

# Residue and Tillage Management, No Till

## Wisconsin Job Sheet 329

### Definition

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

### Purpose

- Reduce sheet, rill and wind erosion and excessive sediment in surface waters.
- Reduce tillage-induced particulate emissions.
- Maintain or increase soil health and organic matter content.
- Increase plant-available moisture.
- Reduce energy use.
- Provide food and escape cover for wildlife.

### Practice Information

This practice includes maintaining most of the crop residue on the soil surface throughout the year, commonly referred to as no till. The common characteristic of this practice is that the only tillage performed is a very narrow strip prepared by coulters, sweeps, or similar devices attached to the front of the planter.

Benefits to soil include increasing organic matter, improving soil tilth, and increasing productivity as the constant supply of organic material left on the soil surface is decomposed by a healthy population of earthworms and other organisms.

Operations and maintenance for this practice includes evaluating the crop-residue cover and orientation for each crop to ensure the planned amounts, orientation, and benefits are being achieved. Weeds and other pests must be monitored to ensure pest populations do not exceed thresholds.

### Plans and Specifications

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

Resource concern to be treated or the purpose for applying the practice.

- Location Map.
- Planned crop(s).
- Summary of all field operations or activities that affect:
  - Residue cover.
  - Residue orientation.
  - Disturbance of the soil surface.



- The amount of residue (pounds/acre or percent surface cover) required to accomplish the purpose, and the time of year it must be present.
- The planned maximum STIR value allowed to accomplish the purpose, and the time of year that soil disturbance is allowed.
- The minimum planned SCI value required to accomplish the purpose.
- The erosion rate.
- Target species of wildlife if applicable.
- Benchmark and planned fuel consumption if applicable.

## Operation and Maintenance

Evaluate/measure the crop residues cover and orientation after each crop to ensure the planned amounts and orientation are achieved.

Adjust management as needed to maintain adjusted residue amount and orientation or adjust the planting and/or harvesting equipment.

Limited tillage is allowed to close or level ruts from harvesting equipment. No more than 10% of the field may be tilled for this purpose.

If there are areas of heavy residue accumulation (because of movement by water or wind) in the field, spread the residue prior to planting so it does not interfere with planter operation.



# Residue and Tillage Management, No Till Documentation Worksheet

Client Name \_\_\_\_\_ Planner Name \_\_\_\_\_

Farm Number \_\_\_\_\_ Tract Number \_\_\_\_\_

## Practice Purpose (check all that apply)

Reduce sheet, rill and wind erosion and excessive sediment in surface waters.

Reduce tillage-induced particulate emissions.

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Project Job Approval Class \_\_\_\_\_

### Design Approval

Designed By:

Date:

Approved By:

Date:

Job Approval Authority:

### Client Acceptance

I have reviewed and understand the implementation requirements and agree to complete the work accordingly. Failure to meet these plans and specifications may jeopardize any continued NRCS technical assistance or program cost sharing applied for. I understand that it is my responsibility to secure all necessary permits and licenses, and to complete the work in accordance with all local, state, and federal laws. Modification of these implementation requirements must be approved by the NRCS before installation. I assume all responsibility for negotiations and contract agreements with contractors.

Signature:

Date:

### Installation and Certification

The installed practice meets NRCS technical standards and specifications. The "redlined" information reflects any changes made during installation of the practice.

Printed Name:

Date:

Title:

Job Approval Authority:

Signature:

Date:

Notes:

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