

LOAMY SAND  
RANGE SITE DESCRIPTION  
PE 38-48

Land Resource Area Central Basin

Location Fredericksburg, Llano, Mason

Date February 19, 1987

1. TOPOGRAPHY AND ELEVATION: This site is gently sloping; slopes range from 1 to 5 percent. Elevation ranges from 1000 to 1700 feet.
2. SOILS:
  - a. These soils have a loamy sand or loamy fine sand surface layer less than 20 inches thick over a sandy clay or sandy clay loam subsoil. Rainfall and plant roots penetrate the soil readily. Available moisture capacity is medium to high. Many areas were previously cultivated but abandoned due to low fertility and organic matter.
  - b. Soil taxonomic unit in this range site:
    - Vashti loamy sand
    - Castell loamy sand
  - c. Specific site location:

3. CLIMAX VEGETATION:

- a. The climax plant community is made up of mid and tall grasses growing on an open type savannah with scattered stands of post oak and blackjack oak.

Grasses	80%	Woody Plants	15%	Forbs	5%
Little bluestem	30	Post oak	10	Engelmann daisy	
Big bluestem	10	Blackjack oak		Maximilian sunflower	
Indiangrass		10	Greenbrier	5	Mexican sagewort
Sand lovegrass	Bumelia		Western ragweed		
Texas bluegrass	5	Sumac species	Gayfeather	Dalea species	
Purpletop tridens	5	Prickly ash	Yellow neptunia	Sensitivebrier	
Cane, silver bluestem	5	Hackberry	Trailing wildbean	Primrose	
Sand and tall dropseed	5	Shinoak	Partridge pea	Gaura	
Sideoats grama	5		Buckwheat		
Texas wintergrass	5				
Canada wildrye					
Scribner panicum					
Switchgrass					
Plains lovegrass					

- b. If retrogression is cattle-induced, big and little bluestem, indiangrass, sand lovegrass and the more palatable forbs decrease. Silver bluestem, tall and sand dropseed, Texas wintergrass and woody plants are the principal increasers.

If the plant community continues to degenerate, fall witchgrass, hooded windmillgrass, red and tumble and gummy lovegrass, tumblegrass, and threeawns which originally occurred in trace amounts increase to dominating proportions. In lower condition classes woody plants such as blackjack and post oak, greenbrier and shinoak will likely dominate the site. Mesquite, juniper and catclaw invade the site.

- c. Approximate total annual production of this site in excellent condition ranges from 2500 to 4500 pounds of air-dry vegetation per acre, depending upon canopy, rainfall and growing conditions. With a 40 percent tree canopy, as much as 1000 pounds of the total annual production will be by woody plants. Part of this production will be unpalatable to or out of reach of grazing animals.

5. WILDLIFE ADAPTED TO THE SITE: This site is inhabited by deer, turkey, squirrel, quail and dove. They feed extensively on acorns and other mast. Other small animals and birds feed, nest and raise their young on the site.

6. ESTHETIC AND RELATED VALUES: Colorful forbs dot the landscape during the spring and early fall when moisture is adequate. Brilliant red, orange and yellow hues of post oak, blackjack oak and flameleaf sumac also help to make this a colorful site each autumn.
7. HYDROLOGIC CHARACTERISTICS: Smooth to gently sloping topography with moderately slow to slowly permeable soils may result in medium runoff. However, good plant cover greatly reduces erosion potential, resulting in runoff relatively free of sediment.

8. GUIDE TO INITIAL STOCKING RATE:

a. <u>Condition Class</u>	Percent		<u>Acres/AU/Yearlong</u>
	<u>Climax Vegetation</u>		
Excellent	76 - 100		10 - 14
Good	51 - 75		14 - 16
Fair	26 - 50		16 - 18
Poor	0 - 25		18 - 28+

  

b. <u>Introduced Species</u>	<u>Ac/AU Percent Stand</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-26</u>	<u>25-0</u>
Improved lovegrass	5-10	8-12	13-18	17-25+

9. RELATIVE FORAGE VALUE OF SPECIES IN POTENTIAL PLANT COMMUNITY

a. Cattle		
<u>Primary</u> $\frac{1}{/}$	<u>Secondary</u> $\frac{1}{/}$	<u>Low Value</u> $\frac{1}{/}$
Big bluestem	Cane bluestem	Bumelia
Canada wildrye	Dalea species	Camphor weed
Engelmann daisy	Fall witchgrass	Dayflower
Indiangrass	Hackberry	Evening primrose
Little bluestem	Silver bluestem	Greenbrier
Maximilian sunflower	Tall dropseed	Mexican sagewort
Plains lovegrass	Texas bluegrass	Oak species
Purpletop tridens	Trailing wildbean	Prickly ash
Sand lovegrass		Red lovegrass
Sensitivebriar		Sand dropseed
Sideoats grama		Scribner panicum
Switchgrass		Sumac
Texas bluebonnet		Western ragweed
Texas wintergrass		

