

Range Management Erosion Causes and Control Here

NE Fact Sheet-2

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What

Erosion control methods outlined in conservation plans are intended to keep soil and water from leaving the land so that these resources can be available to produce high quality forage, crops or timber.

Why

Erosion is a natural occurrence. However, it often is increased by activities that upset the natural balance of the grassland ecosystem. Erosion is not just a cropland problem but can also occur in range, hay, and pasture systems. Poor grazing management is a major cause of erosion. Careless off road trails rutted into the sod, poor control of water drainage from roads, disturbance of natural drainage and other land disturbances also are responsible for increasing grassland erosion.

Plant cover on the soil surface at the time of a rainstorm is the primary factor in preventing erosion. A raindrop that hits bare soil has a different effect than one that falls on a plant or litter and then rolls off onto the soil.

An uninhibited raindrop smashes against bare soil with great force, splashing water and soil particles and packing the surface soil. The process seals the pores of the soil. The result is that little water goes into the soil, and runoff occurs. On the other hand, when a raindrop hits a plant, or litter, its force is broken and it trickles into the soil.

When grassland plant cover is reduced by poor management and the distance between plants allows wind to reach the soil, wind erosion can result.

How

The best treatment for grassland soil erosion is to maintain vigorous plant cover, but long-term improvement of plant cover happens only with proper management.

The first criteria is to graze pasture properly to provide for growth and maintenance of healthy plants. The plants and litter form the necessary protective cover that breaks the splash of raindrops, slows over land flow and promotes surface conditions favorable to water intake.

Other practices to control erosion on grassland include brush control, deferred grazing, reseeding and mechanical land treatments. Erosion control structures such as small dams and diversions are helpful. However, the effectiveness of these practices is limited, and often is temporary. Fencing locations and livestock watering sites should be placed so as to minimize erosion problems.

A combination of erosion-control practices gradually results in better production of grass improved pasture conditions, a better water supply for livestock and personal satisfaction in managing a resource.

Where to Get Help

For more information about rangeland, hay, and pasture management, contact the local office of the U.S. Department of Agriculture's Natural Resources Conservation Service. It is listed in the telephone directory under "U.S. Government."