

GRAVELLY LOAM?

RANGE SITE DESCRIPTION

PE 44-64?

Land Resource Area CLAYPAN

Location Caldwell, Franklin, Giddings

Date 9-1-74 11/1/71

1. TOPOGRAPHY AND ELEVATION: The topography of this site is nearly level to rolling. It occurs primarily on slopes of 2 to 6 percent, but a few slopes go up to 10 percent. Elevation ranges from 350 to 650 feet.
2. SOILS:
  - a. These are deep, light colored, acid, very gravelly, loamy soils. The dominant characteristic is the gravel in the profile. Soils of the site have profiles in which 30 to 80 percent of the soil volume is gravel. Frequently the gravel layer is 3 to 6 inches below the sandy or loamy surface. Although the soils take in water readily, the gravel content limits moisture and fertility storage capacity. Hence, the site is somewhat droughty when compared to loamy soils without the gravel. The gravel layer becomes slightly cemented when dry and restricts root growth. The site responds to light showers, however, more favorably than heavier soils. When range and soil condition deteriorates, surface crusting, slow infiltration, and runoff are common. Thus it is very important to maintain a protective cover of vegetation and plant residue on the site. Many areas of these soils have been surface mined for gravel.
  - b. Some soil taxonomic units which characterize the site are:
    - Axtell gravelly sandy loam
    - Fett gravelly sandy loam
    - Reisel gravelly sandy loam
    - Vernia ~~very~~ gravelly sandy loam
  - c. Specific site location:

### 3. CLIMAX VEGETATION:

- a. In its pristine condition, this site is a post oak, blackjack oak savannah. The overstory of oak and associated species shades about 15 to 20 percent of the ground. The understory is dominated by little bluestem, which usually constitutes about 50 to 65 percent of the total annual yield. Also occurring, but in smaller amounts or less frequently are Indiangrass, beaked panicum, purpletop, brownseed paspalum, and sideoats grama. Good, palatable, cool season forage plants are notably scarce on the site. It does, however, grow a variety of climax forbs, legumes, and woody understory.

#### RELATIVE PERCENTAGE

Grasses	80%	Woody	15%	Forbs	5%
Little bluestem	55	Post oak and Blackjack oak	10	Lespedezas Tickclover Bundleflower Sensitivebriar	
Indiangrass	15	Hawthorns American beauty- berry Greenbrier Berryvines	5	Wildbean	5
Switchgrass				Snoutbean	
Beaked panicum				Partridgepea	
Purpletop				Spiderwort and Dayflower	
Brownseed paspalum	10			Croton	T
Sideoats grama				Ragweed	
Purple lovegrass				Bullnettle	
Hairy dropseed					
Sedges					
Low panicums					
Fall witchgrass					
Silver bluestem					
Arrowfeather					
threeawn					
Carolina jointtail					

- b. When retrogression occurs, brownseed paspalum and woody plants are likely increasers which replace more palatable grasses and forbs on the site. Oak, yaupon, greenbrier, hawthorns, and American beauty-berry often form a dense overstory, severely limiting production by herbaceous plants. Common invaders on the site include annual grasses and weeds, red lovegrass, smutgrass, windmillgrass, split-beard and broomsedge bluestem, wildindigo, goldenrod, deathcamas, bitter sneezeweed, baccharis, Eastern redcedar, mesquite, winged elm, and Sesbania.
- c. Approximate total annual yield of this site in excellent condition ranges from 2500 to 4750 pounds of air-dry vegetation, depending upon rainfall and growing conditions. About 450 to 800 pounds of the production will be by woody species and will likely be relatively stable. Much of the variation in annual production by woody species is due to the presence or absence of acorns on oaks and fruit crops on other woody plants. All or a part of the annual growth of woody plants may be unpalatable to or out of reach of grazing animals.

4. WILDLIFE NATIVE TO THE SITE: This site is inhabited by deer, dove, and quail. Squirrels often feed on the site from adjacent bottomlands and small streams. The site has ample cover for wildlife, and it produces adequate browse, mast, forbs, and seeds for a year round food supply.

5. GUIDE TO INITIAL STOCKING RATE:

a. <u>Condition Class</u>	<u>Percent Climax Vegetation</u>	<u>Ac/AU/Yearlong</u>
Excellent	76 - 100	12 - 16
Good	51 - 75	16 - 20
Fair	26 - 50	20 - 24
Poor	0 - 25	24 f

b. <u>Introduced Species</u>	<u>Percent Ground Cover</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-26</u>	<u>25-0</u>
KR, Kleberg bluestem	12-14	14-18	18-25	25 f

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. For Cattle

<u>Primary</u> 2/	<u>Secondary</u> 3/	<u>Low Value</u> 4/
Little bluestem	Brownseed paspalum	Annual grasses and forbs
Indiangrass	Purple lovegrass	Red lovegrass
Beaked panicum	Sedges	Smutgrass
Switchgrass	Tall dropseeds	Windmillgrass
Sideoats grama	Low panicums	Splitbeard bluestem
Purpletop	Fall witchgrass	Broomsedge bluestem
Lespedezas	Silver bluestem	Croton
Bundleflower	Arrowfeather	Partridgepea
Sensitivebriar	threeawn	Deathcamas
Tickclover	Carolina jointtail	Wildindigo
Wildbean	American beauty-	Ragweed
Snoutbean	berry	Bullnettle
	Greenbrier	Bitter sneezeweed
	Yaupon	Oaks
		Hawthorns
		Winged elm
		Berryvines
		Sesbania
		Pricklypear
		Eastern redcedar
		Baccharis
		Mesquite

b. For Deer

Primary

Greenbrier  
Yaupon  
Hackberry  
Elm  
Mast  
Low panicums  
Sensitivebriar  
Tickclover  
Bundleflower

Secondary

American  
    beautyberry  
Berryvines  
Hawthorns  
Oak buds  
    and twigs  
Lespedezas

Low Value

Other grasses  
Croton  
Deathcamas  
Wildindigo  
Partridgepea  
Ragweed  
Bitter sneezeweed  
Baccharis  
Eastern redcedar  
Mesquite  
Sesbania

c. For Quail and Dove 5/

Primary

Croton  
Ragweed  
Sunflowers  
Partridgepea  
Tickclover  
Slickseed wildbean  
Snoutbean  
Sensitivebriar  
Bundleflower  
Lespedezas  
Panicum seeds  
Paspalum seeds  
Mast

Secondary

Bullnettle  
Lovegrass seed

Low Value

Fuzzy seeded  
    grasses & forbs  
Wildindigo  
Bitter sneezeweed  
Baccharis  
Eastern redcedar  
Mesquite  
Dropseeds  
Sesbania  
Pricklypear

d. For Squirrels 5/

Primary

Oak mast  
Dewberries  
Haws  
Grapes  
Persimmon  
Yaupon fruit  
Greenbrier fruit  
American  
    beautyberries

Secondary

Large seeded  
    grasses & forbs  
Buds & twigs

Low Value

Other grasses  
Other forbs