

CLAY TERRACE  
KANSAS RANGE SITE DESCRIPTION

1. Location of Site:

Land Resource Area 73  
Rolling Plains and Breaks



2. Climate:

See climate for LRA 73  
(Filed in the front of Section II-E)

3. Topography:

This site is located on nearly level to gently sloping alluvial benches, terraces, or fans. Although flooding is rare, additional water run-in is received from adjacent uplands.

4. Soils and Hydrological Characteristics:

- a. This site consists of deep alluvial soils with silty or clayey surface layers and clayey subsoils. The available water capacity is moderate to high. The water table is below the root zone of most range plants.
- b. The major soil that characterizes this site is New Cambria, rarely flooded.
- c. Wind erosion is a hazard on this site when it is unprotected. Internal drainage is slow and some surface ponding may create problems.

5. Climax Vegetation:

- a. This site occurs on benches, terraces, or alluvial fans often referred to as the second bottom. The potential vegetation is a mixed grass prairie. A combination of tall, mid, and short grasses makes up about 90 percent of the potential vegetation on this site.

b. Guidelines for Determining Range Condition:

(Percentage of total production by weight)

<u>Grasses and Grasslike - 90 Percent</u>		<u>Forbs - 10 Percent</u>	<u>Shrubs and Cacti - T</u>		
35	25 big bluestem	10	T pricklypear		
	5 Canada wildrye				
	5 indiagrass				
	5 little bluestem				
	15 switchgrass				
30	20 sideoats grama				
	20 western wheatgrass				
20	15 blue grama				
	10 buffalograss				
	5 sedges				
5	sand dropseed				
	tall dropseed				

c. Invaders common to this site are bottlebrush squirreltail, Japanese brome, kochia, little barley, prairie threeawn, tansymustard, and wild lettuce.

6. Management Implications:

This site occurs on nearly level second bottoms. The high clay content of the soils contributes to a high degree of difficulty in managing this site.

The site is occasionally wet in the spring and may become extremely dry with large soil cracks during the hot dry part of the summer. Grazing when the soils are saturated causes soil compaction which further reduces water intake and hinders root development. Continuous grazing throughout the growing season and soil compaction that may occur makes it difficult to maintain the taller species.

With overgrazing blue grama, buffalograss, and western wheatgrass dominate this site. Continued overgrazing allows buffalograss, ragweed, little barley, kochia, and other annuals to dominate the site. Once these plants dominate and most of the taller grasses have been eliminated, returning the site to its natural potential is slow even under excellent grazing management.

Grazing management that includes proper stocking and a flexible grazing program is necessary to maintain this site or return it to near its potential.

Grazing should be avoided when the site is excessively wet, if practical. It should also allow for alternate grazing and rest periods during the growing season. Grass stubble should be maintained at a sufficient height (4" to 6") to insulate the soil against baking during the hot dry summer months. Use of this site for some winter grazing may be advisable because of potential livestock insect problems in the summer and the need to maintain a good vegetative cover during the hot dry season.

### Wildlife Considerations

When maintained in good to excellent condition, this site provides good feeding and loafing areas for most wildlife native of the area. It is also a good nesting area for birds except in years of excessively wet springs and early summers. When in fair to poor condition, this site is of limited value to most wildlife other than as an occasional feeding area.

### 8. Other Uses and Values:

The majority of this site has been cultivated and is currently in cropland. This site is also in high demand for housing and commercial development when located in or adjacent to urban areas. However, development on this site is not normally recommended because of the risk of flooding.

### 9. Herbage Production Guidelines:

The following guidelines are based on available clipping data when this site is in excellent condition. Vigor of principal forage species, time of burning, if fire is used, as well as growing conditions, influence annual herbage production.

<u>Growing Conditions</u>	<u>Total Air Dry Herbage</u>	
	<u>Pounds/Acre</u>	<u>Kilograms/Hectare</u>
Favorable	4,000-5,000	4,480-5,600
Normal	3,000-4,000	3,360-4,480
Unfavorable	2,000-3,000	2,240-3,360

10. Guide to Initial Stocking Rates:

<u>Range Condition</u>	<u>Percent Climax Vegetation</u>	<u>Acres/AU Yearlong</u>	<u>AU Months Per Acre</u>	<u>Hectares/AU Yearlong</u>	<u>AUM's per Hectare</u>
Excellent	76-100	12-15	.9	5-6	2.2
Good	51-75	15-20	.7	6-8	1.7
Fair	26-50	20-30	.5	8-12	1.2
Poor	0-25	30+	.3	12+	0.75

These guidelines are considered safe initial stocking rates from which a sound management program can be built. Grazing only during the dormant season or use of a specialized grazing program will usually allow a substantial increase in the stocking rates shown.

When maintained in good to excellent condition, this site averages about 0.75 ton of native hay per acre.

11. Relative Preference of Plant Species:

Preferences of plant species by classes of livestock and uses by wildlife will vary from year to year and season to season. The table below is what might be expected under average climatic conditions and good management.

Forage Preferences

H = High  
M = Medium  
L = Low

Wildlife Preferred Uses

C = Cover  
F = Food  
N = Nesting

Plant Species	Animal Species		
	Cattle	Deer	Pheasant
big bluestem	H	C	C,N
blue grama	H	--	--
buffalograss	H	--	--
Canada wildrye	H	C,F	C,N
Dakota verbena	L	F	F
heath aster	H	F	F
Illinois bundleflower	H	F	C,F
indiangrass	H	C	C,N
Japanese brome	M <u>1/</u>	F <u>1/</u>	F <u>1/</u>
little bluestem	H	C	C,N
Louisiana sagewort	L	--	F
sand dropseed	M	--	--
sedges	M	F	F
sideoats grama	H	--	C,N
switchgrass	H <u>2/</u>	C	C,F,N
Texas croton	L	--	F
western ragweed	M	--	F
western wheatgrass	H	F	C

1/ Has a high preference during lush growth periods.

2/ Preferred during first half of growing season.

Reference:

Anderson, Kling L. and Clenton E. Owensby. 1969 Common Names of a Selected List of Plants. Kansas State University Tech. Bul. 117.