

# Residue Management Seasonal

Alabama GuideSheet No. AL344



## 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. At least 50 percent of the soil surface must be covered with crop residue from harvest until approximately 45 days prior to planting the next crop.

## PURPOSE

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

- Reduce sheet and rill erosion
- Reduce soil erosion from wind and associated airborne particulate matter
- Improve Soil Condition
- Reduce off-site transport of sediment, nutrients or pesticides
- Provide food and escape cover for wildlife

## Conservation Management System

Residue and tillage management system such as seasonal is established as a part of a conservation management system consisting of structural and management practices to maintain the productivity and condition of the soil.

Crop rotation, cover crop, pest management, nutrient management, various structures, and buffer practices are used in resource management planning to address the natural resource concerns identified during the planning process. This practice applies to all cropland and other land where crops are grown.

## Specifications

- Residue to be retained on the field shall be uniformly distributed. Combines or other harvesting machines shall be equipped with spreaders capable of distributing residue over at least 80 percent of the combine header width.
- Secondary removal of crop residue by baling or grazing shall be limited to retain the amount of residue needed to achieve the intended purpose(s).
- Residue shall not be burned.
- A minimum of 50 percent of the soil surface shall be covered with crop residue from harvest until 45 days prior to planting of the next crop. (Additional crop residue is often needed to reduce soil erosion levels to the soil loss tolerance ("T") value, increase soil organic matter content, improve water quality, and to meet other resource objectives.

## Planning for Intended Purpose

### All Purposes

Removal of plant residue by baling, burning 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 residues necessary for the proper functioning of this practice can be enhanced by selection of high residue producing crops and crop varieties in the rotation, cover crops, and adjustment of plant populations and row spacing.

## Guide Sheet No. AL - 2

Where 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 near the planting date.

Even without soil disturbance, crop residue decomposes on the soil surface. What seems to be a lot of residue at fall harvest will become a lesser amount by spring. Cover crops may also be needed if low residue producing crops like cotton, peanuts, soybeans, tobacco, and vegetables are grown.

### Reduce Sheet and Rill Erosion

The amount of residue needed and the amount of surface soil disturbance allowed to reduce erosion to any planned soil loss objective shall be determined using the current approved water erosion prediction technology. In most cases at least 50 percent residue cover provides protection against sheet and rill erosion to acceptable levels, while residues are retained. Contact your NRCS technician for help in estimating your percent cover at planting.

### Reduce Soil Erosion from wind and associated airborne particulate matter

Maintaining residue cover during critical periods of growing season can reduce crop damage caused by wind erosion. Partial removal of residue by means such as baling or grazing shall be limited to retain the amount needed to reduce wind erosion damages.

### Improve Soil Condition

The amount of residue needed and the amount of surface soil disturbance allowed to achieve the desired

soil condition, shall be determined using the current approved soil conditioning index procedure and result in a positive trend. Contact your local NRCS office for help in implementing these tools.

### Reduce Off-Site Transport of Sediment, Nutrients or Pesticides

The quantity and orientation of residue required to reduce off-site movement of agricultural chemicals and sediment during the specified period shall be determined using the appropriate assessment tool(s) [Windows Pesticide Screening Tool (WIN-PST), Phosphorus Index (PI), Leaching Index (LI), erosion prediction technologies, or other recognized tools] for the site conditions. Contact your local NRCS office for help in implementing these tools.

### Provide Food and Escape Cover for Wildlife

Residue height, amount, and time period shall be determined using an approved habitat evaluation procedure. Residues shall not be removed unless determined to not be detrimental to habitat values. The value of residues for wildlife habitat can be enhanced by leaving rows of unharvested crop standing at intervals across the field.

## REFERENCES

NRCS AL Conservation Practice Standards

[Residue and Tillage Management, Seasonal, Code 344](#)

*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.*

11/2012