

Reducing deer and

By Mark Hughes

Being close to wildlife is one of the appeals of rural living in Wyoming.

Landowners often plant trees and shrubs to attract wildlife to their landscape. Trees and shrubs will provide food and shelter for various forms of wildlife but not always in the way intended. Severe damage to young, woody plants from wildlife is widespread and can be frustrating and costly.

Some of the most severe damage is caused by mule deer, white-tailed deer, and cottontail rabbits. A national survey conducted by the U.S. Department of Agriculture's National Agricultural Statistics Service identified deer damage as the most widespread form of wildlife damage.

Male deer, or bucks, damage young trees by rubbing and scraping against them during the mating season. Rubbing against young trees removes velvet from their antlers. When finished, the buck will polish his antlers and continue to mark his territory by thrashing his antlers up and down against tree trunks and branches. Deer will also browse on twigs, usually during the winter, when other food sources are less abundant.



Although the appetite of cottontail rabbits can cause problems any time of year, most damage occurs in fall and winter. Seedling trees are often clipped off at the base, and larger, thin-barked trees may be completely girdled. This complete removal of the bark around a tree's circumference will cause its death. The thick, rough bark of older trees often discourages gnawing.

The best approach to reducing damage is a management plan that includes any one or a combination of the following strategies: plant selection, exclusion, and/or repellents.

Plant Selection

Perhaps the best deterrent to deer and rabbit damage is to plant species least preferred by these animals. Many sources list species less likely to be damaged (see "Landscaping techniques prevent plants from becoming a wildlife buffet," *Barnyards&Backyards*, summer 2006, available for viewing at www.barnyardsandbackyards.com/Articles/2006.htm); however, when animal densities are high or natural foods are limited, both deer and rabbits may cause damage to species they would otherwise ignore – they are hungry.

Exclusion

If deer and rabbit densities are high, fencing may be the best option. Many different fence designs are available. Fencing large areas to exclude deer is practical for plantings such as field windbreaks or orchards. Typically, a deer-proof fence is 8-foot high and made of woven wire. To exclude both rabbits and deer from high-value landscape plants, fencing of individual trees is practical and highly effective. Placing wire cages, similar to tomato cages, around individual trees is an inexpensive method to keep deer from rubbing on the trunks. The cages should be at least 4 to 5 feet high.

To exclude rabbits, fencing such as chicken wire or cylinders of hardware cloth are often used loosely wrapped around the tree.

Commercial trunk protectors are also available. They come in varying heights and are generally made of either a mesh material or hard plastic. Many landowners find trunk protectors to be more attractive than metal fencing or cages. They should

Twigs eaten by rabbits are usually cut sharply at a 45-degree angle.

rabbit damage to woody plants



Rubbing by bucks can be fatal to young trees.

be left in place until the trees develop more mature bark.

Repellents

Repellents are another method of protection. These include home remedies and a host of commercial products. There are two kinds of repellents – contact repellents and area repellents. Contact repellents are applied directly to woody plants; their taste generally repels deer and rabbits. Area repellents are placed in a problem area and are intended to

repel by their odor. Repellents do not eliminate browsing or rubbing – they only help reduce it. Work has been done with systemic repellents (those taken up from the roots and dispersed throughout the tree); however, they have not proved effective.

Human hair placed in mesh bags and bars of soap tied to trees have been used to discourage deer. Numerous testimonials and studies have shown these home remedies help reduce damage, but their effectiveness is limited. In addition, several hair bags or bars of soap may be needed for each tree and can be rather unattractive. Predator odors, such as coyote and bobcat urine, have also been used with some degree of effectiveness.

Several studies have tested the variety of commercial repellents available. Some of the more effective products that are odor-based include rotten egg solids or garlic as active ingredients. One of the more effective contact (taste) repellent includes thiram, a bitter-tasting fungicide, as the active ingredient. Other products contain capsi-cum, an extract of hot peppers.

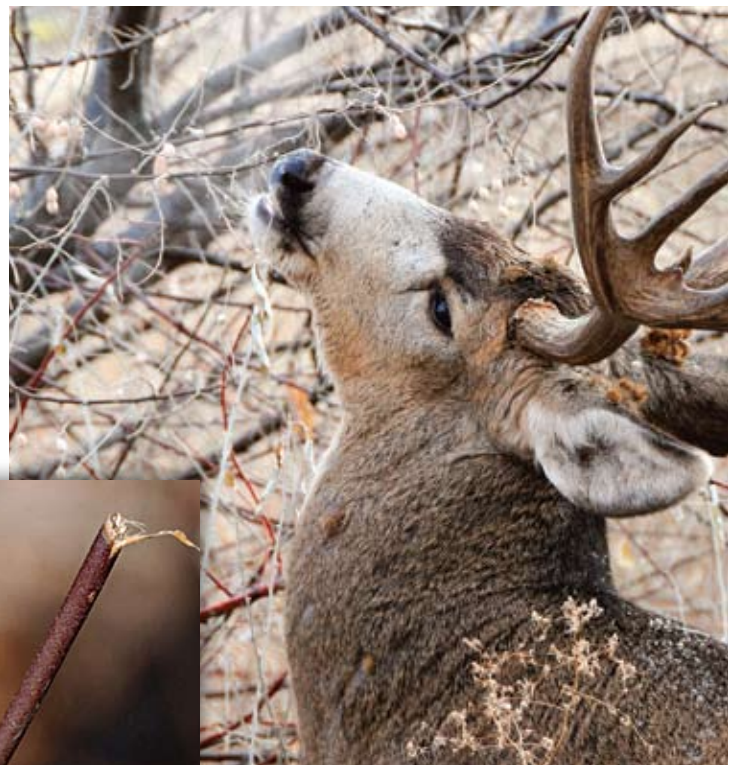
The greatest limitation of commercial repellents is cost. Odor repellents must be applied to a large area to prevent deer from approaching trees and shrubs. For both contact and area repellents,

applications are required every two weeks to two months depending upon the ingredient. Rainfall can drastically reduce the effectiveness of some repellents, so reapplication may be necessary after a rain. The effectiveness of repellents can be extended by mixing an anti-desiccant with the spray. This is a waxy substance usually sprayed on evergreens to prevent drying out during winter months. Common trade names include Wilt-Pruf and TransFilm.

Landowners often come up with other methods unique to their situation. A barking dog on a leash or motion sensing scare devices will sometimes work. Cultural practices, such as leaving lower branches on young trees, may help prevent damage to the main trunk should rubbing occur. When populations are high or food is scarce, even the best methods may fail. Rural landowners should be tolerant of occasional losses caused by deer and rabbits in return for the significant benefits derived from living among them.

For detailed information about nearly any pest, see the Internet Center for Wildlife Damage Management (<http://icwdm.org/handbook/index.asp>).

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Twigs eaten by deer usually have torn edges that are rough and irregular.