

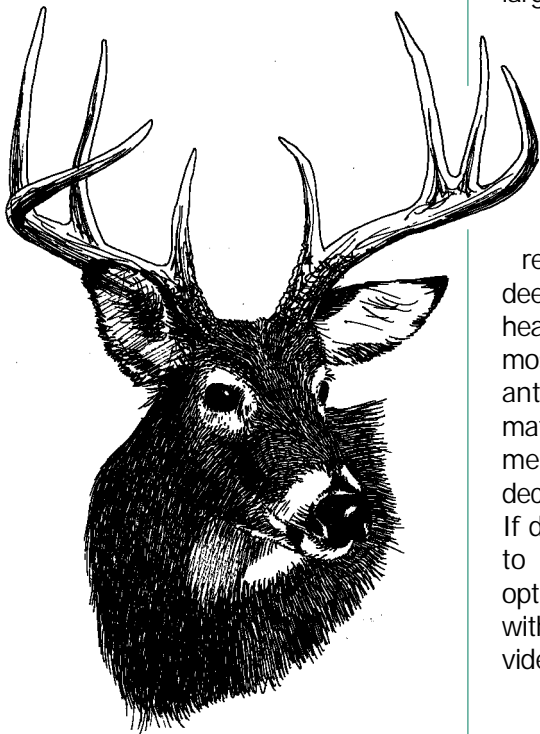


WHITE-TAILED DEER

White-tailed deer live in every county in Michigan and use many different habitats across the state. Their ability to use a variety of habitats was one of the factors that allowed the deer herd to grow from a half million animals in 1972 to nearly two million in 1989. To outdoor enthusiasts who watch or hunt deer, this is exciting. However, to others, deer are considered to be a management problem. For instance, many areas of the state are overpopulated with white-tailed deer and for some farmers, fruit growers, and rural landowners, high numbers of white-tails pose an economic problem. They may also have a tremendous negative impact on our plant communities. Therefore, as deer populations increase, there is an

inevitable result of habitat deterioration, lowered deer production and health, and frequent deer die-off. Too many deer also make for unsafe driving conditions. Thus, consider these negative impacts before deciding to manage for deer. Remember that your decisions will affect not only yourself, but also your neighbors.

To effectively manage the entire population of white-tailed deer in your area, you would need 600 to 3000 acres. However, if you would like to attract deer to your area you can do this with a minimum of 10 to 20 acres. The number of deer in an area depends on the kind and quality of habitat available, and the rate of deer loss. Currently, there is an annual surplus of deer because there is a large amount of quality habitat.



Since adult deer have few natural predators, harvesting deer through hunting helps to keep the herd in balance. A deer herd can increase rapidly, therefore, it is necessary to remove at least one-quarter of the deer herd each year to maintain a healthy and stable population. In most cases, half of these deer are antlerless. In addition, managing mature forests and discouraging fragmentation will help control or decrease deer numbers in your area. If deer are a problem, you may want to consider these management options. You may also wish to consult with a wildlife biologist who can provide guidance with this problem.

Deer Habitat

Deer thrive best in areas with young forests and brush where they feed on buds, branches, fresh grass, and green leaves that are close to the ground. In an older forest, these resources are not within their reach. If a forest stand is too old to support deer, quality habitat can be created by logging and developing forest openings. If existing habitat is fields, croplands, marshes, or other young cover types, deer habitat improvement may involve the planting of grasses, trees, shrubs, or annual food plots.

It is important to note that habitat needs for whitetails vary by season and area of the state. Deer, in different parts of Michigan, use different types of cover. In northern Michigan, deer may use a conifer swamp during cold winter days and venture out to feed on brush and young trees during milder days. Farmland deer may bed in woodlots, protect their fawns in cattail marshes, and feed in corn fields. Suburban deer may bed in cemeteries, graze on golf courses, and seek cover on a brushy hillside behind a shopping center.

Spring and Summer

When spring arrives, deer are looking for green growth to help them recover from limited and low-quality winter food. Deer feed throughout the early morning and spend the rest of the day bedded down along the edge of a field or in heavy cover such as cattail swales. They feed again from dusk until midnight spending



the remainder of the night resting in seclusion.

During spring and summer, it is important to have fields that green up early. They favor early growing grasses and legumes such as Canada wild-rye, June grass, orchard grass, blue grass, timothy, and clovers like medium-red, alsike, and ladino.

Because of the lower nutrient value of winter foods, it is important for does to increase their nutrient intake in spring to prepare for fawning. Improved nutrition promotes healthier fawns and better antler growth. Mineral blocks placed near field edges can be beneficial only if quality spring food is available.

During late May and early June,

does enter the period when birthing and raising this year's fawns are their primary focus. Michigan deer are very productive animals. More than 90 percent of the adult does become pregnant, and most carry twins. The herd size may increase at an average annual rate of 20 to 30 percent. In some areas, the population may double in three years.

