

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

PRESCRIBED GRAZING

(Acre)

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

Impact to cultural resources, wetlands, and Federal and State protected species need to be avoided or minimized to the extent practical during planning, design and implementation of this conservation practice in accordance with established National and Florida NRCS policy; General Manual (GM) Title 420-Part 401, Title 450-Part 401, and Title 190-Part 410.22 and 410.26; National Planning Procedures Handbook (NPPH) FL Supplements to Parts 600.1 and 600.6; National Cultural Resources

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Procedures Handbook (NCRPH); and The National Environmental Compliance Handbook (NECH)

The application of this practice prescribes the rest period, intensity, frequency, duration, and season of grazing to promote ecological and economical stable plant communities that meet both the land manager's objectives and the resource needs.

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

On pasture or croplands used for grazing monitor and adjust grazing intensity to maintain minimum stubble heights for improved forages under optimum environmental conditions. See Table 1.

Establish at least one key grazing area with one or more key forage species for each management unit(s) with similar topography, soils, grazing duration and season of use.

On grazed forest, native pastures, and/or rangeland, utilize no more than 50% (by weight) of the total annual production of key forage species for grazing by the end of the growing season. Utilize no more than 60% (by weight) of the current year's growth during the dormant season and leave sufficient plant residues to favorably impact site hydrology.

Base frequency of defoliations and season of grazing on growth rate, physiological, and environmental conditions for plant growth. Maintain short grazing periods (1 to 14 days) to minimize the opportunity for the grazing animal to graze plant regrowth prior to plant recovery. The regrowth period is usually between 15 to 28 days in the early summer and 30 to 42 days in the late summer and fall.

Stipulate less than 50% use by livestock to promote vegetative cover on eroding or critical sites, on riparian areas or wetlands, or where rapid range recovery is needed.

Impact to cultural resources, wetlands and Federal and State protected species need to be avoided or minimized to the extent practical during planning, design and implementation of this conservation practice in accordance with established National and Florida NRCS policy as stated in the General Manual (GM) Title 420-Part 401, Title 450-Part 401, and Title

190-Parts 410.22 and 410.26; National Planning Procedures Handbook (NPPH) FL Supplements to Parts 600.1 and 600.6; National Cultural Resources Procedures Handbook (NCRPH); and Subpart F of The National Environmental Compliance Handbook (NECH).

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.

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.

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.

Biosecurity 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.

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.

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.

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.

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.

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

When federally or state listed endangered or threatened species occur on the management unit, plan grazing to not cause harm to the population or habitat of these animals or plants.

Refer to Florida NRCS Conservation Practice Standards Upland Wildlife Habitat Management, Code 645, and Wetland Wildlife Habitat Management, Code 644 for guidance on habitat management.

Additional Criteria for Management of Fine Fuel Load

Rangelands and many of the native ecological sites found in Florida have evolved with fire and required periodic burning to maintain their ecological health. Proper timing, duration and intensity of livestock grazing can effectively influence the use of prescribed burning to ensure that ecological health is maintained and catastrophic wildfire is minimized. Utilize stock density, timing and duration of grazing to coincide with desired levels of fine fuels, plant composition, and habitat structure to facilitate desired fire ecology on grazing lands. Refer to Florida NRCS Conservation Practice, Prescribed Burning, Code 338 and

amendment FL-2 of the NRPH for fine fuel requirements.

CONSIDERATIONS

Selecting the correct stocking rate is the most important of all grazing management decisions from the standpoint of soils, vegetation, livestock, wildlife, and economics. No grazing system will improve the resource if the stocking rate is too high.

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

Design grazing systems to minimize livestock losses from storms, flooding, and other potential natural disasters.

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

Use tools such as forage utilization or stubble height target levels, in conjunction with monitoring, to help ensure that resource conservation and producer objectives are met.

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

Consider the needs of other enterprises utilizing the same land, such as wildlife and recreational uses.

Use prescribed grazing schedules only as an initial guide. Flexibility is a necessity to achieve productive and healthy grazing lands.

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

PLANS AND SPECIFICATIONS

Prepare a prescribed grazing plan for all planned management units where grazing will occur.

Guidelines for developing a prescribed grazing plan need to include:

- Goals and Objectives clearly stated.
- Resource Inventory completed
 - existing conditions and concerns,
 - existing structures, facilities
 - Ecological Site and/or Forage Suitability Group
 - location and condition of structural improvements such as fences, water developments, etc, including seasonal availability and quality of watering sites.
 - identifies opportunities to enhance resource conditions
- Livestock Forage Inventory of the expected forage quality, quantity and species in each management unit(s) during the grazing period by Ecological Site or Forage Suitability Group. See (FL-ECS-2).
- Forage-Animal Balance which ensures forage produced or available meets forage demand of livestock and/or wildlife of concern. See (Exhibit 5-5 in the NRPH).
- Annual Grazing Plan developed for livestock that identifies periods of grazing, deferment, rest, and other treatment activities for each management unit. See (FL-ECS-1).
- Contingency Plan identifies potential problems such as severe drought, wildfires, or flooding. The plan serves as a guide for adjusting the grazing prescription to protect the resource, grazing animals, and reduce economic risk.
- Monitoring Plan developed with appropriate records to assess in determining whether the grazing strategy is meeting objectives. Identify the key areas and key plants that the manager should evaluate in making grazing management decisions. See (NRCS-RANGE-414 in the NRPH).

Additional guidelines, products, and techniques used for developing grazing plans are found in the National Range and Pasture Handbook (NRPH) and the National Planning Procedures Handbook (NPPH).

OPERATION AND MAINTENANCE

Operation. Apply Prescribed Grazing on a continuing basis throughout the occupation period of all planned grazing units.

Make adjustments as needed to ensure that the goals and objectives of the prescribed grazing strategy are met.

Maintenance. Record and review monitoring data and grazing records on a regular basis as outlined within the prescribed grazing plan to ensure that objectives are being met or to make necessary changes in the prescribed grazing plan to meet objectives.

Maintain all planned facilitating and accelerating Florida NRCS Practices (e.g., Fence, Code 382, Pest Management, Code 595, Brush Management Code 314, Pasture Planting Code 512 etc.).

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Table 1. Proper grazing height		
Forage Species	Plant/Stubble Height to End Grazing (In)	Plant Height to Start Grazing (In)
Grasses		
Bahiagrass	2	6
Bermudagrass, Hybrid	4	6
Bermudagrass, Common	2	5
Stargrasses	6	14
Pearl millet	6	14
Limpograss (Hemarthria spp.)	6	12
Digitgrass (Pangola)	5	18
Rhodesgrass (Callide)	8	18
Sorghum-Sudan Hybrids	12	24
Small Grain (oats, wheat, rye)	4	6
Legumes		
Perennial Peanut (Arbrook)	6	12
Perennial Peanut (Florigraze)	4	6
Jointvetch (Aeschynomene)	8	12
Carpon Desmodium	2	6
Clover, Arrowleaf/Crimson	3	6
Clover, Red	3	6
Clover, White	3	6
Alyceclover	4	18
Indigo, Hairy	12	24