

SHALLOW GRANITE  
RANGE SITE DESCRIPTION  
PE 38 - 48

Land Resource Area Central Basin

Location Burnet, Johnson City,  
Fredericksburg, Llano, Mason

Date 1-17-85

1. TOPOGRAPHY AND ELEVATION: This site is granite hills and slopes of 1 to 8 percent. Granite rock outcrops occur and comprise 5 to 35 percent of the landscape. Elevations are 1200 to 1900 feet.
2. SOILS:
  - a. The soils are permeable, noncalcareous, shallow, gravelly, coarse sandy loam underlain by granite at depths of 11 to 20 inches. Granite outcrops occur. Available waterholding capacity is low resulting in low production. However small rains can be utilized because runoff from rocks is absorbed in the soil. Large rains generally produce runoff.
  - b. Some soil taxonomic units which characterize this site are:
    - Keese-Rock outcrop association, rolling
    - Keese-Rock outcrop complex, 1 to 8 percent slopes
  - c. Specific site location:
3. CLIMAX VEGETATION:
  - a. The climax plant community is post oak and live oak savannah. The understory is dominated by tall and mid grasses such as little bluestem, sand lovegrass, sideoats grama and green sprangletop. The oak overstory shades about 20 percent of the ground. This site supports an abundance of forbs with some woody shrubs and vines.

Approved: *Herb Senne, SRC 4-11-85*  
*Lester C Brockman TSS-Soil Scientist 4-16-85*  
*Jubie W. Elms 4-26-85*

| <u>RELATIVE PERCENTAGE</u> |            |                   |            |                    |           |
|----------------------------|------------|-------------------|------------|--------------------|-----------|
| <u>Grasses</u>             | <u>85%</u> | <u>Woody</u>      | <u>10%</u> | <u>Forbs</u>       | <u>5%</u> |
| Little bluestem            | 50         | Live oak          |            | Engelmann daisy    |           |
|                            |            | Post oak          |            | Trailing ratany    |           |
| Indiangrass                |            | Blackjack oak     | 10         | American snoutbean |           |
| Purpletop                  | 10         | Elm               |            | Mexican sagewort   | 5         |
| Tanglehead                 |            | Hackberry         |            | Hairy ruellia      |           |
| Big bluestem               |            | Greenbriar        |            | Bush sunflower     |           |
|                            |            |                   |            | Sensitive briar    |           |
| Sideoats gram              | 10         | Hickory           |            | Bundleflower       |           |
|                            |            | Yucca             |            |                    |           |
| Green sprangletop          |            | Elbowbush         |            | Bluebonnet         |           |
| Arizona cottontop          |            | Bumelia           |            | Western ragweed    |           |
| Sand dropseed              | 5          | Littleflower      | T          | Crotons            | T         |
| Sand lovegrass             |            | peachbush         |            | Annual Weeds       |           |
| Plains lovegrass           |            | Kidneywood        |            | Annual grasses     |           |
| Plains bristlegrass        |            | White honeysuckle |            |                    |           |
|                            |            | Catclaw           |            |                    |           |
| Wildrye spp.               |            | Sumac             |            |                    |           |
| Sedges                     | 5          |                   |            |                    |           |
| Texas wintergrass          |            |                   |            |                    |           |
| Silver bluestem            |            |                   |            |                    |           |
| Hairy grama                |            |                   |            |                    |           |
| Hooded windmillgrass       |            |                   |            |                    |           |
| Tumble windmillgrass       | 5          |                   |            |                    |           |
| Fall witchgrass            |            |                   |            |                    |           |
| Wrights threeawn           |            |                   |            |                    |           |
| Fringeleaf paspalum        |            |                   |            |                    |           |

- b. As retrogression occurs, juniper, Texas persimmon, whitebrush and mesquite may form a dense canopy. Some common invaders on the site are signalgrass, basin sneezeweed, pricklypear, tasajillo, mesquite, and certain annuals.
- c. Approximate total annual yield of this site in excellent condition ranges from 1500 pounds in poor years to 3000 pounds air-dry vegetation in good years.
4. WILDLIFE NATIVE TO THE SITE: This site is used by deer, dove, quail, and turkey. Several of the woody plants, forbs, and grasses which grow on the site provide good cover, browse, mast, and seeds for game birds and animals.
5. GUIDE TO INITIAL STOCK RATE:

| <u>a. Condition Class</u> | <u>Climax Vegetation</u> | <u>Ac./AU/Yearlong</u> |
|---------------------------|--------------------------|------------------------|
| Excellent                 | 76 - 100                 | 18 - 20                |
| Good                      | 51 - 75                  | 19 - 24                |
| Fair                      | 26 - 50                  | 20 - 28                |
| Poor                      | 0 - 25                   | 26 +                   |

