

Soil Erosion Enhancement Activity – SOE01 - Continuous No Till with High Residue



Continuous No Till/Strip Till/Direct Seed

Utilize continuous no-till/strip till/direct seed in the rotation in combination with high and low residue producing crops or cover crops to maintain a high level of residue cover through critical erosion periods.

Land Use Applicability

This enhancement is applicable on cropland.

Benefits

High levels of surface residue with continuous no-till/strip till/direct seed reduce erosion by wind and water by up to 90%. The result is increased soil organic matter compared to intensively tilled soils with no surface residue protection. This will in turn, enhance and protect water quality and biotic communities that depend on clean water.

Criteria

Implementation of this enhancement **requires** the use of continuous no-till/strip till/direct seed. The no-till/strip till/direct seed system must incorporate 1 or more of the following activities.

1. Maintain high level of residue cover after no-till planting all crops in the rotation.
 - a. Utilize high residue crops in the rotation
 - b. Maintain a minimum of 50% residue cover after no-till planting all crops.
2. Use high residue cover crops to provide adequate residue for no-till planting after or between low residue crops in rotation.
 - a. Utilize high and low residue crops in the rotation
 - b. Use no-till to plant high residue cover crops between two low residue annual crops
 - c. Maintain a minimum of 50% residue cover after no-till planting all crops.
3. Low disturbance no-till planting and moderate level of residue cover after or between low residue crops in rotation.
 - a. Utilize high and low residue crops in the rotation
 - b. After high residue crops, maintain a minimum of 50% residue cover after no-till planting
 - c. After low residue crops use low disturbance no-till planting; maintain a Soil Tillage Intensity Rating (STIR) ≤ 20 and a minimum of 30% residue cover after planting.



In addition, each field must also have the soil loss at or below the tolerance (T) level for wind and/or water erosion for the crop rotation and a Soil Tillage Intensity Rating (STIR) of 30 or less for each planted crop or cover crop in the rotation.

Documentation Requirements

- Crop rotation records including rotation length in years, crops and cover crops planted.
- Sequence and description of operations for each crop and/or cover crop including harvest, residue conditioning, nutrient placement and planting/seeding.



United States Department of Agriculture
 Natural Resources Conservation Service

NE-SOE01

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For a description of high and low residue crops and other requirements, refer to Nebraska Resource Conserving Crop Rotations – Enhancement Activity CCR99

Additional Criteria for Nebraska:

- No full width tillage is allowed
- Seedbed preparation, planting method and fertilizer placement will not disturb more than one-third of the row width
- No row cultivation
- Fertilizer and manure placement shall be limited to low disturbance methods such as surface application or injection with narrow knives on 30 inch spacing or wider.

TABLE OF PLANNED AND APPLIED ACTIVITY – SOE01

Tract	Field(s)	Planned Acres	Existing Rotation	Planned Rotation	Applied Rotation	Acres Applied
<i>1</i>	<i>1</i>	<i>100</i>	<i>C-B</i>	<i>C-B-W</i>	<i>C-B-W</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 has been provided to NRCS:

1. Complete the table above: Applied Rotation and Applied Acres. Provide a map with delineation of the area where the enhancement was applied if it is a partial field.
2. If Cover crop applied, attach completed NE-CPA-7: Job Sheet for Cover Crops
- 3..The requirements for this enhancement activity including the Additional Criteria for Nebraska as described above have been met.

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:** _____