

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**PRESCRIBED GRAZING**

(Ac.)

**CODE 528**

**DEFINITION**

Managing the harvest of vegetation with grazing and/or browsing animals.

**PURPOSE**

This practice may be applied as a part of conservation management system to achieve one or more of the following:

- Improve or maintain desired species composition and vigor of plant communities.
- Improve or maintain quantity and quality of forage for grazing and browsing animals' health and productivity.
- Improve or maintain surface and/or subsurface water quality and quantity.
- Improve or maintain riparian and watershed function.
- Reduce accelerated soil erosion, and maintain or improve soil condition.
- Improve or maintain the quantity and quality of food and/or cover available for wildlife.
- Manage fine fuel loads to achieve desired conditions.

**CONDITIONS WHERE PRACTICE APPLIES**

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

**CRITERIA**

**General Criteria Applicable to All Purposes**

Removal of herbage will be in accordance with site production limitations, rate of plant growth the physiological needs of forage plants and

the nutritional needs of the animals. . The general specification provides guidelines for monocultures in Table 1.

For grazed rangeland, native pasture and grazed forest, percent removal of key species will be the standard. The general specification provides guidelines for planning prescribed grazing using key species and percent removal.

Adequate quantity and quality drinking water will be supplied at all times during period of occupancy.

Adjust intensity, frequency, timing and duration of grazing and/or browsing to meet the desired objectives for the plant communities and the associated resources, including the grazing and/or browsing animal.

Manage kind of animal, animal number, distribution, length use period and timing of use to allow grazed plants adequate recovery time to meet planned objectives. The recovery during periods of non-grazing can be for the entire year or during the growing season of key plants.

Deferment (non-grazing period less than one year) and/or rest (non-grazing period equal or greater than one year) will be planned based on the critical periods based on key plant needs.

Provide deferment or rest from grazing or browsing to ensure the success of prescribed fire, brush management, seeding or other conservation practices that cause stress or damage to key plants.

Manage grazing and/or browsing animals to maintain adequate vegetative cover on sensitive areas (i.e.

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riparian, wetland, habitats of concern, karst areas). Continuous grazing will not be planned on management units where sensitive areas occur.

Continuous grazing is acceptable under the following conditions:

#### Native Grasses

- When all Range Health Attribute Indicators meet or exceed slight to moderate, and
- Concentrations or sacrifice areas do not exceed 10 percent of the grazing unit and are not in sensitive areas.

#### Pastureland

- When Pasture Condition Score exceeds 30, and
- There are no other resource concerns such as streambank, gully, sheet, or rill erosion.

Manage livestock movements based on rate of plant growth, available forage, and allowable utilization target.

Develop contingency plans to deal with expected episodic disturbance events e.g. insect infestation, drought, wildfire, etc.

At least one key grazing area with one or more key forage species will be established for each management unit or for a Conservation Management Unit(s) with similar topography, soils, grazing duration, and season(s) of use

#### **Additional Criteria to Improve or Maintain the Health and Vigor of Plant Communities.**

Duration and intensity of grazing and/or browsing will be based on desired plant health and expected productivity of key forage species to meet management objectives. Plant health and productivity will be managed by regulating the extent of plant removal by the livestock.

Adjust grazing periods and/or stocking rates to meet the desired objectives for the plant communities and the associated resources, including the grazing animal.

Schedule livestock movements based on rate of plant growth, available forage, and utilization, not calendar dates, when using multi-pasture systems.

The average stocking rate during the growing season shall not exceed the productive capacity of the forages in the system.

Plan periodic deferment from grazing and/or browsing to maintain or restore the desired plant community following episodic events, such as wildfire or severe drought. Rest or defer areas for a period of time to ensure the success of prescribed fire, brush control, seeding or other conservation practices. See the general specification for appropriate deferment periods.

Where appropriate, soil test periodically for nutrient status and soil reaction and apply fertilizer and/or soil amendments according to soil test to improve or maintain plant vigor.

#### **Additional Criteria to Improve or Maintain Quantity and Quality of Forage for Animal Health and Productivity**

Plan grazing and/or browsing to match forage quantity and quality goals of the producer within the capability of the resource to respond to management.

Enhance diversity of rangeland and pasture plants to optimize delivery of nutrients to the animals by planning intensity, frequency, timing and duration of grazing and/or browsing.

Plan intensity, frequency, timing and duration of grazing and/or browsing reduce animal stress and mortality from toxic and poisonous plants.

