

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



**Enhancement Description**

Plant a cover crop that will scavenge nitrogen remaining 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**

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.

**Conditions Where Enhancement Applies**

This enhancement applies to only annually planted crop land use acres.

**Criteria**

Implementation of this enhancement requires:

1. The cover crop selected shall have the growth rate and rooting depth required to effectively scavenge residual 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 as available in the local NRCS Field Office.
3. The participant 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 the “Land Grant University (LGU) recommendations to account for the recycling of N by the cover crop.



### **Adoption Requirements**

This enhancement is considered adopted when all of the above criteria have been implemented on the land use acre.

### **Documentation Requirements**

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

1. A map showing where the activities are applied,
2. Cover crop species planted,
3. Cover crop planting date,
4. Cover crop seeding rate (bu/ac),
5. Annual crop planted,
6. Nitrogen application rates/amounts for the annual crop:
  - a. If N application rates increased, technical justification shall be provided for the increase,
  - b. If N application rates were decreased in excess of the default residual value recommended by the LGU, technical justification shall be provided for the decrease, and
7. Treatment acres.

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## North Dakota Recommendations for CSP Cover Crop Enhancements

Refer to the ND NRCS 340 Standard and Specifications and the ND-NRCS-305 Cover Crop Workbook for species recommendations and planning guidance.

### Use of Legume Cover Crops as a Nitrogen Source – ENR12

Acceptable legume species include, but are not limited to:

Alfalfa	Hairy Vetch
Sweet Clover	Soybean
Edible Beans	Cowpea
Peas	Berseem Clover
Lentil	Medic

### Continuous Cover Crops - SQL02

Specific NRCS cover crop recommendations will be based on the identified purposes and resource needs as discussed with the client.

### Use of Cover Crop Mixes – SQL04

Specific NRCS cover crop mixture recommendations will be based on the identified purposes and resource needs as discussed with the client.

### Use of Deep-Rooted Crops to Breakup Soil Compaction – SQL05

Acceptable legume species include, but are not limited to:

Alfalfa	Sorghum
Beets	Sugarbeet
Canola	Sunflower
Corn	Sweet Clover
Radish (oils seed or forage)	Turnips
Safflower	

### Plant an Annual Cover Crop Species That Will Scavenge Residual Nitrogen - WQL10

Acceptable species include, but are not limited to:

Annual Ryegrass	Safflower
Barley	Sunflower
Canola	Triticale
Oat	Turnip
Radish	Wheat
Rye	Winter wheat