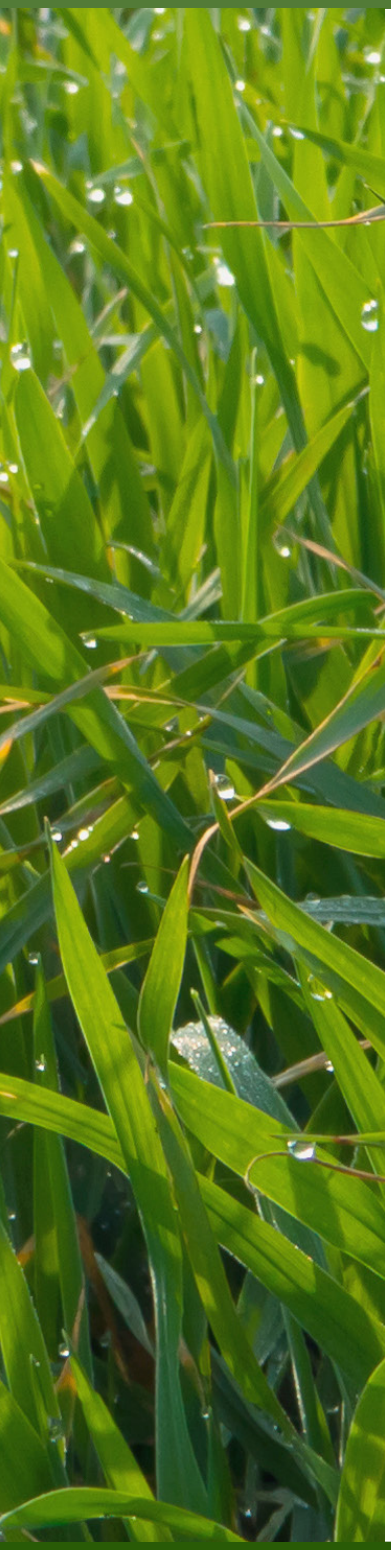
USDA United States Department of Agriculture

Illinois Grazing Manual Fact Sheet

GRAZING MANAGEMENT

Effects on Plants



What

Proper grazing is allowing livestock to graze at an intensity that maintains or improves the ability of plants to provide forage for livestock and wildlife, and to protect the soil.

Why

Proper Grazing will:

1. Increase the vigor and reproduction of desirable plants.
2. Improve—or at least maintain—the general condition of the pasture.
3. Increase forage production.
4. Improve plant cover and plant litter necessary to prevent soil erosion and to provide for water conservation and water quality.

How

Grass manufactures food in leaves and stems. Leaves convert radiant energy to chemical energy.

Proper grazing intensity leaves the most important plants in a pasture with sufficient leaf growth to maintain plant vigor and to effectively reproduce. Also, providing enough plant cover throughout the year to protect the soil from erosion. The maximum leaf growth that can be removed and still meet these objectives vary according to grazing season and climate.

Growing points. All plants have growing points, areas where new cells are developed. The growing points of grass are just above the last completed joints of each stem. Early in the season, the growing points are situated at the base of the plant. As the season progresses, the joints of most species elongate and push upward to produce a seed stalk. During elongation, the growing point is elevated and is in a vulnerable position. Removal of the point by grazing or mowing forces the plant to send up new leaves from the base of the plant, and to start over as if spring were beginning. Therefore, causing additional drain on root reserves and can weaken the plant.

The growing points of trees, shrubs, and forbs are on the outer tips of branches.

Season. The time of year affects how much leaf removal a plant can tolerate. Removing two inches in the spring has a greater effect on a plant than removing several inches while the plant is dormant.

Deferment. Plants rested or deferred from grazing during the growing season are usually more vigorous and can withstand a higher percentage of leaf removal than plants that are not rested. However, excessive harvest of any forage plant is undesirable.

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In general, proper grazing removes no more than 50 percent, by weight, of the annual growth by the end of the grazing season. If the plants are grazed only during the dormant season, or if they are grazed using an intensive short duration grazing system, the key species on the site may be grazed to use 65 percent of the growth by the end of the grazing season.

Wildlife use. If land is used to produce game birds and big game animals, wildlife food, especially browse plants such as trees, shrubs, and forbs must be considered. Because these plants grow from the outer tips of branches, proper grazing is based on removal of available twigs and leaves.

Proper grazing of browse plants removes no more than 50 to 60 percent of available twigs and leaves during the growing season, or no more than 65 percent during the dormant season of deciduous species. No more than 65 percent of twigs and leaves should be removed from evergreens.

It's Up to You

You need to know all you can about the kinds of plants growing on your farm or ranch including their value, growth habits, and how to judge proper grazing of the desirable plants.

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
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Illinois Grassland Conservation Initiative