

USDA, SCS  
Section II-E  
Technical Guide  
Area 2, Texas

LOAMY SAND  
RANGE SITE DESCRIPTION  
PE 20-33

Land Resource Area HP/ER  
Location \_\_\_\_\_

Date \_\_\_\_\_  
Approved by \_\_\_\_\_

1. PHYSIOGRAPHIC FEATURES: This site is on broad, gently undulating plains, sideslopes, and footslopes. Slopes vary from 0 to 8 percent, but are mainly 1 to 5 percent. Elevation ranges from about 2500 feet in Briscoe county to 4700 feet in Dallam county.

2. SOILS:

a. These are deep, well drained, noncalcareous, sandy soils. They have light colored, loamy fine sand surface layers over moderately permeable sandy clay loam subsoils. They take in water rapidly and have moderate water holding capacity. The natural fertility is low. The root zone is deep and easily penetrated by plant roots.

b. Major soils associated with this site:

Dallas lfs    Springer lfs    Amarillo lfs    Miles lfs

c. Specific site location:

APPROVAL SIGNATURE

DATE

Brent A. Cordia  
Area Conservationist

2/23/79

Joe Morris  
Field Specialist-Range

3/2/79

Gary Valentine  
Field Specialist-Biology

3/16/79

3. CLIMATE:

See field office climate description.

4. CLIMAX VEGETATION:

- a. The climax plant community is made up of mid and tall grasses. Mid grasses are of lesser importance and short grasses are of minor importance. Cool season grasses such as Canada wildrye and needle-and-thread are important climax species. This site will deteriorate rapidly with heavy use but will respond readily to good grazing management.

Relative Percentage of Total Plant Community (air-dry weight)

Grasses	85%	Woody Plants	5%	Forbs	5%
sideoats grama	20	sandsagebrush		wild alfalfa	
little bluestem	)25	yucca		dalea sp.	
sand bluestem		skunkbush sumac		roundhead lespedeza	
switchgrass	)20	sand plum		mentzelia	
hairy grama		shinoak		catclaw sensitivebriar	
Indiangrass	)	*Leadplant		Illinois bundleflower	
Canada wildrye	)10	southwest rabbitbrush		gaura	
needle-and-thread		)		prairie clovers	
blue grama	5		Queens delight		
perennial threeawns	)		penstemons		
sand dropseed	) 2		prairie spiderwort		
sand lovegrass	)		erect dayflower		
sand paspalum	)		Louisiana sagewort		
			lyreleaf greeneyes		
			Engelmann daisy		

~~\*endangered specie~~ *SLV*

- b. As retrogression occurs the tall grasses are grazed out except in protected places. The vegetation will be primarily sideoats grama, blue grama, sand dropseed, threeawn, hairy grama, and sand sagebrush. With continued over-grazing, the vegetation on the less sandy areas of site will be mainly blue grama, a large amount of sand dropseed, tumble windmillgrass, yucca, and sand sagebrush. On the sandier soils of site with continued over-grazing, a large amount of undesirable species such as red lovegrass, gummy lovegrass, tumble lovegrass, sand paspalum, fall witchgrass, and sand burr will be found along with threeawn, sand dropseed, hairy grama, sideoats grama, and sand sagebrush. Some common invading forbs on this site are western ragweed, Texas croton, and wild buckwheat. Yucca and sand sagebrush are browse species that will increase to the extent that they are a problem and may need control.
- c. Approximate total annual yield of this site in excellent condition ranges from 1300 to 3000 pounds of air-dry vegetation per acre, depending upon rainfall and growing conditions.

5. WILDLIFE ADAPTED TO THE SITE: This site is inhabited by mule deer, antelope, quail and dove. Predator animals such as coyotes also occupy the site. Other small animals and birds feed, nest and raise their young on the site.
6. ESTHETIC AND RELATED VALUES: Colorful blue, yellow, lavender, and white flowers of forbs dot the landscape during spring and fall when moisture is adequate. White flowers of yucca also help to add color to the site. Fragrant blooms of sand plum are readily noticeable in the spring.
7. HYDROLOGIC CHARACTERISTICS: These soils have rapid infiltration rates and moderate transmission rates. Surface runoff is slow to medium. Under proper management, the sediment potential is low. There is little ground water recharge. These soils are in wind erodibility group 2. The susceptibility to soil blowing is severe.
8. GUIDE TO INITIAL STOCKING RATE:

