

# PRESCRIBED GRAZING (MANAGED GRAZING - WISCONSIN)

(acre)  
Code 528

Natural Resources Conservation Service  
Conservation Practice Standard

## I. Definition

Managing the harvest of *vegetation*<sup>1</sup> with grazing and/or browsing animals.

## II. Purposes

The purposes of this practice are as follows:

- improving the quality and quantity of forages for the benefit of the producer, livestock, wildlife and environment;
- protecting water quality;
- improving and maintaining the health of livestock, plants, and soil;
- reducing soil erosion, and
- improving or maintaining riparian and watershed function.

## III. Conditions Where Practice Applies

This practice applies to all lands where grazing and/or browsing animals are managed.

## IV. Federal, Tribal, State, and Local Laws

Managed grazing shall comply with all federal, tribal, state, and local laws, rules, or regulations governing managed grazing. The producer is responsible for securing required permits. This standard does not contain the text of the federal, tribal, state, or local laws governing managed grazing.

## V. Criteria

### A. General Criteria

1. The grazing plan shall provide grazed plants sufficient recovery time to protect the primary *forage* species identified by the grazing plan and meet the planned production objectives by managing the kind of animal, animal number, grazing distribution, length of grazing and/or browsing periods, and timing of use. *Deferment* and/or *rest* will be planned for identified critical

periods based on plant needs to prevent stress or damage to plants.

2. Duration, intensity, and frequency of grazing will be based on desired plant health and expected productivity of key forage species to meet the land manager's objectives. Yield potential and forage growth characteristics will be determined by using NRCS Field Office Technical Guide (FOTG) Sections I and II.
3. Vegetative cover will be maintained to adequately control soil erosion resulting from wind and water on upland and riparian areas.
4. Adequate quantity and quality of drinking water for livestock will be supplied at all times during the period of occupancy. Where continuous access to water supply is not available, the plan will describe the frequency and method used to provide drinking water to livestock.
5. Develop contingency plans to deal with unexpected natural phenomenon, (e.g., drought, flooding, insect infestation, wildfire, etc.).
6. Monitoring data and grazing records will be collected to the extent necessary to document grazing plan implementation.

### B. Additional Criteria to Improve or Maintain the Health and Vigor of Forage Plants

1. Animals shall be managed by utilizing grazing intervals and alternating rest periods to maintain forage in a vigorous vegetative state.
2. Average stocking rates over the growing season shall not exceed the number needed to utilize the average annual forage production unless supplemental feeding is provided to meet nutritional deficits.

<sup>1</sup>Words in the standard that are shown in italics are described in X. Definitions. The words are italicized the first time they are used in the text.

3. Vegetation shall be managed to minimize the presence of noxious weeds and other invasive plants in order to obtain the desired forage species composition.
4. The plan shall identify the primary *pasture* forage species and minimum stubble height using Table 1. Grazing shall be initiated when the designated species reaches a grazable height and ceased when a minimum stubble height is reached. Minimum heights may be exceeded for specific management objectives as outlined in the plan.

**Table 1**  
**Minimum Heights of Pasture Species for Initiating and Terminating Grazing**

Species	Begin Grazing	End Grazing
	Minimum and Optimum Height of Vegetative Growth	Minimum Stubble Height*
Alfalfa	8-10	4
Red Clover	8-10	4
Alsike Clover	8-10	4
Ladino Clover	8-10	4
Kura Clover	8-10	4
Kentucky Bluegrass	4-6	2
Orchardgrass	8-10	4
Perennial Ryegrass	6-8	2
Reed Canarygrass	8-10	4
Smooth Brome	8-14	4
Tall Fescue	6-10	3
Timothy	8-10	4
Big Bluestem	12-14	6
Indiangrass	12-14	6
Little Bluestem	5-7	3
Sideoats Grama	4-6	2
Switchgrass	12-14	8

\*Minimum stubble height is critical if stand is to be maintained. This applies to that part of the grazing season after the initial rapid growth period in early May, as well as at the end of the grazing season.

5. Defer grazing on sites used for out-wintering during the previous winter to allow forage plants to recover. Allow forage plants to produce viable seed as needed to encourage natural regeneration or use interseeding to restore vegetative cover.

**C. Additional Criteria to Improve or Maintain Surface and/or Subsurface Water Quality and Quantity**

Duration, intensity, frequency, season of grazing, and pasture design shall be designed to protect water quality by:

- providing adequate ground cover and plant density to maintain or improve filtering capacity of the vegetation;
- promoting uniform nutrient distribution throughout the pasture;
- minimizing animal impacts to the stability of the streambank or shoreline;
- maintaining adequate riparian community structure and function to sustain associated riparian, wetland, floodplain, and stream species; and
- ensuring the location and management of supplemental feeding, out-wintering, and winter feeding areas are planned and implemented to address any identified water quality resource concerns.

**D. Additional Criteria to Improve or Maintain Animal Health and Productivity**

1. Manage livestock to avoid the spread of disease, parasites, and contact with harmful insects and plants.
2. Supplemental feed and/or minerals will be balanced with the forage consumption to meet the animal nutrition needs necessary to meet the desired production goals and maintain animal health.
3. Biosecurity safeguards will be in place to prevent the spread of disease between on-farm classes of livestock and between livestock farm units.
4. The need for shelter in the form of windbreaks, sheds, or shade structures to protect livestock from severe weather or heat/humidity shall be addressed by the grazing plan.

**E. Additional Criteria to Reduce Soil Erosion and Maintain Soil Condition**

1. Minimize or stabilize concentrated livestock areas to reduce soil compaction, excessive runoff, and erosion.
2. Plan duration, intensity, frequency, and season of grazing to provide adequate vegetative ground cover, litter, and canopy to maintain or improve infiltration and soil condition.

