

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

New Jersey Addendum

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*, found at <http://www.sare.org/publications/covercrops/covercrops.pdf>. Examples include cereal rye, barley, forage radish and sorghum sudan.

NJ Cover Crops for Scavenging Residual Nitrogen List

- Annual ryegrass
- Rye
- Radish
- Barley
- Wheat
- Oats
- Sorghum-sudan grass

- 2) Timing of planting and seeding rates for cover crops shall follow the recommendations in the NJ NRCS Cover Crop (340) standard. Seek assistance from NRCS in proper management.
- 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 Rutgers Cooperative Extension 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.

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
- g. A map showing where the activities are applied.