

**NRCS**

Natural Resources Conservation

**Forage Harvest Management
Conservation Practice Job Sheet****511**

Cooperator

Tract/Field number

KCMK Properties LLC

T 603

Fld(s) 1

Field Office / Planner

Lamar Field Office / Brett Jones

Date 8/29/2022

Purpose (check all that apply)

<input checked="" type="checkbox"/>	Optimize yield and quality of forage at the desired levels	<input checked="" type="checkbox"/>	Use forage plant biomass as a soil nutrient uptake tool
<input checked="" type="checkbox"/>	Promote vigorous plant re-growth	<input checked="" type="checkbox"/>	Manage for the desired species composition
<input checked="" type="checkbox"/>	Maintain stand life	<input checked="" type="checkbox"/>	Control insects, diseases and weeds
<input checked="" type="checkbox"/>	Maintain and/or improve wildlife habitat		

Current Species Composition

Mid-grass Sideoats Grama

Desired Species Composition

Native Range

Harvest Timing, or Stage of Growth

Dependant on expected use.

Harvest Moisture Content

Follow extension recommendations.

Harvest Length of Cut

NA when baling

Harvest Minimum Cutting Height

See key forage species height requirement table.

Soil Amendments and Fertilization - See attached Nutrient Management 590 Job Sheet**Disease/Insect/Weed Management** - See attached Pest Management 595 Job Sheet**Wildlife Management** - See attached Wildlife Habitat Management Guide - Hayland

Operation and Maintenance

1. Before forage harvest, clear fields of debris that could damage machinery or if ingested by livestock, lead to sickness (for example, hardware disease) or death.
2. Operate all forage harvesting equipment at the optimum settings and speeds to minimize loss of leaves.
3. Set shear-plate on forage chopper to the proper theoretical cut for the harvested crop. Keep knives well sharpened. Do not use re-cutters or screens unless forage moisture levels fall below recommended levels for optimum chopping action.
4. Regardless of silage/haylage storage method, ensure good compaction and an airtight seal to exclude oxygen and mold formation.

Additional Requirements

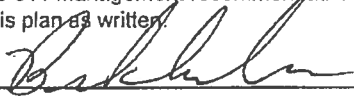
Grass height requirements for harvest

Key Forage Species	Minimum Starting Height (inches)	Minimum Height After Harvest (inches)
Alkali sacaton	6	4
Blue grama	3	2
Little bluestem	6	4
Sand bluestem	8	6
Sideoats grama	6	4
Switchgrass	10	8
Tall wheatgrass	8	6
Yellow indiangrass	8	6

Signatures

I understand the 511 management recommendations including the Operation and Maintenance requirements, and agree to implement this plan as written.

Cooperator



Date

9/7/22

This plan meets 511 Standard criteria, is consistent with applicable Federal, State and local laws and regulations and adequately addresses the stated forage management concern(s).

Planner



Date

8/29/22

Application of this practice is complete, and the installation meets 511 Standard criteria.

Certifying Official

Date

Print

Reset

Save As



United States Department of Agriculture

Natural Resources Conservation Service**528 - CPR Grasslands - Prescribed Grazing Plan
Implementation Requirements**

Client	KCMK Properties LLC	Date	8/29/2022		
Farm/Tract	Farm 2548 Tract 4344	Field(s)	Fld(s) 1		
Forage Type	Native Grass	Acres	154.8	MLRA	69B
Planner	Brett Jones	County	Bent		

Scope: This work will consist of managing of harvest of vegetation with grazing and/or browsing animals with the intent to achieve specific objectives within management units as shown on CPR Grassland conservation plan and plan map.

GENERAL

The forage availability and grazing periods, by land unit, are documented in this grazing plan. However, it is acknowledged that flexibility is needed in any grazing management plan, to adjust for changes in forage production, availability of water for livestock, drought, fire, flooding and other natural events.

