



United States Department of Agriculture
Natural Resources Conservation Service

Illinois



GOOD Grazing MAKES GOOD \$ense

Introduction

Pasture-based livestock systems can be profitable enterprises if the available resources are managed effectively. Grazing management, such as rotational grazing that extends the amount of time that livestock can meet their needs through grazing and reduces the need for harvested feedstuffs, will lower feed costs and add to profitability.

Reducing costs and/or increasing production are the two avenues that livestock producers have for improving profitability. Focusing on management and control of production and pasture resources can be a cost-reducing strategy. A well-managed rotational grazing system can reduce or eliminate the need for labor-intensive or purchased inputs such as supplemental feed, nitrogen fertilizer, and weed and brush killers.

Improved pasture condition and higher forage yields can also lead to more animal production per pasture acre. Since feed costs are the major cost in almost all livestock operations, getting control of them is critical. Designing a grazing plan is the first step in your pasture management system. As you follow the planning process, the strengths and weaknesses of your current system will become apparent.

Why a Grazing Plan?

Overgrazing or unmanaged grazing can reduce vegetative cover and infiltration. Overgrazing compacts the soil, increasing runoff and erosion with the potential increase in nutrient and sediment yields.

Uncontrolled animals grazing too close to water bodies increases erosion of the streambank and contributes to sediment contamination of streams. The loss of vegetation along the banks will increase water temperature affecting aquatic habitat.

Managed grazing also protects water bodies from elevated levels of nutrients and pathogens. Fish and aquatic invertebrates are sensitive to sediment input, water temperature, and eutrophication (excess algae and plant growth due to excess nutrients). A managed grazing system has less significant impacts than continuous grazing or overgrazing.

Graziers use managed grazing practices to improve pasture productivity, increase livestock growth, and protect riparian areas. Managed grazing encompasses a range of strategies but the most critical component is management, not uncontrolled grazing. If graziers actively manage livestock

and limit the critical times that livestock are allowed to graze areas, many detrimental effects can be minimized or eliminated.

Check out the Illinois NRCS Grazing Manual at: www.il.nrcs.usda.gov/technical/grazing/index.html

Grazing Plan Components Include:

- Goals of farming operation
- Summary of sensitive areas
- Livestock inventory and forage requirements
- Fencing system

Illinois Grazing Solutions

- ✓ Increased Forage
- ✓ Healthier Livestock
- ✓ Protect Natural Resources
- ✓ Save Money

Helping People Help the Land

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What is a Grazing Plan?

A planned grazing system involves an orderly sequence of grazing and resting grassland. The grazing plan should include all the components of the grazing and pasture system and serve as a map for making management improvements.

Components of a typical grazing plan:

- Goals of farming operation
- Inventory of sensitive areas
- Livestock inventory and forage requirements
- Animal and forage balance
- Fencing system
- Livestock watering system
- Heavy use area protection
- Forage inventory
- Forage resting cycles
- Grazing system management

Grazing and resting grassland plants in a planned sequence increases the vigor of better plants, giving them a chance to grow and multiply. Therefore, gradually increasing the number of high-quality plants per acre. Improved grass conditions increase livestock production, improve wildlife habitat, reduce soil erosion, and conserve water. By resting pastures, overused areas are allowed to become productive.

When it comes to forages, it's especially important to have quality forages available for livestock during weaning, prior to breeding or during any other stressful time. Forage heights before and after grazing vary between species. For cool season grasses such as Orchard grass, Tall Fescue and Smooth Brome grass, with/without legumes, should be 6-8 inches before and 3-4 inches at the end of grazing time. For warm season grasses such as Switchgrass and Eastern Gamma, 20-18 inches before and 10-8 inches at the end of grazing time.

Prescribed Grazing Systems

Planned grazing systems vary from unit to unit, depending on the type of livestock, the kind of pasture, and the objectives of the operator. Listed below are simplified commonly used systems.

- **Three-pasture or four-pasture, one-herd system:** the herd is moved through more pastures (at lower stocking rate).
- **High-intensity, low-frequency system:** one herd of livestock grazes eight or more pastures in a planned sequence.
- **Short-duration system (Management Intensive Grazing):** similar to the high-intensity, low-frequency system, except the speed of the rotation is adjusted according to the growth rate and the required rest period of the plants.
- **Cell-grazing system:** a form of short-duration grazing, but usually contains 12 or more pastures in a cell.

As any of the above systems are commonly used, the more paddocks there are, the numbers of continuous days in a pasture will decrease. When these days are decreased, the rotation of the livestock will increase, thus improving/increasing the harvest efficiency. Increased Harvest Efficiency (HE) has shown to improve the carrying capacity in a grazing system.

The best system, or systems, may depend on present pasture and topography, available water supplies, economics, grass condition, kinds and classes of livestock, long-range goals for grassland improvement, and the time necessary to supervise the operation. Pastures greatly benefit from the graze/rest sequences of properly managed grazing systems.

For more detailed information see the Illinois Grazing Manual at: www.il.nrcs.usda.gov/technical/grazing/index.html

Multi-Specie Grazing Consideration

Each grazing species has different preferences and habits that can be utilized to manage different goals. Combining several species in a grazing system can generate a symbiotic result that can change unused resources into additional profit and landscape health.

Ruminant species can utilize lower quality forages, and even forages that are dormant in winter. Ruminants have a wide variety of preferences that range from lush grass, to weeds, to brush.

Major differences among all grazing species such as tooth configuration, herding habits, foraging habits, pressure per square inch of hoof, tolerance for rough terrain, and tolerance for plant toxins provide options for a land manager to use a variety of species on the entire farm or ranch to provide more cost efficiency.

Additional Information

For more information about NRCS technical assistance or financial assistance through programs such as the Environmental Quality Incentives Program (EQIP) or Grassland Reserve Program (GRP), contact your local USDA Service Center, NRCS office (listed in the telephone book under U.S. Department of Agriculture), or contact your local soil and water conservation district. Information is also available on the World Wide Web at:

www.il.nrcs.usda.gov/programs/