

## Residue and Tillage Management

### Definition/Purpose

- Maintaining crop and other plant residue on the soil surface year-round and limiting soil disturbing activities to protect water quality.
- Residue and tillage management also provides seasonal soil protection from wind and rain erosion, adds organic matter to the soil, conserves soil moisture, and improves infiltration, aeration and tilth.
- Benefits may include reduction in soil erosion, sedimentation and pollution from sediment-attached substances.

### POLICIES

1. This practice can be contracted at the following management tiers and rates:

Management Tier	Unit Cost	Cost Share 75% rate	Cost Share 90% rate
1. <b>60%</b> Residue cover	<b>\$23/acre</b>	<b>\$17.25/acre</b>	<b>\$20.70/acre</b>
2. <b>80%</b> Residue cover	<b>\$46/acre</b>	<b>\$34.50/acre</b>	<b>\$41.40/acre</b>
3. Commonly conventionally tilled crop with <b>60%</b> residue*	<b>\$138/acre</b>	<b>\$103.50/acre</b>	<b>\$124.20/acre</b>
4. Commonly conventionally tilled crop with <b>80%</b> residue*	<b>\$161/acre</b>	<b>\$120.75/acre</b>	<b>\$144.90/acre</b>

\* Commonly conventionally tilled crops include, but are not limited to, tobacco, sweet potatoes, vegetables, pumpkins and peanuts. These tiers exclude corn, cotton, soybeans and small grains.

2. A minimum of 60%/80% residue cover must be present at planting of a spring crop and maintained until the soil is disturbed or a crop is planted the subsequent spring.
3. Residue cover must be verified when the first spring crop is planted and again before the soil is disturbed or a crop is planted the following spring.
4. The planned amount of residue cover must be maintained for a minimum of 9 months.
5. Practice certification and payment can be made after verifying adequate residue cover before the second spring crop.
6. Use the Line-Transect Method to estimate residue cover (see attached reference document)
7. Only the acreage planted shall be considered for payments. The area occupied by farm roads, BMPs, ditches, structures, etc. shall not be included.

8. This practice may be contracted annually OR for up to 3 years.
9. Multi-year contracts may be paid annually upon certification of residue before second, third and fourth spring crops.
10. For multi-year contracts a heavy residue must be maintained throughout the crop rotation, with 60%/80% residue required at planting for all crops.
11. To achieve planned residue cover amounts cooperators may be required to implement a combination of conservation tillage and no-till methods.
12. Conservation tillage methods in which the entire soil surface may be disturbed by tillage operations are allowable ONLY if the proper residue cover can be maintained.
13. Allowable conservation tillage methods may include:
  - a. Chisel plowing,
  - b. Field cultivating,
  - c. Tandem disking,
  - d. Vertical tillage or
  - e. Tillage/planting systems with few tillage operations.
14. If an applicant destroys residue cover through voluntary tillage operations the contract will be cancelled.
15. Production of adequate amounts of crop residue necessary for the proper functioning of this practice can be enhanced by selection of high residue-producing crops and crop varieties in the rotation, use of cover crops, and adjustment of plant populations and row spacing.
16. If applicable, the Cover Crop practice may be contracted on the same acres as part of a conservation cropping system.
17. The planner must ensure the selected crop rotation and all crops included:
  1. Are reasonable for the location and planned site,
  2. Achieve the identified practice purpose, and
  3. Align with the management objectives and capabilities of the producer.
18. The [NRCS 345 – Residue and Tillage Management Implementation Requirements form](#) must be completed to document practice design and implementation.
19. If tillage is required to manage small areas of a contracted field, cooperators must contact their district office for assistance.
  - a. District staff must evaluate the extent of tillage required and determine if adequate cover can be established prior to the next crop being planted.
  - b. If tillage is not extensive and cover can be established quickly, the cooperator may proceed with documented approval from field staff
  - c. District staff will provide recommendations for temporary cover and work with the cooperator to reestablish adequate cover.
  - d. If extensive tillage is required and residue cover cannot be established in a timely manner the affected portion of the field must be excluded from payment calculations.

<b>RESIDUE AND TILLAGE MANAGEMENT</b>	
<b>Maintenance Period</b>	1 – 3 years
<b>BMP Units</b>	ACRES
<b>Required Effects</b>	SOIL_SAVED PHOSPHORUS_SAVED (if erosion present) ACRES-AFFECTED (planted acres)
<b>JAA</b>	ECS – 328 – Conservation Crop Rotation ECS – 329 – Residue and Tillage Management, No-Till ECS – 345 – Residue and Tillage Management, Reduced Till
<b>CS2 Reference Materials</b>	NC-ACSP-11 Signature Page Map with BMP location, fields, and roads