

**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, 3<sup>rd</sup> 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, 3<sup>rd</sup> 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.

**TENNESSEE SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT**

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Cover crops listed below are based on having a rating of at least "Very Good" rating from the *"Managing Cover Crops Profitably, 3rd Edition"* (Sarrantonio, 1998), *Chart 2 Performance & Roles*, pg 67.

Cover Crops for Scavenging Residual Nitrogen		
<b>Non-Legumes</b>	<b>Brassicas</b>	<b>Legumes</b>
Barley	Forage Radish	Berseem Clover
Forage Oats	Rapeseed/Canola	
Cereal Rye		
Sorgum-sudan		
Wheat		

**Documentation Form**

<b>Producer Name:</b>				<b>Date:</b>	
<b>Tract Number(s):</b>			<b>County:</b>		
<b>Field Number(s):</b>					
<b>Cover Crop Species Planted:</b>					
<b>Planting Date:</b>					
<b>Seeding Rate (bu/a):</b>					
<b>Annual Crop Planted:</b>					
<b>Nitrogen Application Rates/Amounts:</b>					
<b>Treatment Acres:</b>					