



United States Department of Agriculture
Natural Resources Conservation Service

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.

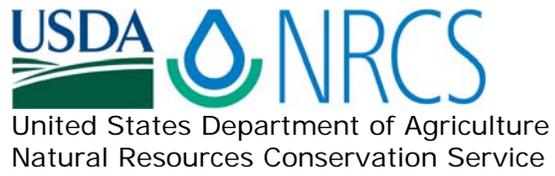
Criteria

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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Reference: 590 – Nutrient Management

Additional information on nitrogen can be found at the following website:

<http://www.extension.umn.edu/projects/afe/Corn/nitrogen.html>

Currently acceptable controlled- or slow-release nitrogen fertilizers include:

Acceptable Controlled- and Slow-Release Nitrogen Fertilizer Products	
Slow-Release	Controlled-Release
Urea-formaldehyde	Sulfur-coated urea
Magnesium-ammonium phosphate	Polymer-coated urea (ESN)
IBDU (isobutylidene diurea)	

PLEASE NOTE:

1. Controlled release urea, also referred to as poly-coated urea (PCU), applies primarily to corn in Minnesota.