



CONSERVATION ENHANCEMENT ACTIVITY

E340I

CONSERVATION STEWARDSHIP PROGRAM

Using cover crops for biological strip till

Conservation Practice 340: Cover Crop

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Soil

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Establish alternating strips of cover crops in which one strip acts as a biological strip-tiller and the adjacent strip promotes soil health with high residue cover crops. This will facilitate planting of the subsequent cash crop into the biologically strip-tilled row without the need for mechanical disturbance.

Criteria

- Plant species, seedbed preparation, seeding rates, seeding dates, seeding depths, fertility requirements, and planting methods will be consistent with applicable local criteria and soil/site conditions **(REFER TO STATE SPECIFIC LISTS)**.
- Determine method and timing of cover crop termination to meet grower's objective and current NRCS Cover Crop Termination Guidelines. Terminate the cover crop as late as practical to maximize plant biomass production and nutrient uptake.
- Select species that are compatible with other components of the cropping system.
- Use a precision guidance system to ensure seeding is placed in the existing cover crop rows.
- Do not burn cover crop residue.
- Do not harvest or graze cover crop.

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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, provide NRCS with the current and planned crop rotation and field operation(s) used for each crop.

Planned Management Rotation Including Cover Crop

| Field | Planned Crops/Cover Crop (in sequence) | Planting Date | Harvest/Termination Date |
|-------|--|---------------|--------------------------|
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| | | | |
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Cover Crop Mix and Seeding Rate

| Species | Variety | Seed Size | Typical Seeding Depth | Seeding Rate (PLS lbs/acre) | Percent of Mix (%) |
|---------|---------|-----------|-----------------------|-----------------------------|--------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Establishment and Management Considerations:

| Task | Provide information and details |
|----------------------------|---------------------------------|
| Seedbed Preparation | |
| Seeding Date | |
| Seeding Depth | |
| Seeding Method | |
| Fertilizer, as needed | |
| Weed Management, as needed | |
| Termination Date (window) | |
| Termination Method | |



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- Prior to implementation, read and follow current [NRCS Cover Crop Termination Guidelines](#).
- During implementation, cover crops must not be grazed, burned, harvested or biomass removed.
- During implementation, notify NRCS of any planned changes in crops, crop rotation, or unharvested areas to verify the planned system meets the enhancement criteria.
- After implementation, if changes to the cover crop and crop rotation were made, complete the tables above to document the applied Cover Crop for the contract period and provide to NRCS.

NRCS will:

- As needed, provide technical assistance in selecting cover crop mixes for the crop rotations or substitute species that would meet the criteria of the enhancement.
- As needed, provide additional assistance to the participant as requested.
- Prior to implementation, provide and explain the current [NRCS Cover Crop Termination Guidelines](#).
- During implementation, evaluate planned adjustments in cover crop selected, timing in crop rotation, management, or field operations to verify the new system meets the enhancement criteria.
- After implementation, evaluate the applied crop rotation or management using information provided from the participant, if any variation to planned evaluation, document that the applied rotation met the enhancement criteria.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date

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IOWA SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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Additional Criteria for Iowa

- State list of approved Cover Crop species, seeding rate, seeding dates, seeding depths and planting methods for biological strip till can be found in the current 340 Iowa Implementation Requirements for Cover Crops.
- Mixes may be developed using the Midwest Cover Crops Council Cover Crop Decision Tool for Iowa <http://mccc.msu.edu/selector-tool/>. Filter the list of potential cover crops for your county by selecting the first goal as soil builder.
- The High Residue portion of the seeding mix must be at least 50% cereal grain cover crop species.
- Species acceptable include:
 - Barley, Spring **HR**
 - Barley, Winter **HR**
 - Buckwheat **BST**
 - Camelina, Winter **BST**
 - Clover, Berseem **BST**
 - Clover, Crimson **BST**
 - Clover, Red **BST**
 - Clover, White **BST**
 - Flax **BST**
 - Kale **BST**
 - Mustards **BST**
 - Pea, Field/Winter **BST**
 - Oats **HR**
 - Radish **BST**
 - Rapeseed **BST**
 - Rye, Winter Cereal **HR**
 - Ryegrass, Annual **HR**
 - Triticale, Winter **HR**
 - Turnip **BST**
 - Vetch, Common **BST**
 - Vetch, Hairy **BST**
 - Wheat, Spring **HR**
 - Wheat, Winter **HR**

(BST - Biological Strip Till, HR - High Residue)