



Mulch Till (345) – Basic

Residue and Tillage Management – Dry Cropland

Conservation Practice Job Sheet

ID- 345, JS- 25

February 2010



What is Mulch-Till?

Mulch-till systems manage the amount, orientation, and distribution of crop and other residue on the soil surface year round, while growing crops where the entire soil surface is tilled prior to or during the planting operation. Residue is partially incorporated using chisels, sweeps, field cultivators, or similar implements.

Purpose

Mulch till systems are designed to accomplish one or more of the following conservation purposes:

- Reduce sheet and rill erosion
- Reduce wind erosion
- Reduce soil particulate emissions
- Provide food and escape cover for wildlife
- Increase plant-available soil moisture
- Maintain or improve soil condition

Mulch till systems achieve the purposes listed above by leaving more residue either standing or laying flat on the soil surface.

Practice Specifications

This practice applies to dry cropland. It includes tillage methods commonly referred to as mulch tillage or chiseling and disking. A chemical fallow system may be utilized to replace some of the tillage operations. The practice also includes planting operations that use hoe drills, air seeders and “no-till” drills that disturb the soil surface during the planting

operation. The system must have a positive Soil Condition Index (SCI) for the rotation. All residues shall be uniformly distributed over the entire field. Residue shall not be burned.

The amount of randomly distributed surface residue needed and the amount of surface soil disturbance allowed to reduce erosion to the planned soil loss objective (at or below “T”) shall be determined using RUSLE2 (sheet and rill erosion) or WEQ (wind erosion).

The purpose of mulch till practice payments is to adopt a tillage system on a continuous basis. The switching of fields dependent on crops defeats this purpose and is prohibited.

EQIP Requirements

The minimum contracted period for this practice is three years. In no case will mulch till be scheduled in different fields in different years. The purpose of the practice payments is to adopt a tillage system on a continuous basis. Mulch till on dry cropland may only be scheduled where the quality criteria for soil erosion, soil condition, or water quality are not met.

Producers must keep annual records of all tillage and crops grown, and will provide to NRCS annually. Rotations shall provide for acceptable substitute crops for weather related or economic reasons. Acceptable substitutes are crops having similar properties that meet the criteria for all the resource concerns identified for the field or treatment unit. RUSLE2/SCI and WEQ updates will be required to verify that the producer is still in compliance. **Any changes to the planned rotation and tillage must be approved prior to any site preparation or planting for the year of the deviation.**

Recommended companion practices include grassed waterways, filter strips or riparian buffers to fully address the water quality concerns, and windbreaks and other conservation practices needed to address wind erosion concerns, especially during the critical erosion period (e.g., seasonal residue management, surface roughening, etc.).

The attached worksheets will document the planned rotation and tillage. The producer may use blank copies of the worksheets to keep annual records, or

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may use any format for record keeping that provides the required information.

contracted crop rotation. **The planner will attach copies of the RUSLE2/SCI and WEQ evaluations.**

Documentation will include the rotation, erosion rates, and rotational SCI values for both the benchmark and

CLIENT’S ACKNOWLEDGEMENT STATEMENT

The Client acknowledges that:

- a. The producer must receive approval of any changes to the planned rotation and tillage prior to any site preparation or planting for the year of the change.
- b. The producer must keep annual records of crop and tillage and provide copies to NRCS annually.
- c. The producer has received a copy of this practice specification and understands the contents and requirements.

Accepted by: /s/ _____ Date: _____

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Practice Purpose (check at least one resource concern where the benchmark does not meet quality criteria):

- Reduce soil erosion to “T”
- Improve soil condition and demonstrate a positive SCI
- Address water quality concerns from water or windborne pollutants

Tract & Field #s	Acres	Crop for Each Year in the Planned Rotation						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7

Identify which are the contracted years.

Attach RUSLE2 and WEQ runs showing benchmark and planned SCI and erosion rates.

