

Vermont State Supplement, Water Quality Enhancement Activity – WQL06 – Apply Controlled Release Nitrogen Fertilizer
Vermont Supplemental Information in Blue Font

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

[Vermont Slow and Controlled Release Nitrogen Fertilizer List](#)

Uncoated Nitrogen Fertilizers

- Ureaformaldehyde (UF) reaction products
 - Ureaform
 - Methylene ureas
 - UF solutions
- Isobutylidene diurea (IBDU)

Coated Nitrogen Fertilizers

- Sulfur-coated fertilizers
- Polymer-coated fertilizers

Polymer-coated sulfur-coated fertilizers

- 2) The producer must have a current soil test (no more than 3 years old).
- 3) Nutrient application rates are within the “University of Vermont recommendations” based on soil testing and established yield goals and considering all nutrient sources. See http://pss.uvm.edu/vtcrops/articles/VT_Nutrient_Rec_Field_Crops_1390.pdf
- 4) Soil surface disturbance must be minimized during nitrogen placement.

Refer to and follow VT NRCS Nutrient Management (590) standard. Seek assistance from NRCS in proper management. http://www.vt.nrcs.usda.gov/technical/Conservation_Practices/Index.html

Documentation Requirements

- 1) Documentation for each Treatment area (field) and year of this enhancement describing these items:
 - Fertilizer product used
 - Treatment acres



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- 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.