

Wildlife Management

Mice and Voles

These rodents damage young and bearing trees alike by eating the bark off the trunk and roots at and just below the ground line.

Controls: Control of ground vegetation immediately around trees is of prime importance in the control of voles. A 4-foot radius around the tree should be kept bare to eliminate cover for the animals. Frequent close mowing of the orchard groundcover helps considerably in reducing vole populations. Flail or rotary mowers help reduce the thatch layer that provides cover for the voles. Tree guards of hardware cloth with no larger than 1/4-inch mesh can be effective if they extend several inches above and below the ground line. Thiram is an effective repellent sprayed on the trunk in the dormant season. It will not be effective on pine voles that work largely underground. It is necessary to use a toxicant in northern areas where there is snow cover. Heavy snow compounds vole problems. A discussion of mouse or vole control by use of baits is found in the current spray guide.

Rabbits

Rabbits damage young trees by eating the bark. In areas where heavy snows occur, damage can extend as far up into the tree as snowdrifts occur, sometimes stripping entire scaffold areas.

Controls: Mechanical guards are the most positive protection. Use an 18-inch square piece of hardware cloth bent into a cylinder around the trunk, or plastic guards are available from orchard supply houses. The spiral guards must be regularly readjusted to prevent girdling trees. Thiram is an effective but expensive rabbit control on young trees. Thiram can be applied only in the dormant season. Read and follow label instructions. Removal of habitat favorable to rabbits adjacent to orchards will do much to reduce the

rabbit population. Keeping fencerows and herbicide strips clean and the orchard mowed will help. In extreme conditions, hunting and trapping rabbits can help to reduce the population. Your wildlife specialist has plans for a box trap for small game.

Deer

Deer have become an increasingly serious problem in midwestern orchards, and populations have doubled in the last 10 years. Deer damage includes dormant season feeding on buds and young twigs of fruit trees, with apples the preferred forage. In the dormant season, bucks also damage trees by “rutting,” or rubbing antlers on young trees. During the growing season, deer browse on foliage, buds, young shoots, and fruit. Heavy deer pressure can seriously interfere with growth and training of fruit trees.

Controls: Repellents can provide some relief from deer damage, although the effect of repellents is usually temporary and works best when the deer population is not high. Repellents seldom provide complete protection from deer damage and in most cases only slow down the damage. Repellents vary in weather resistance, but most must be reapplied after heavy rains. Repeated applications of repellent materials can be very expensive. In areas and times when deer pressure is intense, repellents do not usually offer satisfactory protection. Repellents are classified as area or contact materials. Area repellents are applied next to trees and usually repel by smell alone. Examples of area repellents include Hinder (ammonia soaps of higher fatty acids), human hair, soap, and blood meal. Contact repellents are applied directly to the trees and repel by creating an unpleasant taste. Examples of contact repellents include Big Game Repellent (BGR), Deer-Away (putrescent egg solids), Miller Hot Sauce (capsaicin, an extract of hot peppers), Gustafson 42-S, and Chaperone (Thiram). A study at Pennsylvania State University indicated



that under semi-field testing Hinder and Deer-Away were very good. Gustafson 42-S Thiram Repellent at the 42 percent concentration is one of the most effective repellents, reducing damage 80 to 90 percent. This material needs to be used with a sticker such as Roplex.

Midwestern growers have found motel-size soap to be effective for a limited time. The time period appears to be extended if the wrapper is left on the soap. Soap bars are attached to each tree by wires or by placing bars in plastic apple bags and attaching the bags to the tree with a pinch-type clothespin. In either method, the soap must not drip down the trunk since rabbits like the taste of soap and are more likely to damage the trunks of soap-covered young trees.

Eight-foot deer fences are effective, but not really practical for orchards because of their expense. Where deer populations are high and hunting is not a viable option, one of the most cost-effective techniques that provide excellent control is the use of a permanent electrified deer fence. New Zealand electric fences using hi-tensile poly tape work well. Poly tape can be found in white and orange, with orange being the preferred color. One strand of poly tape placed at a height of 32 inches is recommended, and effectiveness is improved by attaching strips of tin to the poly tape and baiting these with peanut butter. The figure-four fence and the Penn State S-wire electric fence are more effective where deer pressure is very high. Plans for these fences can be obtained from your state wildlife biologist or your horticultural specialist.

Controlled hunting has been the most cost-effective means of reducing populations over a period of years. For hunting to effectively control deer populations, does must be removed annually. Special-permit, antlerless deer hunts can be arranged during the regular hunting season. Removing only bucks will not solve the problem since each doe produces two fawns a season. Contact your state wildlife biologist for more information. Laws vary considerably from one state to another.

Groundhogs and Woodchucks

These pests are occasionally a problem in orchards since they dig burrows in the ground and create dangerous holes and mounds in the area. Woodchucks can be trapped in the spring using box traps. They can also be gassed using USDA gas cartridges, which are usually available from your county agent or farm advisor. All entrances to the burrow must be sealed for gassing to be effective. Springtime treatment is more effective because the young leave the den in midsummer.

Birds

Birds destroy cherries by feeding, and they damage apples and peaches by pecking the ripening fruit. Noisemakers and avian alarm calls can be effective for a while and may serve during a harvest season. Under extreme conditions, trapping can be done. Contact your state wildlife biologist. Shooting many bird species carries a hefty fine.