

## Living With Wildlife- Deer Biology and Urban Landscapes

How to manage deer damage on trees and other plants

### Quick facts

- White-tailed deer feed on gardens, landscape plants and trees, and agricultural crops.
- Deer damage has a rough or torn appearance. It does not look cleanly clipped.
- Deer damage is more likely when environmental conditions are stressful, especially during cold temperatures and deep snow and sudden nearby habitat change or loss due to construction and feeding of deer
- Deer are creatures of habit and often return to the same area. Take action early to discourage their visits and reduce damage. Feeding and salt licks will cause deer to congregate and do damage
- Options to prevent deer browsing include protective structures, habitat modification, repellents, hazing, regulated hunting and resistant plants.



White-tailed deer, once nearly extinct in Ohio, are a popular large mammal in the state. Hunters and wildlife watchers enjoy seeing deer on their property.

However, deer also can cause problems for gardeners and farmers. They can feed on gardens, landscaping and agricultural crops.

Deer have benefited from changes humans have made to the environment, especially the conversion of forests to agricultural fields. Humans also have removed or reduced many natural predators of white-tailed deer, including gray wolves, black bears and bobcats.



## Identifying deer damage

Many species of wildlife can harm gardens and landscaping. Different animals require different strategies to prevent them from causing damage. Before you can protect your property, it is important to understand which species of wildlife are present and which are responsible for any destruction.

White-tailed deer damage is a result of deer browsing on or trampling plants. This type of damage can occur year-round, but is most common on new growth in the spring.

- Branches, leaves and twigs browsed by deer have a rough, torn or shredded appearance.
  - Deer have no upper incisors and must grasp and tear leaves and buds from plants.
- Deer typically do not leave tooth marks in bark.
- Deer usually browse branches less than one inch in diameter.
- Male deer also will damage or shred the bark of small trees by rubbing their antlers to remove the velvet during the fall breeding season or rut.
  - Antler rubbing can be a bigger problem than browsing and can occur even if you do not see browsing.
- Deer droppings are a clear sign that deer were present.
- It is important to examine the damage, as deer may pass through areas where other wildlife congregate to forage.

*Rabbits and rodents also are frequent visitors in gardens and landscapes. Like deer, rabbits and rodents can cause damage throughout the year.*

- Their browsing is characterized by a neat cut at a 45-degree angle and is concentrated lower to the ground than deer damage.
- Rabbits and rodents also will leave tooth marks when gnawing at the bark of small trees and branches.
  - Rabbit tooth marks are typically the width of the tip of a spoon, and rodent tooth marks appear to be made by the tine of a fork.



Examples of deer damage





Antler rubs on trunk





Typical browse line created when deer are overpopulated. The result is complete destruction of understory and browse up to 5-6' height of all trees in the area.

## **Preventing deer damage**

When combating deer damage, it is important to be proactive, use several strategies, and have realistic expectations.

- Deer are very persistent once they are used to feeding in an area. It is easier to prevent them from developing the habit in the first place. Detect damage early and take immediate action to prevent more damage.
- Try several different strategies to find out what works best. The strategies detailed below are most effective when several of them are used together.



- Finally, it is important to have realistic goals for reducing damage. You should not expect to eliminate deer damage completely. A 50 percent reduction in deer browse is very successful; a 30 percent reduction is a more likely result.

## Hazing

- Hazing, or frightening deer away from vulnerable areas, is another short-term solution.
- Most hazing methods frighten deer with sudden, loud noise or movement
  - Motion-activated sprinklers, Predator Eyes, menthol rub on outer leaves, Deer Scram, peanut butter tabs on a strand of electric fencing, lights or noisemakers, such as a radio, are other effective options.
- Unfortunately, deer can quickly become used to hazing techniques unless they are rotated and keep the deer surprised
- Deer damage to ornamental plants is very frustrating. You can minimize the damage they can do by avoiding plants they prefer and instead use the plants listed in the table below that deer avoid due to toxicity, fragrance or texture.

