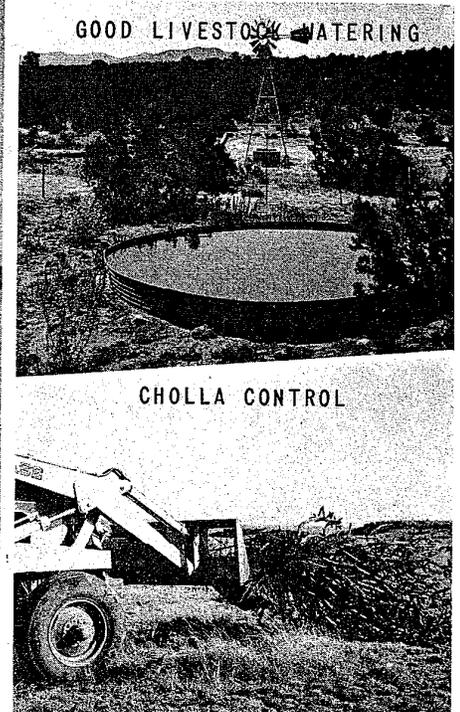
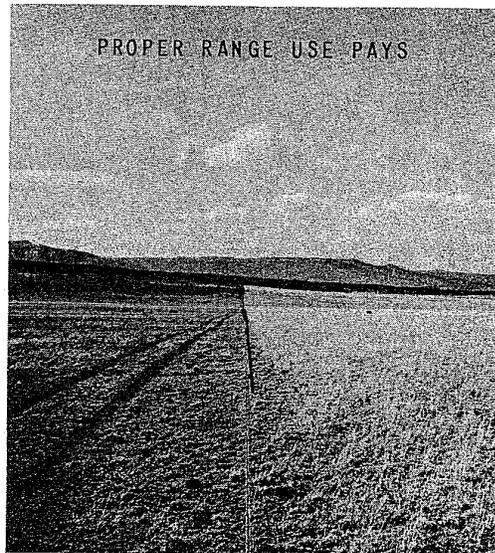


# RANGE CONSERVATION - TECHNICAL NOTES



U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
NEW MEXICO

RANGE TECHNICAL NOTE NO. 39

June 5, 1970

SUBJECT: RANGE - Key to Range Site or Grazable Woodland Identification.

This technical note transmits a general key to the range site and grazable woodlands in New Mexico. This key may be used to help identify a range site or grazable woodland the same as a plant taxonomy key is used to identify vegetation. It is most helpful when range is in lowered condition and in areas where there is not a soil survey.

Because of the variation in range sites in the state, this key will not correctly guide the user to the right range site in all cases, therefore, good judgment must be used, as always.

It should be remembered in the final analysis that the only way we distinguish between range sites is through significant differences between kinds and/or amounts of plants in the potential plant community. (See the National Handbook for Range and Related Grazing Lands, Section 2.45.) The fact that such factors as physiography, soil, parent material, water-table, elevation, etc. can be used in this key is because they have exerted a strong influence in determining the potential plant community the site will support.

Attachment

A0  
Soil Survey Party Leaders  
Adjoining States

**RECORD COPY**

1. Range site or grazable woodland located in the RM-1 or RM-2 Sub-resource areas. 1/

2. Site occurs where there is an active water table -- usually less than five feet deep during growing season.

3. Site located above timberline - Alpine Meadow.

3. Site located below timberline - Meadow.

2. Site does not have an active water table.

3. Site usually occurs on slopes of over 25 percent.

4. Parent material is mainly basalt (except Cinder), sandstone, limestone or granite. - Breaks.

4. Parent material is mainly shale - Mountain Shale.

3. Site usually occurs on slopes of less than 25 percent.

4. Soil contains basalt stones or cinders.

5. Soil has basalt stones on the surface and throughout the profile - Malpais.

5. Soil includes cinder material at a shallow depth (usually less than 16 inches) - Cinder.

4. Basalt and cinders mostly absent from the soil.

5. Site located in alluvial non-gullied drainage bottoms - Mountain Valley.

5. Site in pinyon-juniper and lower ponderosa pine zone - Mountain Loam.

5. Site in middle and upper ponderosa pine zone - Mountain Grassland.

5. Site in spruce-fir or mixed conifer zone - Subalpine Grassland.

5. Site above timberline - Alpine Slopes.

2. Site has a 10 percent or more canopy (about 5 percent of the composition by weight) of aspen or ponderosa pine trees - Grazable Woodland.

3. Aspen trees dominate the site and are not likely to be replaced by conifers, at least in the foreseeable future - Aspen Grazable Woodland.

