**alliance practice worksheet**

ARKANSAS

REsidue & 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 & tillage management REduced till (345)

**DEFINITION:** Managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round while limiting soil-disturbing activities used to grow and harvest crops in systems where the field surface is tilled prior to planting.

This practice applies to all cropland.

**Minimum Requirements for RESIDUE & TILLAGE MANAGEMENT REDUCED TILL (345):**

[**Conservation Practice Standard Residue and Tillage Management, Reduced Till (Code 345) (usda.gov)**](https://efotg.sc.egov.usda.gov/api/CPSFile/9836/345_AR_CPS_Residue_and_Tillage_Management-Reduced_Till_2017)

**At a minimum, producers will provide a record of the following:**

* Purpose for applying the practice.
* Planned crop(s).
* Amount of residue produced by each crop.
* All field operations or activities that affect—
	+ Residue orientation.
	+ Surface disturbance.
	+ The field operations and amount of residue (pounds/acre or percent surface cover) required to accomplish the purpose, and the time of year it must be present.
* Planned STIR value, SCI value, and erosion rate.
* Benchmark and planned energy consumptions.

# GENERAL CRITERIA APPLICABLE TO ALL PURPOSES

This practice includes tillage methods commonly referred to as mulch tillage or conservation tillage where the entire soil surface may be 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 soil tillage intensity rating (STIR) criteria for conservation practice Residue and Tillage Management, No Till (Code 329).

Uniformly distribute residues over the entire field. Removing residue from the row area prior to or as part of the planting operation is acceptable.

Do not burn residues, except for a light-to-moderate burn of sugarcane residue after harvest (as described in the wind and water erosion operations database).

The STIR value shall include all soil disturbance field operations that are performed during the crop interval (i.e., from the time immediately following harvest or termination of one cash crop through harvest or termination of the next cash crop in the rotation, including fallow periods). The crop interval STIR value rating shall be no greater than 80, and no primary inversion tillage implements (e.g., moldboard plow) shall be used.

# Additional criteria to reduce sheet, rill and wind erosion, reduce excessive sediment in surface waters, and reduce tillage-induced particulate emissions.

Use the current approved water and wind erosion prediction technology to determine the if field operations planned provide the amount of randomly distributed surface residue needed, time of year residue needs to be present in the field, and amount of surface soil disturbance allowed to reduce erosion to the desired level. Calculations shall account for the effects of other practices in the management system.

In ridge-till systems, plan ridge height and ridge orientation to manage runoff and minimize erosion, with a maximum row grade not to exceed four percent.

# additional criteria to rEDUCE TILLAGE-INDUCED PARTICULATE EMISSIONS.

Reduce or modify tillage operations that create dust, especially during critical air quality periods.

# additional criteria to maintain or increase soil health and organic matter content.

Ensure the soil condition index (SCI) for the cropping system results in a rating of greater than zero.

# additional criteria to reduce energy use.

Reduce the total energy consumption associated with field operations by at least 25 percent compared to the benchmark condition. Use the current approved NRCS tool for determining energy use to document energy use reductions.

# PRACTICE CERTIFICATION DOCUMENTATION

**Field Operations –** *The practice is certified complete at time of new planting based on the treatment of the residue and tillage practices associated with previous crop’s residue.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Field** | **Acres** | **Crop Planted** | **Date of Planting*****Month/Year*** | **Residue at Planting *(Prior crop)*** | **Amounts of residue *(lbs./ac or % surface cover)*** | **Residue Height *(inches)*** |
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| --- | --- | --- |
|  | **Yes** | **No** |
| **The crop residues on the identified fields were not burned.** |[ ] [ ]
| **There was no inversion tillage completed in the identified fields and acres between the harvest of the prior crop and the planting of the current crop.**  |[ ] [ ]
| **The planned crop rotation including the cover crop and associated management activities will score a Soil Conditioning Index (SCI) value > 0.** |[ ] [ ]
| **The Soil Intensity Rating (STIR) for the crop interval on each identified field was no greater than 80.** |[ ] [ ]

|  |
| --- |
| Notes:Click or tap here to enter text. |

# PRODUCER SELF-CERTIFICATION

By signing below, I certify that I have reviewed all required documentation and have implemented the practice and met all criteria and requirements as defined in the Natural Resources Conservation Service **Residue & 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).*

|  |  |
| --- | --- |
| ***Participant Name:*** |  |

|  |  |
| --- | --- |
| ***Participant Signature:*** |  |

|  |  |
| --- | --- |
| ***Date:*** |  |