

Landowner \_\_\_\_\_



### WHAT IS SEASONAL RESIDUE MANAGEMENT?

Seasonal residue management is 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

- Reduce sheet and rill erosion
- Reduce soil erosion from wind
- 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

### HOW IT HELPS THE LAND

This practice provides for the management of crop residue cover during periods of the year when the soil is susceptible to erosion.

### WHERE THE PRACTICE APPLIES

Seasonal Residue Management is used on cropland where residues are managed from harvest until the residue is:

- Buried by tillage for seedbed preparation,
- Removed by grazing or,
- Mechanically removed.

### WHERE TO GET HELP

For assistance with this practice, contact your local Natural Resources Conservation Service office or your local Conservation District office.

### APPLYING THE PRACTICE

Crop residue should be uniformly distributed over the entire field during harvest.

Combines or similar harvesting machines should be equipped with spreaders capable of distributing residue over at least 80 percent of the working width of the combine header.

Residue needs to be maintained on the surface through periods when erosion has the potential to occur, or until planting, whichever occurs first.

Residue should not be burned.

Partial removal of crop residue by haying or grazing should be done in a way to ensure that adequate amounts of residue remain for soil erosion protection.

#### CONSIDERATIONS

The production of adequate amounts of crop residue is necessary for this practice to function properly. Select crops which produce larger amounts of residue and/or use cover crops in the system to enhance residue production.

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 seed germination.

Leaving standing stubble at least six inches tall will increase the amount of snow trapped on the field.

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.

#### Managing Crop Residues

The following tables can be used to estimate crop residue remaining after harvest and then used to estimate residue after tillage operations are performed.

**Table 1**

| Residue Produced by Crops |      |                  |
|---------------------------|------|------------------|
| Crop                      | Unit | Lbs Residue/Unit |
| Rye                       | Bu   | 84               |
| Wheat                     | Bu   | 102              |
| Barley                    | Bu   | 72               |
| Corn                      | Bu   | 56               |
| Oats                      | Bu   | 64               |
| Soybeans                  | Bu   | 90               |
| Sorghum                   | Bu   | 56               |
| Peanuts                   | Lbs  | 1.2              |
| Cotton                    | Lbs  | 4.5              |
| Canola                    | Lbs  | 2.0              |
| Triticale                 | Bu   | 102              |
| Cowpeas                   | Lbs  | .52              |
| Sunflower                 | Lbs  | 2.1              |
| Sesame                    | Lbs  | 1.5              |

**Table 2**

| Estimated Residue Remaining from Tillage Operation |             |
|--|-------------|
| Operation  | % Remaining |
| Sweeps > 40 inches                                 | 80          |
| Field Cultivator                                   | 60/70       |
| Chisel Plow  | 60          |
| Disk   | 30/40       |
| Moldboard  | 5           |
| Drill/Planter                                      | 70/80       |
| Anhydrous Applicator                               | 70          |
| Harrow – Spring tooth                              | 75          |

#### Example of Residue Management Estimation 30 bu wheat yield per acre (30 x 102) = 3060 lbs

| Operation | Residue Remaining  |
|-----------|--------------------|
| Chisel    | 3060 x 0.60 = 1836 |
| Sweep     | 1836 x 0.80 = 1469 |
| Disk      | 1469 x 0.40 = 588  |
| Drill     | 588 x 0.80 = 470   |

Using the above tillage operations, 470 lbs of residue will be remaining on the soil surface.

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