



TECHNICAL NOTES

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NATURAL RESOURCES CONSERVATION SERVICE

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Resource Conserving Crops, High Residue Vs Low Residue Crops, & Fragile Vs non-Fragile Crop Residue

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Resource Conserving Crop is a crop that reduces erosion, improves soil fertility and tilth, interrupts pest cycles, builds soil organic matter, reduces depletion of soil moisture or otherwise reduces the need for irrigation in applicable areas, and may provide protection and habitat for pollinators.

A list of Resource Conserving Crops for Washington State

Perennial Grasses

- Sandberg bluegrass
- Kentucky bluegrass
- Big Bluegrass
- Basin wildrye
- Blue wildrye
- Perennial Ryegrass
- Orchardgrass
- Tall Fescue
- Hard Fescue
- Sheep Fescue
- Tall Wheatgrass
- Beardless wheatgrass
- Snake River wheatgrass
- Siberian wheatgrass
- Bluebunch wheatgrass
- Thickspike wheatgrass
- Mountain brome
- Timothy

Annual Grasses

- Barley
- Triticale
- Oats
- Spring wheat
- Winter wheat
- Millets
- Sorghum

Perennial Legumes

- Red Clover
- White Clover
- Alfalfa
- Sainfoin

Annual Legumes

- Soybean
- Field pea
- Winter pea
- Crimson clover
- Faba Bean
- Lentil
- Chickpea

Forbs

- Canola
- Rapeseed
- Forage radish
- Turnip
- Kale
- Mustard
- Sunflower
- Safflower

List of High Residue Crops and Low Residue Crops for Washington State

If your crop is not on this list, consult your area or state specialist.

High residue crops are all annual warm and cool season small grain and grass crops where residue following harvest is not removed, any perennial broadleaf or grass (excluding orchards and vineyards) where the above ground biomass is left in the field and is not removed, and any cover crop where the residue is not removed. For a crop to meet the definition of a high residue crop, as indicated above, crop residue must not be burned or otherwise removed from the field. This includes removal by way of harvesting, baling, green chopping, and or grazing.

Cool Season

- Spring & Winter Wheat
- Triticale
- Rye
- Oats
- Barley

Warm Season

- Millet
- Sorghum
- Sudan Grass
- Teff
- Field Corn
- Sweet Corn

Perennial Broadleaf/Grass

- Blue Grass Seed
- Alfalfa Seed
- Clover Seed
- Ryegrass Seed
- Fescue Seed

Cover Crops

- Any cover crop where the residue is not removed.

Low residue crops are defined as all vegetable and root crops where residue following harvest is low or decomposes rapidly, all low residue grain/seed crops, and all high residue annual crops or perennial crops (excluding orchard or vineyard) where residue has been removed, and all cover crops in the rotation that have the residue removed following termination.

Vegetable and Root Crops

- | | | |
|-------------------------------|---------------|---------------|
| • Asparagus | • Cucumbers | • Peas |
| • Beans | • Eggplant | • Peppers |
| • Beets | • Garlic | • Potatoes |
| • Broccoli | • Herbs | • Pumpkins |
| • Brussel Sprouts | • Hops | • Radishes |
| • Cabbage | • Horseradish | • Squash |
| • Cantaloupes/Musk
Mellons | • Kale | • Sugar Beets |
| • Carrots | • Lettuce | • Tomatoes |
| • Cauliflower | • Okra | • Turnips |
| • Celery | • Onion | • Watermelons |
| | • Parsley | |

Low Residue Seed/Grain

- | | |
|---------------------------|--------------|
| • Camelina | • Field Peas |
| • Canola | • Mustard |
| • Chickpea/Garbanzo Beans | • Safflower |
| • Flax | • Sunflower |
| • Lentils | |

High Residue Crops with Residue Removed

- | | |
|---------------------------|-------------------------|
| • Alfalfa (hay or silage) | • Sudan (hay or silage) |
| • Clover (hay or silage) | • Teff (hay or silage) |
| • Corn Silage | • Mint |
| • Sorghum (hay or silage) | • Oats (hay or silage) |

Cover Crops with residue removed

- All Cover crops with residue removed (harvest, baling, green chopping or grazing)

List of Fragile Crops and Non-Fragile Crops for Washington State

Crop residues are generally classified as being either Fragile or Non-Fragile.

The classification of residues as Fragile or Non-Fragile is a subjective determination based in part on the ease with which crop residues are decomposed or buried by tillage operations.

Plant characteristics such as the size of leaves and stems, density of the residue and relative quantities produced, are considered when assigning classifications.

Crops with Fragile Residues

- | | | |
|---------------------------|--------------|------------------|
| • Canola/Rapeseed | • Green Peas | • Safflower |
| • Dry Beans | • Guar | • Soybeans |
| • Dry Peas | • Lentils | • Sugar Beets |
| • Fall Seeded Cover Crops | • Mint | • Sunflower |
| • Flower Seed | • Mustard | • Sweet Potatoes |
| • Grapes | • Peanuts | • Vegetables |
| | • Potatoes | |

Crops with Non-Fragile Residues

- | | | |
|-------------------------|-----------------|--------------|
| • Alfalfa or legume hay | • Forage Silage | • Rye* |
| • Barley | • Grass Hay | • Sorghum |
| • Buckwheat | • Millet | • Speltz* |
| • Corn | • Oats* | • Sugarcane |
| • Cotton | • Pasture | • Tobacco |
| • Flax seed | • Pineapple | • Triticale* |
| • Forage seed | • Popcorn | • Wheat* |
| | • Rice | |

*If a combine is used with a straw chopper or otherwise cuts straw into little pieces in harvesting small grain, then the residue should be considered as being fragile.