

# WILDLIFE

## management guide



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## White-tailed Deer

### HABITAT REQUIREMENTS

#### ▲ Food

In fall and winter, the high priority deer foods are hard and soft mast (primarily acorns, grapes, and pokeberries), evergreen browse (primarily honeysuckle, greenbrier and rhododendron), herbaceous vegetation and fungi. In some localities agricultural crops such as corn, soybeans, and small grains are important.

Deer prefer fertilized, burned or induced sprout growth due to improved nutrition and palatability. The daily requirement of green food is 6 to 8 pounds per 100 pounds of body mass.

In the southeast, summer is a most stressful period, particularly if it turns dry. Summer nutrition is important to antler development and very important for lactating females. An increase in body fat stored by a deer results in an increased probability of surviving adverse winter conditions and having higher reproductive rates. Nutrition as well as age and genetics govern antler development. Antler rubbing begins in September and is completed by mid-October. Breeding activity peaks from late October through December and antlers are shed from late December to mid-April.

White-tailed deer occupy both forest and non-forest habitat types and usually thrive following disturbances such as fire, timber harvest, storms or other events which produce early successional stage vegetation.



#### ▲ Important Browse Plants by Region

##### Mountains

strawberry bush  
 dogwood  
 buffalo nut  
 rhododendron  
 Japanese honeysuckle  
 greenbrier  
 blackberry  
 sumac  
 blackgum  
 hydrangea  
 aralia  
 mountain laurel  
 grape  
 azalea  
 sourwood  
 blueberry  
 yellow poplar  
 red maple

##### Piedmont

Japanese honeysuckle  
 greenbrier  
 yellow poplar  
 blackberry  
 azalea  
 strawberry bush  
 blueberry  
 sourwood  
 blackgum  
 dogwood  
 red maple  
 yellow jessamine  
 persimmon  
 hawthorn  
 grape  
 cherry

##### Coastal Plain

black titi  
 tall gallberry  
 greenbrier  
 Japanese honeysuckle  
 blackberry  
 yellow jessamine  
 myrtle holly  
 wild rose  
 sumac  
 yaupon  
 sassafras  
 viburnum  
 hawthorn  
 dogwood  
 American beauty berry  
 Alabama supplejack

## ▲ *Cover*

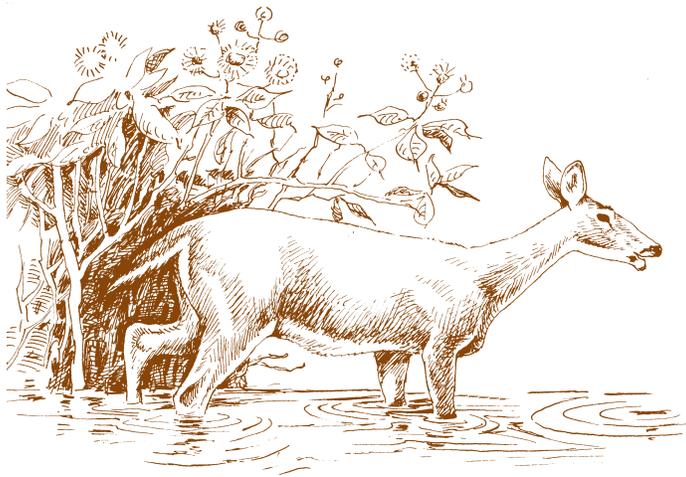
During the summer, deer seek areas where sufficient food, water, cool shade and seclusion are available. Oak stands are probably the best cover, as long as other habitats are available.

In the winter, evergreen thickets, dense young timber stands, cutover slash, broomsedge fields, or thick hardwood swamps are considered good cover.

The edges of grass or hay fields and/or brushy, over-grown fields, are frequently used by does to cover fawns. It is best not to mow these fields until August to avoid killing fawns.

## ▲ *Water*

Water needs are partially supplied by succulent green plants, but deer occasionally require free water and lactating females need free water daily. A lack of free water may discourage deer from using specific areas of an otherwise suitable range however, water is not normally a limiting factor for deer in South Carolina.



## ▲ *Home Range/Population Concerns*

The home range of a deer is seldom more than 300 to 400 acres in the Coastal Plain, Piedmont or Southern Appalachian mountains, although bucks may range wider during the fall.

On good range, deer populations can usually increase at an annual rate of 40 percent. They may become overpopulated quickly with regard to available food if not subjected to either-sex hunting. Overpopulation increases the possibility of disease and parasite outbreaks that reduce herd size, diminishes capacity of the range to support deer, and increases crop and seedling damage. Deer physical condition, reproduction, recruitment and survival all suffer when overpopulation occurs.

