**alliance practice worksheet**

VIRGINIA

RESIDUE AND TILLAGE MANAGEMENT, REDUCED-TILL (345)

*The conditions and specifications below are adapted from the Natural Resources Conservation Service. Producers who are installing these practices under the Alliance will use the conditions and implementation guides below but are exempt from NRCS verification and certification. Completing the Purposes and Practice Specifications on this document is sufficient to self-verify practice installation and completion.*

# Farm Info

|  |  |
| --- | --- |
| Producer Name |  |
| County (Farm Location) |  |
| FSA Farm Number |  |
| FSA Field Number(s) |  |
| FSA Tract Number(s) |  |
| Practice Status:*If a practice has not yet been implemented, select Planned**If a practice has been implemented, select Applied* | [ ]  Planned | [ ]  Applied |
| Planned Date of IMPLEMENTATION: | Date Practice was APPLIED: |

# PRACTICE: RESIDUE AND TILLAGE MANAGEMENT, REDUCED-TILL (345)

**DEFINITION**: Managing crop residue on the soil surface while limiting soil-disturbing activities in systems where the field surface is tilled prior to planting.

**MINIMUM REQUIREMENTS FOR RESIDUE AND TILLAGE MANAGEMENT, REDUCED-TILL (456):**

<https://efotg.sc.egov.usda.gov/api/CPSFile/555/345_VA_CPS_Residue_and_Tillage_Management_Reduced_Till_2017>

**This practice applies to all croplands.**

# GENERAL CRITERIA APPLICABLE TO ALL PURPOSES

* This practice includes mulch or conservation tillage where the entire soil surface may be disturbed by operations such as chisel plowing, field cultivating, tandem disking, or full-width vertical tillage. It also includes tillage/planting systems with less tillage, including systems with tillage limited to strips and slots, but which do not meet criteria for Residue and Tillage Management, No Till (Code 329).
* Full-width tillage is allowed. However, no primary inversion tillage implements (e.g., moldboard plows or substantively similar tools) are allowed.
* The Soil Tillage Intensity Rating (STIR) value associated with any reduced-till crop must be 80 or less. This STIR value reflects all field operations that are performed during the time interval starting with harvest or termination of the previous crop until harvest or termination of the reduced-till crop.
	+ Rule of thumb: any combination of three or fewer passes with non-inversion tools that also leaves at least 30% residue after planting will achieve STIR 80 or less.
	+ *Examples: Chisel + Disk + Plant; Disk + Disk + Plant; Rip + Vertical till (“turbo” till) + Plant; etc.*
* Residue will not be burned.
* Distribute all residues uniformly over the entire field, except that residues may be selectively removed from the row area prior to or as part of the planting operation.

# Additional Criteria to Reduce Soil Erosion/Particulate matter

* Immediately after planting, the soil surface must be protected by an overall average of at least 30% raindrop-intercepting residue cover.
* Planners may adjust this target residue level up or down based on evaluation of cropping system with erosion prediction technology. Document calculations if residue below 30% is planned.

# Additional Criteria to Improve Soil Health or Reduce Energy Use

* Immediately after planting, soil surface must be protected by an overall average of at least 60% raindrop-intercepting residue cover.
* Planners may adjust this target residue level up or down based on evaluation of cropping system with applicable soil organic matter trend or energy prediction technology. Document calculations if residue below 60% is planned.

# Additional Criteria to Conserve Plant- Available Moisture

* Immediately after planting, soil surface must be protected by an overall average of at least 60% raindrop-intercepting residue cover.

*Note: This summary does not address all requirements and considerations in the VA Reduced Till Conservation Practice Standard (VA-345). Consult the Conservation Practice Standard for further details.*

# PRODUCER PURPOSE

*Check all that apply.*

|  |
| --- |
| [ ]  Reduce sheet, rill and wind erosion and excessive sediment in surface waters |
| [ ]  Reduce tillage-induced particulate emissions |
| [ ]  Improve soil health and maintain or increase organic matter content |
| [ ]  Reduce energy use |

# PRACTICE SPECIFICATIONS

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

**GENERAL CRITERIA REQUIRED BY STANDARD IN ALL CASES FOR REDUCED-TILL CROPS**

1. Residue will not be burned and will be uniformly distributed.
2. No full-width inversion tillage (moldboard plows or substantively similar tools) will be used.
3. Limited width tillage is allowed; STIR value of less than 80 or less for each reduced-till crop.

**LIST AND/OR DESCRIPTION OF PLANNED REDUCED-TILL CROPS & EXTENT OF SOIL DISTURBANCE ALLOWED**

*Specify which crops will be* *reduced-till (RT). Describe the extent and type of soil disturbance allowed. Consider using and attaching Cropping System Specification Sheets to describe crop rotation and timing/frequency of RT crops (see VA NRCS Tech Note for Cropping System Spec Sheet document).*

|  |
| --- |
|  |

**ADDITIONAL CRITERIA REQUIRED BY STANDARD – MINIMUM % COVER**

Consult page 1 or Standard for guidance. Refer to attached Cropping System Specification Sheet if needed. Specify above if different residue targets required for different reduced-till crops in rotation.

|  |  |
| --- | --- |
| Immediately after reduced-till planting (from planting until two weeks after), soil must be protected by residue cover of at least: |  **%** |

# Recommended Operation & Maintenance (O&M)

*Carry out the following to ensure that the planned mulch-till practice functions as intended after initial implementation.*

**MINIMUM O&M RECOMMENDATIONS**

* Evaluate crop residue quantity and distribution for each crop to ensure planned residue targets are being achieved and adjust management as needed.
* If water or wind causes residue movement and uneven distribution, spread residue as needed prior to planting so it does not interfere with planter operation.

# PRODUCER SELF-CERTIFICATION

By signing below, I certify that I have reviewed all required documentation, and the information outlined above meet all criteria and requirements as defined in the Natural Resources Conservation Service **RESIDUE AND TILLAGE MANAGEMENT, REDUCED TILL (345)** standard and specifications for the identified acres or animal units.

Further, I agree that:

[ ]  I have not received a payment for this conservation practice on these fields and acres from another USDA Conservation Program or another USDA Partnership for Climate-Smart Commodities grant partner.

[ ]  I will retain all practice documentation to support this certification for up to 12 months following practice adoption and will provide this documentation to the Alliance if selected for a spot check. *(Up to 10% of enrolled Alliance participants will be randomly selected for spot checks).*

|  |  |
| --- | --- |
| **Producer Name:** |  |
| **Date:** |  |