3. Ponderosa pine trees dominate the site and do not exceed a 50 percent canopy - Ponderosa Pine Grazable Woodland.

1. Range site located outside RM-1 or RM-2 resource sub-areas. 1/
2. Slope on which site occurs usually less than 10 to 15 percent.
3. Site occurs where there is an active water table -- usually less than five feet deep during growing season.
4. The soil is non-saline and/or slightly saline in climax condition and produces less than 50 percent alkali sacaton - Meadow.
4. The soil is strongly saline and in climax condition and produces more than 50 percent alkali sacaton - Salt Meadow.
3. Site does not have active water table.
4. Site receives beneficial surface water -- usually receives down stream flooding one or more times per year -- water not confined to an eroded channel.
5. The soils are slightly saline or non-saline and in climax condition, the site produces less than 50 percent alkali sacaton - Bottomland.
5. The soils are strongly saline and in climax condition, the site produces more than 50 percent alkali sacaton - Salty Bottomland.
4. Site does not receive beneficial surface water.
5. Site occurs where soil has stones on or near (0-16 inches) the surface and through the soil profile (stones make up 20 percent or more of soil volume) or is shallow to gypsum (or deeper with high gypsum content throughout profile)
6. Soil shallow to gypsum or moderately deep to deep with high gypsum content throughout profile. - Gyp Flats.
6. Parent material mainly sandstone - Shallow Sandstone.
6. Parent material mainly basalt - Malpais.
6. Stones are water worn gravels and exceed 35 percent of the soil volume in the SD-2 and WP-3 sub-resource areas - Gravelly.
6. Soil is shallow (usually less than 16 inches) to cinder material; slopes may be over 15 percent - Cinder.

6. Parent material or stones are mainly none of the above - Shallow.
5. Soil of site not stony or shallow to gypsum or other material.
  6. Site has strongly saline or alkaline soils and produces more than 50 percent alkali sacaton in climax condition - Salt Flats.
  6. Site has non-saline to slightly saline soils and produces less than 50 percent alkali sacaton in climax condition.
  7. Soil usually calcareous on the surface and throughout the profile. Cca horizon normally less than 20 inches deep.
    8. Site located in HP, CP-1, CP-2, WP-3, SD-1, or SD-3 resource areas (or sub-areas). Vegetation normally short and mid-grasses. Yucca is a common increaser - Sandy. (May also be non-calcareous - See below)
    8. Site is located in HIV, CP-3, WP-1, WP-2, ND, SD-2, or SD-3 resource areas (or sub-areas). Vegetation commonly includes abundant winterfat or creosote bush - Limy.
  7. Soil usually not calcareous near surface.
    8. Soils normally sandy loams in CP, HP, and SD-3, or loamy sands and fine sands in WP, HIV, ND, SD-1 and SD-2. Vegetation in Climax condition is mainly short and mid-grasses. Yucca is often an important increaser - Sandy.
    8. Soils normally loamy sands or sands to depths of more than 20 inches in CP, HP, and SD-3 or coarse sands in WP, HIV, ND, SD-1 and SD-2. Vegetation is mainly mid-grasses in climax condition with inclusions of short and tall grasses. Yucca is an important increaser; topography usually gently rolling - Deep Sands.
    8. Soils are coarse sands; soil series include Tivoli or eroded hummocks of other series. Topography usually hummocky or steeply rolling; small blow-outs are common. Vegetation is mainly tall grasses and shrubs in climax condition with some mid and short grasses - Sand Hills.

8. Soils are usually loams and light clay loams or with a thin sandy loam surface in WP, ND, HIV, SD-1, and SD-2 - Ldmy.

8. Soils are clay or clay loams. Vegetative cover becomes open in lower condition classes - Clayey.

2. Slope of site usually more than 10 to 15 percent.

3. Parent material is hard limestone on slopes normally over 25 percent. Limestone rubble and outcropping abundant - Limestone Hills.

3. Parent material is gypsum which outcrops throughout the steeper slopes of the site and the soil is very shallow over gypsum (less than 6 inches) - Gyp Hills.

3. Topography is rough and broken, typically deeply dissected. Slopes are normally rounded and breaking from one elevation to a lower elevation in a drainage - River Breaks.

3. Slopes are steep (normally 40-75 percent). The site usually forms the boundary between two sites of different elevations. Outcropping of sandstone, shale, basalt or other parent materials are abundant - Breaks.

3. The site has hilly topography that usually does not form a division between elevation levels. Slopes are rounded with little or no outcropping - Hills.

1/ RM-1 and RM-2 refers to the mountainous parts of the state.