

AMERICAN CROW DAMAGE MANAGEMENT

The American crow (*Corvus brachyrhynchos*) is a large, completely black, slightly iridescent bird commonly found throughout the State of Minnesota. They are similar in appearance to ravens, but can be differentiated by size, call, flight pattern, flocking behavior and habitat selection. Crows are members of the Corvidae family. Other Corvids found in Minnesota include ravens, jays, and magpies. All members of the family are considered to be oscine passerine birds, which refer to the fact that they have specialized vocal apparatus (oscine), and are perching (passerine) birds. Being highly intelligent, as are all Corvids, crows demonstrate an ability to make and use tools, a trait until recently only attributed to humans and a few other highly developed mammals. Recent studies indicate that the intelligence of Corvids may rival many non-human primates. Habitat selection of the crow is quite varied, with agricultural or grassland settings preferred for foraging, and woodlots and forest edge habitats preferred for roosting and breeding. However, this omnivorous bird is also comfortable in urban settings, where it can forage for food made available by human activity (trash, pet foods, bird feeding, etc.). They are opportunists and will eat nearly anything! Some crows migrate short distances, but many remain on their territories throughout the winter months. They participate in flocking behavior, with large flocks gathering in winter feeding and roosting areas. Communal roosting occurs from autumn through mid-winter, and typically occurs in areas with large trees. This behavior, along with their opportunistic feeding habits, can cause this species to come in conflict with human activities. There are several categories of damage abatement techniques that can be utilized to reduce damage caused by crows: lethal, exclusion, frightening, and cultural methods.



Photo by Carrol Henderson

Exclusion Techniques

Exclusion methods are only feasible when protecting small areas, such as the use of bird netting to protect gardens containing berries, or individual fruit trees. Another option would be the stringing of individual, parallel lines (monofilament or wire) over the site to be protected, at a height of 6-8'. Hanging ribbons, strips of aluminum foil, or pie tins from the lines would make them more visible to birds. However, there is some evidence to indicate that the element of surprise which a bird experiences when encountering nearly invisible lines, may be the mechanism which makes this method successful in preventing their landing on the protected area. Birds may also avoid these areas because a quick escape from them may not be possible if a predator approaches. More research is needed to determine the methods by which these systems work. Wire lines have been used most successfully with gulls and various species of waterfowl, but there is some evidence that it may also work for crows. Information concerning the wire spacing differs, however, and ranges from 10' to 20'. Further more studies are needed to determine the effective wire spacing for crows.

Frightening Techniques

Frightening techniques are often utilized for controlling crop damage and dispersing roosts. There are a wide variety of frightening devices available including propane cannons, pyrotechnics (shell crackers and

screamers) and other noise makers, such as clappers, motion-activated alarms and sprinklers, and distress alarm call systems. Be sure to check local noise ordinances to determine if pyrotechnic & other noise-making devices are permitted in your area. Use pyrotechnic devices with caution, as sparks they generate are capable of starting grass fires.

Please note that any stationary frightening device would need to be moved frequently to prevent habituation. Remember that crows are “smarter than the average bird” and will quickly learn that stationary objects (including the speakers which deliver distress alarm calls) do not pose a threat.

The use of ultrasonic noisemakers has been suggested by various wildlife control supply companies as being a solution in repelling many species of birds. However, buyers beware! Research indicates that many birds do not respond to the use of these devices, and may not even be able to hear sounds in the ultrasonic range. Therefore, it may be best to rent such a device initially to determine its effectiveness before purchasing.

The use of dead crow effigies (carcasses, taxidermic or artificial) as frightening devices have been studied and show much promise as a frightening technique in both preventing crop damage and in roost dispersal. Studies indicate that crows respond to effigies with alarm, especially when used in conjunction with other frightening techniques, such as distress alarm calls, and/or when applying a lethal means of control such as hunting. Periodically varying non-lethal methods, such as noisemakers, used in association with this frightening device, will prevent acclimation. To prevent crop damage, dead crow effigies should be hung throughout the area to be protected. In addition, posing them in an unnatural position on the ground may also be beneficial in that they can be seen by birds flying above. As with any frightening device, they would need to be moved frequently to prevent acclimation. When used to disperse communal roosts, effigies should be hung throughout the perching areas. It is important that the roost is lighted, as the birds must be able to see the effigies for this method to be successful.

Lasers are also considered to be frightening devices which may be useful in dispersing communal nighttime roosts, but only if they are used in conjunction with additional frightening techniques. Research indicates that when used alone, lasers will cause the birds to disperse for a short period of time (usually returning the same night), but will not cause them to abandon the roost. They should be used with great caution due to the potential dangers associated with them. Follow all of the manufacturer’s instructions and cautionary warnings. The exposure limits and dangers associated with various classes of lasers can be reviewed through the following link http://www.asu.edu/radiationsafety/laser/appn_C.html.

Lethal Techniques

Lethal means of control, such as shooting, are one of the options available to growers or homeowners. The hunting season in Minnesota is 3/1 – 3/31 and 7/15 – 10/15 each year. These are opportune times to reduce local resident population levels. These birds are difficult to hunt due to their wariness; however, electronic calls or sounds and decoys can be utilized when hunting. Great horned owl calls are very effective in luring crows within shooting range, as these avian predators will cause crows to mob

the area from which the sound is being emitted. Owl decoys may also be used in conjunction with the calls to induce this mobbing behavior, thereby increasing hunter success. No license is required to hunt crows. They may be taken by legal firearms (shotgun not larger than 10 gauge, rifle, or handgun), bow and arrow or by falconry. There are no daily or possession limits, and shooting hours are ½ hr before sunrise to sunset. Odd as it may sound, crow recipes can be found by simply undergoing an internet search.

Crows are protected under the Migratory Bird Treaty Act but can be taken out of season, without a permit, when caught in the act of committing, or about to commit, damage to ornamental or shade trees, agricultural crops, livestock or wildlife. Lethal means of control can also be undertaken when they are concentrated in large numbers, such as communal roosts, and subsequently constitute a nuisance (e.g. noise) or pose a threat to human health, as would be the case when accumulations of fecal materials pose a sanitation risk. Legal methods of take are the same as during hunting seasons. Crows cannot be taken outside of the damage area.

Cultural Methods

Cultural methods can also be utilized to disperse winter roosts. Preferred roost sites consist of large trees with many branches (perches), and which offer protection from the elements. Roosts can be made undesirable by thinning branches from individual trees (when they occur in an urban setting), or by thinning thick stands of trees, as one might do for timber stand improvement reasons in a rural setting. Thinning trees marked by a professional forester would improve forest resources on the property in question, and render the site undesirable as a winter roost.

To protect agricultural crops, a method that can be utilized is to provide an alternative food source that is more palatable and easier to obtain than the crop that is being damaged. One example prevalent in the literature is the use of whole corn (softened by soaking in water) spread throughout a field to protect newly planted corn seedlings.

Additional Resources

For more information concerning American crow damage management and sources for bird control materials, contact your local DNR Area Wildlife Manager (phone number can be found by contacting the DNR Information Center at 888-646-6367).



Photo by Carrol Henderson