



## Deer Management

Updated 9/22/95

### Some Deer Facts

White-tailed deer are present in all parts of North Carolina. Their numbers vary from just a few in some locations to overpopulation in others. Greatest numbers generally occur in the coastal plain, although there are locally heavy populations in other parts of the state. The mountains generally have the lightest populations.

Deer are primarily woodland creatures, although they use farm lands or other open areas that are close to cover. Sometimes, deer can even be found in suburban settings. Deer are vegetarians, feeding primarily on buds, leaves, branches, and fruits of trees and shrubs. They also eat grasses, some field crops, and vegetables.

As popular game animals, deer provide much recreation. In North Carolina, more than 275,000 people hunt deer and harvest more than 100,000 white-tails each year. The popularity of deer hunting has grown rapidly, along with the deer herd. If present trends continue, the deer population will expand further in many parts of the state, and the interest in deer hunting will also grow. This increased interest in deer hunting on private woodlands can either mean problems or extra income, depending on how the landowner deals with it.

Deer cause problems if allowed to become too numerous. When the population exceeds the ability of the range to support it, damage to timber or farm and vegetable crops occurs, along with a deterioration in the deer's size and condition.

### Deer Management and the Woodland Owner

The woodland owner plays an important role in deer management. Effective deer management is a combination of actions by government agencies, landowners, and hunters. The first and most fundamental tool in deer management is to control the harvest (deer killed legally). Overall control of the deer harvest is accomplished by the North Carolina Wildlife Resources Commission (NCWRC) regulations which set the open hunting seasons and bag limits each year for the state. The length of the seasons and the bag limits are set for different parts of the state based on deer populations and hunting pressure. They are designed to give hunters a chance to harvest the proper number of deer from the standpoint of herd management to satisfy the demand for recreational hunting. These regulations and their enforcement are the state's share of the management process.

The woodland owner's share of the process is to provide habitat for the animals and the opportunity for hunters to harvest deer by granting permission to hunt. The hunter's share of deer management is to take the desired number of deer within the framework of the regulations, in a safe and sportsmanlike manner, and with proper regard for the landowner and the property.

Deer are a natural part of the forest, a community that supplies them with food and cover. Deer populations within the carrying capacity of the range cause no serious damage. Overpopulation of deer, however, can eliminate understory vegetation, including reproduction of desired timber species. If overpopulation continues for several years, deer will eventually eat almost all the vegetation within their reach, and the woods will have a "browse line" or park-like appearance. This is accompanied or followed by disease and starvation in the deer herd until the herd size matches the reduced carrying capacity. When such deer die-offs occur, then the deer, forest, woodland owner, and deer hunter lose.

The alternative is to maintain a healthy herd in harmony with its environment by harvesting a sufficient number of deer of both sexes each year. In addition, habitat management can be practiced, increasing the population level and providing more quality hunting.

Deer not only affect the woodland owner's timber crop but may also provide an income. Hunters are willing to pay for quality deer hunting. Sale of hunting permits or leases to clubs or individuals can earn income for the owner on an annual basis, with the fee depending on the demand and the quality of hunting offered. Fees range from a few cents to as much as \$8 per acre per year.

### **Deer Habitat Management**

It is difficult to give a short, concise definition of good deer habitat because deer adapt well and use a variety of habitats. They require low-growing vegetation on which to feed, some dense escape cover, and water. The best deer habitat is a mixture of brush, woods, and crops which offer variety like the edges between different types of cover. Twigs, leaves, grasses, weeds, and other soft-stemmed plants are eaten along with acorns, nuts, fruits, and mushrooms, when available.

Deer habitat is affected by timber management practices. Cutting, thinning, controlled burning, and forest regeneration activities change the amount and quality of deer forage - usually (but not always) for the better. Any activity that opens the forest canopy and allows more sunlight to penetrate will stimulate growth of low-growing plants, thereby increasing the amount of browse available. Timber management practices that improve deer habitat the most are harvesting (cutting), thinning, and controlled burning. If the harvest method is clearcutting, it should be done in small, scattered, irregular-shaped blocks of no more than 40 acres (10 to 25 acres is preferable). Controlled burning, used primarily in pine management, stimulates growth of legumes and other plants that offer additional food for deer. Practices that may be detrimental are clearcutting large blocks (more than 40 acres), converting large acreages to even-aged pine stands, removing cover along streams, and cutting all hardwoods. Stream bottom and drains should be protected by uncut buffer zones up to 50 yards wide. Avoid taking all hardwoods since deer depend on acorns for a large amount of their winter food. Leave some mature mast-producing hardwoods.

Supplemental practices that improve the deer's range somewhat are planting open areas and roads to grasses or clovers or planting larger openings to crops such as rye. While these practices enhance deer habitat, they usually do not greatly influence the range's ability to maintain more deer. Timber management practices have a much greater effect. Therefore, it is important to keep deer habitat in mind when making timber management plans.

### **Hunting Management**

The proper control of hunting may be the landowner's most important activity in deer management. Without natural enemies such as wolves and cougars, deer will multiply and exceed the carrying capacity of their range unless humans control their numbers.

Legal hunting is the proper way to do this. However, even though the NCWRC establishes adequate season

and bag limits each year, unless the landowner permits hunting, the desired annual harvest does not occur.

The landowner can manage the harvest in several ways. Family and friends may provide sufficient harvest, or hunting rights on the property may be leased to an individual or group for the season. Another option is to permit individuals to hunt on a daily fee basis. The best alternative in many cases is to participate in the NCWRC's Registered Lands program, a choice whereby the owner allows hunting by permit only but also has the added protection of regulations enforced by the commission's officers. On Registered Lands areas, these regulations prohibit hunting without a permit, littering, damaging property, and violating posted safety zones. The landowner in this program does not have to handle enforcing the rules - the state does it. Under the other options, the owner must enforce the restrictions although lessees sometimes are willing to assume trespass enforcement responsibilities.

Under any of the options, the landowner may place additional restrictions over and above the state regulations. For instance, management for trophy deer may be practiced (which generally will net a higher permit or lease fee). Trophy management consists of the taking of approximately equal number of does and bucks, with the buck kill restricted to only spikes or those having not less than six points or a 14- to 16-inch spread. Trophy regulations protect the young bucks from over-harvesting and allow more of them to reach trophy size. This can be accomplished by participating in the NCWRC's Deer Management Assistance Program.

### **Where to Get Advice**

Good deer management is practical for most private landowners and is not expensive. Detailed, technical advice is free and should be used when needed. NCWRC biologists will assist with on-the-ground advice or with management plans. County Extension agents, soil conservationists, state forestry personnel, and some consulting foresters can provide general advice.

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