

NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE  
STANDARD

UPLAND WILDLIFE HABITAT MANAGEMENT

(Acre)

Code 645

Texas Supplement, Zone 2

PRONGHORN ANTELOPE

**Habitat Requirements**

Food

Pronghorn consume approximately 4% of their body weight per day in forage on a dry weight basis. The average live weight of pronghorn is about 90 pounds and they are considered to be about 0.14 Animal Units or about 7 pronghorn to make one AU. Pronghorn require a high quality diet, consisting primarily of forbs and browse. Grasses normally make up less than 5% of the yearlong diet but can be important in some seasons. Mast (the fruit of woody plants) is also consumed, especially in dry, nutritionally stressful periods. See Table 1 for a listing of important native pronghorn food plants for their native range in west Texas. Forbs normally make up 50% to 80% of the yearlong diet. Perennial forbs are more reliable and stable and are of greater overall value as compared to annual forbs. Browse and mast (including cactus) normally makes up 15% to 40% of the diet, although at times it can be over half. It is noted that pronghorn have the physiological ability to consume plants that are poisonous to livestock. Plants such as broom snakeweed, wooly paperflower, threadleaf goundsel, goathead and tarbush are eaten by pronghorn in significant amount with little or no ill effect.

Cover

Total brush cover within good pronghorn habitat is usually 5% to 20%. Fawning cover is a very important component of pronghorn habitat. Females choose areas of taller grass to give birth, and that cover is critical in hiding the vulnerable fawns from predators, especially coyotes and bobcats. Average vegetation height in fawn bedding sites in the Trans Pecos is 22 inches. Fawning cover of 15 to 18 inches may be adequate. The presence of scattered shrubs improves the quality of fawning cover, but, as brush gets thick, the quality of fawning cover is diminished. Pronghorn utilize woody vegetation, including mesquite, juniper, hackberry, and western soapberry, for shade during summer. During severe winter storms, pronghorn use rough topography and dense brush areas for protection. Pronghorn do not generally need brush for screening cover. Their method of detecting and avoiding predators is the ability to see long distances and run in unobstructed fashion.

Water

Pronghorn require significant amounts of water to maintain rumen function. They can meet some of their water requirement by the consumption of green vegetation or cactus which is high in moisture. In dry periods and hot weather, pronghorn drink free standing water from ponds, water holes or livestock watering troughs. During lactation, water for females is more critical than at other times of the year.

Habitat Arrangement and Barriers to Movement

Pronghorn instinctively move long distances in order to find the most suitable habitat at different times of the year. Pronghorn must be able to make these long distance movements when needed, in order to deal with drought and other forms of stress. Net-wire fences (which are still in place from the era of sheep

grazing) are the most common barrier to pronghorn movement. Pronghorn should be able to move from pasture to pasture and ranch to ranch without encountering net wire fence barriers. Five to seven strand barbed wire fences can also create a barrier for pronghorn. Fences should be built with 16 to 18 inches of crawl space below the bottom wire for pronghorn to move freely under fences. Highways, urban development, and ranchette development can also create barriers to movement.

### Habitat Size

In most southwestern areas, the range of most pronghorn populations is about 25 square miles, when not restricted by net wire fences. In the presence of restrictions such as net wire fences, pronghorn are not truly migratory as they are in northern areas. In the Trans Pecos, pronghorn should be able to move 5 to 10 miles during critical dry periods. The home range should provide water, fawning cover, an abundance of forbs and browse, shade and emergency shelter during severe storms. The home range of females during fawn rearing is considerably larger than for males. Females need access to higher nutrition during lactation. Females may also travel farther in order to minimize contact with predators.

### **Habitat Management Techniques**

#### Fence Modification

Access to adequate food supplies and needed cover is largely dependent on the ability of pronghorn to move freely for long distances. This is especially important in drought periods. The modification of fences to allow pronghorn passage is a critical part of good pronghorn management. Fences can be modified in the following ways to allow movement:

- Remove of old net wire and 7 strand-fences and replace with 4-strand fences.
- Remove 100 – 200 yard sections of old net wire fences every one half mile and at all corners, and replacement with 4-strand fences. Bottom wire should be 16 – 18 inches off the ground.
- Un-staple the bottom portion of net wire fences; fold the net up to allow a space of 16 – 18 inches and re-staple. This should be done for 100 – 200 yard sections every one half mile and in corners.
- Any other fence modification which achieves a similar result can be used.
- Fence modifications should be done in the more open areas, where pronghorn are more likely to pass, rather than in brushy areas.
- Cooperation among adjacent landowners for boundary fence modification is important.

#### Cover

Grazing management of livestock is the primary method available to maintain or improve pronghorn fawning cover. Conservative stocking rates (50% to 65% of carrying capacity) will help maintain or restore the taller grasses needed for fawn concealment. See Prescribed Grazing (528)

Where fawn cover is inadequate, total rest from grazing for 2 – 4 years is often desirable to provide the quickest improvement in grass cover.

Rotational grazing which provides relatively long rest periods for pastures can also help develop desirable grassland areas for fawning cover. Rest periods during the July – September growing season are the most beneficial.

The identification of key fawning areas and the fencing of these areas can allow managers to provide preferential grazing treatment of these areas.

Where brush density is too thick for good pronghorn habitat, brush management can be conducted to create the more open habitat preferred by pronghorn. Brush management should be designed to retain desirable browse species. See Brush Management (314)

Individual plant treatment methods of brush management can be used to maintain the desired density of

woody species and to prevent the brush density from becoming excessive.