During summer, food is much more abundant than at other times of the year. Summer foods include leaves of select trees and shrubs such as aspen, red maple, white ash, blackberries, dogwoods and sassafras. Important grasses for food include orchard grass, timothy, blue grass, redtop, wheat, and oats. Deer also eat agricultural crops of corn, soybeans, buckwheat, clovers, and alfalfa. Common ragweed, lamb's quarter, jewelweed, orchids, garden vegetables, and ornamentals are also heavily grazed.

Autumn

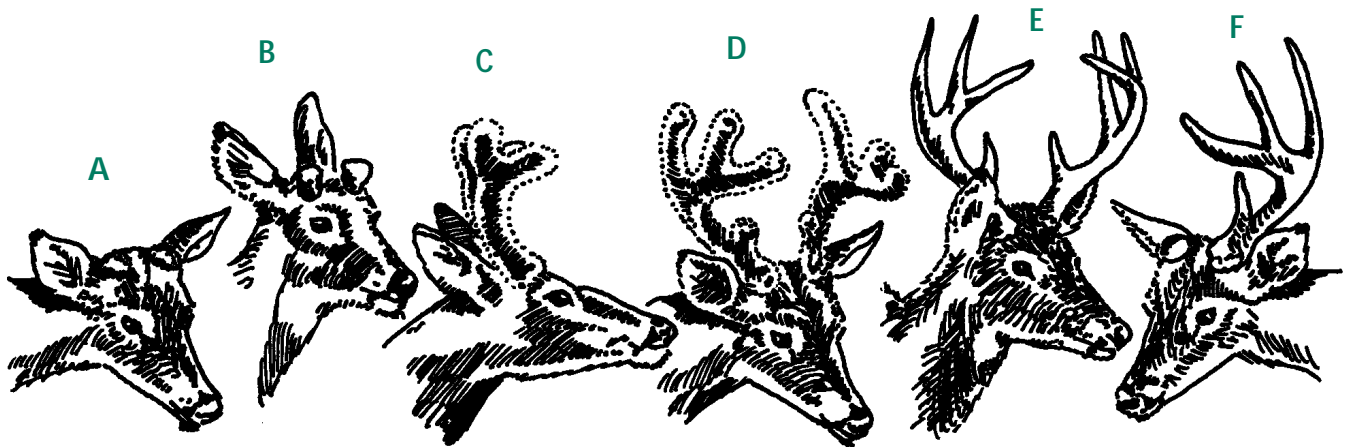
The major activity for deer in autumn is breeding. During this time deer move considerable distances as part of their breeding behavior and in response to changes in food supplies. Autumn nutrition is important to deer

since their physical condition as they approach winter has a strong bearing on their survival. During this period, deer must build fat reserves to help them survive. Fall foods must be abundant and high in nutritional value. Important foods include acorns, beech nuts, crabapples, maple and dogwood leaves, willow, and brambles. Preferred agricultural crops include corn, soybeans, apples, and fall-planted grains such as wheat.

Vegetative cover used during autumn is similar to that used during summer months. Open areas are used during the night, while in daytime brushy areas are preferred. Standing corn is not only a high quality food source, it is also often used during the fall as escape cover, as well as travel and resting sites. Quality fall cover includes cattail swales, standing corn, switchgrass fields, and plantations of young pines 10 to 20 years old.

Winter

Winter is the most critical season of the year. Deer mortality can be excessive if food and thermal cover are inadequate. Winter losses in local areas can range from as low as five percent in quality food areas to 50



(A) January 30 — Recently shed, pedicles healing.
(B) March 15 — New antler growth beginning.

(C) May 1 — Antlers begin to branch
(D) June 30 — All tines are formed, growth will continue until velvet is shed.

(E) September 15 — Antlers fully developed.
(F) January 15 — Antler shedding occurs.

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percent where food resources are severely restricted. Winter mortality depends on winter severity, and quality and quantity of available food.

During winter, protection from the cold and wind is important. Cover can be provided by hardwood and conifer swamps, brushy areas, and dense switchgrass or pines. Swamp conifers and hemlock are important because they help slow the wind and serve as thermal cover. Three to 10 acre dense plantations of spruce or Jack pine, 10 to 25 feet tall, also provide beneficial winter cover.

Important winter food sources include white pine, white cedar, red maple, yellow birch, dogwood, viburnum, sumac, and aspen. Since the major food during this season is woody browse, branches, buds, and leaves must be within reach to provide benefits. These foods are abundant in wooded areas that have had recent logging activity.

Deer movements during the winter months decrease and they may spend most of their time near winter cover. It is important that they find food within one-quarter mile of this cover. In areas of adequate soil quality and growing season length, agricultural crops planted near winter



cover are of considerable value.

Management Activities

The following are options to consider when managing for deer:

- Aspen management:* Clearcut one to ten acre areas on a rotating basis so that the overall stand has a chance to regenerate every 40 years. These cuttings should be at least 100 feet wide, irregularly shaped to provide maximum edge, and well distributed to prevent an over-concentration of deer. The goal is to conduct one or two cuttings within every 40 acres of forest, every ten years. For maximum regeneration, cut the trees in winter. To provide escape cover, leave clumps of aspen or other tree species within clearcuts larger than 15 acres. Also spare one to three standing dead or dying trees per acre because these provide den sites for wildlife.

