

Permit Fact Sheet

General Information

Permit Number:	WI-0059293-05-0
Permittee Name:	Van Der Geest Dairy Cattle Inc
Address:	5555 County Highway A
City/State/Zip:	Merrill WI 54452
Discharge Location:	5555 County Highway A, Merrill, WI 54452
Receiving Water:	Silver Creek within the Eau Claire Flowage – Wisconsin River Watershed, and groundwaters of the state

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	4	0	3	0	01/01/2024
Milking and Dry Cows	4859	4964	8155	8330	01/01/2024
Heifers (400 lbs. to 800 lbs.)	0	0	60	100	01/01/2024
Heifers (800 lbs. to 1200 lbs.)	840	764	1375	1250	01/01/2024
Total	5703	4964	9593	8330	

Facility Description

Van Der Geest Dairy Cattle Inc is an existing Concentrated Animal Feeding Operation (CAFO) currently housing 3,471 milking and dry cows, 764 Heifers (800-1200 lbs), and 18 dairy calves (under 400 lbs.) for a total of 5,703.4 animal units. An expansion is planned for the proposed permit term, increasing animal numbers to 5,825 milking and dry cows, 100 Heifers (400-800 lbs), 1,250 Heifers (800-1200 lbs), and 15 dairy calves (under 400 lbs) for a total of 9,593 animal units. Van Der Geest Dairy Cattle currently has approximately 6,299 acres (2,366 owned and 3,933 controlled through contracts, rental agreements or leases, or under manure agreements) of which 5,941 are spreadable acres. Van Der Geest Dairy Cattle is operating under an approved nutrient management plan.

Substantial Compliance Determination

After a desk top review of all discharge monitoring reports, CMARs, land app reports, compliance schedule items], and a site visit on 9/15/2020, this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
001	Sample point 001 is for Manure Lagoon 1, and is an earthen liquid manure storage located directly northwest of the parlor/main barn. This facility has a MOL capacity of 2,907,603 gallons and was constructed in 1999. This storage accepts manure and process wastewater from the main barn, and is also a collection point after separation.
012	Sample point 012 is for Manure Lagoon 3, and is an earthen liquid manure storage located directly north of the parlor. This facility has a MOL capacity of 33,224,027 gallons and was constructed in 2000. This storage accepts manure and process wastewater from the main barn.
013	Sample point 013 is for Manure Lagoon 4, and is a clay-lined liquid manure storage located directly east of the special needs barn and south of Manure Lagoon 5. This facility has a MOL capacity of 1,272,341 gallons and was reconstructed in 2002. This storage accepts manure and process wastewater from the old facility barns.
015	Sample point 015 is for Manure Pit 6, and is a concrete liquid manure storage located directly south of the calf barn. This facility has a MOL capacity of 209,131 gallons and was reconstructed in 2002. This storage accepts manure and process wastewater from the calf barns.
016	Sample point 016 is for the dried solids from the manure dryer. These are typically reused as bedding and stored in a shed near the solid separator/solids dryer. Dried solids may also be distributed to another party according to Department approval and Distribution of Manure and Process Wastewater section of permit.
019	Sample point 019 is for any manure solids removed from bottom of liquid waste storage facilities, solid manure sources that are directly land applied and not stored in a waste storage facility, or solid manure stacked in approved headland stacking locations. Note: Headland stacking sites are subject to production site discharge limitations; weekly visual monitoring is required during use of stacking sites to ensure discharges to waters of the state do not occur.
020	Sample point 020 is for Rainwater Collection Lagoon 2, and is an earthen liquid manure storage located directly north of Manure Lagoon 1. This facility has a MOL capacity of 5,388,803 gallons and was constructed in 2000. This storage accepts manure and process wastewater from rainwater collection systems, and is extra storage for the main barn.
021	Sample point 021 is for Manure Lagoon 5, and is a clay-lined liquid manure storage located directly east of the special needs barn and north of Manure Lagoon 4. This facility has a MOL capacity of 2,105,741 gallons and was reconstructed in 2002. This storage accepts manure and process wastewater from the special needs barn, and is also additional storage for the main barn, if needed.
022	Sample point 022 is for material directly land applied from the compost site, which is located between manure lagoons 2 and 3.
023	Sample point 023 is for the reception tank located directly east of the solid separator/solids dryer on the north side of the main barn. This is a concrete liquid manure reception tank with a capacity of 37,400 gallons and was constructed in 2001. This storage accepts manure and process wastewater from the main barn.
024	Sample point 024 is for visual monitoring and inspection of the feed storage area and associated runoff control system. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
	monitoring program.
025	Sample point 025 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.
026	Sample point 026 is for Manure Lagoon 7, and is geomembrane lined liquid manure storage located at the Berlin Dairy remote site (143316 Naugart Drive, Athens, WI). The lagoon has an MOL capacity of 12,624,936 gallons and was constructed in 2021. This storage accepts manure and process wastewater pumped from the main dairy (approximately 3.5 miles away).
027	Sample point 027 is for a potential anaerobic digester and separation system that may be constructed during the permit term.

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation’s production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must submitted to the Department for approval.

The permittee currently has approximately 202 days of storage for liquid manure with accounting for the proposed expansion. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 5704 animal units, it is estimated that approximately 65,854,804 gallons of manure and process wastewater and 2,100 tons of solid manure will be produced per year. The permittee owns approximately 2,366 acres of cropland and rents about 5,941 acres. Given the rotation commonly used by the permittee, 5,941 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March. Non-emergency surface applications of liquid manure (<12%) on frozen or snow-covered ground are prohibited.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems

identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as “Sampling Points.” For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

Sample Point Number: 001- Manure Lagoon 1; 012- Manure Lagoon 3; 013- Manure Lagoon 4; 015- Manure Pit 6; 020- Rainwater Collection Lagoon 2; 021- Manure Lagoon 5; 023- Reception Tank; 026- Manure Lagoon 7 , and 027- Anaerobic Digester

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.1 Changes from Previous Permit

Manure Lagoon 7 (sample point 026) was constructed and added to the proposed permit .

Sample Point Number: 016- Dried Solids 016; 019- Solids 019

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus,		lbs/ton	Quarterly	Calculated	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Available					
Solids, Total		Percent	Quarterly	Grab	

Sample Point Number: 022- Compost Site; 024- Feed Storage & Runoff Controls, and 025- Storm Water Runoff Controls

2 Schedules

2.1 Monitoring & Inspection Program

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 90 days of the effective date of this permit.	08/31/2022

2.2 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	06/30/2022

2.3 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Due Date
Submit Annual Report #1:	01/31/2023
Submit Annual Report #2:	01/31/2024
Submit Annual Report #3:	01/31/2025
Submit Annual Report #4:	01/31/2026
Submit Annual Report #5:	01/31/2027
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.4 Nutrient Management Plan

Required Action	Due Date
Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.	03/31/2023
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2024
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2025
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2026
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	03/31/2027
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.5 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	11/30/2026

Attachments:

Plan Approval Letter(s)

Public Notice

Proposed Expiration Date: 05/31/2027

Prepared By:

Mark Kaczorowski Agricultural Runoff Management Specialist

Date: 1/27/2022