



University of Arkansas Division of Agriculture

An Agricultural Law Research Project

## **Application Restrictions Statutes & Regulations**

**North Dakota**

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## Application Restrictions

### STATE OF NORTH DAKOTA

#### **1) N.D. Cent. Code, § 4.1-35 et seq.; N.D. Admin. Code §§ 7-10-01, 02, 03**

*The statutes and Constitution are current through the 2018 regular and special legislative sessions. The statutes are subject to changes by the North Dakota Legislative Council.*

#### **1) N.D. Cent. Code, § 4.1-35 et seq.; N.D. Admin. Code §§ 7-10-01, 02, 03**

##### **§ 4.1-35-01. Definitions.**

As used in this chapter:

1. “Chemigation” means any process by which chemicals, including pesticides and fertilizers, are applied to land or crops through an irrigation system.
2. “Commissioner” means the agriculture commissioner and includes any employee or agent designated by the commissioner.
3. “Fertilizer” means any fertilizer as defined by section 4.1-40-01.
4. “Pesticide” means that term defined in section 4.1-33-01.
5. “State engineer” means the state engineer appointed by the state water commission under section 61-03-01.

##### **§ 4.1-35-02. Compliance with rules.**

Farm irrigation systems used for chemigation which are designed, constructed, and operated in compliance with rules adopted under this chapter are considered to be in compliance with this chapter.

##### **§ 4.1-35-03. Rules – Standards for chemigation, installation, maintenance, and modifications.**

The commissioner shall adopt rules regulating chemigation through irrigation systems in this state to minimize the possibility of chemical, pesticide, fertilizer, or other contamination of irrigation water supply and other rules as necessary to implement this chapter. The commissioner may establish by rule standards for application of pesticides and fertilizers through irrigation systems; for installation and maintenance of all equipment and devices used for chemigation purposes; modifications or changes in design, technology, or irrigation practices; or other purposes relating to the use or

placement of equipment or devices. The commissioner may adopt rules requiring periodic calibration and inspection of equipment and system operation during periods of chemigation.

**§ 4.1-35-04. Inspections – Assistance of state engineer.**

The state engineer shall cooperate with the commissioner in the inspection of any irrigation system using chemigation. The state engineer shall inform the commissioner of any violation of this chapter which is discovered in the course of the state engineer's regular inspections of irrigation systems using chemigation.

**§ 4.1-35-05. Enforcement.**

1. The commissioner shall enforce this chapter and any rules adopted under this chapter.
2. The commissioner may seek an injunction in the district court in the county in which a violation occurs or may issue a cease and desist order to any person for any alleged violation of this chapter or any rules adopted under this chapter.
3. For the purpose of carrying out the provisions of this chapter, the commissioner and the state engineer may enter upon any public or private premises at reasonable times in order to:
  - a. Have access for the purpose of inspecting any equipment subject to this chapter and the premises on which the equipment is stored or used.
  - b. Inspect or sample lands actually, or reported to be, exposed to pesticides or fertilizers through chemigation.
  - c. Inspect storage or disposal areas.
  - d. Inspect or investigate complaints of injury to humans or animals.
  - e. Sample pesticides and fertilizers and pesticide or fertilizer mixes being applied or to be applied.
  - f. Observe the use and application of a pesticide or fertilizer through chemigation.
  - g. Have access for the purpose of inspecting a premise or other place where equipment or devices used for chemigation are held for distribution, sale, or use.

**§ 4.1-35-06. Penalties.**

1. Any person who violates a provision of this chapter or any rule adopted under this chapter is guilty of a class A misdemeanor.

2. When construing and enforcing the provisions of this chapter or any rules adopted under this chapter, the act, omission, or failure of any officer, agent, or other person acting for or employed by any person must in every case also be deemed to be the act, omission, or failure of such person as well as that of the person employed.

3. Any person found to have violated a provision of this chapter or rule adopted under this chapter is subject to a civil penalty not to exceed five thousand dollars for each violation. The civil penalty may be imposed by a court in a civil proceeding or by the commissioner through an administrative hearing under chapter 28-32.

## **Chapter 1. Definitions.**

### **§ 7-10-01-01. Definitions.**

1. "Antisiphon device" means any equipment effectively designed and constructed to prevent the backflow of an injected chemical into any water supply.

2. "Check valve" means a device effectively designed and constructed to provide positive closure which effectively prohibits the flow of material in the opposite direction of normal flow when operation of the irrigation system pumping plant or injection unit fails or is shut down.

3. "Chemical" means any pesticides, fertilizers, or other chemicals applied by chemigation.

4. "Chemigation" includes, but is not limited to, the application of a chemical to agricultural, nursery, and turf sites.

5. "Interlock" means the arrangement or interconnection of the irrigation pumping plant and chemical injection units in such a manner that, in the event of irrigation pump shut down, shut down of the chemical injection units system will occur.

