



Nutrient Management Fact Sheet: Illinois

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Nutrient Management Plans

Topic	Summary
Coverage	<p>Dairy operations with 1,000 to 5,000 animal units are required to have a Waste Treatment Plan on site.¹ Dairy operations with more than 5,000 animal units are required to have an approved Waste Treatment Plan.²</p> <p>CAFOs seeking coverage under an NPDES permit must have a Nutrient Management Plan.</p>
Content	<p>The waste management plan shall include the following:³</p> <ul style="list-style-type: none"> - Operation information, including location, photos, type of storage, and land application fields. - An estimate of the volume of livestock waste to be disposed of annually. - The number of acres available for disposal of the waste and owned by owner or operator of the livestock waste management facility or contracted with another person for disposal of waste. - An estimate of the nutrient value of the waste and required soil sampling. - Livestock waste will be applied at rates not to exceed the agronomic nitrogen demand of the crops to be grown when averaged over a 5-year period. - Land application setbacks and restrictions on application location and timing. - Methods for disposal of animal waste. <p>Nutrient Management Plans must include:⁴</p> <ul style="list-style-type: none"> - The livestock waste application rate of nitrogen in a single year and phosphorus in a single year or multiple years must not exceed the crop needs. - Adequate land application area for livestock waste application. - Adequate storage of livestock waste, including procedures to ensure proper operation and maintenance of the storage facilities. - Proper management of mortalities. - Diversion of clean water from the production area and preventing direct contact of confined animals with waters of the United States. - Appropriate site-specific conservation practices to be implemented. - Protocols for appropriate testing of livestock waste and soil. - Protocols to land apply livestock waste in accordance with site-specific nutrient management practices. - Appropriate land application of livestock waste, following setback requirements.



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	<ul style="list-style-type: none"> - Plans for the inspection, monitoring, management and repair of subsurface drainage systems at the livestock waste application site. - A spill prevention and control plan. - Annual review of the nutrient management practices to be implemented and an update of the nutrient management plan when there is a change in the nutrient management practices. - Recordkeeping. - Adequate storage for periods when the application of livestock waste to the land is prevented due to weather or other conditions.
Frequency of Updates	<p>The Waste Management Plan shall be reviewed annually and updated when there is a change in the volume of livestock waste.</p> <p>NMPs must be updated when there is a change in the nutrient management practices.</p>
Paperwork	<p>Certified Waste Management Plans must be approved by the Department of Agriculture.</p> <p>NMPs must be included in the NPDES permit.</p>
Planner Qualifications	<p>A plan can be developed by the producer, or they can use one of the consultants in the state who is experienced in nutrient management planning.⁵</p>

Manure Storage and Application

Topic	Summary
Overview	Dairy operations with more than 214 dairy cows must have a certified livestock manager .
Storage	<p>Facility Siting/Setback New facilities with 50 or more animal units must comply with setback requirements that range from ¼ mile to one mile based on the size of the operation. Specific distances and additional siting criteria can be found on the IL Department of Agriculture website.</p> <p>Structure A notice of intent to construct a livestock management and/or waste handling facility is required. New or modified livestock waste lagoons must be registered with the IL Department of Agriculture and inspected before, during and after construction. The design criteria for lagoon and non-lagoon facilities can be found on the IL Department of Agriculture website.⁶</p> <p>Storage Length</p>



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Single-stage lagoons must be designed to hold more manure than would be produced in 270 days of operation. Concrete storage structures that handle liquid waste must hold no less than the amount of waste generated by the facility during 150 days of operation at full capacity.

Application

Spreading

Under the Waste Management Plan requirements, livestock waste may not be applied:

- Within 200 feet of surface water, unless the water is upgraded or there is adequate diking.
- Within 150 feet of potable water supply wells.
- In a 10-year flood plain unless it is injected or incorporated.
- In waterways; however, there are some special considerations.
- To frozen or snow-covered lands unless the land application area has land slopes that are 5% or less or have adequate erosion control practices.
- During rainfall or to saturated soil.

In addition to the setbacks of the Waste Management Plan, the NPDES permit requires no livestock waste be applied within 100 feet of downgradient open subsurface drainage intakes, agricultural drainage wells, sinkholes, grassed waterways or other conduits to surface waters unless a 35-foot vegetative buffer or other appropriate conservation practices exists in place of the 100-foot setback.⁷

Incorporation

Livestock waste applied within ¼ mile of any residence not part of the facility shall be injected or incorporated on the day of application. Operations with irrigation systems in operation prior to May 21, 1996, or existing facilities applying waste on frozen ground are exempt from the requirement.

Testing

Under the Waste Management Plan: Soil samples shall be obtained and analyzed from the livestock waste application fields on land owned or under the control of the owner or operator where applications are planned. Fields where livestock waste is applied shall be sampled every 3 years.

Under the NPDES permit, fields where livestock waste is applied shall be sampled twice for each field (taken at least one year apart) during the term of the permit and in accordance with the Illinois Agronomy Handbook. Manure shall be sampled during the application process.⁸



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Technical Assistance

Topic	Summary
Software Tools	<p>The Illinois Manure Calculator, built for the Illinois-specific manure plan rules, enables a livestock producer to quickly balance manure applications with field crop nutrient needs using their phones or tablets. Producers can download this app from Google Play or Apple App Stores.</p> <p>The Illinois Phosphorus Index Spreadsheet helps producers plan and manage their phosphorus applications.</p> <p>The Illinois Manure Management Plan website provides step-by-step instructions that, if completed, will comply with the needs of the IL Department of Agriculture, IL NRCS, and IL EPA requirements.</p> <p>Manure Management Planner (MMP) is a software tool created by Purdue University that includes state-specific information for Illinois producers to create manure management plans for crop and animal feeding operations.</p>
Guides / Handbooks	<p>IL NRCS provides the state's nutrient management 590 standard and supplements to the Agricultural Waste Management Field Handbook (AWMFH).</p> <p>The Illinois Animal Units Worksheet allows producers to calculate their total Animal Units (AUs) for their Certified Livestock Manager Training.</p>
Classes / Trainings	<p>The University of Illinois Extension offers Certified Livestock Manager Training for IL livestock producers.</p>

Financial Assistance

Summary

IL 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://ilga.gov/legislation/ilcs/documents/051000770K20.htm>

² <https://ilga.gov/legislation/ilcs/documents/051000770K20.htm>

³ <https://ilga.gov/legislation/ilcs/documents/051000770K20.htm>

⁴ <https://www.ilga.gov/commission/jcar/admincode/035/035005020E05100R.html>

⁵ https://web.extension.illinois.edu/ezregs/ezregs.cfm?section=viewregs_byq&QuestionID=249&searchTerm=&ProfileID=1

⁶ <https://www2.illinois.gov/sites/agr/Animals/LivestockManagement/Documents/8iac506.pdf>

⁷ <https://casetext.com/regulation/illinois-administrative-code/title-35-environmental-protection/part-502-permits/subpart-f-livestock-waste-discharge-limitations-and-technical-standards/section-502645-land-application-setback-requirements>

⁸ <https://casetext.com/regulation/illinois-administrative-code/title-35-environmental-protection/part-502-permits/subpart-f-livestock-waste-discharge-limitations-and-technical-standards/section-502635-manure-and-soil-sampling-and-analysis>