## Protective Structures

- Fencing- only effective if layered fencing is used- angle layers short to tall at 18", 26" and 36" with 12-18" in between each height or train them to a strand of electric fencing with peanut butter aluminum tabs
- Garden temporary borders of 26-36" or so chicken wire or other mesh laid flat on ground
- Garden borders of white/yellow or amber holiday lights- ideally set flash mode and plugged in to motion sensor
- Wrapping young or sensitive trees and wrapping trees during rut that a buck has started to use as a rub (For taped wrap, unwrap in spring to avoid tree trunk damage; Drain Tile wrap can last several years until the next size diameter may be needed; garden fencing mesh wire wrap at 36"-40" height works well for shrubs and young arbor vitae

Deer resistant plants listed by botanical name, common name, and height with plant-specific notes.

Botanical name	Common name	Height	Comments
<b>Annuals and perennials</b>			
<i>Achillea</i> spp.	yarrow	18"-3'	Drought tolerant; prefers full sun.
<i>Ageratum houstonianum</i>	ageratum	6-24"	Beautiful blue, pink or white flowers; easy to grow.
<i>Aquilegia canadensis</i>	columbine	1-3'	Short-lived, but self-seeds; showy flowers.
<i>Begonia semperflorens</i> & hybrids	wax begonia	8"-2'	Dependable flowers; shade and drought tolerant.
<i>Echinacea purpurea</i>	coneflower	2-3'	Native; attracts birds and butterflies; well-drained soil.
<i>Heliotropium arborescens</i>	heliotrope	18-24"	Cherry-pie fragrance; tough, long lasting flowers.



Deer resistant plants listed by botanical name, common name, and height with plant-specific notes.

Botanical name	Common name	Height	Comments
<i>Lobularia maritima</i>	sweet alyssum	4-12"	Edging and container plant; self-seeds.
<i>Narcissus</i> spp.	daffodil	6-24"	Poisonous to squirrels and deer; can be planted under trees.
<i>Paeonia lactiflora</i>	peony	2-3'	Long lasting perennial; may need staking; prefers full sun.
<i>Papaver</i> spp.	poppy	1-3'	Showy flowers; can self-seed; many species and cultivars.
<i>Pelargonium x hortorum</i>	geranium	12-18"	Cemetery plant; tough and drought resistant.
<i>Salvia farinacea</i>	blue salvia	24-30"	Attracts butterflies and hummingbirds.
<i>Senecio cineraria</i>	dusty miller	6-15"	Silver-grey or white foliage; drought and cold tolerant.
<i>Stachys byzantina</i>	lamb's ear	6-15"	Silver foliage good for edging and front of border; drought tolerant.
<i>Tagetes</i> spp.	marigold	6"-3'	Long-lasting yellow, gold and bicolor flowers; easy to grow.
<b>Trees, shrubs and vines</b>			
<i>Barberis thunbergii</i>	Japanese barberry	2-5'	Thorny; many cultivars; red berries and red fall color; m.
<i>Celastrus scandens</i>	bittersweet	up to 60'	Woody native vine with attractive berries.
<i>Cornus sericea</i>	red osier dogwood	6-12'	Attractive red stems; cultivars vary in height and form.
<i>Forsythia</i> 'Northern Sun'	forsythia	8-10'	Fast growing, very hardy flower buds, tolerates a wide v
<i>Juniperus chinensis</i>	Chinese juniper	2-6'	Many cultivars and forms; good for full sun and well-dra
<i>Pinus mugo</i>	mugo pine	12-20'	Tolerant of alkaline, compacted or salty soils.
<i>Pinus sylvestris</i>	Scots pine	25-50'	Evergreen with attractive bark.
<i>Rhododendron</i> spp.	rhododendron & azalea	3-6'	Evergreen and deciduous species; showy flowers; ☐Nor the hardiest.
<i>Syringa vulgaris</i>	lilac	8-15'	Showy fragrant flowers in spring; tolerant of many sites.
<i>Viburnum lentago</i>	nannyberry	12-18'	Native shrub; fruits turn from red to blue; shade toleran