6. "Low pressure drain" means a self-activating device effectively designed and constructed to drain that portion of an irrigation pipeline or any other method of conveyance whose contents could potentially enter the water supply when operation of the irrigation system pumping plant fails or is shut down.

## **Chapter 2. Equipment Requirements.**

### **§ 7-10-02-01. Antisiphon devices required.**

Chemigation may take place in North Dakota, as permitted in statute and rule, only when one of the antisiphon devices of section 7-10-02-02 are installed in an irrigation system.

## § 7-10-02-02. Allowable antisiphon devices.

One of the following antisiphon devices must be installed as required in this section before chemigation in an irrigation system may take place.

1. ***Check valve with vacuum relief and low pressure drain.*** A corrosion-resistant check valve must be located between the water supply pump discharge outlet at the point of chemical injection. Location on the suction side of the water pump is not allowed. The check valve must be either spring loaded with a chemically resistant sealing surface or otherwise capable of preventing leakage. The direction of flow must be clearly indicated on the outside of the device. The vacuum relief valve must be installed on top of the irrigation pipe on the inlet side of the check valve. The vacuum relief valve must be a minimum of three-fourths inch 19.05 millimeters in diameter. The low pressure drain must be located on the inlet side of the check valve at the lowest point. The drain must be mounted in the pipe in such a way that any check valve leakage enters the drain rather than flowing on toward the water supply. The drain must be at least three-fourths inch 19.05 millimeters in diameter with a closing pressure of at least one pound per square inch 7 kilopascals and not exceeding five pounds per square inch 35 kilopascals. If the drain is within twenty feet 6.10 meters of the water source, the system must provide a means to carry the drainage away or the surface must be graded to assure drainage away from the water source. Manual valves may not be located on the outlet side of the drain.

2. ***Reduced pressure principle device.*** The reduced pressure principle device must consist of two independently acting check valves, together with a pressure differential relief valve that is located between the two check valves. This device must be located between the pump discharge outlet and the point of chemical injection. The differential relief valve must have a minimum clearance of twelve inches 30.50 centimeters above the ground level or grade.

3. ***Double check valve.*** The double check valve assembly must be composed of two single, independently acting check valves. The double check valve must be located between the pump discharge outlet and the point of chemical injection.

4. ***Airgap.*** An airgap must be a physical separation between the free flowing discharge end of a water pipeline and an open or nonpressurized receiving vessel. To have an acceptable airgap, the end of the discharge pipe must be located a distance of at least twice the diameter of the pipe above the topmost rim of the receiving vessel. In no case can this distance be less than one inch 2.54 centimeters. The airgap must be located between the pump discharge outlet and the point of chemical injection.

5. ***Other acceptable devices.*** Other equipment utilizing new technology or other backflow prevention devices as specifically approved in writing by the commissioner of agriculture may be used.

**§ 7-10-02-03. Inspection port.**

An inspection port of at least four inches 101.6 millimeters in diameter must be provided to check for malfunctioning of all antisiphon devices. The inspection port can be combined with a mounting of vacuum relief. If an airgap is used, as required by subsection 4 of section 7-10-02-02, the system is exempt from the requirement of an inspection port.

**§ 7-10-02-04. Chemical injection port location.**

The chemical injection port into the irrigation line must be located downstream of the antisiphon device.

**§ 7-10-02-05. Backflow prevention in the chemical line.**

A spring loaded, chemically resistant check valve having a minimum opening pressure of ten pounds per square inch 69 kilopascals must be located at the injection port of the irrigation system.

**§ 7-10-02-06. Pressure sensor in the irrigation line.**

A functional pressure switch must be in the irrigation line. The device must shut down the injection pump in the event flow is lost in the irrigation line.

**§ 7-10-02-07. Interlock devices.**

The irrigation pumping plant and chemical injection units must have a functional interlocking mechanism that will ensure that, in the event of irrigation pump shutdown, the injection units will shut down.

**§ 7-10-02-08. Chemical injection pump.**

The chemical injection pump must be effectively designed and constructed of materials that are compatible with the chemicals being injected into the irrigation system. The pump must be effectively designed and constructed to prevent any leakage. The pump must have a means of being calibrated for accurate chemical metering. The pump must be capable of being fitted with a system interlock.

**Chapter 3. Operational Requirements.**

**§ 7-10-03-01. Inspection and maintenance of equipment.**

The operator of the system will be responsible for keeping the system in good operating condition, including determining that the chemigation and safety equipment is operating properly before injecting chemical into the irrigation system.

**§ 7-10-03-02. Calibration.**

The operator of the irrigation system is responsible for the proper calibration of the system prior to starting the injection of chemical into the irrigation system.

**§ 7-10-03-03. Product labeling.**

1. The operator of the system is responsible for following all chemical product label requirements.
2. All bulk pesticides used in chemigation, whether in concentrated or diluted form, must be clearly labeled with their identity and directions for use.

**§ 7-10-03-04. Posting.**

Posting of warning signs as specified on the label of the chemical product being used at the time of application is required. The operator of the irrigation system is responsible for such posting.