



Nutrient Management Fact Sheet: Minnesota

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Nutrient Management Plans

Topic	Summary
Coverage	<p>Dairy operations with more than 300 animal units are required to have a Manure Management Plan (also known as a Nutrient Management Plan).</p> <p>Dairy operations applying for an NPDES, State Disposal System (SDS), Interim, or Construction short-form permit for a facility capable of holding 100 or more animal units are required to prepare a manure management plan.¹</p> <p>More information on the state feedlot program, regulations and animal units can be found here and here. Information on county feedlot program can be found here.</p> <p>NPDES Permit information can be found here.</p>
Content	<p>The Manure Management Plan includes several worksheets, tables and plans including:</p> <ul style="list-style-type: none"> - Manure storage, handling and testing form. - Manure nutrient generation worksheet. - Field nutrient management plan including a manure nutrient generation worksheet. - Sensitive area management. - Soil and manure testing.
Frequency of Updates	Portions of the Manure Management Plan must be updated annually.
Paperwork	All feedlots capable of holding 50 or more animal units must be registered. Additional information can be found here .
Planner Qualifications	State documents do not describe required professional qualifications or certifications for the individual preparing the Manure Management Plan.

Manure Storage and Application

Topic	Summary
Overview	<p>Minnesota requires most feedlot owners to register.</p> <p>Construction or expansion of some feedlots or manure storage areas may require a permit.</p>
Storage	<p>Facility Siting/Setback</p> <p>New or expanding feedlots must notify the Minnesota Pollution Control Agency or county official. Details on requirements can be found here.</p>



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	<p>Animal feedlots or manure storage areas proposing to construct or expand a facility capable of holding 500 or more animal units or the manure produced by that amount of animals must provide notice to residents within 5,000 feet.²</p> <p>Notification to the government must be provided for construction or expansion of feedlots or manure storage areas.³</p> <p>SDS permits may be required for new or expanding, or major modification of animal feedlots or manure storage areas.⁴</p> <p>Minnesota Administrative Rules require the following setbacks for new animal feedlots or manure storage areas:⁵</p> <ul style="list-style-type: none"> - Cannot be constructed within a floodplain or within 300 feet of a sinkhole. - Cannot be constructed within 100 feet of a water supply well, 1,000 feet of a community water supply well. <p>Information on setbacks can be found here.</p> <p><u>Structure</u> Minnesota Pollution Control Agency guidelines for design, construction, and operation of liquid manure storage areas can be found here.</p>
Application	<p><u>Spreading</u> Information on manure application setback requirements can be found here. Information on minimum state requirements for land application of manure can be found here.</p> <p><u>Incorporation</u> Setback distances may be reduced if manure is immediately incorporated. Details can be found here.</p> <p><u>Testing</u> Dairies with more than 100 animal units must test manure on an ongoing basis of once every four years. Additional requirements for those dairies with 300 or more animal units.⁶</p>

Technical Assistance

Topic	Summary
Software Tools	The Minnesota Feedlot Annualized runoff model (MinnFARM) is an evaluation system to estimate annual pollutant and prioritize feedlot pollution potential (a user's guide is available here).



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	<p>Manure Management Planner (MMP) is a software tool created by Purdue University that includes state specific information for Minnesota producers to create manure management plans for crop and animal feeding operations.</p> <p>The Minnesota Runoff Risk Advisory Forecast (RRAF) system is a tool designed to help farmers and commercial applicators determine the best time to apply manure.</p> <p>Producers can find more information about this tool here.</p>
Guides / Handbooks	<p>Minnesota NRCS provides:</p> <ul style="list-style-type: none"> - Informational documents on the state's 590 nutrient management standard. - A Nutrient Management Plan Checklist and a document on 590 Nutrient Management Implementation Requirements here. <p>Minnesota Department of Agriculture (MDA) offers environmental and practical benefits for manure management planning on this website.</p> <p>University of Minnesota Extension offers producers:</p> <ul style="list-style-type: none"> - A nutrient management website that provides a variety of information on manure management, soil and plant sampling and other agronomic topics. - A manure management website provides a variety of information on best management practices including land application and manure sampling and nutrient analysis. <p>Minnesota Pollution Control Agency (MPCA) gives producers access to:</p> <ul style="list-style-type: none"> - “Reviewing Manure Management Plans - FAQ” to aid producers in identifying questions they might have about MMPs. - A video on manure management produced by the Minnesota Association of County Feedlot Officers.
Classes / Trainings	<p>The Minnesota Agricultural Water Resource Center (MAWRC) hosts educational events including 4R nutrient stewardship certification and nutrient and water management forums and seminars.</p> <p>MDA’s Manure Applicator Education site provides producers with the following:</p> <ul style="list-style-type: none"> - A series of nine training modules for commercial animal waste technician applicator training to ensure that manure is safely handled and properly applied. - Program information and application/recertification materials on Commercial Animal Waste Technician (CAWT) Licensing. <p>University of Minnesota Extension holds:</p>



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	<ul style="list-style-type: none"> - Annual nitrogen and nutrient management conferences for producers and CCAs in partnership with the Minnesota Agricultural Water Resource Center (MAWRC).
<p>Tailored Expert Assistance</p>	<p>The University of Minnesota Nutrient Management Team focuses on helping farmers and agriculture professionals optimize crop production using appropriate nutrient inputs (view their contact information here).</p> <p>The MDA Minnesota Agricultural Water Quality Certification Program (MAWQCP) certifies farmers for managing the land within their operation in a way that protects water quality (contact a local Soil and Water Conservation District or MAWQCP Area Certification Specialist for more information).</p> <p>The Minnesota Dairy Herd Improvement Association (DHIA) provides producers with a variety of cost-effective services to the dairy industry including manure analysis and certified water testing through its DHIA labs.</p>

Financial Assistance

Summary

MDA's [Minnesota Agricultural Water Quality Certification Program \(MAWQCP\)](#) provides grants to eligible producers implementing agricultural best management practices (BMPs) (including nutrient and manure management plans).

Minnesota NRCS provides assistance through:

- Environmental Quality Incentives Program ([EQIP](#))- offers financial cost-share assistance to farmers for the adoption of conservation practices and development of nutrient management plans.
 - o Click on the interactive map [here](#) to reveal resource concerns for a specific area.
- Conservation Stewardship Program ([CSP](#)), which gives producers financial assistance to implement new conservation management practices and enhancements.

¹ [7020.2225 - MN Rules Part](#)

² [7020.2000 - MN Rules Part](#)

³ [7020.2000 - MN Rules Part](#)

⁴ [7020.0505 - MN Rules Part](#)

⁵ [7020.2005 - MN Rules Part](#)

⁶ [2014-06-06 08:31:15+00:00 \(mn.gov\)](#)