

Understanding the Requirements of the Delaware Nutrient Management Law

Amy L. Shober and Sydney Y. Riggi

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Introduction

The Delaware Nutrient Management Law (3 Del. C. §§ 2201-2290) was passed in 1999 in response to continued water quality issues in Delaware. The law was updated in 2024. The purpose of the Delaware Nutrient Management Law is to:

- Establish a certification program that encourages the implementation of best management practices in the generation, handling, and land application of nutrients
- Formulate nutrient management program that maintains agricultural profitability and improves water quality
- Establish a nutrient management planning program
- Regulate those activities involving the generation, composition, and application of nutrients.

The Delaware Nutrient Management Law established the Delaware Nutrient Management Commission (DNMC; 3 Del. C. §§ 2220-2222), required individuals to become nutrient management certified (3 Del. C. § 2241), required nutrient management planning (3 Del. C. § 2241), and dictated timelines for implementation of the law. The Delaware Nutrient Management Act was fully implemented as of 2007.

Delaware Nutrient Management Commission

The Delaware Nutrient Management Commission (3 Del. C. § 2222) consists of 15 voting members including:

- 1 Director of the Division of Watershed Stewardship of DNREC
- 7 full-time farmers

- 1 commercial/agricultural nutrient applicator
- 1 commercial nursery industry
- 1 golf course/lawn care industry
- 2 environmental group representatives
- 1 nutrient consultant
- 1 public citizen who does not represent any of the categories above

Specific roles of the DNMC include (3 Del. C. § 2220): 1) establishing critical areas for targeting other voluntary and regulatory programs, 2) establishing best management practices, 3) developing educational programs, 4) developing transportation and alternative use programs to relocate nutrients, 5) making recommendations to the Secretary of Agriculture to support of the goals of the law, and 6) creating the goals and track of the state Nutrient Management Program.

The DNMC meetings are held monthly and are open to the public. Attending a DNMC meeting allows those impacted by the law and other citizens to be involved with nutrient management policy and issues in Delaware. Please consult the DNMC meeting schedule if you are interested in attending.

- Manage an animal feeding operation with eight or more animal units (animal unit [AU] = 1000 pounds live weight; Table 1)
- Apply nutrients to 10 or more acres of land (including agricultural land, golf courses, and athletic fields, but excluding turfgrass)
- Apply fertilizer to ¼ of an acre or more of turfgrass as part of a commercial enterprise

Turf is defined as "residential, commercial, and publicly-owned land that is planted in closely mowed and managed grass" (3 Del. C. § 2202). For the purposes of the Delaware Nutrient Management Law, athletic fields, golf courses, or land used in the

production or sale of sod or seed are excluded from the definition of "turf".

Table 1. Animal unit equivalents and estimated number of animals in eight animal units.

Animal Type and Class	Average Weight (lbs per animal)	Animal Unit Equivalent	Number of Animals in 8 AUs
Beef Cattle			
Mature bull	>1700	1.5	6
Mature cow	1000	1	8
Calves	500	0.5	16
Dairy Cattle			
Holstein bull	1900	1.9	5
Holstein cow	1500	1.5	6
Equine			
Work horse (mature)	2000	2	4
Saddle horse (mature)	1250	1.25	7
Colt (<2 yrs)	500	0.5	16
Swine			
Boar	500	0.5	16
Brood sow	250	0.25	32
Feeder pigs	100	0.1	160
Sheep (mature)	200	0.2	40
Goats (mature)	170	0.17	48
Poultry			
Roaster	4	0.004	2000
Broiler	3	0.003	2667
Cornish	1.5	0.0015	5334
Layer	3	0.003	2667

Certification Requirements

Affected individuals are required to become nutrient management certified at the appropriate level as outlined in the Delaware Nutrient Management Law (3 Del. C. § 2241) and Delaware Nutrient Management Regulations (3 Del. Reg. 1201). One person per operation is required to be nutrient management certified. The certified individual is responsible for the management of fertilizer or manure on that operation. There are four levels of nutrient management certification:

- 1. <u>Nutrient Generator</u> Individuals who need to be certified at the Nutrient Generator level have operations that include 8 or more animal units and less than 10 acres of nutrient applied land (e.g., fertilizer or manure) that they own, rent or manage.
- 2. Private Nutrient Handler A private nutrient handler applies nutrients to 10 or more acres of land that is owned, managed, or rented by the individual.
- 3. Commercial Nutrient Handler A commercial nutrient handler who applies nutrients to 10 or more acres of agricultural land as part of a commercial business or lawn care personnel who applies nutrients to a ¹/₄ of an acre or more of turfgrass as part of a commercial business.
- 4. <u>Nutrient Consultant</u> A nutrient consultant is certified to write nutrient management plans.