This CRP Grazing Plan is based on resource assumptions of your available resources. NRCS can offer a variety of services to benefit your decisions on your grazing operation through conservation technical assistance that includes field verified evaluation of your resources, assistance with identification of areas of potential resource benefit opportunities, recommendations on grazing, rotation, production, technical information on climate and drought planning and assistance with annual grazing management decisions. If you would like you may request a grazing management plan that is not based on assumptions of your operations.

This plan meets the requirements of the CRP Grassland program. The grazing plan must meet the requirements as requested in the CPR application for sign up. This plan conforms to all federal state and local laws. It will be implemented to avoid adverse effects on endangered, threatened and candidate species and their habitat.

Certification that this plan was implemented will include landowner involvement of keeping yearly records of kind and class of livestock grazed, number of animals grazed by pasture, number of days grazed in each pasture, estimated utilization (landscape appearance method), Grazing Response Index (or

GOALS AND OBJECTIVES

The purpose(s) of this practice is to:

- ☒ Improve or maintain desired species composition, structure and/or vigor of plant communities

Client Goals (include statement summarizing goals for their operation, livestock and land resources, include how offered acres works in the larger operation):

CRP Grasslands will ensure environmentally sensitive agricultural land is protected and used for conservation benefits, existing cover must be maintained or improved by conducting common grazing practices.

Resource Objectives (describe the goal to address identified resource concerns related to soil, water, air, plants and water):

CRP Grasslands emphasize supports of grazing operations, maintaining and improving plant and animal biodiversity, and protecting grasslands and shrublands from the threat of conversion to other uses than grazing lands.

RESOURCE INVENTORY

Resource Inventory is documented with the attached CRP- Field Review Worksheet and the LTP 13

Current Condition of Existing Structural and Vegetative Practices

See Plan Map

FORAGE & ANIMAL INVENTORY BY MANAGEMENT UNIT

The stocking rate (aum/ac) is based on assumptive values taken from soils, ecological site information and production amounts from the ecological site description community phase for the predominant ecosite. This assumption estimates total available forage based on palatability, 25% of total annual production can be allocated for use by livestock, 25% is considered allocated to other beneficial uses (wildlife, insects, trampling etc.) for a total utilization not to exceed 50%. This is an estimate only and actual numbers can vary within 10% of the estimated AUDs.

Maintaining the ecological integrity and the financial sustainability of grazing requires understanding carrying capacity. Carrying capacity is a timing and level of forage demand that does not reduce vigor of preferred plant species or the hydrological condition in consecutive years. It is also a level of stocking that allows livestock to achieve target levels of production and reproductive efficiency. Proper numbers depends on livestock weight, and nutrient requirements and length of growing season. Higher stocking rates increase cumulative grazing pressure especially in Colorado with variable precipitation. Inadequate plant cover increased run off losses of precipitation and reduces soil water content there for reducing plant production and cover. Moderate stocking rates reduce ecological risks.

Estimated Forage Available and Carrying Capacity

CPR Field or Farm/Tract	Forage Type/Species	Predominant Ecosite and Community	Field Ac	AUMs/ Ac	Total available AUMs	Total Available AUDs
Farm 2348 Tract 4344	Native Grass	Loamy Plains	154.8	0.47	72.756	2182.68
					0	0
					0	0
					0	0
Total Available AUDs					72.756	2182.68

Forage Animal Balance by Management Unit

CPR Field or Farm/Tract	Livestock Class	#	AU Equiv.	# of days planned grazed	Total Demand AUDs	Total Surplus or Deficit (AUDs)
Farm 2348 Tract 4344	Cow 1100# W/Calf	12	1	180	2160	23
					0	0
					0	0
					0	0

Notes:

