

Residue and Tillage Management Reduced Till (345)

Ohio - Natural Resources Conservation Service **March 2015**

For:	Farm #:
Field(s):	Tract #:
Designed By:	Approved By:
	Signature:
Date:	Date:

Definition

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

Purposes (check all that apply)

This practice may be applied as part of a conservation system to support one or more of the following:

- Reduce sheet, rill and wind erosion
- Reduce tillage-induced particulate emissions
- Maintain or increase soil quality and organic matter
- Reduce energy use
- Increase plant-available moisture

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Condition where practice applies

This practice applies to all cropland.

This practice includes tillage methods commonly referred to as mulch tillage or conservation tillage where the entire soil surface is disturbed by tillage operations such as chisel plowing, field cultivating, tandem disking, or vertical tillage. It also includes tillage/planting systems with few tillage operations (e.g. ridge till) but which do not meet the STIR criteria for Residue and Tillage Management - No Till (code 329).

Often additional practices may be needed to address resource concerns. Additional residue from cover crops (code 340) may be needed following low residue crops (soybean, wheat straw removed, corn or sorghum silage) to meet erosion and soil quality goals.



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Specifications

General Specifications:

1. Crop residue shall be uniformly distributed on the soil surface.
 2. Crop residue shall not be burned.
 3. Limit tillage intensity to the level as listed in the attached RUSLE 2 output to achieve soil erosion, soil quality, energy use and/or plant available goals.
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Additional Specifications to Increase Plant-Available Moisture (check all that are appropriate)

- Reducing Evaporation from the Soil Surface.** Maintain a minimum 60 percent surface residue cover throughout the year.
- Trapping Snow.** Fall tillage operation shall leave the crop stubble in an upright position. Maintain a crop stubble height during the time significant snowfall is expected to occur to:
 - At least 10 inches for crops with a row spacing of less than 15 inches;
 - At least 15 inches for crops with a row spacing of 15 inches or greater.Maintain these heights over at least 50% of the field.
- Conduct fall tillage operations as close as possible to perpendicular to the direction of prevailing winds during the time that significant snowfall is expected to occur.

Attach a RUSLE2 and/or WEPS profile summary printout that displays:

(Use worksheet profile output

"NRCS_Profile_with_SCI_STIR_Fuel_Use_and_Crop_interval_erosion103012.pro")

1. Planned crop(s).
2. Specific equipment utilized for till for each crop.
3. At a minimum specify the planned residue amounts after the following:
 - (1) harvest of the prior crop
 - (2) seeding the planned crop.
4. The Soil Tillage Intensity Rating (STIR) and Soil Condition Index (SCI).

Residue to be removed by Grazing or Baling:

<u>Crop</u>	<u>Grazing/Baling Period</u>	<u>% Surface Cover Remaining</u>
_____	_____	_____
_____	_____	_____

Operation and Maintenance:

Evaluate/measure the crop residues cover and orientation for each crop to ensure the planned amounts and orientation are being achieved. Adjust management as needed to either plan a new residue amount or orientation; or adjust the planting, tillage, or harvesting equipment.

Questions concerning these specifications and/or crop substitutions should be directed to (phone) _____.

NRCS – Ohio
March 2015