Managing for White-Tailed Deer

DESCRIPTION: Coloration of deer 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. Males (bucks) 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 160 - 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: Habitat requirements include cover, food, water, and space. It prefers a mixed habitat of woodland, brushland 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: 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, blueberry, 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 viruses, bacteria, protozoan, or internal/external parasitic diseases and 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. There have been no cases of CWD in Alabama or any southeastern state.

MANAGEMENT: White-tailed deer populations benefit from comprehensive 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, blueberries, etc.) when possible. Limit clearcuts 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 damage caused by fire to the trees. Only trained professionals knowledgeable and experienced in fire should conduct prescribed burning.

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- Deer harvest maintains populations below the habitat carrying capacity. Without sufficient harvest of the deer herd, the population can exceed its carrying capacity and 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 the Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries for guidance.
- 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 up to 5 % of the area in one acre or larger year-round food plots.

Have soil tested several months before planting. The Alabama Cooperative Extension System provides landowners with free soil sampling kits and instructions, and will analyze samples for a minimal cost. The soil analysis will include site-specific recommendations on lime and fertilizer application rates.

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, alyce 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 exclosure in each plot to determine the amount of production and utilization by deer. Exclosures 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 whether conditions and contact from deer. Use one exclosure 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.

Photo Credit: USDA Natural Resource Conservation Service



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