PRESCRIBED GRAZING STRATEGY

Pastures will be managed using the above available Animal Unit Days per pasture as mentioned above. Number of days grazed should not exceed 10% of total available AUDs by pasture as assigned above. Seasonal rest is critical for plant recovery (leaf and root regrowth). Do not regaze during the growing season or wait for plants to go to full expression prior to regrazing. Schedule rest periods of approximately 60 growing season days on introduced, pasture, and 120 growing season days on native rangeland. Cool season and Warm Season growing rest periods will be planned as applicable. Every third year full growing season rest is highly recommended. Total utilization (for livestock and other beneficial uses) will not exceed 50%. Animals will be moved based on number of days grazed. Stubble height may be used as an indicator to remove livestock in introduced pasture or seeded stands with minimal diversity, minimal stubble height to remove livestock is 4-6".

NRCS, if requested, can visit with you annually to help you evaluate your past year grazing and suggest adaptive management options for future years.

PRESCRIBED GRAZING STRATEGY

Other criteria and considerations - provide specifications and considerations for grazing in unique and/or sensitive areas as applicable, for example wildlife ,threatened and endangered animals, irrigation

Supplemental Nutrients (salt and minerals) and Substitution Feeding

Place salt and mineral away from water and in areas livestock do not typically utilize or in areas that need higher impact; this will allow better distribution of livestock across the landscape. Substitution feeding will not be used to supplement higher stocking rates. Agency requirements will be followed on Federal, State and Tribal lands.

Water Distribution, Availability and Management

See map for water location.

MONITORING PLAN

Actual grazing records will be kept for each pasture each year to document grazing management decisions. At a minimum pasture number, livestock type/size, and number, date in and out of pasture, and notes explaining any deviation or unusual circumstances that occurred and notes on what worked well this year in addition any lessons learned.

If you are currently monitoring, continue with the protocols and directives that you are currently using. If you are not conducting monitoring at a minimum, take pictures before entering and upon exiting the pasture(s) and measure utilization using the attached Landscape Appearance Method. Pictures should include a landscape photo and a ground photo.

Use of decision support tools are highly recommended and attached, such as Grazing Response Index for each pasture offered, or something similar such as Sandhill Defoliation Response Index as it lets you determine look at how past decision may influence future planning for grazing strategies as well as be prepared for drought.

These tools are fairly intuitive but NRCS is available to initially help you look at frequency, intensity and rest as well as discuss adaptive management decisions based on monitoring results.

Precipitation records are an important part of monitoring. It will help you evaluate the effects of management decisions in relationship to precipitation. As well as help you adaptively make changes to

DROUGHT CONTINGENCY PLAN

See attached Drought Contingency plan

OPERATION AND MAINTENANCE

Prescribed grazing will be applied on a continuous basis through the livestock occupation period of all planned units.

Adaptive management decisions will be made as needed and documented by the client and utilized with monitoring to make annual decisions.

Noxious weeds and other undesirable plants, insects, and pests must be controlled, including such maintenance as necessary to avoid an adverse impact on surrounding land.

All facilitating practices (i.e., fences, pipelines, watering facilities) that are needed to effect grazing management and distribution must be maintained in good working order. Gates must be checked regularly to ensure livestock graze and rest pastures as scheduled. Stray livestock will be returned to planned pastures as soon as possible.

Additional specific operation and maintenance requirements:

Client's Acknowledgment Statement:

I acknowledge that:

- a. I have received and reviewed a copy of the standard, implementation requirements, monitoring protocols, maps and any other necessary documentation and I understand the contents and requirements for application of this practice.
- b. I agree it is my responsibility to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.
- c. I agree to provide records, and monitoring and perform operation and maintenance for the expected life of the practice and length of the CRP-Grasslands contract. Certification documentation may be required to be provided to FSA or NRCS as requested for certification of the practices as applied:

Accepted by: /s/ _____ Date: _____

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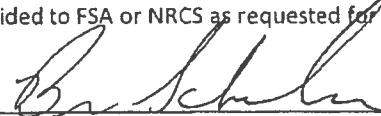
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9/7/22