USDA United States Department of Agriculture

Illinois Grazing Manual Fact Sheet

GENERAL

Causing and Controlling Erosion

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, timber, and reduce the amount of sediment in streams, rivers, and water bodies.

Why

Erosion is a natural occurrence. However, erosion often increases with activities that upset the natural balance of soil erosion and formation. Erosion is not just a cropland problem but can also occur in hay and pasture systems. Poor grazing management is a major cause of erosion. Trails rutted into the sod, poor control of water drainage from roads, disturbance of natural drainage, livestock trailing, and other land disturbances are also responsible for increasing grassland erosion.

Plant cover on the soil surface, at the time of a rain storm, is the primary factor in preventing erosion because 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 the water trickles into the soil.

How

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

The first criteria is to graze pastures 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 hay and pasture 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 to minimize erosion problems.

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

Where to Get Help

For more information about hay and pasture management, contact your local office of the USDA Natural Resources Conservation Service, listed in the telephone directory under "U.S. Government," or the University of Illinois Extension.

USDA United States Department of Agriculture
Natural Resources Conservation Service

University of Illinois Extension
College of Agriculture, Consumer and Environmental Sciences

Illinois Department of Agriculture

ILGLCI Illinois Grassland Conservation Initiative