Prescribed burning can be used to suppress woody plant growth and keep pronghorn habitat at the desired degree of openness. Pre- and post-burn grazing management is important for successful results. See Prescribed Burning (338)

Some areas of moderate to thicker brush should be left intact for protective cover in severe winter weather.

### Food

Grazing management is the most important aspect of managing for a diverse and abundant pronghorn food supply. Sheep, goats and exotics are highly competitive with pronghorn. Their numbers should be greatly reduced or eliminated if pronghorn are an important consideration.

Cattle grazing can be compatible with good pronghorn habitat if stocking rates are conservative and if rotational grazing or seasonal grazing is employed. De-stocking or reduced stocking during dry periods is essential. During dry periods, cattle become more competitive with pronghorn. See Prescribed Grazing (528).

The food habits of mule deer are very similar to pronghorn diets. Normally they inhabit different types of terrain. If mule deer numbers increase to the point that they are commonly observed in the open grasslands, then a reduction in mule deer numbers may be advisable.

Key pronghorn pastures can be given preferential grazing treatment if pronghorn habitat is a prime consideration. This may include lighter stocking rates, longer rest periods, or complete rest.

Low areas, such as depressions or pond areas which catch extra rainfall or support green vegetation can be fenced off and reserved for pronghorn food production if desired.

Where brush is too thick for livestock or pronghorn habitat, selective mechanical control can increase the abundance of desirable forbs and browse. See Brush Management (314)

If mechanical brush management is used in pronghorn habitat, those areas can be seeded with mixtures which contain desirable pronghorn food plants such as fourwing saltbush, bushsunflower, engelmann Daisy or other forbs. See Range Planting (550)

If chemical brush management is used, extra care should be used to conduct treatment in patterns. Herbicides used to control brush are also active on many desirable browse and forb species, and can cause damage to the pronghorn food supply.

Where there is excessive bare ground and inadequate rainfall penetration, ripping on the contour with implements which produce a furrow and a ridge can be used to trap extra rainfall. Seeding can be used in conjunction with this practice. See Grazingland Mechanical Treatment (548)

Prescribed burning can be used to top-kill desirable browse plants and encourage basal sprouting for increased browse accessibility. Burning might also help to maintain or restore a diverse forb population. See Prescribed Burning (338).

Food plots can be helpful for providing a more stable or yearlong food supply, but are only feasible with substantial irrigation. Wheat and alfalfa are the primary forage crops grown in the Trans Pecos.

### Water

Pronghorn will readily use water developments that were installed for livestock use. When livestock are moved out of a pasture, it is important to keep water available for pronghorn and other wildlife.

Where traditional water development such as wells, pipelines and troughs are not feasible, water for pronghorn can be provided with rainfall catchment and storage facilities known as guzzlers. (See Watering Facility)

Earthen depressions that store overflow from storage tanks and troughs are desirable for pronghorn and other wildlife. The fencing of these overflow pits may enhance their value to wildlife and the zone of green vegetation is beneficial for providing additional nutrition.

### **Predator Management**

Management of pronghorn predators, especially coyotes and bobcats, may be an important component of a pronghorn restoration plan. Even good habitat may not allow low pronghorn populations to increase if predation rates are high. Predation on newborn fawns can preclude population increase and can contribute to severe population declines. Targeted predator control from late winter through fawning (April, May) has proven to be an effective part of an overall pronghorn management program. The primary emphasis should be on having adequate fawning cover, fence modifications which allows escape from predators, and keeping the habitat in the desired open condition to allow pronghorn to detect and escape predators.

### **References**

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**Table 1.** Important Pronghorn Food Plants in the Trans Pecos

**Perennial Forbs**

Cutleaf daisy (Spiny happlopappus)  
Spurges  
Wooly paperflower  
Threadleaf groundsel  
Broom snakeweed  
Bladderpods  
Daleas  
Sida  
Globemallow  
Fleabane  
Asters  
Plains zinnia  
Bundleflower  
Rock daisy  
Tetraneris  
Texas snoutbean  
Snakeherb  
Mat chaff-flower  
Eryngo  
Grassland croton  
Gaura  
Wild buckwheat  
Lazy daisy  
Mexican sagewort  
Stickleaf mentzelia  
Horehound

**Annual Forbs**

Common broomweed  
Peavine  
Goathead  
Filaree  
Thistle  
Pepperweed  
Pigweed

**Browse**

Cholla  
Apache plume  
Hackberry  
Old man's beard  
Juniper  
Skeletonleaf goldeneye  
Butterflybush  
Yucca (flower stalks)  
Lechuguilla (flower stalks)  
Pricklypear  
Ephedra  
Little walnut  
Oak  
Algerita  
Littleleaf sumac  
Javelinabush  
Lotebush  
Tarbush  
Catclaw mimosa  
White ratany  
Fourwing saltbush  
Winterfat  
White ratany

Approval and Certification

Practice Specification Approved:

/s/ Russell O. Castro 04/16/2007  
State Biologist Date

/s/ Susan Baggett 04/16/2007  
State Resource Conservationist Date

These practices are needed in the \_\_\_\_\_ Field Office  
Technical Guide.

\_\_\_\_\_  
District Conservationist Date

/s/ Steve Nelle  
Zone 2 Wildlife Biologist

04/16/07  
Date