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.
## 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

<table>
<thead>
<tr>
<th>Field</th>
<th>Planned Crops/Cover Crop (in sequence)</th>
<th>Planting Date</th>
<th>Harvest/Termination Date</th>
</tr>
</thead>
<tbody>
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</table>

### Cover Crop Mix and Seeding Rate

<table>
<thead>
<tr>
<th>Species</th>
<th>Variety</th>
<th>Seed Size</th>
<th>Typical Seeding Depth</th>
<th>Seeding Rate (PLS lbs/acre)</th>
<th>Percent of Mix (%)</th>
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### Establishment and Management Considerations:

<table>
<thead>
<tr>
<th>Task</th>
<th>Provide information and details</th>
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<tbody>
<tr>
<td>Seedbed Preparation</td>
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<tr>
<td>Seeding Date</td>
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<tr>
<td>Seeding Depth</td>
<td></td>
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<tr>
<td>Seeding Method</td>
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<tr>
<td>Fertilizer, as needed</td>
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<tr>
<td>Weed Management, as needed</td>
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<tr>
<td>Termination Date (window)</td>
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<tr>
<td>Termination Method</td>
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</table>
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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Additional Criteria for Washington

- In addition to the criteria specified in the National job sheet E340 the following additional criteria apply in Washington:
  - If using plants/crops that have not been historically proven in the county the participant must be working with LGU, extension, and/or conservation districts. Consult Area or State Specialist if further cover crop assistance is needed.
  - Use the following resources to select cover crops appropriate for your climate, cropping system and enhancement purpose.
    - PNW Cover Crop Selection Tool
    - Additional Resources found on WA eFOTG Section 1, Reference Lists: Technical Notes by Discipline
      - WA Agronomy Technical Note 2 – Winter Cover Crops for Irrigated Sandy Soils in the Columbia Basin
      - WA Agronomy Technical Note 10 – Planting Dates for Fall Cover Crops in the Irrigated Columbia Basin
      - WA Agronomy Technical Note 9 – Management of Residual Nitrogen with Cover Crops
      - WA Agronomy Technical Note 16 – Cover Crops
      - WA Plant Materials Technical Note 18 – Green Manure and Cover Crops for the Inland Pacific Northwest
    - Additional Resources: