



No Till/Strip Till/Direct Seed (329)

Residue and Tillage Management

2012

Conservation Practice Job Sheet

Revised January

ID- 329



What is No-Till/Strip Till/Direct Seed?

No till, strip till, and direct seed are similar systems that manage the amount, orientation, and distribution of crop and other residue on the soil surface year round, while growing crops in narrow slots or residue-free strips in soil previously untilled by full-width implements. Residue management is used in conjunction with crop rotation, and other practices needed on a site-specific basis, to address soil quality, erosion and water quality concerns while meeting the landowner's objective.

Purpose

The no-till/strip till/direct seed system is designed to accomplish the following conservation purposes:

- Reduce sheet / rill erosion
- Reduce wind erosion and Particulate matter less than 10 micrometers in diameter –PM10
- Improve soil organic matter content
- Reduce CO₂ losses from soil
- Reduce energy use
- Increase plant-available moisture
- Provide food and escape cover for wildlife

Practice Specifications

This practice applies to cropland. Residue shall be uniformly distributed over the entire field and residue shall not be burned. There will be NO full width tillage performed during the crop rotation, regardless of the depth of the tillage operation. Full width tillage

operations are implements with 100% disturbance, as defined by RUSLE2. The annual Soil Tillage Intensity Rating (STIR) shall include all field operations performed during the crop interval between harvest of the previous crop and harvest or termination of the current crop (includes fallow periods). The STIR value shall be no greater than 30.

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), SISL (surface irrigation induced erosion) or WEPS (wind erosion). Sprinkler-induced erosion will be determined through visual assessment. Calculations shall account for the effects of other practices in the management system.

The planned crop rotation and tillage must result in a positive trend in the soil-conditioning index. Production of adequate amounts of crop residue necessary for the proper functioning of this practice can be enhanced by crop selection.

No till shall be practiced continuously throughout the crop sequence.

Improving on management levels

Producers eligible for this practice have an identified resource concern that coincides with one of the purposes of the standard. Management practices such as no till can provide an increase in technical knowledge to help move producers from one level of management to a higher level of management on the same crop management unit. The appropriate NRCS tools will be used to assure that the planned crop rotation and tillage results in a positive trend in the soil-conditioning index compared to the benchmark condition. The average annual soil loss for the planned rotation must be at or below "T".

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

No Till/Strip Till/Direct Seed (329)

Residue and Tillage Management

Natural Resources Conservation Service - Idaho

January 2012

concerns identified for the field or treatment unit, and provide for an annual STIR rating equal to or less than the planned tillage for that year. RUSLE2 or WEPS /SCI 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, riparian buffers, or other appropriate practices to fully address resource. The attached worksheet will document the planned rotation and tillage. The producer may use blank

copies of the worksheet to keep annual records, or may use any format for record keeping that provides the required information.

Documentation will include the rotation, erosion rates, annual STIR, and rotational SCI values for both the benchmark and contracted crop rotation. The planner will attach copies of the RUSLE2 or WEPS evaluations.

CLIENT'S ACKNOWLEDGEMENT STATEMENT

The Client acknowledges that:

- a. The planned rotation and tillage must provide an improvement in the SCI, and result in average annual erosion at or below "T".
- b. 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.
- c. The producer must keep annual records of crop and tillage and provide copies to NRCS annually.
- d. The producer has received a copy of this practice specification and understands the contents and requirements.

Accepted by: /s/ _____ Date: _____

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications (202) 720-2791.

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

No Till/Strip Till/Direct Seed (329)

Residue and Tillage Management

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

