

Water Quality Enhancement Activity – WQL06 – Apply Controlled Release Nitrogen Fertilizer



Enhancement Name

Apply only slow-release or controlled release formulations of nitrogen fertilizer

Land Use Applicability

This enhancement is applicable on cropland and pasture land.

Benefits

Nutrient management encompasses managing the amount, source, placement, form, and timing of the application of plant nutrients and soil amendments. Nutrient management effectively

utilizes available nutrient resources to supply crops with nutrients required to efficiently produce food, forage, fiber, and cover while minimizing environmental degradation.

The use of slow or controlled release nitrogen fertilizer makes nitrogen available to plants over a longer portion of the growing season to match the plant uptake needs. This limits the loss of nitrogen to leaching and denitrification, and can help control soil emissions of the greenhouse gas nitrous oxide.

Criteria

Implementation of this enhancement requires:

- 1) The use of one or more of the following nitrogen fertilizer products on all treatment acres:
 - Slow-release
 - Controlled release
- 2) The producer must have a current soil test (no more than 3 years old).
- 3) Nutrient application rates are within the “Land Grant University (LGU) recommendations based on soil testing and established yield goals and considering all nutrient sources.
- 4) Soil surface disturbance must be minimized during nitrogen placement.

Documentation Requirements

- 1) Documentation for each Treatment area (field) and year of this enhancement describing these items:
 - Fertilizer product used
 - Treatment acres
 - Soil test results
 - Crops grown and yields (both yield goals and measured yield)
 - Calibration of fertilizer application equipment



- Nutrient application rates/amounts and application dates for each treatment area
- 2) A map showing where the activities are applied.



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Natural Resources Conservation Service

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State Criteria

- The use of any of the following slow or controlled release fertilizer products including sulfur-coated or polymer-coated fertilizers, examples include:
 - ◆ Sulfur-coated urea (SCU),
 - ◆ Urea-formaldehydes (urea forms and methylene ureas),
 - ◆ Isobutylidene diurea (IBDU),
 - ◆ Polymer-coated urea (PCU),
 - ◆ For others, contact NRCS State Agronomist or State Water Quality Specialist.
- Soils shall be sampled and analyzed in accordance with Practice Specification for Nutrient Management (S-590) or NebGuide “Guidelines for Soil Sampling” (G1740).
- All soil samples must be taken prior to applying fertilizer or manure.
- Nutrient application rates are within University of Nebraska recommendations based on soil tests and established yield goals considering all nutrient sources (refer to Practice Standard 590 and Practice Specification (S-590) for Nutrient Management).
- If applicable, manure shall be sampled and analyzed annually in accordance with Practice Standard 633 – Waste Utilization and Nebfact “Manure Testing: What to Request” (NF02-507).
- Minimize soil surface disturbance during nitrogen placement.

Documentation Requirements

1. Provide a map indicating where the activities were applied.
2. Provide copy of soil test results.
3. Provide copies of manure analysis, if applicable.
4. Complete the nutrient and fertilizer application table on the following page.
5. Complete the fertilizer/application equipment type and calibration date on the following table:

Type of Equipment	Date of Calibration
<i>Spreadall (16 ton)</i>	<i>11/1/08</i>

I certify that the following information meets specifications and has been provided to NRCS:

1. Written documentation of the activity performed per documentation requirements.
2. Copies of dated receipts for equipment or services purchased.

I understand that it is my responsibility to obtain all necessary permits and to comply with all laws, regulations and ordinances pertaining to the application of these activities.

Certified by: _____ **Date:** _____



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Field Information		Commercial Fertilizer and Manure Information																					
Tract & Field	Acres	Crop & Yield	Date Applied (m/d/yr)	Form of Commercial Fert. or Manure	Rate (lb/a)	Application Method	If Manure, Days to Incorporp.	N Avail. (lb/a)	P Avail. (lb/a)	Other (lb/a)	Total N Avail. (lb/a)	Total p Avail. (lb/a)	Total Other Avail. (lb/a)										
T1234 & F1	78.9	Crop	11/30/08	Beef Solids	16 T/a	16 T/a	1	152	656	Sulfur 19	185	656	Sulfur 19										
		Yield	3/30/09											35-0-0-19 (SCU)	50#	Broadcast	na	35	0				
		Crop																					
		Yield																					
		Crop																					
		Yield																					
		Crop																					
		Yield																					