

Water Quality Enhancement Activity– WQL10 – Plant a cover crop that will scavenge residual nitrogen



Enhancement Description

Plant a cover crop that will scavenge nitrogen left in the soil after the harvest of a previous crop. Suitable cover crops include those with at least a “Very Good” rating for scavenging nitrogen as documented in *“Managing Cover Crops Profitably, 3rd Edition”* (Sarrantonio, 1998), Chart 2 Performance & Roles, pg 67. Examples include cereal rye, barley, forage radish and sorghum sudan.

Land Use Applicability

This enhancement is applicable on cropland.

Benefits

Planting an annual cover crop to scavenge residual nutrients from cropland after the harvest of a previous crop effectively utilizes residual nutrient resources to supply following crops with nutrients required to efficiently produce food, forage, fiber, and cover while minimizing environmental degradation.

Criteria for Planting a Cover Crop That Will Scavenge Residual Nitrogen:

Implementation of this enhancement requires:

- 1) The cover crop selected shall have the growth rate and rooting depth required to scavenge excess nitrogen from the root zone of the previous crop. Suitable cover crops include those with at least a “Very Good” rating for scavenging nitrogen as documented in *Managing Cover Crops Profitably, 3rd Edition, Chart 2 Performance & Roles, pg 67*. Examples include cereal rye, barley, forage radish and sorghum sudan.
- 2) Timing of planting and seeding rates for cover crops shall follow the recommendations in the respective NRCS Field Office Technical Guide (FOTG).
- 3) The producer must have a current soil test (no more than 3 years old).
- 4) Nitrogen application rates for the crop following the cover crop must be reduced by at least 15% from the “Land Grant University (LGU) recommendations to account for the recycling of N by the cover crop.
- 5) The producer shall not increase soil surface disturbance over existing benchmark conditions.



United States Department of Agriculture
Natural Resources Conservation Service

Documentation Requirements

Documentation for each Treatment area (field) and year of this enhancement describing these items:

- a. Cover crop species planted
 - b. Cover crop planting date
 - c. Cover crop seeding rate (bu/ac)
 - d. Annual crop planted
 - e. Nitrogen application rates/amounts for the annual crop
 - f. Treatment acres
- 2) A map showing where the activities are applied.

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State Criteria

Cover crops must be planted whenever the crop they are scheduled to follow in the rotation is grown and rotated across all planned acres by the end of the contract period.

Cover Crop Requirements

- Cover crops can not be harvested or grazed
- Cover crops must follow planting dates, seeding rates, method of planting and other requirements in 340 Cover Crop Standard. Specifications will be provided on the Cover Crop Worksheet (NE-CPA-7).
- Cover crops which winter kill must be planted at least 8 weeks prior to the average date of the first killing frost.
- Cover crops which over winter must have at least 4 weeks of spring growth before termination.
- Winter annual cover crops planted following a low residue crop must have a minimum of 6-8” of growth before they are terminated.
- Cover crop must be a different crop type (i.e. warm season grass, cool season grass, warm season broadleaf, cool season broadleaf) or, if a cover crop mix is used, include a different crop type than the previous crop.
- Cover crops which follow fall harvested crops must be a winter annual small grain such as rye, wheat or triticale, or a winter annual small grain with a legume.

This enhancement is most applicable following high nitrogen use crops such as corn or following summer or early fall applications of manure.

Acceptable cover crops are: Most cereal grains including barley, oats, wheat and rye; forage sorghum, sudangrass or sorghum-sudan; and brassicas such as canola, forage radish and turnip.

Cover crops must be seeded early enough to allow for adequate growth to occur prior to winter and must meet the requirements of the Cover Crop Standard (340) in the Field Office Technical Guide.

Nitrogen application rates for the subsequent crop must be based on a current soil test (no more than 3 years old), must follow University of Nebraska recommendations, and must be adjusted to account for the recycling of N by the cover crop.

It is recommended that this enhancement be applied in conjunction with Water Quality Enhancement WQL08 “Split Applications of Nitrogen Based on a Pre-Sidedress Nitrate Test” to better quantify the amount of available N being released from the cover crop.

Documentation

TABLE OF PLANNED AND APPLIED ACTIVITY – WQL10

Tract	Field(s)	Existing Rotation	Planned Rotation with Cover Crop	Cover Crop	Date Planted	Acres Planned	Acres Applied
<i>1</i>	<i>1</i>	<i>C-B-W</i>	<i>C-B-W-cc</i>	<i>Canola</i>	<i>Aug. 15</i>	<i>100</i>	

C=Corn; B=soybeans/edible beans; W=Wheat; M=Milo; A=Alfalfa; O=Oats; cc=cover crop; Others=_____

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

1. Planned rotation, cover crop grown, and the number of acres where the enhancement was applied (complete the above table).
2. A completed Cover Crop Worksheet (NE-CPA-7) showing the cover crop grown, seeding date and seeding rate.
3. Copies of soil tests.
4. A completed Nutrient Budget Job Sheet (NE-CPA-38) or equivalent showing realistic yield goals for the subsequent crop and nitrogen application rates.
5. A map with delineation of the area where the enhancement was applied.

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:** _____