Supplemental feed and/or minerals will be balanced with the forage consumption to meet the desired nutritional level for the kind and class of grazing and/or browsing livestock.

Dietary needs of livestock will be based on the National Research Council's Nutrient Requirements of Domestic Animals or similar scientific sources with appropriate adjustments made for increased energy demand required by browsing or grazing animals foraging for food including travel to and from pasture site.

Bio-security safeguards will be in place to prevent the spread of disease between on-farm or ranch classes of livestock and between livestock farm or ranch units.

Shelter in the form of windbreaks, sheds, shade structures, and other protective features will be used where conditions warrant to protect livestock from severe weather, intense heat/humidity, and predators.

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Stock water will be provided for each grazing unit based on the anticipated peak animal demands for the grazing period. Refer to the Oklahoma NRCS Practice Standard and Specification for Watering Facility (614).

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

Minimize concentrated livestock areas to enhance nutrient distribution and improve or maintain ground cover through fencing, water point placement, supplemental feed placement and/ or cover manipulation.

Plan intensity, frequency, timing and duration of grazing and/or browsing to:

- Minimize deposition or flow of animal wastes into water bodies,
- Minimize animal impacts on stream bank or shoreline stability.
- Provide adequate ground cover and plant density to maintain or improve infiltration capacity and reduce runoff.
- Provide adequate ground cover and plant density to maintain or improve filtering capacity of the vegetation.

**Additional Criteria to Improve or Maintain Riparian and Watershed Function.**

Minimize concentrated livestock areas to enhance nutrient distribution and improve or maintain ground cover and riparian/floodplain plant community structure and functions.

Plan intensity, frequency, timing and duration of grazing and/or browsing to:

Provide adequate ground cover and plant density to maintain or improve infiltration capacity and reduce runoff.

Provide adequate ground cover and plant density to maintain or improve filtering capacity of the vegetation.

Maintain adequate riparian community structure and function to sustain associated riparian, wetland, floodplain and stream species.

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

Minimize concentrated livestock areas, trailing, and trampling to reduce soil compaction, excess runoff and erosion.

Maintain adequate ground cover, litter, and canopy to maintain or improve infiltration and soil condition.

Plan intensity, frequency, timing and duration of grazing and/or browsing to provide adequate ground cover, litter and canopy to maintain or improve infiltration and soil condition.

Provisions should be made for a sacrifice area in the event of extended wet or dry periods. Treatment of these areas may require an extended rest period (refer to general specification), need re-establishment if damage to plants is too severe (refer to the Oklahoma NRCS Practice Standards and Specifications for Range Planting (550) or Pasture and Hay Planting (512)), require actions to break up compaction (refer to the Oklahoma NRCS Practice Standard and Specification for Grazing Land Mechanical Treatment (548)), and/or may need weed control (refer to the Oklahoma NRCS Practice Standard and Specification for Pest Management (595)).

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

Identify species of concern in the objectives of the prescribed grazing plan.

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 for the desired fish and wildlife species of concern.

Prescribed grazing is a tool that can be used to maintain or create wildlife habitat. Strategic timing and intensity can diversify plant communities, preserve nesting habitat and improve browse.

In the goals and objectives of the grazing plan, specify the species of concern and the habitat component(s) to be managed.

Manage duration, frequency, and intensity of grazing to produce diverse plant communities with appropriate plant height, structure, and density for the desired wildlife habitat.

Use short-term severe grazing to create areas of low successional plant species that are needed for habitat of upland species. This tool can be combined with prescribed burning (refer to the Oklahoma NRCS Practice

Standard and Specification for Prescribed Burning (338)) to accomplish the wildlife objectives. Refer to the Oklahoma NRCS Wildlife Management Guides and the Oklahoma NRCS Practice Standard and Specification for Upland Wildlife Habitat Management (645) for additional guidance on the needed plant community.

Provide deferment from grazing on key habitat areas during critical nesting/fawning periods.

Refer to the Oklahoma NRCS Practice Standards and Specifications for Upland Wildlife Habitat Management (645) and Wetland Wildlife Habitat Management (644) for additional guidance on habitat management.

#### **Additional Criteria for Management of Fine Fuel Load**

Plan intensity, frequency, timing and duration of grazing and/or browsing to reduce hazardous fuel loads.

Plan intensity, frequency, timing and duration of grazing and/or browsing to manage fuel continuity, load and other conditions to facilitate prescribed burns.

