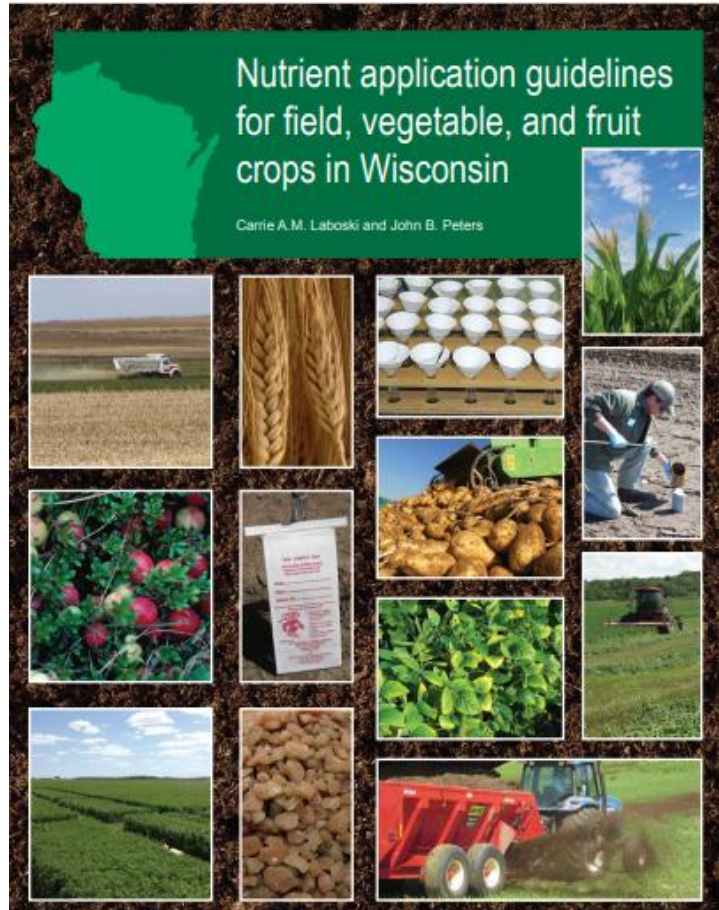
Hydraulic rate

4,000gal/0.321acre= **12,460 gallons/acre**

ANNUAL REPORTS

- Due January 31
- Annual land application (3400-055)
- Other methods of disposal (3400-052)

Common Annual Report Compliance



- Late reports
- Incomplete
 - Other sources of N
 - N recommendation
- Inaccurate
 - Crop year
 - Waste types
 - Acres applied

Incomplete Reports

Other sources of nitrogen

- Talk to your farmer

Recommended Nitrogen

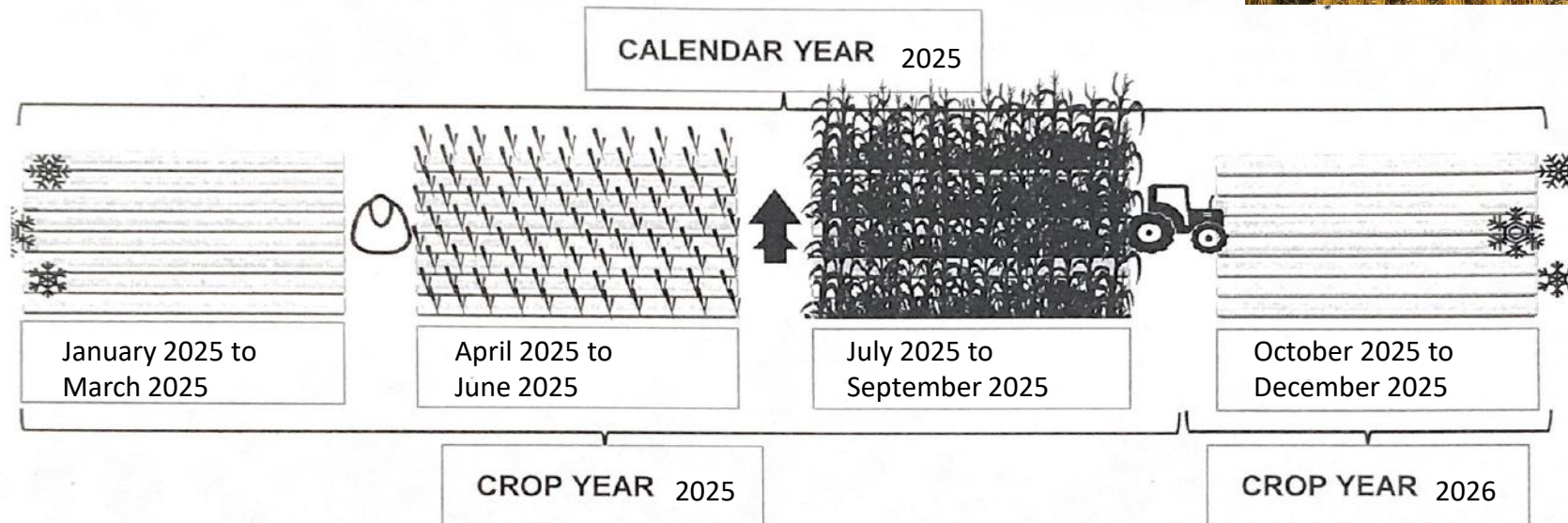
- A2809
- <https://cropsandsoils.extension.wisc.edu/nutrient-application-guidelines-for-field-vegetable-and-fruit-crops-in-wisconsin-a2809/>

(check all that apply): Injection Incorporation pH Adjustment

DNR #	Fac Site# /Field #	Landowner	Acres Land Applied	Outfall No. *	Amount of Waste Applied	Units	N supplied from waste (lbs/acre)	Other Sources of N (lbs/acre)	Crop Code	Crop Year	Nitrogen Rec. (lbs/acre)	Method	Chlorides Applied (lbs/acre)
40540	002 / 002	George	49.7	001	4685000	Gal	49		84	2025		S	116

Inaccurate Reports

- Crop Year
- All waste types on 1 line
 - Each outfall own line
- Report acres applied not approved



Take home message

- Department is here to help
 - Let's work together
- Ask questions



Questions?

REGIONAL SEPTAGE COORDINATORS

Region	Coordinator Name	Counties of Responsibility
South Central Region (SCR) Mailing Address: N7725 Highway 28 Horicon WI 53032	Kassandra (Kassie) Schultz Email: Kassandra.Schultz@Wisconsin.gov Phone Number: 262-675 4072	Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk
Southeast Region (SER) Mailing Address: 1027 West St. Paul Ave Milwaukee WI 53233	Stephen (Steve) Warrner Email: Stephen.Warrner@Wisconsin.gov Phone: 414-897-5771	Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, Waukesha, Out of State Business
Northeast Region (NER) Mailing Address: 3369 West Brewster St Appleton WI 54914	Teresa Hall Email: Teresa.Hall@Wisconsin.gov Phone: 920-841-6425	Brown, Calumet, Door, Fond du Lac, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Waupaca, Waushara, Winnebago
Northern Region (NOR) Mailing Address: 2501 Golf Course Rd Ashland WI 54806	Alison Canniff Email: Alison.Canniff@Wisconsin.gov Phone: 715-685-0450	Ashland, Barron, Bayfield, Burnett, Douglas, Florence, Forest, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn
West Central Region (WCR) Mailing Address: 890 Spruce St Baldwin WI 54002	Peter Carlson Email: peter.carlson@wisconsin.gov Phone: 715-225-2209	Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, La Crosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood

