

# Wildlife and the Landscape: White-tailed Deer

## Introduction

White-tailed deer, native residents of our forests and fields, have been steadily increasing in numbers and range throughout this century. Much of this increase can be directly attributed to the expansion of the human population into rural areas. Deer have been able to adapt to this co-existence with suburban residents remarkably well. A lack of natural predators and an abundance of food in gardens and ornamental landscapes have favored their population growth. As such, our native white-tailed deer is being perceived as a nuisance animal by many homeowners.

Besides inflicting damage to plants in gardens and landscapes, deer also pose a health risk to humans. Deer carry a number of parasites and diseases. They are also one of the hosts for deer ticks, carriers of the bacterium that causes Lyme disease. As deer populations have increased, there has been a corresponding increase in incidence of Lyme disease in many areas of New England.

## Damage to Plants

Deer will feed on plants at any time during the year, but most damage to ornamental plants occurs during the fall, winter and early spring when food resources are somewhat limited. Deer browsing can be easily distinguished from damage caused by rabbits, woodchucks, or squirrels. Since deer lack upper incisors they eat vegetation when browsing, leaving ragged ends on browsed branches. Rabbits and rodents, on the other hand, make a clean cut.

## Preventing Deer Damage

Deer are creatures of habit. Once they establish a feeding area, it is very difficult to get them to go elsewhere. Therefore it is important to implement preventative measures before deer get in the habit of visiting yard and gardens. There are many options for protecting plants from deer damage.

**Exclusion** - Setting up barriers between deer and the plants to be protected can be an effective means of reducing damage caused by deer. For individual plants or a small group of ornamental plants, placing cages of chicken wire or other fencing around plants or wrapping individual plants with burlap or plastic netting is an option.

In the long run, large scale fencing may be the most cost/effective means of excluding deer, though the initial investment may be costly. The two types of fencing most practical for home gardens are woven wire or plastic mesh and electric.

Installation of woven wire or plastic mesh fencing will require the placement of tall wooden posts at regular intervals to support the fencing and keep it taut. Since deer are capable of jumping 10 feet high, the height of the fence should be at least 8 feet. Sturdiness of the fence is important since deer can push down a poorly constructed fence.

Installation of electric fencing is in some ways simpler than non-electric fencing. For most situations a two wire fence will be satisfactory. In this case, the lower electric wire is placed 10 to 12 inches above ground and the top wire only has to be about 36 inches above ground. Grass and other vegetation must be kept clear of the wires. The wires can be supported by much smaller fence posts than needed for non-electric fence systems. Of course deer may jump over an electric fence. So to teach deer to avoid the fenced area, baiting of the fence is a good idea. Smearing portions of the wire with peanut butter (do this when the power is off) will attract deer to the wire. The resulting shock to the deer as it attempts to eat the peanut butter will serve as a reminder to stay away.

**Repellents** - Since deer rely on smell and taste to find their food, repellents can be effective in keeping them from yard and garden. The key to using repellents is to start early in the fall before deer establish their home range and feeding areas within that range. Repellents must be reapplied regularly throughout the winter and spring, especially after heavy rainfall. Unfortunately, when food sources are scarce, as in mid-winter, and when deer energy reserves are lowest, as in late winter and early spring, repellents may not keep deer from feeding on landscape plants.

**Scare Devices** - A number of commercial products designed to scare deer have appeared in recent years. These include scarecrows, lights, whistles, water jets, and devices making loud noises. Home owners have also resorted to playing radios loudly to deter deer. Typically, these devices have limited effectiveness since deer quickly get use to them. Also, some of these devices may be expensive as well as potentially harmful to humans.

**Plant Selection** - Numerous lists of “deer-proof” plants have appeared in a variety of publications. These lists are usually based on studies and observations by plant and wildlife specialists. It is known that deer feed on over 700 species of plants. However, they do exhibit preferences for certain plants. When deer have a large variety of choices in plant material they will browse on those they find most palatable. By maintaining a very diverse landscape in terms of plants species and by planting those that are less favored by deer, the impact of deer browsing on the landscape can be reduced. Nevertheless, there are no “deer-proof” plants.

Below is a list of plants and their likelihood of being damaged by deer browsing. The list, compiled by Cornell Cooperative Extension, should be viewed as a guideline and not a guarantee of a deer free landscape.

### 1. Plants Rarely Damaged

<i>Berberis</i> spp.	Common Barberry
<i>Betula papyrifera</i>	Paper Birch
<i>Ilex opaca</i>	American Holly
<i>Picea pungens</i>	Colorado Spruce
<i>Pieris japonica</i>	Japanese Pieris

### 2. Plants Seldom Severely Damaged

<i>Cornus florida</i>	Flowering Dogwood
<i>Cornus kousa</i>	Kousa Dogwood
<i>Enkianthus campanulatus</i>	Red-vein Enkianthus
<i>Forsythia</i> spp.	Forsythia
<i>Ilex glabra</i>	Inkberry
<i>Juniperus chinensis</i>	Chinese Junipers
<i>Kalmia latifolia</i>	Mt. Laurel
<i>Kolkwitzia amabilis</i>	Beautybush
<i>Picea abies</i>	Norway Spruce
<i>Picea glauca</i>	White Spruce
<i>Pinus resinosa</i>	Red Pine
<i>Pinus sylvestris</i>	Scots Pine
<i>Syringa vulgaris</i>	Common Lilac

### 3. Plants Occasionally Severely Damaged

<i>Abies concolor</i>	Concolor Fir
<i>Acer griseum</i>	Paperbark Maple
<i>Acer rubrum</i>	Red Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Cotinus coggyria</i>	Smoke bush
<i>Cotoneaster</i> spp.	Cotoneasters
<i>Hibiscus syriacus</i>	Rose of Sharon
<i>Hydrangea</i> spp.	Hydrangeas
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Ligustrum</i> spp.	Privet
<i>Quercus</i> spp.	Oaks
<i>Rosa rugosa</i>	Rugosa Rose
<i>Tsuga canadensis</i>	Canadian hemlock
<i>Viburnum</i> spp.	Viburnums

### 4. Plants Frequently Severely Damaged

<i>Abies balsamia</i>	Balsam Fir
<i>Acer platanoides</i>	Norway Maple
<i>Clematis</i> spp.	Clematis
<i>Euonymus</i> spp.	Euonymus
<i>Hedera helix</i>	English Ivy
<i>Malus</i> spp.	Crabapple
<i>Prunus</i> spp.	Ornamental Cherry
<i>Rhododendron</i> spp.	Rhododendrons
<i>Taxus</i> spp.	Yews

From “Resistance of Woody Ornamental Plants to Deer Damage”, Wildlife Damage Management Program, Cornell Cooperative Extension. Contact Cornell Cooperative Extension

*at (607) 255-1789 for a copy of the entire fact sheet; the lists were too lengthy to reproduce in their entirety.*

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Deer damage to home gardens and landscapes continues to be an increasingly serious problem in Massachusetts. The problem is been further complicated by the health risks posed by the presence of large numbers of deer in residential areas. While no completely effective means of deterring deer is yet available to homeowners, the implementation of methods such as fencing and judicious application of repellents can reduce the damage caused by these indigenous animals.

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