

**Conservation Practice 528 - Prescribed Grazing Job Sheet**

Natural Resources Conservation Service

<b>Date:</b>	
<b>Prepared For:</b>	
<b>Prepared By:</b>	
<b>Farm Number:</b>	
<b>Tract Number:</b>	
<b>County:</b>	



**Definition**

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

**Purpose**

The purpose(s) for implementing this practice on this operation are as follows:

- 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

**Criteria**

Movement of livestock and removal of herbage will be in accordance with site production limitations, rate of plant growth, physiological needs of forage plants and the nutritional needs of the animals. **Table 1** provides stop and start grazing heights for common Georgia forage species, and estimated days of recovery/regrowth needed during the respective growing season. Dry matter intake rates, forage utilization estimates, and forage quality information are provided in **Tables 2 - 5**.

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 deferment or rest from grazing or browsing to ensure the success of 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, habitats of concern, karst areas).

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

**Additional criteria to:**

- Improve or maintain surface and/or subsurface water quality and quantity

- Reduce accelerated erosion
- Improve or maintain soil condition
- Improve or maintain riparian and watershed function

Minimize concentrated livestock areas to improve or maintain groundcover. Move feeding locations and mineral feeders regularly or stabilize these areas with heavy use area protection. Do not co-locate shade, livestock water, and/or mineral feeders.

Manage the intensity, frequency, duration and timing of grazing to provide adequate ground cover. In areas that are not planned as sacrifice pastures a minimum of 80% ground cover should be targeted.

Observe stop grazing heights to provide adequate ground cover in order to:

- maintain or improve filtering capacity of the vegetation
- minimize deposition or flow of animal waste into water bodies
- maintain and/or improve soil condition, soil infiltration capacity and reduce runoff.

Control access to streambank/shoreline areas to maintain stability. Only occasionally allowing livestock access to these areas if at all. Remove only 50% of the available forage when utilizing these areas.

**Additional criteria to improve or maintain food and/or cover for fish and wildlife species of concern:**

Identify species of concern, and develop a specific plan to provide for the development and/or maintenance of the plant structure, density and diversity needed for the species of concern.

**CONSIDERATIONS**

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

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

Design of the grazing system should ensure that all pasture acres are within 800 feet of an accessible livestock water supply.

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.

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.

When needed, rest areas for a sufficient period of time to ensure the success of seeding, prescribed fire, weed and/or brush control, or other conservation practices.

Utilize natural or artificial shade as needed when conditions demand.

Fencing should be carefully considered and planned to meet the management needs of the livestock operation. Locate fences to separate land units that have significant differences in productivity and/or management considerations.

Consider the use of temporary electric fencing to determine the feasibility of a proposed fencing arrangement, and as a tool to intensify grazing management strategies.

Consider efficient livestock movement through the system.

When wildlife management is a consideration minimize disturbances during the primary nesting season (April 1 through August 31).

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

**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.

## REFERENCES

- Ball, D.M., C.S. Hoveland, and G.D. Lacefield. 2015. Southern Forages. 5th edition. International Plant Nutrition Institute, Peachtree Corners, GA.
- Barnes, R.F., D.A. Miller, and C.J. Nelson. 1995. Forages, The Science of Grassland Agriculture, 5th Ed. Iowa State University Press, Ames, IA.
- Bedunah, D. J. and R. E. Sosebee, Editors. 1995. Wildland Plants. Physiological Ecology and Developmental Morphology. Society for Range Management, Denver, CO.
- Heitschmidt, R. K. and J. W. Stuth eds. 1991. Grazing Management an Ecological Perspective. Timber Press
- Hodgson, J. and A.W. Illius. Editors. 1996. Ecology and Management of Grazing Systems. CABI, Wellingford, UK.
- Holechek, J. L., R. D. Pieper and C. H. Herbel. 2000. Range management principles and practices. 5th edition. Prentice Hall, NJ.
- Smith, D., R.J. Bula, and R.P. Walgenbach. 1986. Forage Management 5th ed. Kendall/Hunt Publ. Co. Dubuque, Iowa.
- United States Department of Agriculture, Natural Resources Conservation Service. 1997. National range and pasture handbook. Washington, DC.
- Vallentine, J.F. 2001. Grazing management. Academic Press, San Diego, CA.
- Voisin, A. 1959. Grass productivity. Philosophical Library, New York.

