Minimizing Wildlife Damage

A dozen white-tailed deer gazing in a field or yard at sunrise is a pleasant site for most folks. But probably not to the landowner who has spent money and countless hours establishing trees and shrubs only to have them decimated by hungry wildlife. Wildlife damage during the winter months can be devastating to trees and shrubs. Wildlife feed on alternative food sources such as trees, when their regular food source is unobtainable or scarce. This occurs with deep snow cover or when wildlife populations are high. The most troublesome animals include porcupines, voles, rabbits and deer.

Porcupines

Porcupines feed on a wide variety of trees and shrubs, but prefer pine, spruce, poplar and willow. The porcupine is a large nocturnal rodent,that climbs from tree to tree during feeding. If seen during daylight hours it is often hunched in a ball in a tree. In the summer, porcupines feed on buds, twigs, and leaves, but during the winter they feed on the inner bark of trees. Extensive damage is caused if the porcupine completely girdles the branch or trunk removing the sap wood. The branches above the girdled area will die, resulting in a severely disfigured tree. In Christmas tree plantations or other high value plantings, porcupines can be controlled by trapping and removal from the area. When only a few high value trees are concerned, they can be protected by placing metal barriers (stove pipes) on the trunks of the trees above the snowline; this prevents the porcupines from climbing the trees.

Voles

There are two voles that commonly damage young trees, the prairie vole and meadow vole. Voles are greyish to dark brown in colour, have short-ears and small black eyes. They are approximately 12 cm long, with short tails measuring 6 cm in length. It is not uncommon to have up to 50 voles per acre, as a female can produce 60 young per year. Voles are vegetarians. Their main diet consists of leaves, seeds, roots and bark. In a 24 hour period they can consume their own weight in food. During the winter, when food is scarce, they will gnaw on trees and shrubs. The bark may be removed from the soil surface to the snowline. Vole damage differs from other wildlife, as gnawing is less uniform in direction, with teeth marks made at all angles. If the voles have girdled the trunk completely, growth above the damaged area will die. Older trees with thick bark are rarely damaged. The best protection from vole damage is elimination of weed and grass cover. This deprives the animals of shelter and food and makes the planting a hostile environment for survival and reproduction. Vole damage during the winter can be reduced by placing bait stations in the tree rows in late fall. The most common rodenticide is zinc phosphide. Grain treated with rodenticides is available in most agricultural supply stores. The bait can be placed in commercially available T-feeders or empty one litre cans. A hole, large enough for the vole to enter, must be placed at one end of the can. These types of bait stations prevent farm animals and other wildlife from eating the rodenticide. Plastic tree guards or tin foil placed around the stems of young trees provide excellent protection. Their only disadvantage is high cost.

Rabbits

Rabbits can severely damage young trees in shelterbelts, orchards and nurseries. They kill trees by girdling the trunks, or severely disfigure the trees by removing terminal and side shoots. Rabbit damage is easily differentiated from deer damage; the rabbit removes a branch at a 45 degree angle; whereas, deer have no upper incisors and their bite is ragged. Trees can be protected from rabbit damage in several ways. In an orchard situation, the entire area can be enclosed with one metre high chicken wire fence. It is important that trapped snow does not allow rabbits access over the fence. To protect high value trees, tin foil or commercially available tree guards can be placed around the trunk. Shooting or live trapping of rabbits is an effective means of reducing rabbit populations during the winter. Traps must be baited with products such as apples, carrots, corn on the cob or alfalfa to lure the rabbits to the trap. Repellents are an effective means of reducing rabbit damage. Repellents make the plants distasteful, thus discouraging rabbits from taking a second bite. Several repellents available from commercial nurseries or garden supply centres are Ani-spray, Big Game Repellent, Hinder, Ro-pel and Skoot. Repellents must be applied late in fall when temperatures are above freezing to provide protection throughout the winter.

Deer

Deer can cause extensive damage to trees and shrubs during the winter months. Most deer damage occurs in the weeks immediately following the first killing frost. Browsing of twigs is the most common problem. In extreme cases young seedlings are browsed to ground level and even large trees can be severely disfigured. Tree guards and repellents are the most common methods used to prevent deer damage. Tree guards are the most effective type of protection. The disadvantages of tree guards are that they are expensive and time consuming to install. Burlap, meshed chicken wire or other similar products can be wrapped around and over small trees or seedlings to provide complete protection. For larger trees, a four foot snow fence can be placed around the perimeter of the tree. To provide protection for a row of trees, snow fence can be placed along both sides and at the ends of the tree row. To protect an orchard, an eight foot high fence is required. Odour and taste repellents are often used to reduce deer damage on trees and shrubs. Odour repellents are compounds placed on or around trees. Repellents give off an odour that deer find offensive. Products such as human hair, bars of perfumed soap and mothballs can be placed in nylon bags and hung in trees. Other odour products such as blood meal may be applied on the trees and the ground around the tree. Taste repellents are applied directly to the trees late in the fall when temperatures are above freezing. Deer will take one bite and find it distasteful, and generally seek another food source. Several repellents are available commercially (i.e. Anti-spray, Big Game Repellent, Hinder, Ro-pel and Skoot). Small trees should be treated completely. For large trees, treat only the terminal growth up to six feet. If deer populations are high and food supply is limited, repellents may not be totally effective. Repellents are more effective if an alternate food source such as alfalfa hay or a planted strip of winter wheat is available in an area away from the trees.

Conclusion

While there are a number of ways to minimize wildlife damage to trees, none are foolproof and some can be quite costly. Remember that your goal is to minimize damage to a level you can live with. It is not possible or desirable to completely destroy the wildlife population in your farm or yard. Like humans, animals have food preferences. For example, dogwood and hawthorn are favoured by deer, whereas rabbits particularly enjoy green ash. Very few animals, however, will feed on choke cherry. If animals are a perennial problem in your yard it would be worthwhile to choose species that are not favoured by wildlife.