

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

PRESCRIBED GRAZING

(Ac.)

CODE 528

DEFINITION

Managing the controlled harvest of vegetation with grazing animals.

PURPOSE

- Improve or maintain the health and vigor of plant communities.
- Improve or maintain quantity and quality of forage for livestock health and productivity.
- Improve or maintain water quality and quantity.
- 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.
- Promote economic stability through grazing land sustainability.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all lands where grazing 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 and the physiological needs of forage plants.

Manage kind of animal, animal number, grazing distribution, length of grazing periods and timing of use to provide sufficient deferment from grazing during the growing period.

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

Manage grazing animals to maintain adequate vegetative cover on sensitive areas (i.e. riparian, wetland, habitats of concern, karst areas).

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

Duration and intensity of grazing will be based on desired plant health and expected productivity of key forage species to meet management unit objectives.

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.

Periodic rest from grazing may be needed to maintain or restore the desired plant community following episodic events, such as wildfire or severe drought.

Manipulate the intensity, frequency, duration, and season of grazing to promote ecologically and economically stable plant communities on both upland and bottom land sites which meet landowner objectives.

Additional Criteria to Improve or Maintain Quantity and Quality of Forage for Livestock Health and Productivity

Plan grazing to match forage quantity and quality with goals of the livestock producer.

Movement of animals will be in a manner to improve and/or maintain animal health and performance, and to reduce or prevent spread of disease, parasites, and contact with harmful insects.

Additional Criteria to Improve or Maintain Water Quality and Quantity

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

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

Manage for deposition of fecal material away from water bodies.

Additional Criteria to Reduce Soil Erosion and Maintain Soil Condition

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

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

Manage duration, intensity, frequency, and season of grazing to minimize soil compaction or other detrimental effects.

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

Manage for diverse plant communities. Manage plant height, structure and density for desired wildlife habitat.

Provide rest from grazing during critical nesting periods.

Additional Criteria to Promote Economic Stability through Grazing Land Sustainability.

Evaluate the economics of the forage system and associated infrastructure.

Develop a grazing system that provides forage for as much of the year as possible to minimize supplemental feed cost.

Develop a contingency plan to ensure resource management and economic feasibility without resource degradation.

Reduce the loss of livestock from toxic and poisonous plants.

CONSIDERATIONS

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

Correspondingly, residual dry matter (RDM) assessments can be applied to annual

rangelands as per ANR Publication 8092, "California Guidelines for Residual Dry Matter (RDM) Management on Coastal and Foothill Annual Rangelands" (James W. Bartolome et. al., 2002)

When appropriate, monitoring methodology should follow the guidelines of the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems (Jeffery E. Herrick et. al. 2005), subsequent updates or comparable established methodologies already applied at the local level.

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

Where practical, start the grazing sequence in a different management unit each growing season to reduce cumulative undesirable impacts to vegetation in any one management unit.

When weeds are a significant problem prescribed grazing should be implemented in conjunction with a pest management plan 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.

Supplemental feed and/or mineral requirements should be balanced with the forage consumption to meet the desired nutritional level for the kind and class of grazing livestock to optimize forage harvest management and livestock distribution.

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

Improve potential carbon sequestration through forage management for desirable perennial species for this objective.

Endangered Species Considerations

If during the Environmental Assessment NRCS determines that installation of this practice, along with any others proposed, will have an effect on any federal or state listed Rare, Threatened or Endangered species or their habitat, NRCS will advise the client of the requirements of the Endangered Species Act and recommend alternative conservation

treatments that avoid the adverse effects. Further assistance will be provided only if the client selects one of the alternative conservation treatments for installation; or with concurrence of the client, NRCS initiates consultations concerning the listed species with the U.S. Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game.

Cultural Resources

Grazing and associated activities or practices may disturb soils to various extents. The potential effects of these activities on cultural resources should be evaluated.

NRCS policy is to avoid any effect to cultural resources and protect them in their original location. Determine if installation of this practice or associated practices in the plan could have an effect on cultural resources. The National Historic Preservation Act may require consultation with the California State Historic Preservation Officer.

<http://www.nrcs.usda.gov/technical/cultural.html> is the primary website for cultural resources information. The California Environmental Handbook and the California Environmental Assessment Worksheet also provide guidance on how the NRCS must account for cultural resources. The e-Field Office Technical Guide, Section II contains general information, with Web sites for additional information.

Document any specific considerations for cultural resources in the design docket and the Practice Requirements worksheet.

PLANS AND SPECIFICATIONS

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

Guidelines for developing a prescribed grazing plan include:

- Goals and Objectives of this practice clearly stated.
- Resource Inventory (i.e. Resource condition, existing structures, facilities, soil).
- Forage Inventory of the expected forage quality, quantity and species of forage in

each management unit(s) during the grazing period.

- Forage-Animal Balance developed as a sustainable grazing plan for the management unit(s), which insures forage produced or available meets forage demand of livestock and/or wildlife of concern.
- Grazing Plan developed for livestock that identifies periods of grazing, rest, and other treatment activities for each management unit.
- Contingency plan developed that details potential problems (i.e., severe drought, flooding) 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 assess whether the grazing strategy is meeting objectives. Identify the key areas and key plants that the manager should evaluate in making grazing management decisions.
- Statement of how the grazing plan addresses local water quality issues or those water quality issues identified in the conservation plan.

OPERATION AND MAINTENANCE

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

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

Maintenance. All facilitating practices (e.g. fence, watering facilities, etc.) that are needed to effect adequate grazing distribution as planned by this practice standard will be maintained in good working order.

REFERENCES

“California Guidelines for Residual Dry Matter (RDM) Management on Coastal and Foothill Annual Rangelands” (James W. Bartolome et. al., 2002)

Rangeland Ecology and Management (Heady, H.F. and R. D. Child. 1994, Westview Press, Boulder, Colorado)

Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems Volumes I and II (Herrick et al., 2005 USDA-ARS Jornada Experimental Range)

National Range and Pasture Handbook 190-VI (USDA, NRCS)

Interpreting Indicators of Rangeland Health version 4 -2005 (2005 DOI, BLM Technical Reference 1734-6)

Ecological Site Descriptions – Ecological Site Inventory System (USDA, NRCS)