

83A

CLAY-FLAT
RANGE SITE DESCRIPTION
PE 19-31

Land Resource Area Rio Grande Plain

Location _____

Date 1/1/72

1. TOPOGRAPHY AND ELEVATION: Nearly level to gently sloping plains.

2. SOILS:

a. Soils of this site are deep, gray, very slowly permeable, calcareous clays. These clayey soils crack deeply during dry periods. Water enters the soil rapidly when these cracks occur, but as cracks close when the soil becomes wet, water enters the soil very slowly. This is especially true where deterioration of the surface soil is present. Hoffpans and surface crusting are common. Erosion susceptibility is low on slopes of less than 3 percent, but increases on steeper slopes. Denuded condition increases erosion hazard. Inherent fertility is high. Available moisture holding capacity is high. Movement of air, water and roots in the soil is slow.

Due to slow intake of moisture, light showers of high intensity, which are common to this locality, are rather ineffective. This causes this soil to be droughty. It is very productive, however, and will support deep rooted perennial grasses.

b. The soils which characterize this site are:

Montell clay
Tobosa clay

c. Specific site location:

3. CLIMAX VEGETATION:

a. The climax plant community is an open grassland with a few scattered woody shrubs. The site is dominated by mid grasses such as pink pappusgrass, pinhole bluestem, plains bristlegrass and other mid and short grasses.

RELATIVE PERCENTAGE

<u>Grasses</u>	<u>95%</u>	<u>Woody</u>	<u>T</u>	<u>Forbs</u>	<u>5%</u>
Pink pappusgrass	25	Guayacan		Bundleflower	
Whiplash pappusgrass	25	Vine ephedra		Bushsunflower	
Pinhole bluestem		Mesquite		Orange zexmenia	5
Twoflower trichloris	10	Spiny Hackberry		Annual forbs	
Sideoats grama				Catclaw sensitive-	
				briar	
Plains bristlegrass	10				
Spike bristlegrass					
Curlymesquite	20				
Buffalograss					
Tobosa	10				
Vine-mesquite					
White tridens					
Alkali sacaton	10				
Wrights sacaton					
Plains lovegrass					
Arizona cottontop					
Lovegrass tridens	5				
Texas wintergrass					
Texas cupgrass					
Fall witchgrass					
Slim tridens					
Perennial threeawn	5				
Reverchon panicum					
Texas tridens					

- b. As retrogression occurs, woody species such as mesquite, condalias, whitebrush, spiny hackberry and other woody plants and cacti species invade this site. Grasses such as red grama, whorled dropseed, Hall's panicum, purple threeawn, Texas grama, hairy tridens and annual forbs replace the better grasses. Buffalograss increases greatly at first and later decreases as brush enters.
- c. Approximate total annual yield of this site in excellent condition ranges from 1500 pounds per acre in low production years to 4000 pounds per acre of air-dry vegetation in good production years.

4. WILDLIFE NATIVE TO THE SITE: This site is used by deer, dove and quail. Turkey uses the site some for nesting on areas adjacent to the Bottomland Sites. Sandhill cranes winter some on this site but feed adjacent irrigated fields.

5. GUIDE TO INITIAL STOCKING RATE:

a. <u>Condition Class</u>	<u>Percent</u>		<u>Ac/AU/Yearlong</u>
	<u>Climax Vegetation</u>		
Excellent	76 - 100		12 - 15
Good	51 - 75		14 - 20
Fair	26 - 50		19 - 25
Poor	0 - 25		25+

b. <u>Introduced Species</u>	<u>Percent of the Area Established</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-26</u>	<u>25-0</u>
Introduced Grasses	<u>12-15</u>	<u>14-20</u>	<u>19-25</u>	<u>25+</u>

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. For Cattle

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Pink pappusgrass	Curlymesquite	Red grama
Whiplash pappusgrass	Buffalograss	Hairy tridens
Pinhole bluestems	Tobosa	Texas grama
Plains bristlegrass	Texas bristlegrass	Whorled dropseed
Spike bristlegrass	Fall witchgrass	Purple threeawn
Vine-mesquite	Slim tridens	Hall's panicum
Twoflower trichloris	Perennial threeawn	Annual forbs
Fourflower trichloris	Reverchon panicum	Condalias
Sideoats grama	Texas tridens	Whitebrush
Arizona cottontop	Dropseed sp	Spiny Hackberry
Lovegrass tridens	Orange zexmenia	Mesquite
Texas wintergrass	Vine ephedra	Allthorn goatbush
Texas cupgrass		Cacti sp
Plains lovegrass		Desert yaupon
Bundleflower		
Bushsunflower		
White tridens		
Alkali sacaton		

b. For Deer

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Bushsunflower	Orange zexmenia	Tobosa
Vine ephedra	Whitebrush	Sacaton
Bundleflower	Cacti sp	Other grasses
Most annual forbs		
Guayacan		

c. For Dove and Quail

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Most annual seeds	Dropseed sp	Threeawn seed
Seeds of most grasses	Hackberry fruit	Hairy tridens
Seeds of most forbs	Cacti fruit	
Tender grass and forbs plants (quail)	Woody plants fruit	

_/Definitions of terms and an explanation of interpretations is given on a separate page which is attached or submitted with each group of range site

Legends and definitions for range site descriptions.

1 / This rating system provides general guidance as to animal preference for plant species. It also indicates possible competition between kinds of animals for the various plants. Grazing preference changes from time to time and place to place depending upon the animals, upon plant palatability and nutritive value, stage of growth and season of use, relative abundance, and associated plants. Grazing preference does not necessarily reflect a plant's ecological place in the climax plant community.

The following definitions apply to cattle, sheep, goats, deer, and antelope grazing:

Primary: These species generally decrease when the climax plant community is subjected to continuous heavy grazing pressure by the animals listed.

Secondary: These plants usually increase initially, then decrease when the site is subjected to continuous heavy grazing.

Low Value: These plants continue to increase or invade with heavy continuous grazing use of the site.

For squirrel, peccary and birds the terms primary, secondary, and low value indicate species preference only. They do not indicate plant response to feeding pressure, nor do they have any ecological significance.