

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

PRESCRIBED GRAZING

(Acre)

CODE 528

DEFINITION

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

PURPOSES

- 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.

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, the nutritional needs of the animals, and management goals. Utilize NCSU developed guidance on "stop/start" forage specific grazing heights (eFOTG Section I Reference Lists/NC Technical References/Pasture and Hayland/Forage Facts: Grazing Guide) to determine system planning and for evaluation of forage height targets.

Develop a grazing plan utilizing C-GRAZ (or other NRCS-approved tool or method) to calculate and document the estimated balance between forage produced or available in the grazing management unit and livestock herd nutritional requirements in the current and planned pasture management system. The prescribed grazing plan shall conform to all applicable federal, state and local laws.

In the grazing plan, identify management units that facilitate managing livestock rotation based on rate of plant growth, available forage and allowable utilization target.

Implement livestock grazing rotation on the planned pasture management units which support the herd according to the grazing plan.

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, grazing distribution, length of grazing and/or browsing periods, and timing of use to provide grazed plants sufficient recovery time to meet planned objectives.

Provide 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. riparian, wetland, and habitats of concern). Move livestock before the

most sensitive resource is impacted.

Develop contingency plans to deal with expected episodic disturbance events such as drought and heavy snow/ice.

As a part of contingency planning, locate any needed feeding and sacrifice areas away from environmentally sensitive areas such as wetlands, streams/creeks riparian areas, drainage ways and those with excessive slope. Manage desired vegetation within the sacrifice area to better utilize nutrients and prevent erosion.

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.

Base livestock movements on rate of plant growth and utilization rate, not calendar date or paddock residence time.

Plan periodic deferment from grazing and/or browsing to maintain or restore the desired plant community following episodic events, such as severe drought.

Perform soil tests on all pastures and hay fields at a minimum every 3 years. Maintain adequate nutrient and pH levels based on soil test results to achieve expected forage productivity and persistence.

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 pasture plants to optimize delivery of nutrients to the animals by planning intensity, frequency, timing, and duration of grazing and/or browsing. Diversity may be enhanced by applying the Pasture and Biomass Planting (512) practice for overseeding or using annually seeded forages (warm and cool season).

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

Biosecurity safeguards will be in place to prevent the spread of disease between on-farm classes of livestock and between livestock farm units. Several management practices reduce the risk of introducing disease to an operation. The USDA's Animal and Plant Health Inspection Service (APHIS) has additional information and detail regarding biosecurity plans (www.aphis.usda.gov).

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.

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.

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

Additional Criteria to Improve or Maintain Surface and/or Subsurface Water Quality and Quantity or to Improve or Maintain Riparian and Watershed Function

Minimize concentrated livestock areas to enhance nutrient distribution and improve or maintain ground cover.

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.
- Enhance nutrient cycling by providing more uniform manure distribution and an increased rate of decomposition.
- 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 by controlling traffic patterns and duration of stay in a particular pasture.

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. Utilize NCSU developed guidance on "stop/start" forage specific grazing heights (eFOTG Section I Reference Lists/NC Technical References/Pasture and Hayland/Forage Facts: Grazing Guide) to determine system planning and for evaluation of forage height targets.

Perform soil tests on all pastures and hay fields at a minimum every 3 years. Maintain adequate nutrient and pH levels based on soil test results to achieve expected forage productivity and persistence.

CONSIDERATIONS

Consider planning a grazing system that has a forage-livestock balance, where plant forage produced in grazing management units equals the forage nutritional need of the planned herd size. Implementing a grazing plan of this type will achieve an economically sustainable grazing system.

Utilize forage stockpiling to extend duration of grazing season. This practice will promote year-round grazing, and also improve soil fertility and forage yield through improved manure distribution in managed pastures.

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

Design and install livestock feeding, handling, and watering facilities in a manner to improve and/or maintain animal distribution. Design and install these facilities to minimize stress, the spread of disease, parasites, contact with harmful organisms and toxic plants.

Use shelter in the form of windbreaks, sheds, shade structures, and other protective features where conditions warrant protecting livestock

from severe weather, intense heat/humidity, and predators.

Utilize stubble height target levels as a tool in conjunction with monitoring to help ensure resource conservation and producer objectives are met.

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

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.

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, Conservation Practice Standard (590) Nutrient Management will be applied.

Consider using native warm season grasses as part of the prescribed grazing system to provide cover for a variety of wildlife species and as potentially drought tolerant alternatives to cool-season forage species.

PLANS AND SPECIFICATIONS

Prepare a prescribed grazing plan for all planned grazing management units where grazing and/or browsing will occur based on livestock rotation.

Prescribed Grazing Plan will include:

- Goals and Objectives clearly stated.
- Resource Inventory that identifies:
 - Existing resource conditions and concerns.
 - Forage plants present.
 - Opportunities to enhance resource conditions.
 - Location and condition of structural improvements such as fences, water developments, etc, including seasonal availability and quality of watering sites.

- Forage Inventory, including the expected forage quantity, species, and current and planned grazing efficiency in each grazing management unit.
- Forage-Animal Balance developed utilizing C-GRAZ (or other NRCS-approved tool or method) to document the estimated balance between forage produced or available in the grazing management unit and livestock herd nutritional requirements in the current and planned pasture management system.
- Identification of grazing management units, periods of grazing and/or browsing, rest, and other treatment activities for each grazing management unit in the rotation.
- Stop-start heights for grazed forages in the planned grazing management units.
- Location of planned watering facilities.
- Drought and/or heavy snow/ice contingency plan that details potential problems and serves as a guide for adjusting the grazing prescription to ensure resource management and economic feasibility without resource degradation.
- Monitoring plan developed with appropriate records to assist in determining whether the grazing strategy is resulting in a positive or upward trend and is meeting objectives. Identify the key areas that the manager should evaluate in making grazing management decisions.

OPERATION AND MAINTENANCE

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

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

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.

Soil test all pastures and hay fields and maintain adequate nutrient and pH levels based on soil test results to achieve expected forage productivity and persistence.

All facilitating and accelerating practices that are needed to maintain 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. These practices may include Fence Conservation Practice Standard (382), Integrated Pest Management Conservation Practice Standard (595), Brush Management Conservation Practice Standard (314), and Forage and Biomass Planting Conservation Practice Standard (512).

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