Depending on the level of certification you require, you must attend two or more of the scheduled certification sessions to receive your certification (Tables 2 and 3). Certification sessions are offered several times per year by the University of Delaware Extension Nutrient Management Program. Commercial nutrient handlers and nutrient consultants must also pass an exam and pay a certification fee. There is an exam fee that is waived for an individual's first attempt at the exam.

Becoming certified is the first step toward compliance with the Delaware Nutrient Management Act. Certification for nutrient generators, private nutrient handlers, and commercial nutrient handlers is valid for a period of three years; nutrient consultant

certification is valid for one year. Once certified, individuals must meet continuing education requirements to maintain their certification past the initial certification period (Tables 2 and 3).

Beginning in 2024, the DNMC now allows continuing education credits beyond those needed to renew certification to roll over into the next certification cycle. For example, private nutrient handlers who earn more than six credits in a certification cycle will have additional credits roll over into the next certification cycle to be applied toward a future renewal.

Reciprocity for Nutrient Consultants Certified by Other Programs

The DNMC has adopted a policy accepting selected certifications from neighboring states with nutrient management certification programs (3 Del. Reg. 1201).

Delaware Nutrient Consultant

Individuals who are currently certified as nutrient consultants or nutrient management planners in Maryland, Pennsylvania, Virginia, or West Virginia can receive their Delaware Nutrient Consultant certification by: 1) attending the Delaware Nutrient Management Certification Introduction to Nutrient Management and Water Quality Session, 2) submitting a copy of your Maryland, Pennsylvania, Virginia or West Virginia Certification credentials, 3) completing an application for Delaware certification, and 4) paying the nutrient consultant fee to the Delaware Department of Agriculture.

The Delaware Nutrient Consultant exam does not cover the application of biosolids. Individuals seeking to write nutrient management plans that will include the application of biosolids in another state should take the nutrient consultant exam in that state and then seek nutrient consultant certification reciprocity in Delaware.

Delaware Commercial Nutrient Handler

Reciprocity is also available for individuals who hold Certified Fertilizer Applicator certifications in Maryland,\ New Jersey, and Virginia. The requirements to receive reciprocity for the Delaware Commercial Nutrient Handler vary based on the state for which the individual holds their certification. Individuals seeking reciprocity at the Commercial Nutrient Handler certification should contact the University of Delaware Nutrient Management Program for more details.

Continuing Education

The DNMC also has a reciprocity agreement with the Maryland Department of Agriculture for continuing education credits. Continuing education credits obtained in either state are typically pre-approved for Delaware and Maryland credits. Credits earned by completion of a pre-approved program in Delaware or Maryland can be applied toward the continuing education requirements for both Delaware and Maryland certifications, provided you sign both credit forms. Programs that were not pre-approved in Delaware or Maryland may also be eligible to meet the continuing education requirements in Delaware on a case-by-case basis. Individuals seeking continuing education credits for external programs that were not pre-approved for Delaware continuing education credits should submit the program agenda and proof of attendance through the University of Delaware Nutrient Management Program past program credit request form.

Nutrient Management Planning Requirements

In addition to the certification requirements, the Delaware Nutrient Management Law outlines the requirements for animal waste management and nutrient management plans (3 Del. C. § 2247). Operations with eight or more animal units and less than 10 acres of land receiving nutrients are required to develop an animal waste management plan, unless the operation is a Concentrated Animal Feeding Operation CAFO).

Operations with 10 or more acres of land that receives nutrients must obtain a nutrient management plan. All CAFOs are also required to have a nutrient management plan. In Delaware, nutrient management plans must be written by a Delaware certified nutrient consultant. Nutrient management plans are valid for a period of 3 years. Plan revisions are required any time there is an increase in operation of greater than 25%.

The Delaware Nutrient Management Law outlines specific requirements for animal waste and nutrient management plans. All Delaware nutrient

management plans must include the following information:

- 1. Field maps based on aerial photographs that show the field name, acreage, and boundaries, as well as the location of surface waters, irrigation systems, and nutrient application setbacks
- 2. Soil maps and information about the drainage class, permeability, available water, depth to water table, and flooding or ponding frequency
- 3. Crop rotations, current and planned
- 4. Results of diagnostics testing services (e.g., soils, plant tissue, water, manures, or organic by-products)
- 5. Realistic yield goals
- 6. Recommended nutrient sources, rates, application methods, and application timing
- 7. Results of risk assessment tools for nitrogen leaching, phosphorus losses, or erosion potential (if applicable)
- 8. Animal information including the type, number, and average weight of all animals on the operation, as well as estimates of manure generation and methods of mortality management (if applicable)
- 9. Information about manure storage, export, or information for the operation (if applicable)

Animal waste management plans include only the animal and manure information listed above.

