

NATURAL RESOURCES CONSERVATION SERVICE
 PACIFIC BASIN AREA
 CONSERVATION PRACTICE STANDARD

PREScribed GRAZING

(Hectare, Acre)
 CODE 528A

DEFINITION

The controlled harvest of vegetation with grazing or browsing animals managed with the intent to achieve a specified objective.

PURPOSES

This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes:

- Improve or maintain the health and vigor of selected plant(s) and to maintain a stable and desired plant community;
- Provide or maintain food, cover, and shelter for animals of concern;
- Improve or maintain animal health and productivity;
- Maintain or improve water quality and quantity;
- Reduce accelerated soil erosion and maintain or improve soil condition for susceptibility of the resource; and,
- Maintain soil moisture.

CONDITIONS WHERE THIS PRACTICE APPLIES

This practice may be applied on all lands where grazing and/or browsing animals are managed.

CRITERIA

The design of prescribed grazing systems will consider the objectives, desires, abilities, understanding, and available time of the client.

Removal of herbage will be in accordance with production limitations, plant sensitivities and management goals using appropriate FOTG guidance, if developed and other appropriate tropical grazing references as guidance.

On grazed forest, native pasture, or range land no more than 50% (by weight) of the annual growth of high or medium preferred grazing species will be utilized for grazing.

Frequency of defoliation(s) and season of grazing will be based on growth rate, physiological, and environmental conditions for plant growth. Grazing periods will generally need to be short (1 to 14 days) provided enough pastures are available in the grazing system to allow 18 to 25 days regrowth during optimum growing conditions and 25 to 35 days for regrowth during the dry season.

Duration and intensity of grazing will be based on desired plant health and expected productivity of key forage species to meet management unit objectives. Prescribed grazing schedules will be used only as an initial guide. Flexibility is a necessity in prescribed grazing.

Use of natural or artificial shelter will be included as part of this practice where conditions demand such as cooling or shade.

A water plan must be developed to provide adequate water with reserve for emergencies for each paddock or grazing unit and be based on the number of animals grazing.

Animal husbandry requirements, which can affect the design of the grazing prescription, will be considered.

Minimum stubble heights to be maintained for forage grasses under optimum environmental conditions are as follows:

Grass Species	Minimum residual height	
	Inches	Centimeters
Bluestem <i>Dichanthium bladhii</i>	6 - 8	15 -20
Buffel grass	6 - 8	15 - 20

Conservation Practice Standards are reviewed periodically and updated if needed. To obtain the current version of this Standard, contact the Natural Resources Conservation Service.

PRESCRIBED GRAZING 528A - 2

<i>Pennisetum ciliare</i>		
Guinea grass	8 – 10	20 - 26
<i>Urochloa maxima</i>		
Mott elephant grass	8 – 10	20 - 26
<i>Pennisetum purpureum</i>		
Pangola	6 - 8	15 - 20
<i>Digitaria decumbens</i>		
Para grass	6 - 8	15 - 20
<i>Brachiaria mutica</i>		
Pitted beard grass	6 - 8	15 - 20
<i>Bothriochloa pertusa</i>		
Signal cv. Basilisk	6 - 8	15 - 20
<i>Brachiaria decumbens</i>		
Stargrass	6 - 8	15 - 20
<i>Cynodon nlemfuensis</i>		

Calculations to determine the days of grazing when the days of rest and the number of paddocks are known:

$$\text{No of Paddocks} = \frac{\text{Days of rest}}{\text{Days of grazing}} + 1$$

The 1 added to the equation represents one paddock in the rotation being grazed at any one time.

Calculation to determine the days of grazing when the days of rest and the number of paddocks are known:

$$\text{Days graze} = \frac{\text{Days of rest}}{\text{No. of paddocks}} + 1$$

Calculations to determine the acres required per paddock, the following known values are required:

- A: Average weight of animals to be grazed.**
- B: Dry Matter (DM) consumed per animal as percent of body weight per day.**
- C: Number of animals to be grazed.**
- D: Grazing days on the pasture or paddock.**
- E: Dry matter available in the areas to be grazed.**
- F: Percent of the dry matter utilized by grazing.**

Acres required =

$$\frac{A \times B \times C \times D}{E \times F}$$

Grazing Terms

Animal unit: the equivalent of the average amount of dry matter one mature cow (1000 lbs. or 454 kg) and her calf will consume in one year (9490 lbs. or 4305kg). This is based on an average daily forage consumption of 26 lbs. (12kg) of dry matter/day over 365 days.

Animal unit month: the amount of feed or forage required by an animal unit for one month or the tenure of one animal unit for a period of one month.

Animal unit year: the equivalent of an average annual consumption of 9490 lbs. (4305kg. of dry matter/year on an average annual daily consumption of 26 lbs. (12kg) of dry matter/day over 365 days.

Animal unit equivalent: weight of the different classes of livestock/wildlife compared back to the 1000 lb. (454kg) Cow with calf pair consuming 26 lbs. (12kg) of dry matter/day.

Additional Criteria for Improving Animal Health and Productivity

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 contacts with harmful insects.

Grazing should be applied in accordance with forage quality and quantity criteria that best meets the production requirements for the kind and/or class of animal.

Additional Criteria for Protecting or Improving Water Quality

PRESCRIBED GRAZING 528A - 3

Duration, intensity, frequency, and season of grazing in or near surface waters will be controlled in such a manner that the impacts to vegetation and water quality will be positive or of no effect.

Duration, intensity, frequency, and season of grazing will be conducted to enhance nutrient cycling by better manure distribution and increased rate of decomposition.

Additional Criteria for Protecting or Improving Soil Erosion and Quality

Duration, intensity, frequency, and season of grazing shall be managed to minimize soil compaction or other detrimental effects.

Duration, intensity, frequency, and season of grazing shall be applied to sustain an average of at least 90% vegetative cover to minimize soil erosion.

CONSIDERATIONS

Supplemental feed may be necessary to meet the desired nutritional levels for animals of concern. Placement of supplemental feed should be considered to reduce negative impacts to soil, water, air, plant, and animal resources.

Forage quality varies based on species, maturity, season of production, fertilization, part of the plant, and other factors.

Animals are very selective in grazing between plants of the same species, more palatable parts and other species. Selection may cause some plants to be severely overgrazed.

Fencing should be carefully considered and planned to meet the management needs of the livestock operation. Consider the use of temporary fencing to determine the feasibility of a proposed fencing arrangement and allow flexibility in the pasture size and stocking rate.

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

PLANS AND SPECIFICATIONS

A Prescribed Grazing schedule will be prepared for all fields and pastures

incorporating any grazing for the operating unit or portion of an operating unit being addressed. Grazing schedules will be recorded in a manner that is readily understood and useable by the decision-maker in their operation. The manner of documentation will depend upon the size and complexity of the operating unit and the details required for a grazing prescription.

A prescribed grazing schedule will include the following information:

1. Documentation of the expected forage quantity for each management unit(s), i.e., pastures during the grazing season.
2. Documentation of the number of domestic livestock by kinds and class, and the number of grazing/browsing wildlife of concern anticipated within the management unit(s).
3. Development of a planned grazing schedule for livestock which identifies periods of grazing, rest, and other treatment activities for each management unit(s).
4. A contingency plan that details potential problems, i.e., drought, and a guide for adjusting the grazing prescription to ensure resource management and economic feasibility without resource degradation.

OPERATION AND MAINTENANCE

The manager will apply Prescribed Grazing on a continuing basis, making adjustments as needed to ensure that the concept and objectives of its application are met.