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1-1-2010

Managing Animal Damage

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Sandler, Hilary A. and Wick, Brian, "Managing Animal Damage" (2010). *Cranberry Station Best Management Practices Guide - 2010 revision*. Paper 17.
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Managing Animal Damage

Certain wildlife species may cause damage to agricultural property at various times during the year. The Animal Damage Control (ADC) program, part of the Animal and Plant Health and Inspection Service (APHIS), recommends using integrated pest management (IPM) to reduce wildlife damage. Animal or varmint IPM may involve adjusting management practices, dispersing animals, and/or removing specific individuals. Residents of Massachusetts may wish to consult CMR 131:37, which details the exception to the game laws when property damage is occurring.

Recommended Practices

Canada Geese

Canada geese are known to dig into the soil surface, looking for food. This activity can be very destructive and cause injury to large areas of vines. They can feed on fruit and new growth and may also affect water quality. Canada geese are protected by the Migratory Bird Treaty Act of 1918. This act states that it is unlawful to hunt, kill, sell, purchase, or possess migratory birds. However, many populations of Canada geese have become non-migratory. Under certain circumstances, time-limited hunting permits may be issued through the U.S. Fisheries and Wildlife Service (see “For more information” at end of the BMP).

Manage floods to minimize goose damage.

In new bogs where goose damage is likely to occur, leaving the bog out of winter flood is advisable unless severe winterkill conditions occur. If fruit is needed or expected on the bed, flood only when winterkill weather arrives. Diligently guard the bog until the flood freezes. Immediately upon thawing, remove the flood as soon as possible. Very shallow floods will reduce damage as geese dig by paddling their feet, not by digging with their bills. If they cannot float on the water, they cannot dig by paddling.

Weed control is key for managing geese populations.

Control wild bean and nutsedge populations, which provide an excellent food source for the birds. Canada geese dig for the ground nuts produced by wild bean plants. Geese will also dig up new plantings while feeding on nutsedge populations. This behavior can cause serious rutting. Some growers opt to hand-remove nutsedge seed heads during the mid-summer to minimize the spread of the nutsedge

Proper management of your weed populations can save you thousands of dollars of damage caused by geese.

Scarecrows, whistle bombs, and the use of dogs are generally not successful deterrents.

As a first step, you need to use common scare tactics on your farm to determine whether or not they will work in your situation. In general, animals are not frightened by sounds alone. Scare tactics will provide some deterrence only if used in conjunction with lethal force tactics. If the employment of scare tactics is unsuccessful, you may then seek to obtain a permit to hunt year-round on your property.

Geese quickly learn whether you are just “making noise” or whether they will actually suffer injury if they do not move away from the site. Growers report that geese will “learn” to recognize the vehicles that carry the hunters.

If your geese problem is severe, consider allowing hunting on your property during the appropriate season(s) of the year.

Geese quickly learn where they are and are not safe. Property owners who allow hunting on their property without collecting a fee are not liable under Massachusetts law for injury, death, or property damage incurred by the hunters unless “gross negligence by the landowner” can be proved.

In addition to the regular hunting season (for which you must obtain a license from the MA Division of Fisheries and Wildlife), Massachusetts allows two additional hunting seasons for non-migratory geese. You must apply for a permit from the U. S. Fisheries and Wildlife Service to hunt geese during these periods. The dates vary depending on your county of residence, but the general time periods are early September and/or late January-February.

Deer

Deer may wander onto cranberry bogs and eat foliage or berries. Anecdotal evidence indicates that a deer may eat 2-4 barrels of cranberries over the course of a season. They can also cause damage by trampling vines and fruit or by bedding down on the vines. They also leave behind feces that are difficult to remove and interfere with harvesting, cleaning, and processing of fruit.

Repellents such as soap, hot pepper spray, predator urine lures, and distasteful compounds such a ‘Hinder’ or ‘Bitter apple’ are not approved for use on food crops.

In addition, repellents not associated with a human presence have met with limited success.

Small acreage may be protected by frightening methods.

Deer are wary of humans and may be kept at bay using 24-hour talk radio, flash tape, and motion type devices. The most common scare device is the propane exploder. Shell crackers can also be used to frighten deer.

Deer must have two senses stimulated before they are frightened away. Therefore, they are not repelled by sight or sound only.

Deer may be excluded through the use of fences.

However, this is a very expensive alternative. A straight ten-foot fence provides no barrier to a deer determined to feed on the bog. A 7-foot fence inclined at a 25° angle out from the vertical will deter deer as they have poor depth perception. Deer fences are typically made of poly or steel wire.

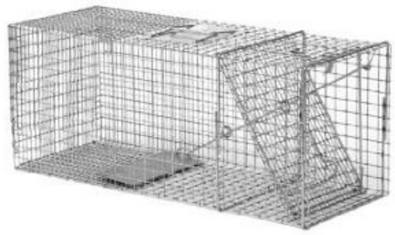
Electric fences can be used and are relatively less expensive than traditional fence. These should also be inclined and not installed straight up and down.

