USDA, SCS
Section II-E
Technical Guide
Areas 23, 24, 25

SHALLOW RIDGE
RANGE SITE DESCRIPTION
PE 19-31

Land Resource Area Rio Grande Plains

Location _____

Date _____

1. TOPOGRAPHY AND ELEVATION: Low gently sloping ridges and plains.

2. SOILS:

a. Soils of this site are grayish brown gravelly loams and calcareous clay loams that contain varying amounts of fractured caliche fragments and stones formed over indurated caliche at depths of less than 20 inches.

Rainfall intake is at a moderate rate. Due to shallow soil depth, moisture storage is low, which makes this a droughty, low producing site. High rates of runoff are common. Erosion susceptibility is moderate due to low moisture storage and slopes. Inherent fertility is low. Small rains are effective, but large rains cannot be held. Movement of water, air and roots in the soil is good but limited due to soil depth. This favors species that develop shallow roots or that mature in a short time. Deeper pockets and areas where roots penetrate into the underlying material grow the deeper rooted plants.

b. Some soil taxonomic units which characterize the site are:

Olmos gravelly loam
Zapata gravelly loam
Parrita loam

c. Specific site location:

3. CLIMAX VEGETATION:

a. The climax plant community is an open grassland with a variety of scattered woody shrubs and perennial forbs. *The site is dominated by sideoats grama, feathery bluestems and other mid and short grasses. The site usually supports some woody shrubs such as guajillo, kidneywood, ratany, daleas, ephedra and guayacan. Perennial forbs such as bush sunflower, orange zexmenia, scarlet guara and evening primrose occur.

* Pink pappus and threeflower trichloris and Arizona cottontop replace sideoats grama in the climax south of Dimmit County.

RELATIVE PERCENTAGE

Grasses	85%	Woody	10%	Forbs	5%
* Sideoats & Neally grama	25	Guajillo	5	Bush sunflower	5
Feathery bluestem (Silver, Cane & Pinhole)	10	Kidneywood (Texas)		Orange zexmenia	
Bristlegrass sp. (Plains & Spike)	10	Range ratany		Scarlet guara	
Green sprangletop	15	Ephedra (Vine)		Evening primrose	
Tanglehead		Texas falsemesquite		Menodora	
Arizona cottontop		Guayacan	5	Mallow sp.	
Plains lovegrass	5	Desert yaupon		Clematis sp.	
Lovegrass tridens		Littleleaf sumac		Bundleflower	
Two-flower trichloris	T	Texas colubrina		Annuals-2	
Pink pappus	5	Feather dalea			
Reverchon panicum	5	Liveoak	T		
Fall witchgrass		Ceniza	T		
Slim tridens	10				
Per. threeawn					
Buffalo & Curly mesquite	5				
Hairy grama	T				
Texas tridens	T				

b. As retrogression occurs, there is usually a large increase in the amount of perennial threeawn, with some increase in plants such as Fall witchgrass, slim tridens, buffalo or curlymesquite and the panicum species. The woody shrubs will also begin to increase. As deterioration continues, a large percentage of plants will consist of woody shrubs with an understory of short grasses such as threeawns, red grama and hairy tridens and annual weeds.

c. Approximate total annual yield of this site in excellent condition ranges from 1000 pounds per acre in poor production years to 2500 pounds per acre of air-dry vegetation in good production years.

4. WILDLIFE NATIVE TO THE SITE: This site is used by deer, javelina, dove and quail. Resident populations of deer occur on this where adequate woody cover is available on the site. Several of the woody plants, forbs and grasses provide good cover, browse and seed for game birds and animals.

* Pink pappus and three-flower trichloris and Arizona cottontop replace sideoats grama in the climax south of Dimmit County.

5. GUIDE TO INITIAL STOCKING RATE:

a.

Condition Class	Percent Climax Vegetation	Ac/AU/Yrlg	AU/Section
Excellent	76-100	17-24	38-27
Good	51-75	24-30	27-21
Fair	26-50	28-36	23-18
Poor	0-25	32+	20 or less

b.

Introduced Species	Percent Ground Cover			
	100-76	75-51	50-26	25-0
	15-20	20-30	30-34	32+

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. For Cattle

Primary	Secondary	Low Value
Sideoats & Neally grama	Slim tridens	Halls panicum
Feathery bluestem	Reverchon panicum	Red grama
Bristlegrass sp.	Per. threeawns	Hairy tridens
Green sprangletop	Curly mesquite	Annual grasses
Arizona cottontop	Hairy grama	Most annual forbs
Plains lovegrass	Texas tridens	Ratany
Two-flower trichloris	Guajillo	Texas falsemesquite
Pink pappus	Vine ephedra	Guayacan
Lovegrass tridens	Feather dalea	Texas colubrina
Tanglehead	Desert yaupon	Ceniza
Kidneywood	Orange zexmenia	Condalia sp.
Bush sunflower	Fall witchgrass	Agarita
Guara	Buffalograss	Cacti sp.
		Mesquite

b. For Sheep

Primary	Secondary	Low Value
Sideoats & Neally grama	Reverchon panicum	Red grama
Feathery bluestem	Halls panicum	Hairy tridens
Bristlegrass sp.	Slim tridens	Mesquite
Green sprangletop	Per. threeawns	Catclaw
Arizona cottontop	Curly mesquite	Condalia sp.
Plains lovegrass	Tanglehead	Cacti sp.
Pink pappus	Hairy grama	
Lovegrass tridens	Texas falsemesquite	
Fall witchgrass	Guayacan	
Buffalograss	Daleas	
Texas kidneywood	Ceniza	
Guajillo	Texas colubrina	
Ephedra (vine)	Orange zexmenia	
Desert yaupon		
Bush sunflower		
Scarlet guara		
Evening primrose		
Most annual forbs		

1/ 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 descriptions.

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c. For Goats

Primary	Secondary	Low Value
Guajillo	Range ratany	Condalia sp.
Texas kidneywood	Littleleaf sumac	Cacti sp.
Texas false mesquite	Texas colubrina	Leatherstem
Feather dalea	Orange zexmenia	Persimmon
Vine ephedra	Catclaw	
Guayacan	Most grasses	
Desert yaupon	Allthorn goatbush	
Liveoak	Ceniza	
Bush sunflower		
Scarlet guara		
Clematis sp.		
Evening primrose		
Most annual forbs		
Blackbrush		

d. For Deer

Primary	Secondary	Low Value
Guajillo	Littleleaf sumac	Persimmon
Texas kidneywood	Condalia sp.	Leatherstem
Texas falsemesquite	Ceniza	Mesquite
Ratany	Catclaw	Agarita
Desert yaupon	Cacti sp.	Whitebrush
Liveoak	Allthorn goatbush	
Guayacan	Texas colubrina	Most grasses
Vine ephedra	Spiny hackberry	
Bush sunflower	Palo verde	
Orange zexmenia	Blackbrush	
Scarlet guara		
Clematis sp.		
Most annual forbs		
Panicum grasses		

e. For Dove & Quail

Primary	Secondary	Low Value
Croton seed	Leatherstem seed	Most woody plants
Ragweed seed	Most grass seed	
Panicum sp. seed	Fruit of cacti sp. (quail)	
Bristlegrass seed	Agarita seed (quail)	
Most annual forb seeds	Spiny hackberry seed (quail)	
Fruit of tasajillo (quail)		
Succulent grasses & annual forbs (quail)		
Legume seeds		

Legend 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 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.