



RESIDUE AND TILLAGE MANAGEMENT, NO TILL



DEFINITION

Limiting soil disturbance to manage the amount, orientation and distribution of crop and plant residue on the soil surface year round.

PURPOSE – BENEFITS OF NO-TILL

No-till/Strip-till has six purposes for which it can be designed and installed in combination with other facilitating practices.

- Reduce Sheet, Rill and Wind Erosion
- Reduce Tillage-Induced Particulate Emissions
- Maintain or Increase Soil Quality and Organic Matter Content
- Reduce Energy Use
- Increase Water Use and Precipitation Storage Efficiency
- Provide Food and Escape Cover for Wildlife

CRITERIA, PLANS AND SPECIFICATIONS REQUIREMENTS

This practice standard is applied as part of a conservation management system to address one or more of the identified resource concerns

above. This practice only involves an in-row soil tillage operation during the planting operation and a seed row/furrow closing device. The Soil Tillage Intensity Rating (STIR) shall be 20 or less and no full width tillage (30% or less surface area disturbance) shall be performed from the time of harvest or termination of one annual crop to the time of harvest or termination of the next annual crop in the rotation.

Manure injection will be allowed as long as all associated soil-disturbing activities are

documented in the RUSLE2 or WEPS soil loss calculations and the resulting annual STIR value is no greater than 20.

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the criteria described in this standard. Specifications shall identify and include the following information in the conservation plan or job sheet:

1. Resource concern to be treated or the purpose for applying the practice,
2. Location Map,
3. Planned crop(s),
4. Summary of all field operations or activities that affect:
 - ≡ Residue cover
 - ≡ Residue orientation
 - ≡ Disturbance of the soil surface
5. The amount of residue (pounds/acre or percent surface cover) required to accomplish the purpose, and the time of year it must be present,

6. The planned maximum STIR value allowed to accomplish the purpose, and the time of year that soil disturbance is allowed, and
7. The minimum planned SCI value required to accomplish the purpose.

Limited tillage is allowed to close or level ruts from harvesting equipment. No more than 25 percent of the field may be tilled for this purpose.

If the areas of heavy residue accumulation, as a result of movement by water, harvest equipment or wind in the field, spread the residue prior to planting so it does not interfere with planting operations.

OPERATIONS AND MAINTENANCE

Evaluate/measure the crop residues cover and orientation after each crop to ensure the planned amounts and orientation are being achieved. Adjust management as needed to achieve planned residue amount and orientation.

Farm:	Field:	No-till <input type="checkbox"/>	Strip-till <input type="checkbox"/>
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Practice purpose (check one or more that apply)			
1	Reduce water erosion		5 Improve wildlife habitat (food and cover)
2	Conserve soil moisture		6 Manage snow cover for plant available water
3	Improve soil condition		7 Other
4	Reduce wind erosion		

Table 1. Specifications (and application record)

Tract/ Field	Crop to be planted	Previous crop residue	Orientation standing or flat (S or F)	Height in inches	Critical season(s)	Row width inches	Percent row width disturbed	Pounds of residue*		Percent residue cover	
								Planned	Applied	Planned	Applied

Notes: If residue is managed for wildlife benefits, describe planned wildlife provisions. Also use this space to describe row direction, grade restrictions, or other site specific requirements.

Soil Conditioning Index (SCI) available and used*	Yes	No	Calculated SCI value:
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Notes concerning soil quality:

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Client Name: _____ Planner Name: _____

Practice Purpose: _____

PLANNED PRACTICE LOCATION AND EXTENT

Contract Number	Contract Identification Number (CIN)	Tract Number	Field Number(s)	Acres Contracted	Acres Planned	Actual Acres Applied (NRCS USE ONLY)

A completed copy of this page must be submitted for a financial assistance payment to be processed.

Additional Information:

REQUIRED COST SHARE DOCUMENTATION FOR CASE FILE

- Practice amount applied is field verified

by: _____

on: _____

- Before payment is made, the following information is required to be in the case file:
 - ≡ Photographs of established practice must include:
 - » Statement “Photo was taken in the field by (enter name)”
 - » Date photo was taken in the field
 - » Statement of what the photo represents if it needs clarification
 - ≡ Field verification is documented and a certified planner verified “as installed” this practice meets NRCS standards and specifications.

Practice Certification (NRCS USE ONLY)

I certify that the practice as installed is complete and meets the applicable Wisconsin NRCS Conservation Practice Standard and all applicable practice specifications. Any changes to the original practice design have been approved and are documented on the original practice design “as installed.”

Certified Planner (print)

Certified Planner (sign)

Date