

**Soil Erosion Enhancement Activity – SOE03 - Continuous no-till (organic system)**



**Enhancement Description**

This enhancement is for using a continuous no-till, strip till or direct seeding method of planting throughout the planned rotation on an organic farm. High residue levels are maintained by including high residue-producing crops, or by low residue crops followed by a cover crop in the rotation. Termination of all cover crops is accomplished using non-chemical methods, such as flail mowing, roller crimper and frost kill. No herbicides are used for weed control.

**Land Use Applicability**

Cropland (that is certified as organic or on conventional acreage that is being transitioned for organic certification).

**Benefits**

Use of continuous no-till, strip till or direct seeding leaves high levels of crop residue that can reduce erosion by wind and water up to 90%, increase soil organic matter, and control weeds. Mechanically terminating cover crops using a flail mower or roller crimper can eliminate the use of herbicides, thereby reducing potential offsite water quality problems while leaving the soil undisturbed.

**Criteria**

Implementation of this enhancement requires the use of continuous no-till, strip till or direct seeding on all crops during the planned rotation that is part of an organic system plan. The no-till, strip till or direct seeding system must incorporate the following activities:

1. Rotations that include only high residue producing crops
  - a. No cover crop required
  - b. Use only crops that produce high residue levels throughout the rotation, e.g. corn, wheat
  - c. Maintain a minimum of 90% residue cover on the soil surface after no-till, strip till or direct seed planting all crops
2. Rotations that include low residue crops
  - a. Use a cover crop after ALL low residue crops, e.g. vegetables, cotton, soybeans
  - b. Plant cover crops using a no till system



- c. Maintain a minimum of 90% residue cover on the soil after no-till planting all crops
  - d. Use warm-season cover crops between spring and late summer crops or prior to late summer vegetable production
3. Additional Criteria
- a. All residues must be uniformly distributed over the entire field
  - b. No full-width tillage is permitted regardless of the depth of the tillage operation
  - c. Field(s) must have a 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
4. No Herbicides are used for weed control
5. Termination of all cover crops is accomplished using non-chemical methods, such as flail mowing, roller crimper and frost kill.

#### **Documentation**

1. Planned crop rotation showing cover crops that will be used after low residue crops
2. Planting method used for each crop in the rotation (no-till, strip till, direct seeding)
3. List of all other potential ground disturbing farming operations
4. Method of cover crop termination, e.g. flail mowing, roller crimper
5. Dates for farming operations
6. Map showing fields, acreage
7. Photographs of planted crops

**ALABAMA SUPPLEMENT TO ENHANCEMENT SOE03 CONTINUOUS NO-TILL  
(ORGANIC SYSTEM)**

This enhancement is designed to reduce erosion by utilizing high levels of surface residue with continuous no-till/strip till/direct seeding in an organic system. This enhancement is only applicable to cropland that is certified organic or being transitioned into certified organic. To implement this enhancement the producer is required to incorporate the criteria from the national enhancement. Alabama list of high and low residue crops are included. In addition, each field must also have the soil loss at or below the tolerance (T) level for 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. For additional information see the national enhancement. Refer to the NRCS Conservation Practice Standard Cover Crops, 340, for information on planting dates and rates of cover crops. Producers are responsible to insure that the implementation of this enhancement or any other conservation practices meet the requirements of the National Organic Program (NOP) by contacting their certifier before implementation.

**Documentation Requirements:**

1. Planned crop rotation showing cover crops that will be used after low residue crops.
2. Planting method used for each crop in the rotation (no-till, strip till, direct seeding).
3. List of all other potential ground disturbing farming operations.
4. Method of cover crop termination, e.g. flail mowing, roller crimper.
5. Dates for farming operations.
6. Map showing fields, acreage.
7. Photographs of planted crops.

HIGH RESIDUE CROPS	LOW RESIDUE CROPS
Corn (grain, sweet corn)	Corn (silage)
Sorghum (grain)	Corn (residue grazed)
Small Grains (grain or cover)	Sorghum (Silage)
Perennial forages grasses	Soybean
Pearl Millet (managed for residue)	Sunflower
Sorghums (managed for residue)	Root crops
Sudangrass (managed for residue)	Vegetable Crops
Ryegrass (managed for residue)	Cotton
Mixtures of cool-season annual grasses and legumes (managed for residue)	Peanut
Hairy Vetch (managed for residue)	Annual clover
	Perennial clover
	Austrian winter pea
	Caley pea

**References:**

**Alabama, Conservation Practice Standard Cover Crops (340)**

**ALABAMA SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT**

***SOE03 - Continuous No Till (Organic System)***

**Documentation Form**

<b>Producer Name:</b>		<b>Date:</b>		
<b>Tract Number(s):</b>		<b>County:</b>		
<b>Field Number(s):</b>				
<b>Crop Rotation including cover crop:</b>				
<b>Crop(s) Planted:</b>				
<b>Date Planted:</b>				
<b>No-Till Planting Method:</b>				
<b>Other Ground Disturbing Operations including date:</b>				
<b>Harvest Date:</b>				
<b>Cover Crop Planted:</b>				
<b>Date Planted:</b>				
<b>Method of Cover Crop Termination:</b>				
<b>Date of Termination:</b>				

Notes: Include map of fields and respective acres and include photographs of planted crops.

The supplied information accurately reflects the implementation of this enhancement.

**SIGNATURE:**

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