USDA Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

Highly Erodible Land (HEL)

REMINDER

Highly Erodible Land Provisions

Title XII of the Food Security Act of 1985, as amended (1985 Farm Bill) outlines the Highly Erodible Land (HEL) and Wetland Conservation (WC) provisions. For those that were farming at the time, you'll remember working with the then Soil Conservation Service (now Natural Resources Conservation Service) to develop and apply approved conservation plans that established minimum residue requirements to comply. To summarize the requirement of this Act, cropland must be farmed in a manner that keeps erosion at acceptable levels in order to be eligible to participate in USDA program benefits. Commonly utilized programs in Montana include federal crop insurance, disaster assistance, crop price support programs (Agriculture Risk and Price Loss Coverage), Conservation Reserve Program, Conservation Stewardship Program, emergency conservation programs, Noninsured Crop Disaster Assistance Program, farm loans, Environmental Quality Incentives Program and more. Fast forward to 2024, nearly forty years later, as generations have changed, many farm managers are not familiar with those requirements or may not realize that they are still in effect.

Wind Erosion and HEL

Wind erosion will always be something we need to be aware of. The Golden Triangle region of Montana has some of the highest wind energy values of any cropped land in the continental United States.

In recent years, there has been an increase in wind and water erosion and HEL violations.

Please be reminded that any land deemed as Highly Erodible Land must maintain adequate residue so that wind and water erosion is addressed. For land with no cropping history prior to December 23, 1985, soil erosion from wind must be maintained at or below the soil loss tolerance level for erosion (T) for the field. For land farmed before December 23, 1985, soil erosion from wind needs a 75% reduction of erodibility, not to exceed two times the soil loss tolerance (T) for the field.

Stop Erosion

Crop Residue

This means doing your part to maintain as much crop residue on the fields as possible. The main way to stop erosion is by maintaining adequate residue (dead plant material) and vegetation (live plant material) on the soil surface, especially during the months of November through April. Ideally, high carbon residue should cover at least 60% of the soil surface and stubble height kept at a minimum of 10 inches tall.

60% high-carbon residue cover is recommended to protect against both wind and water erosion.

Food Security Act Violations

Violations to the Food Security Act can jeopardize USDA benefits or payments for the year of violation until the non-compliance is corrected. Penalties can be steep and detrimental to an operation.

This is your reminder as to the stipulations of the Food Security Act as they relate to your farming practices.

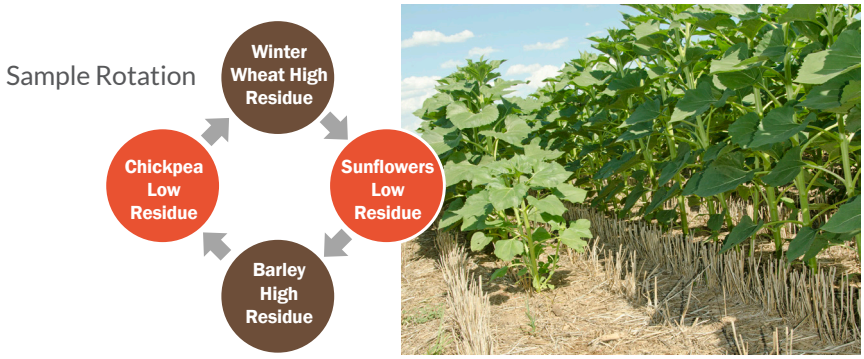
For More Information

Contact your local NRCS or FSA office with questions about HEL provisions, for help to identify sources of soil erosion, and conservation practices to address the resource concern. nrcs.usda.gov/contact.

More resources about soil erosion and soil health are also available on the NRCS Montana website at nrcs.usda.gov/montana.

Crop Rotation

Drought and poor yields in the past few years make maintaining residue a challenge. However, other steps you can take are to design a crop rotation with enough high-residue crops (small grains and safflower). Make sure to precede and follow all fallow years and low-residue crops (like pulse or oilseed crops) with high-residue crops (cereal crops).



This low-residue crop of sunflowers has good residue cover on the soil surface from the high-residue wheat crop that preceded it.

Unsheltered Distance

In addition, larger fields are more susceptible to erosion than smaller fields. In the past 20 to 30 years, field sizes have become wider with the removal of strip cropping, and the soils become more susceptible to the erosive forces of winds, especially after a low-residue crop or fallow year. Orient fields so that the longest part of the field runs north to south, with the narrowest part of the field running east to west, parallel to the prevailing westerly winds. Consider keeping field size to 160 to 320 acres or less in size, depending on soil type, crop rotation, and local wind speeds, and planting shrubs or grasses as windbreak at field edges on the windward side.

Water Erosion and HEL

Water erosion must also be controlled as part of the HEL provisions. Water erosion is not usually a first concern for low precipitation areas. However, when rain or snow comes quickly or on frozen soils, concentrated runoff flows can result in ephemeral gully erosion. The presence of an ephemeral gully on cropland is a violation of the 1985 Food Security Act and must be addressed. This likely means some earthwork and shaping of the area and possibly reseeding areas to grass and constructing grassed waterways. Greater residue and vegetation on the entire field will also help to slow water movement and a smaller field size will reduce the distance of the slope that the water travels which also reduces water erosion. In addition, consider seeding areas that are prone to gully erosion in fallow years. The years the areas are in crop, little things that help include double seeding the area and seeding perpendicular to the direction of water flow. It's these little things that can work together to keep your topsoil in place and keep your operation compliant with the 1985 Food Security Act.

Ephemeral gully in northern Rosebud County, fall 2022.