

## Residue & Tillage Management – No-Till/Strip-Till

### Virginia Conservation Practice Job Sheet

329



#### Definition

Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year-round; limiting soil-disturbing activities to those necessary to place nutrients, condition residue and plant crops.

#### Conditions Where Practice Applies

This practice includes planting methods commonly referred to as no-till, strip-till, direct seed, zero-till, slot-till or zone-till. Approved implements include: no-till and strip-till planters; certain drills and air seeders; strip-type fertilizer and manure injectors; in-row chisels or subsoilers; and similar implements that only disturb strips and slots.

#### Criteria Applicable to All Purposes

1. Residue shall not be burned.
2. Residues shall be uniformly distributed.
3. No full-width tillage shall be performed regardless of the depth of the tillage.
4. The Soil Tillage Intensity Rating (STIR) value associated with any no-till/strip-till crop shall be 30 or less. This STIR value shall reflect all field operations that are performed during the crop interval between harvest or termination of the previous crop

and harvest or termination of the current crop (includes fallow periods).

#### Selected Additional Criteria to Reduce Erosion (Sheet & Rill or Wind) and/or Reduce Energy Use

Immediately after planting, the soil surface must be covered by at least 30% residue.

Planners may adjust this target residue level up or down based on soil loss objectives for the overall cropping system and evaluation of the system using applicable erosion prediction technology. Document the planned cropping system and erosion calculations if crop residue below 30% is planned for no-till/strip-till crops.

#### Additional Criteria to Improve Soil Organic Matter Content

Immediately after planting the soil surface must be covered by at least 60% residue.

Planners may adjust this target residue level up or down based on soil organic matter management objectives for the overall cropping system and system evaluation using the Soil Conditioning Index (SCI). Document the overall system and SCI calculations if cover below 60% is planned for no-till/strip-till crops.

Use the following to guide interpretation of SCI for purposes of this Standard:

- A cropping system predicted to *maintain* total soil organic matter content should have an SCI score of 0.00 or greater.
- A cropping system predicted to *improve* total soil organic matter content should have an SCI score of +0.25 or greater.

**NOTE: This summary does not address all requirements and considerations in the VA No-till/Strip-till Standard (VA-329). Consult the Standard for further details.**

General Information	
Client: _____	County: _____
Field Office: _____	Contract #: _____
Farm #: _____	Tract #: _____
Field # and acreage: _____	

Client's Purpose(s) (check all that apply)
<i>Note: All purposes trigger additional requirements to include in Specifications – see page 1 or Standard for details.</i>
<input type="checkbox"/> Reduce sheet & rill erosion
<input type="checkbox"/> Reduce wind erosion
<input type="checkbox"/> Improve soil organic matter content
<input type="checkbox"/> Reduce CO <sub>2</sub> losses from the soil
<input type="checkbox"/> Reduce energy use

**Practice Specifications**

**Follow all specifications and recommendations below for practice implementation.**

**List and/or Description of Planned No-Till/Strip-Till Crops**

*Consider using and attaching Cropping System Description & Evaluation (D&E) Specification Sheets to describe crop rotation and timing/frequency of no-till/strip-till crops (see VA NRCS Tech Notes Sharepoint Site for D&E Spec Sheet document).*

**General Criteria Required by Standard in All Cases**

1. Residue shall not be burned.
2. Residues shall be uniformly distributed.
3. No full-width tillage shall be performed regardless of the depth of the tillage.
4. The Soil Tillage Intensity Rating (STIR) value associated with any no-till/strip-till crop shall be 30 or less. This STIR value shall reflect all field operations that are performed during the crop interval between harvest or termination of the previous crop and harvest or termination of the current crop

**Additional Criteria Required by Standard – Minimum % Cover**

*Consult page 1 or Standard for guidance. Refer to attached Cropping System D&E Specification Sheet if needed.*

<b>Immediately after no-till/strip-till planting (from planting until two weeks after), soil surface must be protected by residue cover of at least:</b>	<b>%</b>
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**Additional Criteria Required by Standard Depending on Client's Purpose(s)**

*Write in applicable additional criteria, if any, based on client's purpose(s); see complete Standard for details*

**Additional Site-specific Recommendations**

*List any additional recommendations related to tillage, residue management, or complementary practices (crop rotation, cover crop, etc.) to achieve conservation objectives. Refer to attached Cropping System D&E Specification Sheet if needed.*

**Operation & Maintenance (O&M)**

**Carry out the following to ensure that the planned no-till/strip-till practice functions as intended after initial implementation.**

**Minimum O&M Requirements:**

Evaluate crop residue quantity and distribution for each crop to ensure planned residue targets are being achieved and adjust management as needed.

