



Nutrient Management Fact Sheet: Massachusetts

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Nutrient Management Plans

Topic	Summary
Coverage	<p>Any person who applies plant nutrients to agricultural land shall comply with a Nutrient Management Plan based on guidance in the UMass Guidelines for the agricultural commodity.¹</p> <p><i>Plant nutrient is defined as a substance that contains one or more of the primary nutrients of nitrogen, phosphorus or potassium, including but not limited to animal manure, fertilizer, organic compost, natural organic fertilizer, agricultural byproducts, digestate, biosolids or combinations thereof.</i></p> <p>EPA administers the NPDES permit program for CAFOs in Massachusetts. CAFOs seeking coverage under an NPDES permit must have a Nutrient Management Plan.²</p>
Content	<p>The Nutrient Management Plan (NMP) to meet the regulation requirements on the application of plant nutrients must meet the requirements in the UMass Guidelines. An NRCS nutrient management plan may meet these requirements. A fact sheet on the requirements can be found here.</p> <p>Under the NPDES Permit, Nutrient Management Plans must:³</p> <ul style="list-style-type: none"> - Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities. - Ensure that clean water is diverted from the production area. - Prevent direct contact of confined animals with waters of the United States. - Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States. - Identify protocols for appropriate testing of manure, litter, process wastewater, and soil. - Establish protocols to land apply manure or process wastewater in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater. - Identify specific records that will be maintained to document the implementation and management.
Frequency of Updates	<p>NMPs shall be reviewed and updated every three years or as necessary when changes occur.</p>



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Paperwork	Under the NPDES permit, records must be maintained for five years, and a copy of the NMP must be maintained on-site.
Planner Qualifications	<p>NMPs can be developed by the operator or a nutrient management professional.</p> <p>Under the NPDES, annual reports must include a statement indicating whether the current version of the NMP was developed or approved by a certified nutrient management planner. ⁴</p>

Manure Storage and Application

Topic	Summary
Storage	<p><u>Structure</u></p> <p>Under the NPDES, the production area must be designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event. ⁵</p>
Application	<p><u>Spreading</u></p> <p>Plant nutrients must be applied according to UMass Guidelines. Plant nutrients shall not be applied: ⁶</p> <ul style="list-style-type: none"> - Directly to surface water. - To saturated soil unless normal operation requires activities to take place at a time when a condition exists. - To frequently flooded soils during a period when flooding is expected. - To frozen soil or snow-covered soil, except for specific limitations on the application of agricultural byproducts and agricultural process water. <p>Application setbacks restrict the application of plant nutrients: ⁷</p> <ul style="list-style-type: none"> - Within 100 feet of surface waters used for public water supplies. - In Zone I of a public water supply well. - Using a broadcast method either with or without incorporation within 50 feet from surface waters unless a vegetated buffer is present, in which case a setback of 25 feet applies. - By band or side-dress application of injection of plant nutrients within 10 feet from surface waters. - On pastures and hayfields within 10 feet from surface waters. <p>There are some exceptions to setbacks as part of normal maintenance of agricultural land and management according to UMass Guidelines.</p> <p>Under the NPDES, the NMP must include fields available for land application, including application rates based on the liner approach or the narrative rate</p>



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approach. Manure may not be applied within 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads or other conduits to surface waters. A 35-foot-wide vegetated buffer or other conservation practice or conditions may replace the 100-foot setback.⁸

Testing

Soil test analyses and sampling and testing of agricultural byproducts and agricultural process water shall be conducted in accordance with UMass Guidelines.⁹

Under the NPDES, manure must be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil analyzed a minimum of once every five years for phosphorus content.¹⁰

Technical Assistance

Topic	Summary
Software Tools	Manure Management Planner (MMP) is a software tool created by Purdue University that includes state-specific information for Massachusetts farmers to create manure management plans for crop and animal feeding operations.
Guides / Handbooks	MA NRCS nutrient management 590 standard . The UMass Amherst Center for Agriculture, Food, and the Environment published factsheets to ensure dairy farm compliance when writing NMPs: <ul style="list-style-type: none"> - Dairy Manure Spreader Types and Calibration. - Manure Storage for Dairy Operations. - Nutrient Management for Crops, Dairy, and Livestock Farmers. - Strategies for Effective Cover Cropping on Dairy Farms.
Tailored Expert Assistance	The Farm Viability Enhancement Program (FVEP) provides business planning and technical assistance to help established farms identify strategies to increase farm viability, such as environmental sustainability. Northern Tilt works with Massachusetts dairy farmers to develop state and federally compliant nutrient management plans.

Financial Assistance

Summary

Participants selected to participate in the [FVEP](#) program may be offered grant funds of \$50,000 to \$150,000 to implement strategies identified during the planning process in return for signing an agricultural covenant on the farm property to keep it in agricultural use for a 5, 10, or 15-year term. Eligible uses of funds are capital projects on the farm, such as agricultural buildings and modernizing equipment.



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The [Climate Smart Agriculture Program](#) provides cost-share grants of 80% of total project costs up to \$50,000 for eligible projects, including manure storage, small-scale composting for manure management, heavy use area, and manure injectors.

MA 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.
- Conservation Stewardship Program ([CSP](#)), which gives producers financial assistance to implement new conservation management practices and enhancements.

¹ <https://www.mass.gov/doc/330-cmr-31-plant-nutrient-application-requirements-for-agricultural-land-and-non-agricultural/download>

² <https://www.epa.gov/npdes-permits/npdes-water-permit-program-new-england>

³ <https://www.law.cornell.edu/cfr/text/40/122.42>

⁴ <https://www.law.cornell.edu/cfr/text/40/122.42>

⁵ <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-412>

⁶ <https://www.mass.gov/regulations/330-CMR-31-plant-nutrient-application-requirements-for-agricultural-land-and-non-agricultural-turf-and-lawns>

⁷ <https://www.mass.gov/regulations/330-CMR-31-plant-nutrient-application-requirements-for-agricultural-land-and-non-agricultural-turf-and-lawns>

⁸ <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-412>

⁹ <https://www.mass.gov/regulations/330-CMR-31-plant-nutrient-application-requirements-for-agricultural-land-and-non-agricultural-turf-and-lawns>

¹⁰ <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-412>