**F. Additional Criteria to Improve or Maintain Food and/or Cover for Fish and Wildlife Species of Concern**

1. Where wildlife habitat enhancement is an objective, document the species of concern in the prescribed grazing plan.
2. Plan intensity, frequency, timing, and duration of grazing and/or browsing to provide for the development and maintenance of the plant structure, density, and diversity needed to enhance habitat for the desired fish and wildlife species of concern.
3. Refer to Wisconsin Biology Technical Note 8, Pollinator Biology and Habitat, for guidance on planning and establishing pollinator habitat.

**VI. Considerations**

Additional recommendations relating to design that may enhance the use of, or avoid problems with, this practice but are not required to ensure its basic conservation functions are as follows.

- A. Test *paddock* soil according to UWEX soil publication A2809. Lime and additional fertilizer added should not exceed recommended amounts according to soil test recommendations after manure and legume credits have been taken.
- B. All nutrients and soil amendments should be applied according to applicable NRCS practice standards and University of Wisconsin publications.
- C. Enhance pasture sustainability by including multiple species of forages.
- D. Use mechanical means, such as harvesting, clipping, and dragging of pastures to manipulate the pasture *sward*.
- E. Consider placement of watering facilities to enhance forage production and manure distribution.
- F. Plan lane placement and design to minimize erosion and enhance livestock flow.

- G. Consider the needs of other activities using the same land. Evaluate the potential risks of recreational vehicle use (snowmobiles, ATVs, etc.) on grazing land.
- H. Contact local Land Conservation Departments (LCD), Natural Resources Conservation Service (NRCS), or University of Wisconsin – Extension (UWEX) offices for information on local grazing networks.
- I. Use management practices to extend the grazing season.
- J. When weeds are a significant problem, use chemical and/or mechanical weed control in addition to prescribed grazing.
- K. Use browsing animals as a tool to manipulate woody and non-woody plant cover.

**VII. Plans and Specifications**

A managed grazing plan will be prepared for all paddocks. Grazing plans will be organized in a manner that is readily understood and useable by the producer in their daily operations. The manner of documentation will depend on the size and complexity of the *grazing management unit*. Included in the documentation will be the elements needed for achieving the production and environmental goals of the grazing management unit. The plan will be revised, as necessary, to meet management needs. A managed grazing plan shall include the following information.

- A. Goals and objectives clearly stated.
- B. The number of animals by species, age, size class, and utilization (i.e., dairy, beef, etc.).
- C. A resource inventory identifying the following.
  1. Ecological site or forage suitability group.
  2. Existing forage species inventory.
  3. Existing resource conditions and concerns.
- D. An overview plan map or maps with the following information.
  1. Pasture units with map labels and acreage.
  2. Location of existing fence and proposed fences.
  3. Soil types.
  4. Location of existing and planned structural conservation practices.
  5. Critical and sensitive areas.
  6. Use overlay of other details such as, paddock dimensions, lanes, and watering systems.

- E. Include a Forage/Animal Balance calculation to ensure the forage produced meets the anticipated demand of the grazing livestock.
- F. The average length of the occupation period and corresponding rest periods, minimum grazing heights, and other treatment activities, as well as proposed stocking rate guidelines.
- G. Strategies for harvesting forage during periods of excess growth, such as mechanically harvesting and strategies to respond to periods of forage shortages due to drought or seasonal variations in forage growth.
- H. A signature page for the manager/owner and the planner to sign.

### VIII. Operation and Maintenance

#### A. Operation

The producer shall apply managed grazing on a continuing basis according to management goals, making adjustments as needed to insure that the objectives of the managed grazing plan are met. Adjustments may include:

- changing the length of grazing and rest periods,
- changing paddock sizes,
- moving watering facilities, and
- moving access or travel lanes.

#### B. Maintenance

1. All facilitating practices should be maintained in good working order.
2. The managed grazing plan will specify how and when the monitoring of the pasture and forage supply will be done. Monitoring will include:
  - recording the location of animals and pasture usage during the grazing season,
  - determining if there is a shortage of pasture growth and adjusting the managed grazing plan accordingly or applying supplemental feeding techniques, and
  - evaluating the quality of the pasture stand to determine if plan goals are met.

### IX. References

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## **X. Definitions**

*Deferment (V.A.1.)* – Delay of livestock grazing in an area for an adequate period to provide for plant reproduction, establishment of new plants, or restoration of vigor of existing plants.

*Forage (V.A.1)* – Edible parts of plants, other than separated grain, that can provide feed for grazing animals, or that can be harvested for feeding.

*Grazing Management Unit (VII.)* – The grazing land area used to support a group of grazing animals for a grazing season. It may be a single area or have a number of subdivisions.

*Paddock (VI.A.)* – A grazing area that is a subdivision of a grazing management unit, and is enclosed and separated from other areas by a fence or barrier.

*Pasture (V.B.4.)* – A type of grazing management unit enclosed and separated from other areas by fencing or other barriers and devoted to the production of forage for harvest primarily by grazing.

*Rest (V.A.1.)* – The absence of grazing by livestock to benefit plants for regrowth between grazing periods, for critical periods of plant growth and development, or for critical periods of establishment.

*Sward (VI.D.)* – A population of herbaceous plants, characterized by a relatively short habit of growth and relatively continuous ground cover, including both above and below ground parts.

*Vegetation (I.)* – The biomass of herbaceous plants, other than the separated grain, generally above the ground but including edible roots and tubers.