

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**RESIDUE MANAGEMENT, SEASONAL**

(Acre)  
Code 344

**DEFINITION**

Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during part of the year, while growing crops in a clean tilled seedbed.

**PURPOSES**

This practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce sheet and rill erosion.
- Provide food and cover for wildlife.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to all cropland and other land where crops are grown and adequate plan residues are produced.

This standard includes residue management methods practiced during the part of the year from harvest until residue is buried by tillage for seedbed preparation.

**CRITERIA**

**General Criteria Applicable to All Purposes Named Above:**

Loose residue to be retained on the field shall be uniformly distributed on the soil surface. Where combines or similar machines are used for harvesting, they shall be equipped with spreaders capable of redistributing residues over at least 80 percent of the working width of the header.

Residues shall not be burned.

**Additional Criteria to Reduce Sheet and Rill Erosion**

The amount of residue needed to reduce erosion within the soil loss tolerance (T) or any other planned soil loss objective, shall be determined using current approved erosion prediction technology. Partial removal of residue by means such as baling or grazing shall be limited to retain the amount needed. The remaining residue shall be maintained on the surface through periods when sheet and rill erosion has the potential to occur, or until planting, whichever occurs first. Calculations shall account for the effects of other practices in the conservation management system.

Any tillage that occurs during the management period shall be limited to methods, which leave residue on the surface and maintain the planned cover conditions.

**Additional Criteria to Provide Food and Cover for Wildlife**

The amount of residue, height of the stubble, and length of the management period necessary for meeting habitat requirements for the target species or wildlife population shall be determined using an approved habitat evaluation procedure.

Residues shall not be removed unless it is determined by the habitat evaluation procedure that such removal will not adversely affect habitat values.

Tillage shall be delayed until the end of the management period to maintain the food and cover value of the residue.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

## CONSIDERATIONS

Excess removal of plant residue by baling or grazing often produces negative impacts on resources. These activities should not be performed without full evaluation of impacts on soil, water, animal, plant, and air resources.

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, by the use of cover crops, and by adjustment of plant populations and row spacing.

When planting on a clean seedbed, exposure to erosion can be minimized by completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting.

On highly erodible soil beyond certain slope length and steepness, supplementary practice shall be required. Residues shall be distributed horizontally across a slope on a contour or perpendicular to the prevailing wind on flat lands.

When planting on a clean seedbed in areas with limited moisture, moisture for germination can be increased by completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting.

Leaving rows of unharvested crop standing at intervals across the field can enhance the value of residue for wildlife habitat.

## PLANS AND SPECIFICATIONS

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations, and O&M described in this standard.

Specifications shall be recorded using approved certification sheets, job sheets, narrative statements in the conservation plan, or other acceptable methods.

The following should be specified for residue management use: 1) The critical erosion period which the crop residue must be present, 2) The amount of crop residue, orientation and distribution that must be present to meet the planned purpose, and 3) Estimate percent ground cover or measure actual residue cover using the line transect method.

## OPERATION AND MAINTENANCE

No operation and maintenance requirements, national in scope, have been identified for this practice.