

Evaluating Rangeland Condition and Deer Habitat in the Edwards Plateau

Steve Nelle – Natural Resources Conservation Service

The general condition of rangeland both for livestock grazing and deer habitat can be evaluated by observing the kinds and proportions of plants which are growing. The worksheet on the back contains a listing of most of the perennial grasses, forbs and woody plants that are found on rangeland. They are divided into three categories.

The best plants for grazing and browsing are in the top category. Their presence in significant amounts indicates high condition range and habitat. High condition range may still have lots of plants in the middle category as long as a number of high condition plants are present and thriving.

Because of heavy grazing and/or browsing, the most desirable plants in the top category are no longer present in any significant amount in some pastures. If plants in the middle category dominate and high condition plants are few and far between, then the range would be in medium condition relative to its potential.

If grazing or browsing has been very heavy over a long period, then even many of the plants in the middle category will have been eliminated or present only in small amounts. If land is dominated by plants in the bottom category, this would indicate a low condition of the range and habitat.

In reality, pastures seldom fall neatly into one category or the other. Pastures will usually have some plants in all three categories. To minimize the confusion this can cause, evaluate primarily on the dominant grasses, forbs and woody plants. Usually no more than 2 to 4 species of each type (grass, forb, woody) will be dominant.

When evaluating woody plants, observe not only what plants are present, but how much of the growth is within reach of goats or deer. A pasture may have a fair abundance of shrubs or trees in the top two categories, but if there is a browse line and little growth is available, this would indicate excessive use and declining condition.

Pastures usually contain numerous protected areas, such as brush piles, pricklypear and algerita. If plants in the top two categories are present primarily in such protected areas, but not out in the open, this should be noted. This usually indicates excessive use on the better plants. It also indicates that these species are still present and could spread with improved management.

Since different kinds of animals have different forage preferences, a pasture may show to have a high or medium grass condition, but a low browse condition. Or, a pasture may show a low grass and forb condition but a medium or high browse condition. These differences will indicate the need to adjust the kinds and numbers of various animals (cattle, sheep, goats, deer, exotics).

Generally, high condition range will have a higher carrying capacity for livestock and/or deer, while low condition will have a reduced carrying capacity. If a ranch or pasture is mostly in the low category for either grass, forb or woody, it is a warning that changes are needed in animal numbers. If range is dominated by indicators of low condition woody plants, there may be a need for some type of brush management.

Indicators of High, Medium and Low Condition Range and Deer Habitat – Edwards Plateau

Grasses	Forbs	Woody	
Big bluestem Indiangrass Canada/Virginia wildrye Switchgrass Texas cupgrass Plains lovegrass Arizona cottontop Vine-mesquite Green sprangletop Little bluestem	Showy menodora Texas nightshade Spiderwort Dayflower Heathaster Bushsunflower Engelmann daisy Hairy tubetongue Primroses Gauras Trailing ratany	Texas mulberry Texas sophora Kidneywood White honeysuckle Hackberry Elm Spanish oak Bumelia Greenbriar Redbud Grape Ephedra	HIGH
Sideoats grama Buffalograss Texas wintergrass Cedar sedge Silver bluestem Thin paspalum Sand dropseed Meadow/Tall dropseed Fall witchgrass Slim/Rough tridens Reverchon bristlegrass Curlymesquite	Velvet bundleflower Texas snoutbean Orange zexmenia Indianmallow Low menodora Chickthief menzelia Milkwort Sida Low wild mercury Ragweed Lazy daisy	Elbowbush Shin oaks Live oak Roughleaf dogwood Skunkbush sumac Littleleaf sumac Flameleaf sumac Evergreen sumac Hogplum	MEDIUM
Threeawn (needlegrass) Texas grama Red grama Hairy grama Hairy tridens Gummy lovegrass Tumble lovegrass Tumblegrass Tobosagrass	Verbenas Leatherweed croton Prairie coneflower Curlycup gumweed Mealycup sage Twinleaf senna Silverleaf nightshade Dogweed Goldaster Frostweed Queen's delight	Persimmon Pricklyash Lotebush Condalia Catclaw Mesquite Cedar (Juniper) Whitebrush Algerita Pricklypear Tasajillo	LOW

Note the following items when evaluating an area:

- Which plants are dominant (2 - 4 of each type)
- Plants that are present only in small amounts
- Plants growing only in protected areas
- Browse lines or hedging on woody plants
- Heavily grazed or stunted grasses or forbs
- Amount of bare ground