#### **CONSIDERATIONS**

Duration and intensity of grazing is a function of the stock density. As stock density increases, the intensity of grazing is greater and the duration of grazing will generally be shorter to compensate. The inverse is true for lower stock densities. In rotational and management intensive systems the duration of grazing is directed by the relative growth rate of the forages in the fields that will be grazed next.

Management flexibility increases as the number of management units increase. Grazing plans that include rotations between two or more management units provide flexibility in managing duration, frequency, and location of grazing.

Utilization or stubble height target levels are tools that can be used while monitoring to help ensure that resource conservation and producer objectives are met.

When multiple pastures are used and where practical, start the grazing sequence in a different management unit each growing season.

When weeds are a significant problem, prescribed grazing should be implemented in conjunction with pest management to protect desired plant communities.

Livestock feeding, handling, and watering facilities should be designed and installed in a manner to improve and/or maintain animal distribution. These facilities should also be designed and installed to minimize stress, the spread of disease, parasites, contact with harmful organisms and toxic plants.

Protect soil, water, air, plant and animal resources when locating livestock feeding, supplementing, handling and watering facilities.

Utilization or stubble height target levels are tools that can be used in conjunction with monitoring to help ensure that resource conservation and producer objectives are met.

Where practical and beneficial, start the grazing sequence in a different management unit each growing season.

#### **DIFFERENCES BETWEEN RANGE MANAGEMENT AND PASTURE MANAGEMENT**

Range is generally managed for many species of plants for multiple benefits. Pasture is the management of a few species for specific objectives.

Range is managed, maintained and improved through the use of tools such as prescribed fire, chemicals, mechanical means, and biological agents. The same principles are applied to pastureland, but they are generally more intensive than to range. Pasture is generally a monoculture or a limited variety of exotic plants or culturally managed native single species. Cultural practices such as fertilizer, weed control, irrigation, routine seeding and renovation are needed to maintain pasture communities.

When weeds are a significant problem prescribed grazing and/or browsing should be implemented in conjunction with other pest management practices to promote plant community resistance to invasive species and protect desired plant communities.

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Prescribed grazing should consider the needs of other enterprises utilizing the same land, such as wildlife and recreational uses.

Consider improving carbon sequestration in biomass and soils through management of grazing and/or browsing to produce the desired results.

If nutrients are being applied, Nutrient Management (590) will be applied.

## PLANS AND SPECIFICATIONS

The prescribed grazing plan shall conform to all applicable federal, state and local laws. Seek measures to avoid adverse affects to endangered, threatened, and candidate species and their habitats.

Prepare a prescribed grazing plan for all planned management units where grazing and/or browsing will occur according to state standards and specifications.

Prescribed Grazing Plan will include:

1. Goals and Objectives clearly stated.
2. Resource Inventory that identifies:
  - o existing resource conditions and concerns
  - o ecological site or forage suitability group
  - o identifies opportunities to enhance resource conditions
  - o location and condition of structural improvements such as fences, water developments, etc, including seasonal availability and quality of watering sites.
3. Forage Inventory of the expected forage quality, quantity and species in each management unit(s).
4. Forage-Animal Balance developed for the grazing plan, which ensures forage produced or available meets forage demand of livestock and/or wildlife.
5. Grazing Plan developed for livestock that identifies periods of grazing and/or browsing, deferment, rest, and other treatment activities for each management unit.
6. Contingency plan developed that details potential problems (i.e., severe

drought, flooding, insects) and serves as a guide for adjusting the grazing prescription to ensure resource management and economic feasibility without resource degradation.

**7.** Monitoring plan developed with appropriate records to assess in determining whether the grazing strategy is resulting in a positive or upward trend and is meeting objectives. Identify the key areas and key plants that the manager should evaluate in making grazing management decisions.

## OPERATION AND MAINTENANCE

**Operation.** Prescribed Grazing will be applied on a continuing basis throughout the occupation period of all planned grazing units.

Adjustments will be made as needed to ensure that the goals and objectives of the prescribed grazing strategy are met.

**Maintenance.** Monitoring data and grazing records will be used on a regular basis within the prescribed grazing plan to insure that objectives are being met, or to make necessary changes in the prescribed grazing plan to meet objectives.

All facilitating and accelerating practices (e.g. Fence (382), Pest Management (595), Brush Management (314), Pasture Planting (512) (etc.) that are needed to effect adequate grazing and/or browsing distribution as planned by this practice standard will be maintained in good working order and are being operated as intended.

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