Extension Service
West Virginia University

Horticulture

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Deer Proofing Your Landscape

Damage to ornamental plants caused by white-tailed deer has increased dramatically during the past decade. Deer damage is no longer just a rural problem.

Deer populations in both rural and urban areas have increased rapidly. This has resulted from many factors—abandoned farmland provides more habitat, hunting is limited on restricted land, residential areas restrict the discharging of firearms, and the deer are able to adapt to suburban habitats.

Deer are selective feeders that often move slowly through the landscape, eating leaves and twigs from different plants or shrubs. Because deer have no upper incisors, they jerk and tear leaves, stems, and twigs. These jagged edges help identify plants browsed by deer. Another sign of deer damage is annual and perennial plants that are partially or totally pulled out of the ground. Damage to larger trees extends to only 5 or 6 feet, the highest deer can reach.

In some areas, deer damage is seasonal, peaking in winter when snow cover and other factors reduce the food supply. Areas where residential development has greatly affected deer habitat may experience problems year-round.

Certain plants may not suffer deer damage in some landscapes but be totally destroyed in others. This is due in part to the availability of natural food sources and to the taste preferences of individual deer. Because deer are creatures of habit, their previous movement patterns can indicate where they may cause damage. If new plantings are added to a landscape already severely damaged by deer, the plants are likely to suffer browsing pressure.

Remember, deer will eat almost any plant rather than face starvation. Under such conditions, damage control measures will be needed in addition to careful plant selection.

Use of exclusion methods and repellents can help control deer damage to landscapes.

Some deer-resistant plants

Trees	Shrubs	Perennials
Spruce	Boxwood	Yarrow
Buckeye	Privet	Columbine
Serviceberry	Leucothce	Clematis
Birch	Barberry	Daffodil
Dogwood	Rose of Sharon	Iris
Ash	Camopteria	Peony

The WVU Extension Service Web site (www wvu.edu/~agexten/Hortcult/treeshru/resistan.htm) contains a complete list.

Exclusion

Exclusion by fencing is the most effective control against deer damage. Deer can jump up to 12 feet high, but an 8-foot fence is generally sufficient. Lower fences can provide protection if the fence slants away from the protected area, is electrified, or is made of a solid material that prevents deer from seeing through. A 4-foot-tall electric fence with strands every 6 to 9 inches is very effective when baited with foil strips smeared with peanut butter: For small areas or individual landscape beds, a temporary, electrified, single-strand fence at 24 to 30 inches can be effective. Now, on the market are wireless deer fences consisting of short synthetic posts, a deer-attractant reservoir, and a battery-powered high-voltage shocker.

Floating polyester row covers are another exclusion material. These need to be put on each evening and removed each morning during the active growing season. Tree protectors or shelters prevent deer from browsing on young trees. These protectors are made of polypropylene tubing, plastic tree wrap, or woven-wire mesh cylinders: Plastic netting with ½- to 1-inch mesh can be used to protect individual or group plantings. The netting can be left on year-round if it's attached loosely at the base to allow for plant growth.

Repellents

Repellents may work by odor, taste, or both. While repellents help to reduce deer damage, they do not eliminate damage completely. Nevertheless, a combination of odor- and taste-based repellants and alternating treatments can often help deter deer.

A repellent can be made at home by mixing two eggs with a gallon of water and then spraying the mixture on ornamentals. The eggs rot on the plants and the smell repels deer. This repellent is not appropriate for cut flowers or vegetables that will be in the home. Other homemade repellents include hair and bars of soap. These repellents work in areas having low to moderate numbers of deer.

Hair bags - Human hair placed in fine-mesh bags makes a simple, cheap repellent. Hang the hair bags on the outer branches of trees with no more than 3 feet between bags. Attach bags early in spring and replace them monthly throughout the growing season.

Bar soap - Ordinary bars of soap applied in the same manner will reduce deer damage. Suspend strong-smelling bars of soap on the outer ends of branches. Hold the soap in place with a string passed through a hole drilled in the soap.

Commercial repellents

Predator-odor-based repellents - Repellents containing coyote, mountain lion, bobcat, or wolf urine are available commercially. However, these materials are not very effective for long-term control.

Soap-based repellents - Commercial liquid deer repellents made from fatty acid soaps are available at most garden stores. Hinder, which smells like ammonia, can be applied directly to vegetable and field crops, forages, ornamentals, and fruit trees. Its effectiveness is usually limited to two to four weeks, depending on weather and application method.

Egg-based repellents - Commercial egg-based deer repellents can also be purchased. Deer-Away, made from putrid egg solids, is often effective in areas of moderate deer density. This contact repellent smells and tastes like rotten eggs. Reported to be 85 percent to 100 percent effective, it is registered for use on fruit trees before flowering, ornamental shrubs, and Christmas trees.

Hot-sauce-based repellents - These repellents may be applied to non-edible plants. They can be sprayed on all susceptible new growth, such as leaders and young leaves. Vegetable crops can also be protected if they are sprayed before edible parts develop. Some repellents, including Tree Guard and Ropel, deter deer by including a compound that results in a bitter taste.

A variety of other commercial products reduce browse damage. Most should work, at least for a while, because the novel smell or taste will play on the deer's natural nervousness about changes. Milorganite, a fertilizer containing composted sludge, has been reported to deter deer browsing on small perennials and spring-flowering bulbs. Deer Stopper, which contains mint oil, rosemary oil, and salt, can be sprayed directly on edible plants. Alternating repellents also helps keep deer away from the garden.

Once deer have begun using your garden, it is difficult to rid them of the habit. These suggestions will reduce the likelihood of deer including your garden as part of their range.

Mention of a repellent is for educational purposes only and does not constitute an endorsement by the WVU Extension Service. Other products may be equally suitable. Contact your county's WVU Extension office for additional information.