**Additional O&M Recommendations**

*Provide any additional practical guidance for actions to ensure the long-term effectiveness of practice.*

**Planner Certification**

The no-till/strip-till management practice planned in this job sheet fulfills minimum requirements of Virginia NRCS Conservation Practice Standard 329.

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Signature Title Date

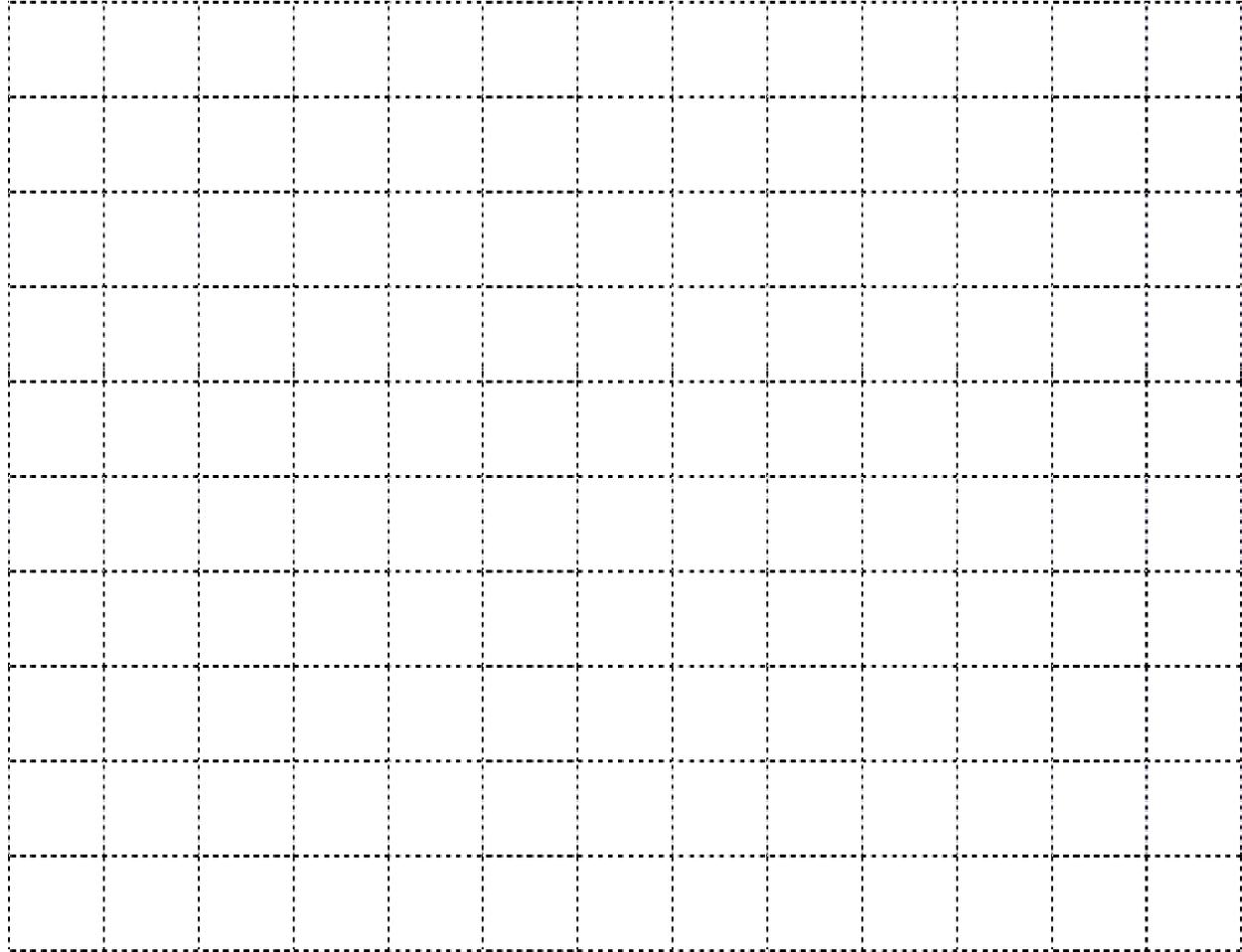
**Certification of Practice Completion**

The no-till/strip-till management practice planned in this job sheet has been completed according to NRCS specifications (indicate in Specifications any changes to planned activities and acreage).

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Signature Title Date

If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1"= \_\_\_\_\_ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



**Additional Specifications and Notes:**

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