



CONSERVATION ENHANCEMENT ACTIVITY

E329E

CONSERVATION STEWARDSHIP PROGRAM

No till to reduce energy

Conservation Practice 329: Residue & Tillage Management, No Till

APPLICABLE LAND USE: Crop (Annual & Mixed)

RESOURCE CONCERN: Energy

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Establish a no till system which reduces total energy consumption associated with field operations by at least 25% compared to current tillage system (benchmark). Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 20. The current NRCS wind and water erosion prediction technologies must be used to document STIR calculations and energy consumption.

Criteria

- Residue shall not be burned.
- All residues must be uniformly distributed over the entire field. Removing residue from the row area prior to or as part of the planting operation is acceptable.
- No full-width tillage is performed from the time of harvest or termination of one cash crop to the time of harvest or termination of the next cash crop in the rotation regardless of the depth of the tillage operation.
- The Soil Tillage Intensity Rating (STIR) value must include all field operations that are performed during the crop interval between harvest or termination of the previous cash crop and harvest or termination of the current cash crop (includes fallow periods). Each crop must have a STIR value no greater than 20.



- Reduce the total energy consumption associated with field operations by at least 25% compared to the current benchmark tillage system. Use the current NRCS wind and water erosion prediction technologies for determining energy use to document energy use reductions.

CONSERVATION STEWARDSHIP PROGRAM





CONSERVATION STEWARDSHIP PROGRAM

Documentation and Implementation Requirements

Participant will:

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

Field	Acres	Current (Benchmark) Crops (in sequence)	Length of Crop Rotation (years)

Field	Crop	Current (Benchmark) Field Operation	Timing of Field Operation (month/year)

Field	Acres	Planned Crops (in sequence)	Length of Crop Rotation (years)

Field	Crop	Planned Field Operation	Timing of Field Operation (month/year)

- During implementation, notify NRCS of any planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.



CONSERVATION STEWARDSHIP PROGRAM

- During implementation, no residue will be burned.
- During implementation, all residues will be uniformly distributed over the entire field. Removing residue from the row area prior to or as part of the planting operation is acceptable.
- During implementation, no full-width tillage may be performed from the time of harvest or termination of one cash crop to the time of harvest or termination of the next cash crop in the rotation regardless of the depth of the tillage operation.
- During implementation, reduce the total energy consumption associated with field operations by at least 25% compared to the current benchmark tillage system.
- After implementation, if changes to the rotation were made, complete the tables above to document the applied Conservation Crop Rotation for the contract period and provide to NRCS.

NRCS will:

- As needed, provide technical assistance to meet the criteria of the enhancement.
- Prior to implementation, use the information provided from the participant to calculate the Soil Tillage Intensity Rating values and energy consumption for both the current system and the planned system using the approved NRCS wind and water erosion prediction technologies. Verify the Soil Tillage Intensity Rating value is no greater than 20 for each crop in the planned rotation and total energy consumption is reduced by at least 25%.

Current STIR values = _____ and Energy Consumption = _____

Planned STIR values = _____ and Energy Consumption = _____

- During implementation, evaluate planned changes in crops, crop rotation, or field operations to verify the planned system meets the enhancement criteria.
- After implementation, if changes were made to the planned crop(s), crop rotation, or field operations, use information provided from the participant to calculate the Soil Tillage Intensity Rating values and total energy consumption to document that the applied rotation met the enhancement criteria.

Applied STIR values = _____ and Energy Consumption = _____

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 Item Number	Date	Unit(s)	Amount Installed	Certifier