RELATIVE FORAGE QUALITY OF SPECIES

a. Cattle

| <u>Primary</u>    | <u>Secondary</u>     | <u>Low Value</u> |
|-------------------|----------------------|------------------|
| Little bluestem   | Purpletop            | Wrights threeawn |
| Indiangrass       | Sand dropseed        | Red lovegrass    |
| Tanglehead        | Plains lovegrass     | Annuals          |
| Sideoats grama    | Plains bristlegrass  | Snake cotton     |
| Wildrye           | Texas wintergrass    | Oak              |
| Green sprangletop | Sedges               | Whitebrush       |
| Sand lovegrass    | Silver bluestem      | Mesquite         |
| Climax forbs      | Hairy grama          | Texas grama      |
|                   | Hooded windmillgrass | Catclaw          |
|                   | Tumble windmillgrass | Prickly pear     |
|                   | Paspalum spp.        | Tasajillo        |
|                   |                      | Juniper          |

b. Sheep

| <u>Primary</u>    | <u>Secondary</u>  | <u>Low Value</u> |
|-------------------|-------------------|------------------|
| Little bluestem   | Silver bluestem   | Threeawns        |
| Sideoats grama    | Hairy grama       | Red lovegrass    |
| Indiangrass       | Fall witchgrass   | Texas grama      |
| Green sprangletop | Oak               | Whitebrush       |
| Climax forbs      | Sumacs            | Mesquite         |
| Wildrye           | Hackberry         | Catclaw          |
| Sand lovegrass    | Green briar       | Prickly pear     |
|                   | Sand dropseed     | Tasajillo        |
|                   | Arizona cottontop | Texas persimmon  |
|                   | Windmillgrass     | Juniper          |
|                   | Sedges            |                  |
|                   | Annual weeds      |                  |
|                   | Annual grasses    |                  |

c. Goats

| <u>Primary</u>    | <u>Secondary</u> | <u>Low Value</u> |
|-------------------|------------------|------------------|
| Oaks              | Indiangrass      | Red lovegrass    |
| Hackberry         | Little bluestem  | Threeawn         |
| Elms              | Sideoats grama   | Texas grama      |
| Kidneywood        | Midgrasses       | Red grama        |
| White honeysuckle | Annual forbs     | Mesquite         |
| Sagewort          | Annual grasses   | Whitebrush       |
| Ruellia           |                  | Prickly pear     |
| Snoutbean         |                  | Tasajillo        |
| Greenbriar        |                  | Texas persimmon  |
| Climax forbs      |                  | Juniper          |

d. Deer

Primary

Bundleflowers  
Sensitivebriar  
White honeysuckle  
Littleflower peachbush  
Kidneywood  
Greenbriar  
Bushsunflower  
Hackberry  
Elm  
Climax forbs  
Annual forbs

Secondary

Texas wintergrass  
Sedges  
Wildrye  
Low paspalums  
Fall witchgrass  
Oak browse  
Annual grasses  
Oak mast  
Elbow wood  
Sumac  
Hickory  
Bumelia

Low Value

Perennial grasses  
Mesquite  
Catclaw  
Texas persimmon  
Juniper  
Prickly pear  
Tasajillo

e. Dove and quail

Primary

Bundleflower  
Crotons  
Sensitivebriar  
Panicums and paspalums  
seed  
Wildrye (seed)  
Western ragweed  
Annual grass and weed  
seed

Secondary

Oak mast  
Other grass seed  
Other woody plant mast

Low Value

Perennial grasses

f. Turkey

Primary

Tender grasses & forbs  
Woody plant seed  
Grass seed  
Forb seed  
Oak mast

Secondary

Coarse grasses

Low Value

Woody plant foliage

### 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.