## b. Sheep

Primary  $\frac{1}{/}$ 

Acorns  
 Big lbuestem  
 Daleas  
 Engelmanndaisy  
 Fall witchgrass  
 Filaree  
 Gayfeather  
 Hackberry  
 Indiangrass  
 Little bluestem  
 Maximilian sunflower  
 Mexican sagewort  
 Oxalis  
 Scribner panicum  
 Sensitivebriar  
 Sideoats grama  
 Texas wintergrass  
 Wildrye  
 Yellow neptunia

Secondary  $\frac{1}{/}$ 

Broomweed  
 Bumelia  
 Cane bluestem  
 Greenbrier  
 Plains lovegrass  
 Purple threeawn  
 Sand lovegrass  
 Silver bluestem  
 Sumac species  
 Switchgrass  
 Tall dropseed  
 Texas bluegrass  
 Western indigo  
 Wright threeawn

Low Value  $\frac{1}{/}$ 

Cedar sedge  
 Hairy tridens  
 Hoarhound  
 Prairie coneflower  
 Prickly ash  
 Pricklypear  
 Red grama  
 Red lovegrass  
 Shin oak  
 Tumblegrass  
 Western Ragweed  
 Windmillgrass

## c. Goats

Primary  $\frac{1}{/}$ 

Blackjack oak  
 Bumelia  
 Bundleflower  
 Daleas  
 Engelmanndaisy  
 Filaree  
 Flameleaf sumac  
 Gayfeather  
 Greenbrier  
 Hackberry  
 Maximilian sunflower  
 Mexican sagewort  
 Oxalis  
 Post oak  
 Prickly ash  
 Primrose  
 Sensitivebriar  
 Shin oak  
 Trailing wildbean  
 Yellow neptunia

Secondary  $\frac{1}{/}$ 

Acorns  
 Big bluestem  
 Cane bluestem  
 Cedar sedge (winter)  
 Evergreen sumac  
 Fall witchgrass  
 Indiangrass  
 Little bluestem  
 Plains lovegrass  
 Purpletop tridens  
 Sand lovegrass  
 Scribner panicum  
 Scurf-pea  
 Sideoats grama  
 Silver bluestem  
 Switchgrass  
 Tall dropseed  
 Texas bluegrass  
 Texas wintergrass  
 Western indigo  
 Wildrye

Low Value  $\frac{1}{/}$ 

Broomweed  
 Hoarhound  
 Juniper  
 Mesquite  
 Prairie coneflower  
 Pricklypear  
 Red grama  
 Silverleaf  
     nightshade  
 Threeawns  
 Tumblegrass  
 Western ragweed  
 Windmillgrass

## d. Quail and Dove

Primary  $\frac{1}{}$ 

Acorns  
Croton  
Daleas  
Kleingrass seed  
Other mast and fruits  
Panicum seed  
Sensitivebriar  
Sunflower  
Western ragweed

Secondary  $\frac{1}{}$ 

Broomweed  
Dropseeds  
Lovegrass seed  
Snow-on-the-mountain  
Western indigo

Low Value  $\frac{1}{}$ 

Bluestems  
Coneflowers  
Fuzzy seeded grasses  
and forbs  
Hoarhound  
Nonmast-producing  
woody plants  
Silverleaf nightshade  
Threeawns

## e. Deer

Primary  $\frac{1}{}$ 

Acorns  
Bumelia  
Bundleflower  
Daleas  
Engelmann daisy  
Flameleaf sumac  
Greenbrier  
Hackberry  
Macimilian sunflower  
Mexican sagewort  
Most annual forbs  
Rescuegrass  
Sensitivebriar  
Trailing ratany

Secondary  $\frac{1}{}$ 

Bumelia  
Cedar sedge (winter)  
Evergreen sumac  
Fall witchgrass  
Gayfeather  
Oxalis  
Panicum  
Rescuegrass  
Scribner panicum  
Texas wintergrass  
Western indigo  
Wildrye

Low Value  $\frac{1}{}$ 

Bluestems  
Broomweed  
Dropseeds  
Gramas  
Hoarhound  
Juniper  
Prairie coneflower  
Silverleaf nightshade  
Snow-on-the-mountain  
Threeawns  
Tridens

## f. Turkeys

Primary  $\frac{1}{}$ 

Acorns  
Bluebonnet  
Other mast and fruits  
Panicum seed  
Western ragweed

Secondary  $\frac{1}{}$ 

Large seeded  
grasses and forbs

Low Value  $\frac{1}{}$ 

Bluestems  
Gramas  
Hoarhound  
Threeawns

## g. Squirrels

Primary  $\frac{1}{}$ 

Acorns  
Bumelia fruit  
Other mast and fruits

Secondary  $\frac{1}{}$ 

Buds and twigs  
Large seeded  
grasses and forbs

Low Value  $\frac{1}{}$ 

Hoarhound  
Other forbs  
Other grasses

## Legend and Definitions for Range Site Description

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 use by the animals listed.

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.

APPROVAL - Signature

Date

Dan Caudle  
Field Specialist

3-11-87

John W. Smith  
Area Conservationist

3-12-87