The Delaware Nutrient Management law (3 Del. C. § 2247) also outlines the approved methods for developing realistic yield goals, guidance on approved applications of phosphorus to "high phosphorus soils", provisions and setbacks for the temporary field staging of manure for individuals managing land under a nutrient management plan. Recordkeeping and annual reporting requirements are also outlined in the Delaware Nutrient Management law (3 Del. C. § 2247) and the Nutrient Management Regulations (3 Del. Reg. 1201).

Table 2. Agriculture certification and continuing education requirements for each level of Delaware nutrient management certification.

Sessions	Nutrient Generator	Private Nutrient Handler	Commercial Nutrient Handler	Nutrient Consultant
Introduction to Nutrient Management & Water Quality	X	X	X	X
Soils & Nutrient Cycling		X	X	X
Animal Production & Manure Management	X			
Manure & Fertilizer Management		X	X	X
Commercial Nutrient Handler/ Nutrient Consultant			X	x
Exam			X	X
Fees	No Fee	No Fee	\$150 every 3 years	\$100 every year
Continuing Education Requirement	6 CEUs ^z every 3 years	6 CEUs² every 3 years	6 CEUs² every 3 years	5 CEUs ² every year

²CEU = continuing education credit. One CEU is roughly equivalent to 1 hour of instruction.

Table 3. Lawn care/horticulture certification and continuing education requirements for each level of Delaware nutrient management certification.

Sessions	Private Nutrient Handler	Commercial Nutrient Handler	Nutrient Consultant
Introduction to Nutrient Management & Water Quality	X	X	X
Soils & Fertilizer Management	X	x	X
Turf Selection and Ornamental Horticulture	X	X	X
Commercial Nutrient Handler/ Nutrient Consultant		X	X
Exam		X	X
Fees	No Fee	\$150 every 3 years	\$100 every year
Continuing Education Requirement	6 CEUs ^z every 3 years	6 CEUs ^z every 3 years	5 CEUs ^z every year

²CEU = continuing education credit. One CEU is roughly equivalent to 1 hour of instruction.

Provisions for Application of Nutrients to Turf

Applications of nutrients to turf areas that are not subject to a nutrient management plan are also dictated in the law (3 Del. C. § 2250). Specifically, applications of nitrogen to turf must not exceed 4.8 lb/1000 square feet annually. In addition, phosphorus applications are prohibited unless phosphorus is recommended based on the results of a soil test or phosphorus is being used to establish, re-establish, or repair turf areas. Additional requirements (e.g., per application limits, no-application periods, setbacks, etc.) for nutrient applications to turf are outlined in the regulations (3 Del. Reg. 1201) as set forth by the DNMC.

Nutrient Management Regulations

Regulations (3 Del. Reg. 1201) corresponding to the Delaware Nutrient Management Law have been written to authorize the Delaware Nutrient Management Commission governance over those holding Delaware Nutrient Management certifications, nutrient management planning, complaints related to violations, and reporting.

Summary

Educating nutrient applicators in Delaware about best management practices for the application of nutrients is one the primary goals of the Delaware Nutrient Management Law. This law requires agriculture operations with 8 or more animal units or individuals who apply nutrients to 10 or more acres to become certified by the Delaware Nutrient Management Program. Lawn care personnel who apply fertilizer to 1/4 of an acre or more for a fee are also required to become certified by the Delaware Nutrient Management Program. If you need to become nutrient management certified in Delaware, please contact the University of Delaware Nutrient Management Program. In addition, operations meeting the criteria must also develop an animal waste management plan or a nutrient management plan and may also need to apply for a Concentrated Animal Feeding Operation Permit. Delaware reciprocates certifications and continuing education credits with Maryland and other surrounding states.

References

Nutrient Management, Delaware Administrative Code Title 3 Section 22. (3 Del. C. §§ 2201-2290). https://delcode.delaware.gov/title3/c022/index.html

Nutrient Management Certification Regulations, _D.E. Administrative Code, Title 3, § 1201. (23 DE Reg. 1201).

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About the Authors

Amy L. Shober (corresponding author), Professor and Extension Specialist, University of Delaware, Newark, DE (ashober@udel.edu)

Sydney Y. Riggi, Extension Agent, University of Delaware Cooperative Extension, Dover, DE

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Peer Reviewers

Brooke Walls, Nutrient Management Program Administrator, Delaware Department of Agriculture, Dover, DE

Drew Harris, University of Delaware Cooperative Extension, Dover, DE

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