Muskrats

These rodents have been identified as destructive and/ or nuisance species on producing cranberry farms. They can burrow into water control structures such as ditch edges and dikes. Deterioration of these structures can lead to catastrophic results, e.g. personal injury, equipment damage, and loss of harvest or winter flood water.

Non-lethal traps are the first type of trap that must be used against muskrats.

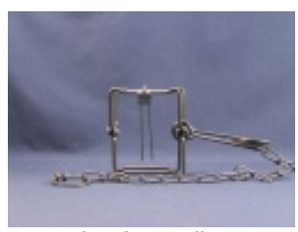
Use of leghold traps are prohibited and growers must use alternative methods to discourage damage by these animals. Growers are allowed to use non-lethal traps on their property for the purpose of capturing nuisance muskrat or beaver. Non-lethal traps include box or cage-type traps that contain the entire animal without grasping any part of the animal.



Example of a box (nonlethal) trap.

Where populations are high and damage is severe, a special permit is available for lethal trapping.

If non-lethal traps prove ineffective for more than 15 consecutive days or if a muskrat or beaver is posing an immediate threat to your agricultural property, which has caused or is about to cause a loss in production or will prevent normal agricultural practices from occurring, you can receive an emergency 10-day permit from the director of the Department of Fisheries and Wildlife. Emergency permits allow the use of body-gripping (Conibear) traps. Leg-hold traps are not allowed under emergency permits. If there is an immediate threat to human health and safety, applicants can instead request an emergency 10-day trapping permit from your local board of health. A 30-day extension can be sought on both types of emergency permits, if not successful during the first 10-day period.



Example of a conibear trap

If you are trapping animals on your own property that is principally used for agriculture, you do not have to be a licensed trapper to use body-gripping traps. Otherwise, you do need to be licensed and your traps registered with the state or you need to hire a licensed trapper or a Problem Animal Control agent.

Other types of traps can be used, but offer variable degrees of success.

Muskrats do not readily enter live traps. Apple and iris baits may attract a few individuals, but are generally unsuccessful.

Growers can use box, cage, or net methods, commonly referred to as the “Havaheart” traps. These traps are typically more cumbersome, require camouflaging, and can be more labor intensive than the grasp traps.

When constructing new dikes in areas with high populations of muskrats, bear in mind that muskrats like steep slopes.

Construct gentle slopes that are much less attractive to muskrats. Place chicken wire around the flume to prevent digging.

Voles, Woodchucks, and other rodents

These animals live underground where moist, sandy soils are common and digging is easy. They can do significant damage by burrowing, cutting tunnels through the vine and eating seeds and berries. Woodchucks cause drainage damage and drought damage by excavating burrows on the sides of bogs and pushing fill into the ditches. Generally, these problems are more severe on “dry bogs” that are not flooded. Chronic damage may cause large portions of the bog to become unproductive. Frightening methods are not effective in reducing rodent damage.

Encourage natural predators.

Consider constructing owl and kestrel boxes beside the bog and provide perches for hawks and other raptors. Consider leaving coyote and fox dens on the property undisturbed.

Mowing around the bog will increase predator success and reduce the seed available for rodent use. Keep in mind that this may also serve to drive voles and other small rodents into the producing area of the cranberry bed.

In severe cases, other alternatives are available.

Runs used by voles, weasels, and mice (but not woodchucks) can be guarded with sticky cards or snap traps if enclosed or covered.

Zinc phosphide (a fast-acting rodenticide) can be used in noncrop areas surrounding the bog and buildings. Bear in mind that rodenticides are toxic to humans, other mammals, and some birds. Handle all baits and poisons with extreme care.

Woodchucks can be trapped easily in live traps, but cannot be legally transported and released in another location.

Woodchucks may be shot year-round if you have a hunting license (no permit needed).

Burrowing rodents can be killed using smoke grenades or engine exhaust piped into the sealed burrow.

For more information:

Code of Massachusetts Regulations: 321 CMR 3.00 Hunting.

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MA Division of Fisheries and Wildlife. Bourne, MA. (508) 759-3406.

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Trapping section of the Massachusetts Division of Fisheries & Wildlife web site at http://www.mass.gov/dfwele/dfw/recreation/trapping/trapping_home.htm.

USDA, APHIS, Animal Damage Control (ADC) web site. http://www.aphis.usda.gov/wildlife_damage/

US Fisheries and Wildlife Migratory Bird Permit Office. P.O. Box 779, Hadley, MA 01035. (413) 253-8643.

Updated by Hilary Sandler and Brian Wick and reviewed by CCCGA Environmental Committee, 2010.

Managing Animal Damage Checklist

- ✓ Use IPM to reduce animal damage.
- ✓ Confirm that any repellent (or similar) products are approved for use on food crops.
- ✓ Familiarize yourself with the relevant state regulations regarding trapping, etc.
- ✓ Contact state agencies if you have any questions about licenses or regulations.
- ✓ Obtain needed permits to pursue lethal control measures.