



# Residue Management, Seasonal

## Conservation Practice Job Sheet

Natural Resources Conservation Service, Oregon

344 OR-JS

October 2010

Client: \_\_\_\_\_



Photo courtesy of NRCS



Photo courtesy of OSU Extension Service

### What Is Seasonal Residue Management?

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.

### Purposes

Seasonal residue management can be designed to accomplish one or more of the following conservation purposes:

- Reduce water erosion
- Reduce wind erosion and associated airborne particulate matter
- Improve soil condition
- Reduce off-site transport of sediment, nutrients or pesticides.
- Manage snow to increase plant available moisture
- Provide food and escape cover for wildlife

### Where used

Seasonal residue management can be used on all cropland that uses full width (clean) tillage to establish crops.

### Conservation Management System

Seasonal residue management is typically used as a component of a resource management system. It may be used in conjunction with Conservation Crop Rotation, Nutrient Management, Pest Management, and other conservation practices needed on a site-specific basis to address identified natural resource concerns and the landowner's objectives.

### Practice Specifications

Practice specifications are provided to assure that seasonal residue management meets the resource needs and producer's objectives. The specifications are based on the amount and orientation of crop residue left on the soil surface during the specified critical period. These requirements are recorded 344 OR-Residue Management Seasonal Specification Sheet.

### General Specifications

#### *Applicable to all purposes*

Residues 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.

When residues are left in rows after harvest, or combines and harvesting machines do not adequately redistribute residues, flail choppers, shredders, rotary mowers, or harrows may be used to evenly distribute residue over the field surface.

Residues will 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.

Tillage operations during the residue management period will be limited to undercutting tools such as blades or wide sweeps that minimize residue flattening or burial.

### **Additional Specifications**

#### **To Reduce Erosion from Wind and Water:**

The amount and orientation of residue needed to reduce erosion within the soil loss tolerance (T) or any other planned soil loss objective will be determined using current approved erosion prediction technology (RUSLE2 and/or WEPS).

Partial removal of residue by means such as baling, grazing, or other harvest methods will be limited in order to retain the amount needed to meet the erosion reduction objective.

The remaining residues 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 resource management system.

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

#### **To Improve Soil Condition:**

The amount and orientation of residue needed to achieve a positive soil condition index value will be determined using current approved erosion prediction technology and the current approved Soil Condition Index.

#### **To Reduce Off-Site Transport of Sediment, Nutrients and Pesticides**

The amount and orientation of residue required to reduce off-site movement of agricultural chemicals and sediment during the specified period will 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.

Residue shall be left standing, flat, or in combination with a minimum of 50% surface cover for reducing surface transport of nutrients, pesticides and sediment.

#### **To Manage Snow to Increase Plant-Available Moisture**

Crop stubble standing height during the time significant snowfall is expected to occur will be:

- At least 10 inches for crops with a row spacing of less than 15 inches;
- At least 15 inches for crops with a row spacing of 15 inches or greater

These heights will be present over at least 50% of the field.

Fall field operations that disturb residue will be limited to undercutting type tools that minimize residue flattening or burial, and will be done as close to perpendicular as possible to the direction of prevailing winds during the time that significant snowfall is expected to occur.

#### **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 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.

**Natural Resources Conservation Service, Oregon  
RESIDUE MANAGEMENT SEASONAL SPECIFICATION SHEET**

Client:		Farm/Tract:	
Location:		County/SWCD:	
Prepared By:		Date:	

**DESIGN APPROVAL:**

Practice Code No.	PRACTICE	LEAD DISCIPLINE	CONTROLLING FACTOR	UNITS	JOB CLASS				
					I	II	III	IV	V
344	Residue Management Seasonal	BCSD-Agron	Area	Acres	160	320	640	All	All

This practice is classified as Job Class: \_\_\_\_\_

Design Approved by: /s/ \_\_\_\_\_ Date: \_\_\_\_\_

Job title: \_\_\_\_\_

**CLIENTS ACKNOWLEDGEMENT STATEMENT:**

The Client acknowledges that:

- a. They have received a copy of the specification and understand the contents and requirements.
- b. The following information must be provided to NRCS by the client before this practice can be certified as applied:  
*Harvest date, type of residue removal or tillage if any, and amount and orientation of residue at the beginning of the residue management period.*  
 Date at the end of the management period when residue is incorporated with tillage or removed.
- c. It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.

Accepted by: /s/ \_\_\_\_\_ Date: \_\_\_\_\_

**CERTIFICATION:**

I have completed a review of the information provided by the client and certify this practice has been applied.

Certification by: /s/ \_\_\_\_\_ Date: \_\_\_\_\_

Job title: \_\_\_\_\_



