

Residue Management, Seasonal

North Carolina Practice Job Sheet 344

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



Uneven field surfaces such as this will especially benefit by leaving crop residues on the surface over winter.



Corn stalks, either shredded or not, provide good soil protection. Over-winter decomposition of crop residues will generally reduce the amount by about 30%.

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.

PURPOSE

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

- Reduce sheet, rill and wind erosion.
- Improve soil and water quality.
- Conserve soil moisture.
- Reduce off-site transport of sediment, nutrients, or pesticides.
- Provide food and escape cover for wildlife.

CONDITIONS WHERE PRACTICE APPLIES

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

- Buried by tillage for seedbed preparation
- Removed by grazing, or

- Mechanically removed

CRITERIA

Residue will be uniformly distributed over the entire field.

Combines or similar harvesting machines will be equipped with spreaders capable of redistributing residues over at least 80 percent of the working width of the header.

Residues will not be burned.

Partial removal of residue by means such as baling, grazing, or other harvest methods will be limited to retain the amount needed to meet the erosion reduction objective. The remaining residue will be maintained on the surface through periods when erosion has the potential to occur, or until planting, whichever occurs first. Erosion prediction estimates will account for the effects of other practices in the conservation management system.

Any tillage that occurs during the management period will be limited to methods that maintain the planned cover conditions.

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 will be determined using an approved habitat evaluation procedure.

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

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 proper 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.

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

Unharvested crop rows have the greatest value when they are adjacent to other cover types, such as grassy or brushy areas or woodland.



Even in the "flat" lands of the east, stormwater runoff from unprotected fields will carry topsoil and other pollutants to the streams.



The Neuse River in Craven County still runs clear after a 3 1/2 inch rain in late winter. Most of the cropland in the drainage area is protected by crop residues over winter.

OPERATION AND MAINTENANCE

As a minimum, the following operation and maintenance information should be provided:

- Timing and extent of tillage operations and effects on the practice purposes.
- The use and effects of residue management tools, such as shredders or mowers.
- Understanding the nature of the residue, as to how fragile and subject to decomposition it may be.
- Further guidance is available in the job sheet for this practice.

Additional Operation and Maintenance requirements specific to this Plan:
