



TEXAS A&M FOREST SERVICE

Forest Resources: White-Tailed Deer Management

White-tailed deer are native to all parts of Texas. Land management can have an effect on their health. A deer's coloration varies seasonally, tan or reddish browns in summer and gray-brown in the winter. The throat, belly, inside of ears and underside of the tail are white. A white band is also visible around the eyes and nose. The male's (buck's) antlers shed each year, generally between February and March, and new antler growth starts immediately. Females (does) generally do not have antlers. The average weight of an adult buck is 130 - 190 pounds. Adult does weigh about 2/3 as much.

Reproduction:

White-tailed deer are polygamous breeders; a dominant buck may breed with several does in one breeding season. The breeding season occurs during the winter months. Gestation is 190-210 days, with the fawning period from May- September.

Habitat and Diet:

Habitat requirements include cover, food, water, and space. Deer prefer a mixed habitat of woodland, brush land and open areas. Depending on habitat, density and other factors, the home range of adult does averages 300-600 acres; adult bucks is 2-4 times larger.

Diet varies seasonally. During spring and summer, the diet may consist of grasses, legumes, weeds, fruits, certain agricultural crops and tender growth from trees, shrubs, and vines. In the fall and winter, their diet shifts to acorns, grasses, and evergreen stems and leaves (greenbriar, honeysuckle, etc.). Deer seem to be able to sense more nutritious foods and will readily consume those foods before foraging on less nutritious foods. Soil fertility plays a big part in the nutritional level of the diet.

Diseases:

Many viral, bacterial, protozoan diseases along with internal and external parasites affect white-tailed deer. Epizootic hemorrhagic disease (EHD or "blue tongue"), warts, anthrax, nasal bots, and parasitic protozoans, worms, and arthropods (ticks, deer keds, and lice) are all diseases and parasites that affect deer populations. Chronic wasting disease (CWD) has recently become the big scare among deer diseases. The first cases of CWD in Texas were confirmed in 2012 in two mule deer near the border with New Mexico.

Management:

Harvesting trees opens the canopy so herbaceous plants are stimulated to grow. Pine stands thinned to a basal area of 50-70 square feet per acre are excellent for deer. In mixed pine-hardwood stands 20 square feet of the basal area should be mature mast producing trees, including an even mix of red oak and white oak species. Retain soft mast producing trees (dogwood, persimmon, etc.) when possible. Limit completely harvested areas to 5-10 acres; distribute them throughout the area.

Prescribed fire stimulates a herbaceous plant community that is nutritious and palatable for deer. Prescribed burns can be implemented on a 3-5 year rotation in thinned pine stands and to some extent in mixed pine-hardwood stands to improve habitat quality. Prescribed burning is not recommended in hardwood stands because of the risk of tree damage caused by fire. Only trained professionals knowledgeable and experienced in fire should conduct prescribed burning.

Deer harvest should maintain populations below the habitat carrying capacity. Without sufficient harvest of the deer herd, the population can exceed its carrying capacity and

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cause considerable damage to the habitat and to the herd itself. Approximately 1/3 of the population should be harvested each year to maintain a healthy herd. Contact Texas Parks and Wildlife Department for local regulations.

Installing Food Plots:

Food plots are an important part of a habitat management program for white-tailed deer. Successful vegetation for white-tailed deer requires careful site selection, soil analysis, liming and fertilization, forage selection, planting and evaluation. Choose a site with adequate soil fertility, moisture, sunlight, accessibility, size and drainage. Using logging decks, fallow fields and utility rights-of-way lowers initial cost. The general recommendation is to plant up to 5 % of the area in one acre or larger year-round food plots.

Systemic uptake of fertilizer diminishes if soil pH is low; therefore, the goal of the deer manager is a soil pH of 7.0. A value of 7.0 will net maximum productivity. Because lime is slow to activate, apply it at least three months before planting for greatest benefit. At planting time, apply the specific amount of nitrogen (N), phosphorus (P), and potassium (K) according to the soil analysis. Apply

200 pounds per acre of 13-13-13 fertilizer in early spring (March) and again in the fall (September). Apply ammonium nitrate (34-0-0) at a rate of 100 pounds per acre at 60-day intervals beginning in April and ending in August. Apply lime according to a soil analysis.

A mixture of compatible forages provides diversity and can extend the time food plots are useful. Suitable warm season forages include cowpeas, soybeans, alfalfa, clover, American jointvetch and corn. Cool season forages include oats, wheat, rye, and crimson, arrowleaf and ladino clovers.

Evaluate the food plots by placing an enclosure in each plot to determine the amount of production and utilization by deer. Enclosures are easily constructed using 2x4 welded wire. They should be 3 feet in diameter, 3 – 4 feet high and held in place with a metal fence post to withstand adverse weather conditions and contact from deer. Use one enclosure for every acre of food plot.

Maintain preferred vegetation and prevent invasion by trees with periodic disturbance. Generally, a three-year disturbance regime is adequate for maintaining suitable openings.

