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Stephen K. Barnhart  
*Iowa State University*

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## BASICS OF MANAGEMENT –INTENSIVE GRAZING

Stephen K. Barnhart  
Agronomist-Extension Forage Programs  
Department of Agronomy  
Iowa State University.

### What Is Management-Intensive Grazing ?

Management-intensive grazing is a method for regulating how often and how much to graze in order to control the quality, yield, consumption, and persistence of forage from pasture. Managed grazing attempts to optimize animal performance or limit intake to a desired level and reduce wasted forage. Depending on the grazing methods used, the amount of fresh pasture provided, the amount of forage eaten, and its quality is regulated by the size of pasture area being grazed, the duration of that grazing, and the amount of the available forage allowed for grazing. Also critical is the period that each pasture is rested between grazings. In this way, it is possible to match pasture growth with animals' requirements. Surplus growth can be conserved as hay or silage, while growth shortages can be made up by careful feeding of supplements.

### Why go to all of this effort ?

The purpose of managed grazing is to improve efficiency of forage production and use, eliminate negative environmental impact, and improve net farm return through higher animal production and/or reduced production costs.

### Ten Tips For Designing and Managing A Management Intensive Grazing System

1. **Use forage plants that are adapted to and are productive and persistent in your soils, climate, and management system.** The majority of your pasture area will likely be long-term, perennial forages. Use legumes such as clovers and alfalfa in mixture with grasses to the extent that soils will permit legume growth. Annual or temporary forage areas can be considered to add needed management flexibility.
2. Economic analyses show **livestock enterprises that can graze more days show improved profitability.** When planning your overall forage/livestock enterprise, minimize land dedicated only to hay making. Hay or silage can often be obtained by cutting surplus growth from grazing paddocks. This can help in weed and parasite management and improve the flexibility of pasture. Equally important is to use fall grazing and crop residue grazing to reduce winter hay feeding.
3. **Subdivide the grazing unit and cross fence to control the grazing pattern.** Create 10 to 20 smaller pastures or paddocks. The optimum number of paddocks on a farm will vary with topography, soils, plant types and animal production goals. If you don't want to jump immediately to 10-20, start with 6 or 8 and consider further subdivisions later.

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Adapted from NCARS Technical Bulletin 305 (1995), (Raleigh NC)

Use fences to separate pastures that differ in growth rate, palatability, and exposure (north versus south slope). Subdivide fields to separate:

- hill land from bottom land
- sunny slopes from shady slopes
- shallow soils from deep, productive soils
- areas planted with different plant species

Boundary fences must be substantial enough to retain animals on the farm. Consider using electric powered internal cross fencing to ration forage to the animals; in many cases one or two temporary electric wires will be sufficient. Use new technology materials such as low impedance energizerschargers, wire and insulators to improve the dependability and efficiency of electric fencing. Providing water in each paddock or dispersed through the grazing system can improve animal movement and lane maintenance.

4. **Manage to grow green leaves.** Young green leaves are 70 to 80% digestible, whereas brown leaves and mature seedstems are only 40 to 50% digestible.

Have animals with high nutritional requirements-such as milking dairy cows, cows with calves, and heifers and stocker cattle-graze leafy, vegetative paddocks. Use animals that have low nutrient requirements-such as dry, pregnant brood cows, ewes, or mares to graze more mature and stemmy forage.

5. **Graze each area rapidly.** Put enough animals on a paddock to graze to the desired stubble height in one to three days. A high stock density, equivalent to 20 to 70 animal units per acre (20,000 to 70,000 pounds of live weight per acre) is usually needed to reduce wasted forage and obtain uniform grazing. Many pasture weeds will be grazed at an immature stage with this management, thus reducing the need for weed control measures.

The timing of animal moves from one paddock to another depends on plant height. For example, with bromegrass or grass/clover pastures, move the animals into the pasture at about 6 to 8 inches of growth and out of the pasture at 2 to 3 inches. This residual leaf area will speed the regrowth of the paddock.

6. **Anticipate changes in pasture growth.** If several pastures are growing very rapidly and accumulate more than 8 to 10 inches of growth, take one or two paddocks out of the grazing rotation and harvest this surplus as hay or silage at the correct stage of maturity. Conversely, if pastures are regrowing very slowly, offer supplemental feed or hay to allow a longer recovery period for the remaining paddocks in the system.
7. **Provide a sacrifice area.** A sacrifice area is often a drylot, woodlot, or pasture scheduled for renovation. A sacrifice area may be permanent. Provide water in the sacrifice area and use this area to reduce lane damage and severe overgrazing of the paddocks area when pastures are extremely wet or when pasture growth is insufficient and supplemental feeding is required. This may not be a productive paddock. Plant growth will be greatly reduced or eliminated altogether, in the effort to maintain the condition and productivity of the remaining paddocks.

8. **Use lime and plant nutrients wisely.** The yields of pasture plants are directly related to the nutrients supplied by the soil's organic matter, or by inputs of fertilizer, manure, and lime.

Using managed rotational grazing provides a more uniform grazing pattern and recycling of nutrients from urine and manure. From 75 to 85% of the nutrients consumed on pastures are excreted on the pastures. Over several years this management will reduce the fertilizer requirement.

9. **Be flexible.** You must be prepared to make adjustments in the grazing or feeding program because pasture growth rate and animal requirements are continually changing. Let the rate of grass growth and the amount of forage present determine when a paddock or area is to be regrazed.

The rule of thumb for controlled rotational grazing is when grass is growing fast, use a short rotational grazing cycle (12 to 20 days) and harvest the surplus growth as hay or silage; when growth slows, use a long cycle (30 to 60 days or more) and feed supplemental forage if needed.

10. **Get started.** Begin by using only a part of the herd or a small part of the farm. You can expand after you have gained experience with the management system. Keep the stocking rate on the farm about the same. Subdivide pastures and plan your management schedule to allow the forage in each paddock to be grazed in one to three days. Keep records of the amount of surplus forage harvested, the number of days each pasture is grazed, the sequence and length of the rotational grazing cycle, and seasonal animal performance.