

**RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT
GROUNDWATER MANAGEMENT RULES AND REGULATIONS**

**REGULATIONS FOR
HASTINGS WELLHEAD PROTECTION GROUNDWATER MANAGEMENT AREA**

**CHAPTER 26 – HASTINGS WELLHEAD PROTECTION GROUNDWATER
MANAGEMENT AREA**

01 When initiated –

The following requirements will be initiated on July 1, 2013.

02 Nitrogen application requirements:

- A. Anhydrous ammonia may not be applied prior to November 1.
- B. A nitrification inhibitor must be applied with all anhydrous ammonia applications made between November 1 and March 1 at the manufacturer's recommended rate.
- C. Liquid and dry nitrogen fertilizers may not be applied between September 1st and March 1.
- D. All pre-plant nitrogen fertilizer applied on or after March 1 at a rate greater than one hundred (100) pounds of actual nitrogen per acre, must be applied with a nitrification inhibitor at the manufacturer's recommended rate.
- E. Fertilizer Application Exceptions.
The following fertilizer application activities are exempt from the provisions of Rule 5, Chapter 26:
 - The application of nitrogen fertilizer for any purpose other than fertilization for spring planted crops.
 - The application of nitrogen fertilizer for spring planted small grains such as barley, oats, and rye.
 - The application of nitrogen fertilizer on pastures.
 - The application of a fertilizer that is not considered a "nitrogen fertilizer" as defined in Rule 5, Chapter 4.
 - The spreading of manure, sewage and other by-products conducted in compliance with state laws and regulations.
- F. Nitrogen fertilizer means a chemical compound in which the percentage of nitrogen is greater than the percentage of any other nutrient in the compound or, when applied, results in an average application rate of more than twenty-five (25) pounds of nitrogen per acre over the field onto which it is being applied.

03 Soil sampling requirements –

At least one zero to eight inch (0-8') soil sample per forty (40) acres, or portion thereof, shall be taken and tested for residual nutrients and organic matter each year and at least one eight to twenty-four inch (8-24") soil sample per forty (40) acres, or portion thereof, shall be taken and tested for residual nitrogen each year in which corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal or industrial waste was applied within the last twelve (12) months.

It is recommended that soil samples be collected as described in University of Nebraska NebGuide G1740.

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It is recommended that a minimum of eight (8) cores be combined into one (1) sample per each forty (40) acres.

Deep soil sampling (8-24 inches) exemptions will be given for corn-soybeans rotations as referred to by University of Nebraska NebGuide G74-174-A.

04 Irrigation scheduling requirements –

Each Operator must conduct irrigation scheduling on one irrigated field in the management area by soil moisture measurements collected with electrical resistance sensors or similar devices. Other methods may be approved by the NRD.

05 Training requirements –

Within one (1) year of July 1, 2012, all Operators of **irrigated** crop land **greater than twenty-five (25) acres in size** in the designated Management Area must attend a NRD approved training session and be certified by the NRD. NRD certification must be renewed every four (4) years. The NRD will accept certification by other NRDs. Renewal certification may be received by NRD approved methods. Approved methods may include items such as attending another training session, passing a test or completing an approved home study course.

The following persons are required to attend: Owner/Operators, Tenants, Hired Hands, and Crop Consultants **of irrigated land greater than twenty-five (25) acres in size** if any of them are responsible for making decisions concerning fertilizer application. **All other operators within the District may participate in training and certification sessions to gain a better understanding of Best Management Practices.**

06 Annual reporting requirement –

By April 1 of each year, each Operator **of irrigated crop land greater than twenty-five (25) acres in size** in the Management Area is required to report information regarding the use of best management practices **as listed below. The District will request voluntary reporting of information regarding the use of best management practice on all other crop land within the District boundaries on a periodic basis.** Forms will be provided by the NRD. The report must include the following information:

The nitrogen application rate must be calculated for each field where corn is grown. Calculations shall be based on University of Nebraska recommended procedures and must account for soil analysis and all other nitrogen credits.

A. Nitrogen credits include but are not limited to: Irrigation water nitrates (if known), Previous crops, Livestock, municipal and industrial waste, Other

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information deemed necessary by the District.

- B. A copy of the soil sample results must accompany the annual report.
- C. Farmers are encouraged to apply no more than the amount of nitrogen fertilizer needed as determined by the University of Nebraska recommendation.

07 Lawn care requirements –

Within one (1) year of July 1, 2012, all lawn care services that apply nitrogen fertilizer to lawns are required to complete a lawn nitrogen course recommended by the NRD every 4 years.

This includes Operators and employees.

Annual reports will be required from all lawn care services on nitrogen fertilizer use. Reports will be due on December 1st of each year and must include the following: Total nitrogen fertilizer uses within the Wellhead Protection Groundwater Management Area, and Total number of acres or square footage nitrogen fertilizer is applied.

All persons who apply nitrogen fertilizer to more than one (1) acre of grass or turf in the Hastings Wellhead Protection Groundwater Management Area are required to attend a lawn nitrogen course or other approved training. This may include web-based training. Certification must be renewed every four (4) years. Certification must be completed within one (1) year of July 1, 2012.

The utilization of mulching mowers and blades are encouraged to reduce the nitrogen fertilizer uses for lawns.

Soil sampling is encouraged before applying nitrogen fertilizer to a lawn or turf.