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Controlling four-legged pests in the nursery and landscape

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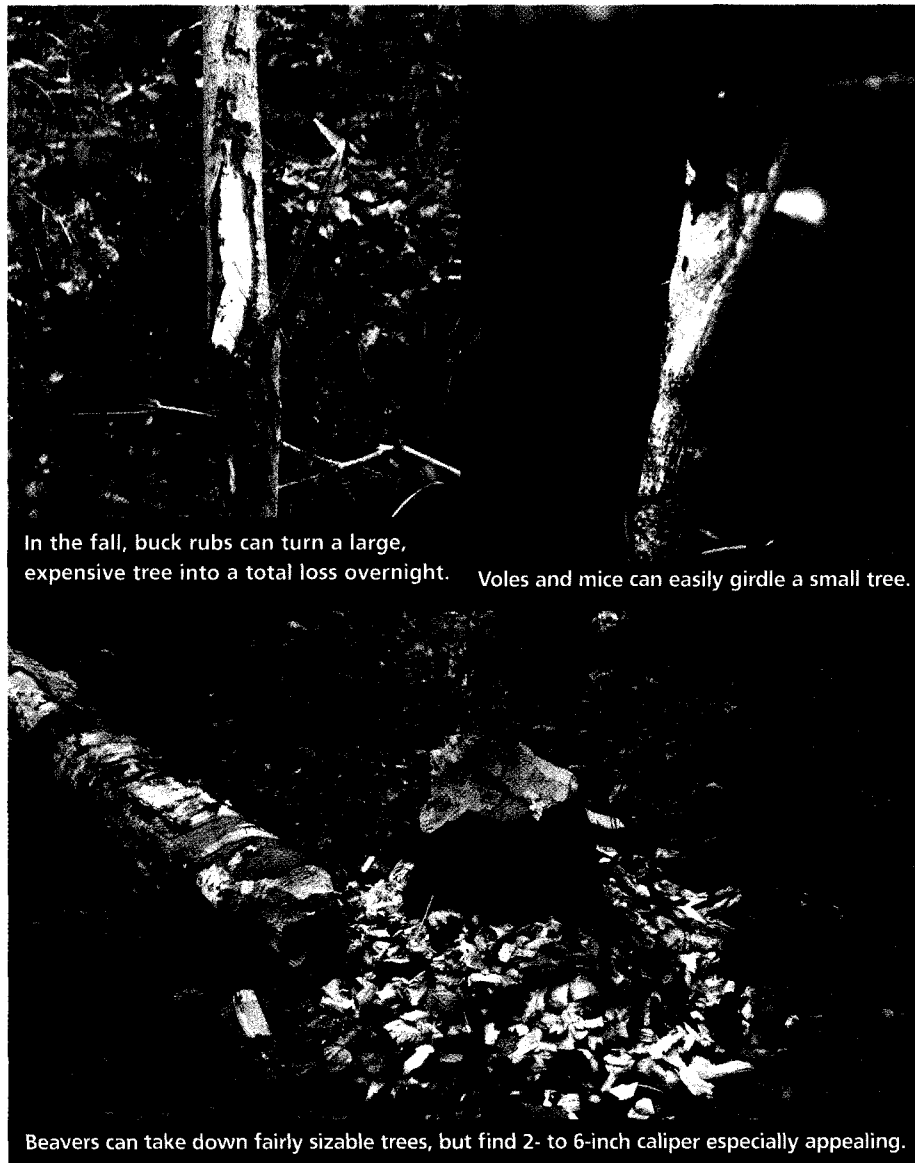
When it comes to pests in the nursery, there are bigger problems than insects and diseases. A lot bigger. Mammals, like deer and raccoons, although cute and cuddly to some, can cause huge losses in the nursery and landscape business. As many of these pests are considered game or fur-bearing animals, extra time and paperwork are necessary when using destructive (hunting and trapping) methods of control. But there are some simple alternatives when it comes to controlling four-legged pests in the nursery and landscape.

Deer. Deer are literally among the biggest pests we have in the nursery industry, and their damage is seen and felt immediately. Deer always seem to target the most expensive and lush vegetation, often damaging trees and shrubs beyond salvage. Not only do they consume foliage, but in the fall, buck rubs can turn a large, expensive tree into a total loss overnight.

Raccoons and skunks. Raccoons and skunks can be grouped together due to the damage they inflict on turf. In areas heavily infested with grubs, they can rip up huge areas of turf overnight. Even when sod is grub-free, they will often turn over freshly laid sod to show their young how to dig for grubs or search for moisture.

Beavers. Beavers are most often a problem when nurseries, garden centers or homeowners are near streams. They will cut down trees not only for food, but also for building and repairing their dams. Beavers prefer certain trees, such as aspen, cottonwood, willow, sweetgum, blackgum, black cherry, tulip poplar and pine, but will feed on most plants. Many of the trees that are grown in nurseries and placed in landscapes are of a size perfect (2 to 6 inches) for beavers to cut down and carry back to the water.