a. <u>Condition class</u>	Percent			
	<u>Climax vegetation</u>	<u>Acres/AU/yearlong</u>		
Excellent	76-100	18-24		
Good	51-75	22-34		
Fair	26-50	32-48		
Poor	m 0-25	46+		
b. <u>Seeded areas</u>				
(Introduced)	*100-76	75-51	50-26	25-0
weeping lovegrass	12-16**	16-22	22-30	30+
sand lovegrass	12-16	16-22	22-30	30+
(Native)				
Indiangrass	10-12	12-18	20-28	35+
switchgrass or sandbluestem				
sideoats grama	14-18	18-24	27-35	35+
mixture (above)	10-14	18-24	27-35	35+

\*Percent ground cover

\*\*Acres/AU/Yearlong

RELATIVE FORAGE QUALITY OF SPECIES 1/

## a. For Cattle:

Primary 2/

Indiangrass  
 sand bluestem  
 switchgrass  
 blue grama  
 sideoats grama  
 Canada wildrye  
 needle-and-thread  
 sand paspalum  
 yucca blooms  
 lead plant  
 roundhead lespedeza  
 catclaw sensitivebriar  
 prairie clovers  
 sand lovegrass  
 Engelmann daisy

Secondary 3/

sand dropseed  
 fall witchgrass  
 little bluestem  
 silver bluestem  
 tumble windmillgrass  
 wild alfalfa  
 Illinois bundleflower  
 Louisiana sagewort  
 lyreleaf greeneyes

Low Value 4/

hairy grama  
 perennial threeawns  
 daleas  
 penstemons  
 dotted gayfeather  
 yucca  
 mentzelia  
 gaura  
 Queensdelight  
 prairie spiderwort  
 erect dayflower  
 sand sagebrush  
 sand plum  
 skunkbush sumac  
 shimoak  
 southwest rabbitbush  
 red lovegrass  
 tumble lovegrass  
 gummy lovegrass

## b. For Mule Deer and Antelope:

prairie clovers  
 wild alfalfa  
 yucca blooms  
 penstemons  
 catclaw sensitivebriar  
 Illinois bundleflower  
 primrose sp.  
 Louisiana sagewort  
 lyreleaf greeneyes  
 Engelmann daisy

gaura  
 penstemons  
 black sampson  
 blue grama  
 sand dropseed  
 buffalograss  
 skunkbush sumac  
 daleas  
 dotted gayfeather  
 Canada wildrye  
 needle-and-th read  
 sand paspalum  
 southwest rabbitbrush

wild buckwheat  
 western ragweed  
 sand sagebrush  
 all bluestems  
 hairy grama  
 tumblelovegrass  
 yucca  
 sideoats grams  
 tumble windmillgrass  
 Indiangrass  
 perennial threeawns  
 sand lovegrass

c. For Dove and Quail 5/

western ragweed	prairie clovers	fuzzy seeded grasses
wild alfalfa	penstemons	and forbs
catclaw sensitivebriar	blacksampson	sideoats grama
annual broomweed	sand dropseed	buffalograss
buffalo-bur	skunkbush sumac	perennial threawns
sunflowers	fall witchgrass	hairy grama
crotons	shim oak	tumble windmillgrass
Illinois bundleflower	mentzelia	needle-and-thread
sand paspalum	gaura	sand sagebrush
erect dayflower	sand plum	yucca
switchgrass	Engelmann daisy	leadplant
	southwest rabbitbrush	lyreleaf greeneyes
		Louisiana sagewort

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- 1/ This rating system provides general guidance as to animal preference for plant species. It also indicates competition between kinds of animals for the various plants. Grazing preference changes from time to time and place to place depending upon the animal, plant palatability and nutritive value, stage of growth and season of use, relative abundance and associated plants. Grazing preference does not necessarily reflect the place of a plant in the range ecosystem.
- 2/ These species generally decrease under prolonged heavy grazing.
- 3/ These plants usually increase initially, then decrease under prolonged heavy use.
- 4/ These plants continue to increase with heavy grazing use.
- 5/ For these wildlife species the terms primary, secondary and low value indicate animal preference only. They do not indicate plant response to feeding pressure; ~~nor do they have any ecological significance.~~