

U.S. DEPARTMENT OF AGRICULTURE
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Whitetail Deer Management Guide



The whitetail is native to Oklahoma. This is the same deer that occurs throughout the eastern United States. A few mule deer are present in the extreme western portion of the Oklahoma Panhandle.

Early in the twentieth century, deer had all but disappeared from many areas of the United States. This was due to relentless hunting, habitat destruction and no hunting regulations. As the country developed and the human population moved toward the western frontier, the deer population steadily declined. These animals were an easily attainable source of fresh meat for the early day pioneer.

Deer vary in size in different parts of the state. Size of the buck's antlers and number of points are also variable. These characteristics are directly related to fertility of soils, amount and quality of food available, competition of other animals and intensity of parasites. Very few spike bucks are found in the hunter's bag on good year-round deer range.

LIFE HISTORY:

Oklahoma deer breed in late fall and early winter months. The breeding season is referred to as "rut". It is believed that "rut" is brought on by length of day, cooler temperatures, and the general physical condition of the animals.

Deer are polygamous. Bucks usually serve more than one doe if available. There is considerable competition between bucks for available does. The strongest, most vigorous bucks are usually the victors. Considerable fighting usually occurs during this season

between competing bucks. Occasionally, fighting bucks get their antlers entangled and die of starvation. A young doe usually will bear one fawn. Thereafter, if food is adequate, she may give birth to two or perhaps three fawns. The gestation period is usually between 195 and 200 days.

The age of a deer up to 1½ years old can be determined by tooth development. After this, age is estimated by noting tooth wear.

During severe winter food shortages and possible inclement weather conditions, it is possible for does to abort or absorb one or more fetuses they may be carrying.

Deer have been known to live 20 years or more, but the bulk of the population in a well managed herd is usually in the 2½ to 7½ year class.

DISEASES AND PARASITES:

Deer are subject to several diseases and parasites. Many parasites are internal and others are external (ecotoparasites). Probably the most debilitating parasite is the tick. It affects young fawns most severely. Heavy infestations of ticks provide ideal conditions for infestation of screwworms. It is believed that recent efforts to control the screwworm fly have helped the deer herd.

Well nourished deer on good year-round range are not susceptible to severe mortality from disease or heavy infestations of parasites.

PREDATORS, POACHERS, CARS, AND FENCES:

In earlier times, probably the most efficient predators of deer were the cougar and the wolf. These animals have been absent for many years. Remaining predators able to prey upon deer are the bobcat and coyote. These smaller predators usually attack fawns or very weak or sick animals. The loose-running cur dog or high breed hunting hound probably causes serious mortality in deer by relentless trailing during periods of short food supplies or during times that does are heavy with fawn.

The unscrupulous poacher adversely affects the deer herd. He uses any convenient means such as night lighting and baiting to kill the younger animals that will yield high quality meat for consumption or sale.

Many deer are killed by vehicles on roads and highways. Deer of all ages are affected by this hazard. Some devices have been tried to reduce this problem, but none have proven to be entirely satisfactory.

Deer are attracted to better forage occurring along highway rights-of-way. In some cases the road just happens to cross the territory that the deer choose to occupy.

Barbed wire fences, particularly those of recent construction, trap many deer. Their hind legs usually become entangled between the two top wires and the deer dies from starvation or predation. A wider spacing between the two top wires helps to alleviate this hazard.

HABITAT:

Habitat requirements for deer in many ways are quite similar to those of other forms of wildlife. A good year-round food supply with a wide variety of desirable plants, well interspersed, with escape cover and water is essential.

Deer are browsers. A good portion of their food is composed of leaves, buds, twigs, and fruits of woody vegetation. Succulent grasses, legumes, and forbs are taken in quantity when available and when other foods are not. While deer may take well over a hundred species of plants, usually 15 to 20 species make up the bulk of the annual diet. Cultivated crops such as corn, soybeans, alfalfa, watermelons, sweet potatoes, peanuts, orchard trees, and vegetable crops may become a significant part of their diet. In situations where these crops are extensively grown, deer may become a serious pest.

Due to factors not completely understood, deer do not always utilize the same food to the same degree over the entire state. This may be due to soil fertility, rainfall or the combination of plants that occur naturally. Deer are naturally able to balance their diets if a wide variety of plants is readily available.

The following are some plants that are important to deer in Oklahoma:

Oaks	Greenbriers	Persimmon
Pussytoes	Annual bromes	Honeysuckle
Black gum	Poisonivy	Elderberry
Panicums	Sumac	Elms
Hackberry	Mulberry	Huckleberry
Native legumes	Dogwoods	Skunkbush
		Sedges

Cultivated or introduced plants:

Wheat	Oats	Corn
Soybeans	Alfalfa	Ryegrass
Fescue	Clovers	Sericea lespedeza
Watermelons		

LAND MANAGEMENT:

It is usually not feasible nor practical to attempt to manage deer on tracts of less than 5,000 acres. It is possible for several landowners to combine their holdings into a management unit of sufficient size for efficient herd management. Deer may be attracted to small areas for observation or hunting by careful management of the habitat to provide choice food. In predominantly cropland areas where certain crops would invite depredation by deer, increasing the deer herd would only increase the problem. Deer management would be more practical on large areas of woodlands and/or rangelands.

Some practices that could be applied either singly or in combination to improve deer habitat are listed below:

1. Make clearings in heavily wooded areas.
2. Release food-producing trees, such oaks, to increase acorn production.
3. Cut trees to induce sprouting.
4. Overseed or otherwise establish cool-season legumes, grasses, and small grains for late winter and early spring use. (Example: oats, wheat, Austrian winter peas, intermediate wheatgrass, fescue, ryegrass, clovers, and alfalfa.) Two- to 5-acre plots are best.
5. On more open lands, protect existing escape and loafing cover or make 1- to 2-acre plantings of adapted woody vegetation to satisfy this need.
6. Plant agricultural crops such as corn, sorghum grains, soybeans, and leave unharvested for winter use of deer.
7. When deer and cattle occupy the same range, limit both cattle and deer numbers so that the two do not become too competitive for existing forage.

POPULATION DYNAMICS:

Deer have a spectacular ability to overpopulate the range in a few years. The "buck only" hunting regulation is an acceptable management technique while the herd is building up to carrying capacity of the range.

Close observance of the range can detect when forage supply begins to deteriorate and deer have reached the limit that the range can safely carry. To avoid die-offs, low reproduction, stunted deer, and parasite

outbreaks, the regulations must be structured to permit harvesting both sexes. Studies in several states have shown that this is the only sure way to utilize the surplus resource, avoid die-offs, and prevent further deterioration of the forage supply.

Continuous cropping of the biggest bucks leaves the younger, less robust bucks to perpetuate the herd. Cropping of does cause the remaining ones--because of better nourishment--to consistently bear two or three fawns rather than none or one. With a sound cropping system for both sexes the food supply is maintained, deer are larger and are not susceptible to outbreaks of diseases and parasites.

It is possible for developing deer herd populations to increase 50 percent each year. The normal increases are from 10 to 40 percent. Sound management must be planned and executed even before the herd reaches carrying capacity. Adequate harvest of the surplus must be harvested each year or they will be lost to natural causes. Deer cannot be stockpiled.