Rabbits, mice and voles. Rabbits, mice and voles are grouped together because they will feed on plants at the stem. These pests can remove smaller plants near the ground. However, damage may not be severe in larger plants, and the plant will heal unless pest populations are high. Damage from mice and voles often occurs below the snow level during the winter months, especially where snow is



In the fall, buck rubs can turn a large, expensive tree into a total loss overnight.

Voles and mice can easily girdle a small tree.

Beavers can take down fairly sizable trees, but find 2- to 6-inch caliper especially appealing.

common and food is not. Determining whether a vole or rabbit caused the damage is simple. Voles will leave pointed stems, smaller gnaw marks on trunks and often have small trails winding through the grass. Rabbits will clip the plant at an angle, have larger gnaw marks and will feed higher on the plant.

So what can be done? Plenty.

Control. There are several ways to redirect these pests away from your livelihood. Each has pros and cons. They range from simple and inexpensive to complicated and expensive. Remember to check with your local Department of Natural Resources (or equivalent) or county extension office for any local regulations.

Encourage predators: Simple things, such as keeping the rows between trees clear of weeds, can reduce pressure from rabbits and voles by eliminating hiding places and exposing them to predators. Encouraging predators, such as foxes, hawks and owls, with habitat can help keep rabbit, vole, skunk and raccoon populations lower. Provide nesting and perching poles for hawks and owls to watch for rabbits and voles. Also, tighten up plantings that deer and other animals favor to keep a better watch over them and to better protect them. This can take time to establish, and pest outbreaks will still be possible.

Chemical deterrents: Chemical deterrents are effective in small plots where



An example of extensive deer damage on a large yew



Experts recommend fencing up to 10 feet tall to deter deer.

some damage can be tolerated and where other food sources are available. These deterrents are often made of ingredients, such as thiram (a seed-coating fungicide), castor oil, putrescent eggs, garlic and capsaicin (hot peppers), that deter by taste and smell. Rain reduces their effectiveness, and they need to be reapplied every one to two weeks.

Baits: Baits do not necessarily need to be lethal. Simple baiting can mean placing an expendable planting strip along edges to attract deer, rabbits and voles away from your plantings. Planting clover or alfalfa is another option for keeping them away and out of your plants. When vole populations are at damaging levels, use zinc phosphide, chlorophacinone, diphacinone or warfarin for rapid population control. Follow label instructions when using pesticides, and wear required personal protective equipment listed on the label, not only to protect yourself from accidental poisoning, but also other people and animals that may come into contact.

Shooting: You can legally shoot certain animal pests by obtaining a crop damage permit, but acquiring crop damage permits and achieving results can be a time-consuming affair. Usually, a member of the state's Department of Natural Resources or other state agency needs to examine the property to determine the extent and severity of damage and time of year, as well as estimate the local deer population. Once the permits have been granted, re-

cruiting hunters can be an issue, especially in more urban settings. Shooting may not be an available option depending on the topography and proximity of homes. Public perception may also be a factor in the decision-making process, especially if you're near a residential area. Often, the reduction in deer is only temporary, and many growers do not see an impact no matter how many deer are removed.

Trapping: Trapping is a more practical approach when it comes to pests like raccoons, but this method may also require special permits. Check with your local extension office or Department of Natural Resources for any pertinent laws before trapping. Trapping raccoon, rabbit, skunk and beaver can be a win-win for you and a trapper interested in fur-bearing animals. These pests are easily controlled with adequate trapping knowledge and can be harvested for their pelts. Voles and mice can be easily trapped with simple mousetraps baited with apple or other fruit.

Dogs: Dogs are an active defense against many of these pests. Two dogs can actively protect 30 to 40 acres. While the dogs' primary objective is to "stink up the place," they can chase and even kill slower-moving pests, such as raccoons, groundhogs and voles. Research at the University of Maryland Cooperative Extension, College Park, showed that using dogs over a 20-year period can be a practical, long-term solution and comparable with fencing. The major problems with using dogs are the installation of the in-

visible fencing, the opportunity for dogs to escape, the selection of dogs with the correct disposition and the constant maintenance of food and veterinary care.

Fencing: Fencing is another practical, long-term solution for larger pests. There are several types that include trunk guards and area fences, both electrified and nonelectrified. Fencing is worth the investment, as a year's worth of nursery losses can quickly exceed the cost of a fence. Electrified fencing requires constant maintenance and upkeep. High-tensile fencing can withstand impacts of falling branches that would otherwise open your nursery to invasion by deer, reducing the amount of yearly maintenance. To be effective, fences need to be at least 8 feet in height, with a height of 10 feet preferred. Use a cattle guard at entrances to prevent deer access if the gate is accidentally left open.

Damage control for mammals is the same as for any other pest. An integrated approach that starts with scouting, pest identification and exploitation of its weak points can help limit the damage from these big pests. Remember, "The object of man's game with nature is not to win, but to keep on playing." (Frank Graham Jr.)

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