- Oak management:* Manage the stand for full crowns and reduced competition from other trees. Thinning oak and beech stands allow the remaining trees to grow into large, more consistent nut-producing trees as well as promoting new growth. Thin 20 - 50% of the canopy every 10 - 20 years. This management option is optimal for areas with lower populations of deer since areas with high populations will have less regeneration because of heavy browsing on saplings.

- Northern forest management (hemlock and white cedar):* Cutting in these areas is discouraged. These tree species have difficulty regenerating when heavily browsed. The best habitat con-



Deer food: Aspen leaves and branches, acorns, and crabapples

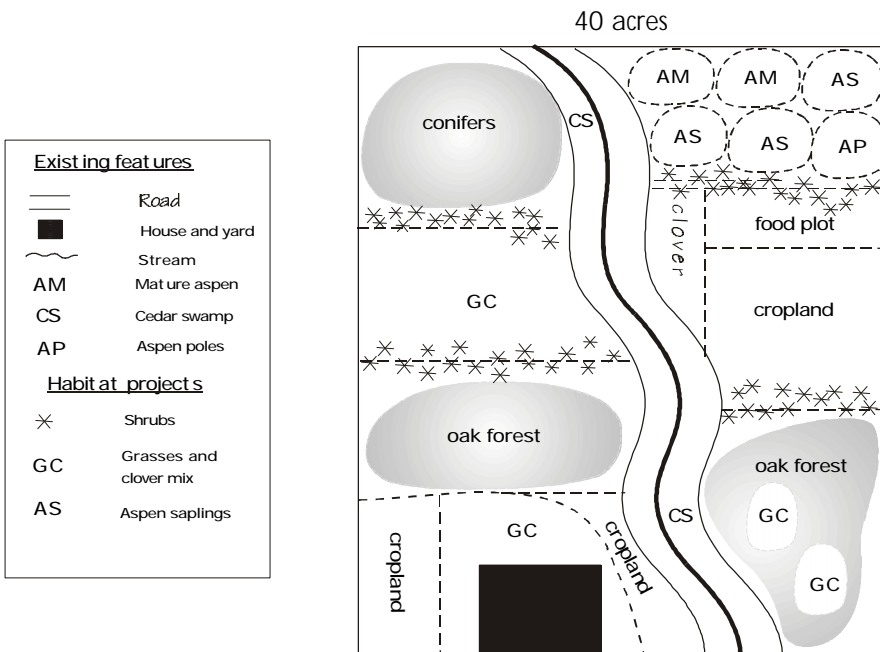
tains 70 percent canopy closure. These conditions reduce ground-level snow accumulations, provide warmer nighttime temperatures, and decrease wind chills. Deer are able to subsist on the choice woody browse within such stands.

- Grassland management:* Maintain areas one to five acres in size per 40 acres. Openings should be at least 100 feet wide and irregularly shaped. Once established, openings should be maintained by mowing or burning. Plant high quality travel corridors of trees, shrubs, or grasses for food and cover. Plant early growing grasses for spring food near woods, fencerows, wetlands, and brushy areas. These fields should be 1 to 5 acres in size and at least 60 feet wide. Fields on east- or south-facing slopes are preferred since they are likely to green up earlier. Ideal fawning areas consist of grassy areas located next to forest edges, with heavy, concealing ground cover. Fawning areas produce higher quality forage if mowed and fertilized in August every third year.

Techniques to Deter Deer

Where deer are considered a nuisance because of crop damage, many

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are negative impacts that may occur not only to your land but the surrounding. Choose your management options carefully to either maintain, increase, or decrease deer on your property.

This map is an example that demonstrates the many management options discussed throughout this chapter. The option(s) you choose should depend not only on your goals, but the location, condition, and present use of your land.

techniques can be practiced to protect crops or reduce crop losses. Planting lure crops of buckwheat, turnips, clover, corn, or soybeans on idle land, or set-aside lands may encourage deer to eat less crops designated for harvest. Plant these lure crops between major woodlands and production fields. Increasing woodland foods may also deter deer from your crops. Although there are some habitat changes and crop management techniques that reduce crop loss to deer, hunting is the most effective and least expensive way to control crop damage.

There may be special hunting permits available for landowners with

extensive deer problems. These permits may be obtained by landowners with documented cases of agricultural and horticultural damage. Other permits may be obtained by landowners in areas with documented deer diseases that affect livestock, human health, the welfare of the deer herd or an area of serious deer over population. These special permits may be used to harvest antlerless deer only, and do not count against a hunter's regular bag limit.

In summary, it is relatively easy to attract deer to your property. However, it is difficult for a landowner to manage an entire population. Remember, if you attract deer, there

FOR ADDITIONAL CHAPTERS CONTACT:

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Private Land Partnerships: This partnership was formed between both private and public organizations in order to address private lands wildlife issues. Individuals share resources, information and expertise. This landowner's guide has been a combined effort between these groups working towards one goal: Natural Resources Education. We hope this guide provides you with the knowledge and the motivation to make positive changes for our environment.

FOR ADDITIONAL ASSISTANCE: CONTACT YOUR LOCAL CONSERVATION DISTRICT