## STANDARD MANAGEMENT PRACTICES

Establish stands of 10 to 80 acres in pine types and 10 to 40 acres in hardwoods. In areas of high deer populations, stands must be at least 25 to 30 acres so that deer do not hedge or delay the establishment of hardwood reproduction.

In pine types, develop or retain about 20 percent of a square mile in mast-producing hardwoods. Generally, exclude these areas from prescribed burning.

Use sawtimber rotations with intensive management for both pine and hardwood type groups. Shorter rotations provide abundant browse, herbage and fruit at more frequent intervals, **but** hard mast from trees is practically eliminated.

Clearcut areas should not exceed 40 acres in size (*10 to 25 acres preferred*) and should be irregularly shaped.

## ▲ *Regeneration*

Although even-aged cuts are preferred, seed tree, shelterwood or clearcut harvesting are all appropriate for deer management. Regenerate stands in elongated or irregular shapes to maximize edge and provide more food at less distance from cover.

On good sites, forage yields (*approximately 2,000-3,000 pounds per acre*) will peak at 2 to 3 years after regeneration and then decline for the next 5 or 6 years. On poor sites, forage production peaks in three to five years and holds up fairly well for 10 years or more. Then, forage yields decline to less than 100 pounds per acre unless thinning and prescribed burning treatments are applied.

## ▲ *Intermediate Treatments*

Precommercially thin hardwood stands to regulate species composition and to prolong the benefits of regeneration. Thinning practices for deer management:

1. Thin early at densities less than, or nearly, optimal for maximum timber production.  
Thin frequently (*8 to 10 years*) to control stocking, renew understory forage production, reduce midstories and hasten the development of full crowns in the overstory after desired height growth is attained.
2. Maintain a variety of tree species suited to the site and burning or non-burning regime.
3. Favor red oaks to white oaks 2:1 when available in hardwood stands or key areas in pine stands.

## ▲ *Prescribed Burning*

In pine stands, prescribed burning benefits deer by improving the palatability and nutrition of understory plants, reducing large understory stems to new sprouts, reducing rough that suppresses forbs and grasses, keeping browse foliage within reach of deer, and encouraging some types of understory fruit and mast production.

### **Prescribed burning practices for deer management:**

1. In young longleaf stands, make first burns prior to height growth when root crowns are one-half to three-fourths of an inch in diameter-repeat burns after trees are over 6 feet in height.
2. In other pine stands, make first burns when trees are at least 10 feet tall.  
Burn on a 3 to 5 year cycle for maximum benefit of both forage and fruit production.
3. Burn from December through February.
4. Do not burn transition zones on the fringe of hardwood stringers or bottomlands.

## **DIRECT IMPROVEMENTS TO HABITAT**

Deer readily use clover and winter grain pastures, chufas, soybeans and other crops. Leave small areas of cropland adjacent to woodlands unharvested and eliminate fall tillage of grain crop residue where possible. Improved pastures are a good source of protein which is generally short on most southern deer ranges. Plant grasses and legumes in open fields adjacent to woodlands. Peak use periods for pasture plantings occur in late winter/early spring and intensity of use increases when acorns are scarce.

Planted wildlife openings may compensate for yearly and seasonal fluctuations in food supply. Sow openings, unused logging roads, skid trails, and landings with clover, legumes, and winter pasture grasses. In the absence of these, consider use of planted openings at a rate of 10 percent of total forested acreage.



# OTHER SPECIES THAT BENEFIT FROM WHITE-TAILED DEER MANAGEMENT

Numerous other game and nongame species with habitat requirements similar to deer benefit from deer management. Rather than focusing solely on deer, management plans should emphasize the communities of which deer are a part.

The following species are common deer associates in the variety of habitats that can be managed for deer:

<u>Open Fields</u>	<u>Early Regeneration</u>	<u>Old Growth</u>
yellow-rumped warblers	rabbit	wood thrush
gold finch	ruffed grouse	hooded warbler
indigo bunting	gray fox	red-eyed vireos
meadowlark	yellow-breasted chat	gray squirrel
bobwhite quail	chestnut-sided warbler	raccoons
red fox	white-throated sparrow	wild turkey
	song sparrow	towhee

## *Direct Improvements to Habitat (continued)*

Escape cover should be distributed throughout the property and should be connected by brushy travel corridors. Brush chop, mow and/or disc small areas in open fields to maintain early successional vegetation, but allow brushy cover at forested edges to remain (*do not chop or mow during fawning season*).

Plant species suitable as food or cover in key areas (*such as honeysuckle, grape, hawthorn, chinquapin, apple trees, crab apples, dogwood, viburnum, plum, rhododendron, and mountain laurel*).

