

Name of Practice: GRAZING LAND MANAGEMENT
DCR Specification for No. SL- 9

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's grazing land management best management practice, that is applicable to all contracts, entered into with respect to this practice. Pastures are represented by those lands that have been seeded, usually with introduced species (*i.e.*, tall fescue, legumes) or in some cases to native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

A. Description & Purpose

A management system that will provide and insure adequate surface cover protection to minimize soil erosion. The system will reduce sediment, nutrients and pathogen loads in runoff.

To improve the quantity, quality and utilization of forage for livestock. To reduce the risk of surface and groundwater contamination from nonpoint source pollution from pastures by assuring that an adequate stand of forage is available to absorb runoff and reduce pollutants.

B. Policies & Specifications

All fields that receive cost share under this practice must have had all livestock previously excluded from all surface waters and sink holes. Any field that is part of a rotational grazing system is eligible. A written grazing management plan, and operation and maintenance plan that includes all acres in the grazing system must be prepared and followed in accordance with NRCS Field Office Technical Guide (FOTG).

1. The system developed with this practice must meet the following requirements:
 - i. Producers must be fully implementing a current nutrient management plan for the life of this practice. Cost share payments shall not be made until a current nutrient management plan is on file with the SWCD.
 - ii. Maintain adequate nutrient and pH levels to improve or maintain desired forage species composition, plant vigor, and persistence. Lime shall be applied in accordance with soil test recommendations.
2. Locate infrastructure to facilitate grazing management and manure distribution.
 - i. Manage the type and number of livestock, length of grazing period, based on available forage and allowable utilization targets. Manage livestock rotation to new paddock subdivisions to maintain minimum grazing height recommendations and sufficient rest periods for plant recovery according to NRCS Grazing Heights and Rest Guidelines by Forage Table 1 (attached). Size pasture and, subdivisions, and manage animal stock densities to minimize grazing periods and maximize manure and urine distribution throughout the pasture.

- ii. Maintain adequate plant cover of $\geq 60\%$ year round and pasture stand density to increase rainfall infiltration and decrease runoff from pasture lands for the lifespan of the practice.
 - iii. Locate feeding areas away from sensitive areas such as wetlands, sink holes streams/creeks and adjacent drainage swales etc.
 - iv. Manage distribution of nutrients and minimize soil disturbance at hay feeding sites by unrolling hay across the upland landscape throughout the pasture system when soils are well drained or moving hay rings periodically.
 - v. Designate a sacrifice lot/paddock to locate livestock for feeding when adequate forage is not available in the pasture system. A sacrifice lot is used during times of drought or during excessively wet soil conditions over the winter feeding season as a place to feed hay and supplements to livestock until pasture conditions are suitable for grazing or feeding without damaging the soil quality or reducing plant cover. Sacrifice lot/paddock should not drain directly into ponds, creeks or other sensitive areas and should not be more than 10% of the total pasture acreage.
 - vi. Must mow pasture as needed to control woody vegetation and encourage vegetative re-growth.
 - vii. Pastures not meeting minimum 60% year round cover criteria shall be replanted in accordance to NRCS standard 512 Forage and Biomass Planting. Replanting will be at the participant's expense.
3. To better maintain viable and productive forage cover on grazing paddocks cost share is authorized for:
- i. Fencing, both temporary and permanent, to divide large pastures into smaller grazing paddocks for more even grazing distribution.
 - ii. Fence chargers used to electrify permanent or temporary grazing paddock fencing.
 - iii. Installing additional pipelines, and troughs to better utilize and manage available grazing land.
 - iv. Portable or temporary system components (fencing, chargers and troughs etc.) cannot be utilized in other areas or moved from fields utilized in the system plan. The replacement costs of all components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.
4. No state cost-share and tax credit is authorized under the practice for any installation that is:
- i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
 - ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.
 - iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.
 - iv. For the purpose of providing water for the farm or ranch headquarters.
5. State cost share and tax credit will be provided only one time per field.

6. This practice is subject to the requirements of NRCS standards, 382 Fence, 512 Forage and Biomass Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection, 590 Nutrient Management Plan and 614 Watering facilities.
7. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the SWCD throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment will not exceed 50% of the total eligible cost. The maximum state payment for this practice is not to exceed \$50,000 per landowner per year.
2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed \$17,500.00.
3. If a cooperator receives cost-share, only the cooperator's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE . Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above, and/or Engineering Job Approval Authority (EJAA), for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

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TABLE 1



Grazing Height and Rest Guidelines by Forage

Appropriate grazing and recovery periods allow forages to renew energy reserves, improve plant vigor, maintain or improve plant diversity, and provide long-term persistence of a productive forage stand. The grazing period should be adjusted based on stage of growth or forage height. Rest period between grazing events will vary in length depending on growing conditions and forage recovery.

Table 1. Guidelines for Grazing Heights and Rest Periods

Forage Species	Height to Begin Grazing (inches)	Height to End Grazing (inches)	Recovery Time (days) ¹
Tall Fescue	6-8	3-4	14-45
Orchardgrass	8-10	4-5	14-45
Bluegrass	4-6	2	14-45
Reed Canarygrass	10	3-4	14-45
Small Grains (Wheat, Rye, Oats, etc.)	8	2-3	7-15
Annual Ryegrass	6-8	3-4	7-15
Alfalfa	10-16	3-4	14-30 ²
Sericea lespedeza	8-10	4-6	14-45
Caucasian Bluestem	8-10	3-4	14-45
Bermudagrass	6	2	7-15
Switchgrass	18-24	9-12	30-45
Eastern Gamagrass	18-24	9-12	30-45
Crabgrass	6-8	2-3	14-21
Pearl Millet	18-20	8-12	10-20
Forage Sorghum	20-30	5-7	10-20
Sorghum Sudan Hybrids	20-24	5-7	10-20
Sudangrass	20-24	5-7	10-20

¹Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.

²Grazing types of alfalfa can sustain with shorter recovery times under optimum growth conditions compared to hay types of alfalfa.

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