**Conservation Practice 528 - Prescribed Grazing Job Sheet  
Prescribed Grazing Plan Checklist**

- Producers goals and objectives have been recorded
- Resource inventory has been conducted and identifies (through inventory sheets, conservation plan maps, pasture condition score sheets, etc.) the following:
  - Existing resource conditions and concerns
  - Opportunities to enhance resource conditions
  - Location and condition of structural improvements (e.g. fences and watering facilities)
- Graze Spreadsheet has been completed providing the following:
  - Inventory of forages with production and quality estimates
  - Forage - Animal balance showing predicted forage distribution and carrying capacity estimates
  - Minimum stop grazing heights and estimated periods of grazing and potential periods of rest. **Specific management considerations** related to other conservation practices or grazing management strategies are provided in the Conservation Plan Document and associated narratives.
- Contingency plans have been considered for potential issues such as drought, extended cold, excess precipitation, temporary loss of water supply, etc. Sacrifice pastures for periods of inadequate forage supply have been identified.
- Documents have been provided to assist in monitoring of the prescribed grazing plan (NRCS - Georgia Prescribed Grazing Record Sheet, Pasture Condition Score Sheet and Guide).

Link to the NRCS - Georgia Graze Spreadsheet for information and plan documents here:

[Graze Spreadsheet](#)

**Prepared By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Approved By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Additional Notes / Guidance:** \_\_\_\_\_



**Table 1. Dry Matter Productivity, Recommended Grazing Heights, and Estimated Regrowth / Recovery Period by Forage Species**

Forage Species	Average Production <sup>1</sup> (lbs/Ac.-Inch)	Production Range <sup>2</sup> (lbs/Ac.-Inch)	Annual Production <sup>3</sup> (lbs/Ac.)	Plant Height to End Grazing <sup>4</sup> (inches)	Plant Height to Start Grazing (inches)	Approximate Recovery / Regrowth (Days)
<b>Warm Season Grasses</b>						
Bahiagrass	225	100-350	8,000	1-2	5	20-28
Bermudagrass, common	260	150-500	8,000	2-3	5	18-28
Bermudagrass, hybrid	260	150-500	12,000	3-5	6	18-28
Big Bluestem	100	50-250	9,000	4	8	25-40
Crabgrass	140	75-200	6,000	2-4	5	18-28
Dallisgrass	250	150-350	6,000	2-4	5	21-30
Eastern Gamagrass	100	50-250	9,000	8	12	28-45
Indiangrass	100	50-250	9,000	5	10	28-40
Johnsongrass	150	100-250	7,000	6	20	21-30
Millet	150	100-250	10,000	9	15	21-30
Sorghum-Sudan hybrids	150	100-250	8,000	6-8	18	21-30
Switchgrass	100	50-250	9,000	8	12	30-45
<b>Cool Season Grasses</b>						
Annual Ryegrass	250	75-400	6,000	2-3	5	14-25
Orchardgrass	180	75-300	7,000	3-5	6	20-30
Small Grains	150	75-250	6,000	3-4	8	14-25
Tall Fescue	210	100-350	9,000	3-4	8	21-30
<b>Cool Season Legumes</b>						
Alfalfa	225	75-400	9,000	3	8	20-25
Clover, (arrowleaf or crimson)	200	100-300	5,000	2-4	6	14-25
Clover, red	220	100-300	7,000	2-3	4	18-25
Clover, white	200	75-300	5,000	2-3	4	18-30
<b>Warm Season Legumes</b>						
Lespedeza, annual	150	50-250	3,000	2-3	4	20-30
Sericea Lespedeza	200	150-250	4,000	4-6	8	18-25
<b>Mixtures</b>						
Bermudagrass / legumes	250	100-400	9,000	2-3	6	14-30
Tall Fescue / alfalfa	225	75-400	7,000	3	7	20-30
Tall Fescue / bermudagrass	250	150-350	9,000	3	6	18-30
Tall Fescue / legumes	190	80-325	8,000	3	6	18-30

<sup>1</sup> The values should be used only as guides. They represent average values taken from many sources from across the region from thick, well fertilized, actively growing stands. Wherever possible use known production values.

