Protecting Your Seedlings from Deer and Rabbits

Deer and Rabbits are a king size headache for nurserymen, golf courses, and homeowners. Both animals will browse through your tree plantings like a shopper at Wal-Mart, stopping to take a little taste of each plant until he finds one he likes. When he gets to a tree or a shrub he likes at the first taste, and will stay and eat until he is satisfied. He'll come back again when he is hungry. Being small, rabbits eat close to the ground, girdling the plants. Deer being larger animals can browse up to 4 1/2 feet from the ground.

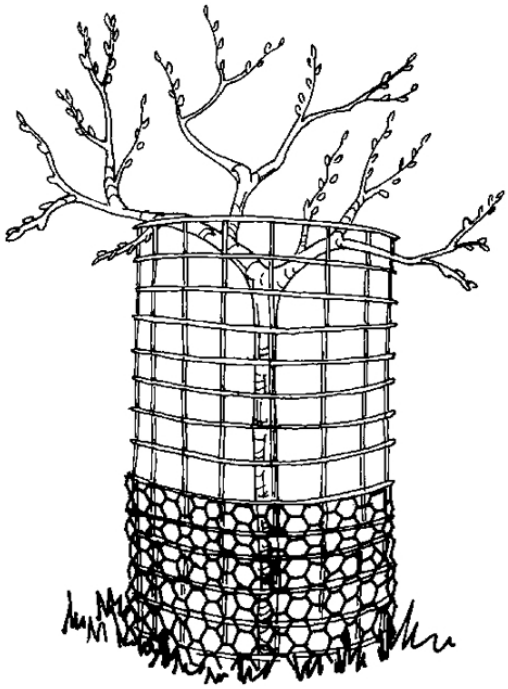
A plant transfers water and nutrients from the roots to the foliage just under the bark of the plant. There is a layer of tissue just below the bark known as the cambium layer. This is the life support system for a plant. When the bark and cambium layer are eaten away the plant can no longer nourish itself, and will die.

Browsing by deer can usually be identified by browsed twig ends that have a ragged appearance, while twigs browsed by rabbits, porcupines, and other rodents have a neat, clipped appearance. This is because deer lack upper incisors and canine teeth, and cannot nip off twigs. Instead they must press foods between their hard upper palates and their bottom teeth, and jerk their heads up to tear it free.

There are several 'solutions' to deer and rabbit browsing. **Several are listed here in order of effectiveness.**

Mini-Barriers

Barriers to protect small areas, individual plants, or vulnerable parts of plants can be purchased or made at home. These have the advantage of being less expensive and obtrusive than full fences, allowing deer access to surrounding food plants while protecting others. They can also protect plants from bucks rubbing their antlers, which breaks branches and strips bark off trunks.



A mini deer fence should be at least 4 feet high, placed far enough out from the plant to prevent deer from accessing the plant and causing damage, and be firmly staked to the ground. Prior to installation, remove all grass and weeds within the barrier by spraying with herbicide. To get a cage of the right size, simply unroll a 10-foot length of fence. Firmly fasten the ends together. This will give you a 3-foot cage. A 2-foot high band of chicken wire can be added to the bottom to exclude rabbits. Use wooden or metal stakes to hold the cage upright and use tent stakes to firmly fasten the cage to the ground.

This is especially effective for fruit and nut trees. These producing trees have a branching structure not well suited to tree shelters. This technique can also be used for shrubs and conifer plants.

Commercially available tree guards protect trees from damage done to the bark from deer antlers and gnawing from other wildlife. They can be wrapped around nearly any size tree, cut to different heights, and expand as the tree grows. Be sure to remove them if the tree shows signs of disease.

Tree shelters have been used successfully to protect small transplants and growing tree tips. For small plants, use tubes that match the plant's height and allow room for growth. Be sure to hold the tube upright with a wood or metal stake. Tree shelters are applicable for trees with an upright branching structure. Oaks, maples, black cherry, and other hardwood species can all be protected from deer and rabbits by using tree shelters.

Repellents

Deer repellents use a disagreeable odor or taste, or a combination of both, to dissuade deer from eating the treated plant. They are easy to apply and homemade solutions are inexpensive.

Numerous odor and taste repellents have been developed to reduce deer damage, and new products are continually becoming available. There have been numerous studies to test the effectiveness of these repellents, often producing conflicting results. No repellent eliminates deer damage entirely.

Before you apply: Most repellents function by reducing the palatability of the treated plant to a level below other available plants. Hence, repellent effectiveness depends upon the availability of wild deer food. Repellents are more appropriate for short-term rather than long-term problems and are the most practical for non commercial users experiencing low to moderate deer damage.

Repellents work best if applied before the deer develop a routine feeding pattern. This means applying repellents before leaves or flower buds emerge and as new growth appears. It's easier and more effective to prevent a feeding habit from forming than to try to break an established one.

Repellent facts:

- Spray-on repellents need to be applied frequently to protect the new plant growth, and will need to be reapplied after rain and long exposure to hot, dry, or windy weather.
- Deer may become accustomed to the same repellent over time, and eventually ignore it. Alternating repellents may help keep deer confused and more wary of eating your plants.
- Repellents that are applied to plant surfaces are generally more effective than capsules containing garlic oil, bags of hair, or other devices that produce an odor intended to protect a specific area.
- Finally, before putting complete faith in a repellent, first try it on a small area. Always use commercial repellents according to the manufacturer's directions.

Scare Tactics

Like most animals, deer are neophobic (fearful of novel objects), and many scare tactics take advantage of this behavior. However, deer soon get accustomed to new things and damage resumes after they realize no actual harm will come to them. As with repellents, a given tactic will work on some deer, but no single one seems to work on all of them. If the animals are already used to feeding in the area, scare tactics will last an even shorter length of time.

Scare tactics can be visual (scarecrows, bright lights, spare blankets), auditory (noisemaking devices such as exploders, whistles, etc.), or olfactory (predator urine or droppings).

One recent innovation is a motion sensor combined with a sprinkler that attaches to a hose. When a deer comes into its adjustable, motion-detecting range, a sharp burst of water is sprayed at the animal. This device appears to be effective by combining a physical sensation with a startling stimulus. Similar in approach but less effective are radios and lights hooked up to a motion detector.

A dog can help keep deer away, especially if it is large and awake. To keep the dog at home while simultaneously repelling deer from your property, use a "dog trolley" or an invisible (buried electric) fence, where practical. Avoid tethering a dog near stairways and fences, and provide at least 15 feet of cleared space for it to move around in. Do not use a choke chain, and remove all debris that could tangle or injure your dog. Provide shade, water, and shelter for the dog at all times.