

**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 a specified period of the year, while planting annual crops on a clean-tilled seedbed, or when growing biennial or perennial seed crops.

Residues shall not be burned unless burning is an accepted practice in an integrated pest management (IPM) program developed and recommended by the State Land Grant University.

PURPOSES

- Reduce sheet and rill erosion
- Reduce wind erosion
- Manage snow to increase plant available moisture

Additional Criteria to Reduce Sheet and Rill Erosion And Wind Erosion

The amount and orientation 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.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all cropland and other land where crops are grown.

Seasonal residue management includes managing residues of annual crops from harvest until the residue is:

- Buried by tillage for seedbed preparation
- Removed by grazing
- Mechanically removed

It also includes the management of residues from biennial or perennial seed crops from the time of seed harvest until regrowth begins the next season.

Partial removal of residue by means such as baling, grazing, or other harvest methods, shall be limited to retain the amount needed to meet the erosion reduction objective. The remaining residue shall be maintained on the surface through periods when erosion has the potential to occur, or until planting, whichever occurs first. Erosion prediction estimates 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 that maintain the planned cover conditions.

CRITERIA

General Criteria Applicable to All Purposes

Residue shall be uniformly distributed. Where combines or similar machines are used for harvesting, they shall be equipped with spreaders capable of distributing residue over at least 80 percent of the working width of the header.

Additional Criteria to Manage Snow to Increase Plant Available Moisture

Stubble shall be left standing as high as feasible by the harvesting operation, but not less than 6 inches in any case. Stubble shall remain standing over winter to trap and retain snow. Loose residue may be removed providing that the remaining residue is left standing.

Any tillage that occurs during this period shall be limited to operations that minimize residue flattening or burial.

CONSIDERATIONS

Removal of plant residue by baling or grazing may have a negative impact on resources. These activities should not be performed without full evaluation of impacts on other 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 in a low residue seedbed, completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting can minimize exposure to erosion; and in limited moisture areas, can conserve moisture for germination.

The effectiveness of stubble to trap snow increases with stubble height. Variable height stubble patterns may be created to further increase snow storage.

Leaving rows of unharvested crop standing at intervals across the field can enhance the value of residues 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 described in this standard.

Specifications shall be recorded according to the ND documentation requirements for this practice.

OPERATION AND MAINTENANCE

No operation and maintenance requirements have been identified for this practice.