

CONSERVATION ENHANCEMENT ACTIVITY

CONSERVATION STEWARDSHIP PROGRAM

E340B

Intensive cover cropping to increase soil health and soil organic matter content

Conservation Practice 340: Cover Crop

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Soil

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Implementation of cover crop mix to provide soil coverage during ALL non-crop production periods in an annual crop rotation. Cover crop shall not be harvested or burned. Planned crop rotation including cover crops and associated management activities must achieve a soil conditioning index (SCI) of zero or higher. The current NRCS wind and water erosion prediction technologies must be used to document SCI calculations.

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 the method and timing of termination to meet the grower's objective and the current NRCS Cover Crop Termination Guidelines.
- Select species that are compatible with other components of the cropping system.
- Ensure herbicides used with crops are compatible with cover crop selections.

E340B - Intensive cover cropping to	July 2019	Page 1
increase soil health and soil organic matter		
content		



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 Cover crops may be established between successive production crops, or companionplanted or relay-planted into production crops.
 Select species and planting dates that will not compete with the production crop yield or harvest.



- Do not burn cover crop residue.
- Do not harvest the cover crop.
- If the specific rhizobium bacteria for the selected legume are not present in the soil, treat the seed with the appropriate inoculum at the time of planting.
- Cover crop must provide soil coverage during all non-crop production periods to the maximum extent possible considering the cropping system, climate, and soils in the annual crop rotation. (STATES SHALL PREPARE GUIDANCE FOR THEIR LOCAL CLIMATES AND CROPPING SYSTEMS.)
- Minimum 3 species mix will be selected on the basis of producing higher volumes of organic material and root mass to maintain or increase soil organic matter.
- Planned crop rotation including cover crops, biomass produced, and associated management activities must achieve a management soil conditioning index (SCI) of zero or higher <u>and</u> result in a positive trend in the <u>Organic Matter</u> (OM) sub factor value over the life of the rotation.



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<u>Documentation and Implementation Requirements</u> Participant will:

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



Current Management Rotation

Field	Planned Crops/Cover Crop (in sequence)	Planting Date	Harvest/Termination Date
			/

Current Field Operations for each crop

Field	Crop	Field Operation		g of Field ration th/year)

Planned Management Rotation Including Cover Crop

Field	Planned Crops/Cover Crop (in sequence)	Planting Date	Harvest/Termination Date

E340B - Intensive cover cropping to	July 2019	Page 3
increase soil health and soil organic matter		
content		

CONSERVATION STEWARDSHIP PROGRAM

Planned Field	Operations '	for each crop
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Field	Crop	Field Operation	Timing of Field Operation (month/year)

Cover Crop Mix and Seeding Rate

Species	Variety	Seed Size	Typical Seeding Depth	Seeding Rate (PLS lbs/acre)	Percent of Mix (%)
					7

Establishment and Management Considerations:

Task	Provide i <mark>nformation an</mark> d details
Seedbed Preparation	
Seeding Date	
Seeding Depth	
Seeding Method	
Fertilizer, as needed	
Weed Management, as needed	
Termination Date (window)	
Termination Method	

☐ Prior to implementation, read and follow current <u>NRCS Cover Crop Termination Guidelines</u>.

E340B - Intensive cover cropping to	July 2019	Page 4
increase soil health and soil organic matter		
content		



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	During implementation, cover crops must not be burned or harvested. CONSERVATION STEWARDSHIP
	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.
NR	CS 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, verify the cover crop mix has a minimum of 3 species.
	Prior to implementation, provide and explain the current NRCS Cover Crop Termination Guidelines.
	Prior to implementation, use the information provided from the participant to calculate the management Soil Conditioning Index (SCI) and Organic Matter (OM) sub factor value over the life of the rotation. Cover crop must increase SCI and OM sub factor from the current/benchmark condition and SCI value must be 0 or greater and have a positive trending OM subfactor over the life of the rotation.
	Benchmark Management SCI =, Benchmark Management OM sub factor =
	Planned Management SCI =, Planned Management OM sub factor =
	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, then calculate SCI
	values to document that the applied rotation met the enhancement criteria.
	Applied Management SCI =, Applied Management OM sub factor =

E340B - Intensive cover cropping to	July 2019	Page 5
increase soil health and soil organic matter		
content		



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:		Cont	
Total Acres Applied:	-	Year Completed	:
NRCS Technical Adequacy Signature			

*Sign and certify in the Oregon-Acknowledgment & Certification supplement below.

E340B - Intensive cover cropping to	July 2019	Page 6
increase soil health and soil organic matter		
content		



OREGON SUPPLEMENT TO

CONSERVATION ENHANCEMENT STEWARDS PROGRAM

CONSERVATION STEWARDSHIP PROGRAM

ACTIVITY E340B

Additional Documentation for Oregon:

- In addition to the documentation requirements specified in the National job sheet E340B the following additional documentation requirements apply in Oregon.
 - Utilize the <u>Pacific Northwest Cover Crop Selection Tool</u> to select approved cover crop species for the local climates and cropping systems present in planning area.

Additional References and Information for Oregon:

 Tables containing seeding dates & yields for certain plant species and varieties at different locations throughout Oregon: Agronomy Technical Note 9- Seeding Tables



Design Approvals & Acknowledgements:

Design Approval	Date	Job Approval Authority
Designed by:		
Approved by:		

Client's Acknowledgement Statement:

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

Client's Signature	Date

Certification Documentation:

Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)

Certification Statement:

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

Field Level Certification – For multiple applications of this design.				
Land Unit/ Contract	Date	Unit(s)	Amount	Certifier
Item Number			Installed	

Oregon- Acknowledgment & Certification	January 2024	Page 2