United States Department of Agriculture
Natural Resources Conservation Service 2013 Ranking Period 1

Soil Quality Enhancement Activity – SQL04 – Use of cover crop mixes

Enhancement Description
This enhancement is for the use of cover crop mixes that contain two (2) or more different species of cover crops or cultivars of a single species.

Land Use Applicability
Cropland

Benefits
The use of a cover crop mixture that contains two (2) or more species is often more effective than a planting of single species cover crop. Cover crop mixtures adapt to variation in soils, increase biomass production, provide broader spectrum of weed control, have better winter survival and ground cover and attract a range of beneficial insects. Nutrients can be trapped or produced depending on existing soil conditions and plants used. Mixes can be a grass/legume, multiple cultivars of a single species, or a mix containing plants with different growth patterns, e.g. fast and slow, tall and short

Conditions Where Enhancement Applies
This enhancement applies to all crop land use acres (excluding permanent hayland).

Criteria
1. Cover crop mixes must contain a minimum of two (2) different plant species or two (2) different cultivars of a single species with differing maturity dates.
2. Cover crop species will be selected from state specific lists. The list of approved cover crops is available at the local NRCS Field Office.
3. Crops planted following cover crop must be no-tilled.
4. Nutrient applications for crops following cover crop should consider nitrogen fixation from leguminous cover crops.

Adoption Requirements
This enhancement is considered adopted when two different plant species or cultivars of a single species are being grown on the land use acre.

Documentation Requirements
1. Written documentation for each year describing, in detail, the following items:
   a. Cover crop species used and dated planted,
   b. Date and amount of fertilizer applied,
   c. Method to kill cover crop and date completed, and
   d. Crop planted after cover crop and method used.
2. A map showing fields where the enhancement is applied.
3. Photographs of a representative number of fields showing cover crop mix.

North Dakota Requirements

Refer to the ND NRCS-305 Cover Crop Workbook for species recommendations. Specific NRCS cover crop mixture recommendations will be based on the identified purposes and resource needs as discussed with the client.

References

Sainju, U.M., W.F. Whitehead and B.P. Singh. 2005. Biculture Legume–Cereal Cover Crops for Enhanced Biomass Yield and Carbon and Nitrogen. Agron. J. 97:1403–1412.