<sup>2</sup> Range covers low management (thin, unfertilized, unmanaged stands) to high management (thick, fertilized stands with rapid growth and high yield).

<sup>3</sup> Attainable annual production for medium to high level management.

<sup>4</sup> Use higher value in range for more vigorous regrowth.

<b>Table 2. Daily Dry Matter Intake Estimates as a % of Body Weight</b>	
<b>Animal Class</b>	<b>Intake %</b>
Beef stocker or replacement heifer	2.5-3.0
Bull	1.5-2.0
<b>Beef cow</b>	
Lactating	2.0-3.0
Dry, pregnant	1.5-2.0
Average Annual Intake	2.6
<b>Dairy cow</b>	
Lactating	3.0 +
Dry	2.0
Sheep and Goats	3.5
Horse	2.0-2.5

<b>Table 4. % Crude Protein and %TDN Estimates by Forage Species (Typical ranges, expect variations)</b>		
<b>Forage Species</b>	<b>% Crude Protein</b>	<b>% TDN</b>
<b>Grasses</b>		
Bahiagrass	6-12	45-60
Bermudagrass, common	6-12	45-60
Bermudagrass, hybrid	6-14	45-60
Big Bluestem	8-16	50-69
Crabgrass	10-15	50-65
Dallisgrass	6-14	50-58
Eastern Gamagrass	8-16	50-69
Indiangrass	6-14	50-67
Johnsongrass	8-12	50-65
Pearl Millet	6-16	50-65
Orchardgrass	8-16	56-66
Annual Ryegrass	8-16	59-68
Small Grains	8-16	59-68
Sorghum-Sudan hybrids	8-12	50-58
Switchgrass	6-14	50-67
Tall Fescue	8-16	56-66
Mixed Grass	6-15	45-65
<b>Legumes</b>		
Alfalfa	9-26	50-67
Clover, arrowleaf or crimson	6-21	55-65
Clover, red	6-21	59-70
Clover, white	9-25	60-80
Mixed Grass/Legume	6-17	50-60

<b>Table 3. Forage Utilization / Grazing Efficiency Estimates Based on Stocking Method</b>	
<b>Stocking Method</b>	<b>% Utilization</b>
Continuous	35
Slow rotation (3-4 pastures)	50
Moderate rotation (5-7 pastures)	55
Fast rotation (8-12 pastures)	60
Daily rotation	65
Strip grazing	70

<b>Table 5. % Crude Protein and % TDN Requirement Estimates by Animal Class</b>		
<b>Animal Class</b>	<b>% Crude Protein</b>	<b>% TDN</b>
<b>Growing beef steer</b>		
450 lb (1.5 lb/day gain)	11-13	65
650 lb (1.7 lb/day gain)	10-11	68
<b>Beef cow</b>		
Lactating	10-12	60
Dry, pregnant	7-8	50
<b>Dairy cow</b>		
Lactating	16	65-70
Dry	<15	55-61
<b>Sheep</b>		
Lamb (finishing)	12	70-77
Ewe (lactating)	13-15	65
Ewe (maintenance)	10-12	57-68
<b>Goats</b>		
Bucks	11	60
Doe (lactating)	11-14	60-65
Doe (maintenance)	10-11	55-60
Weanling	14	68
Yearling	12	65
<b>Horses</b>		
Maintenance	10-11	70



United States  
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## Additional Information and/or Instructions