

HUMAN- GOOSE CONFLICT



HISTORY OF CANADA GOOSE IN OHIO

While historically in Ohio, by 1900 Canada geese were gone in Ohio. The Ohio Division of Wildlife initiated a giant Canada goose restoration program with 10 pairs each on three state-owned wetland areas in 1956. In 1979, surveys estimated the goose population at 18,000 geese. However, the expanding goose population quickly began to cause conflicts with our growing human population with many of the geese becoming considered “resident geese”. In 2012, the spring population estimate of resident geese was 147,718 birds and coupled with “migratory goose” populations it more than adequately supports Ohio’s Canada goose hunting season.

TYPES OF GEESE IN OHIO

Migratory Geese

Geese that migrate to/from their winter and breeding areas. Migratory geese usually show up in early fall and may persist in Ohio throughout the winter. They generally are wary and are easily hazed. Migratory geese are often attracted to an area due to the presence of resident geese.

Resident Geese

Geese that stay in one general area throughout most of the year but may migrate short distances during periods of severe weather. These geese are usually in an urban/suburban area. Generally resident geese are familiar with local water and food sources and are much more difficult to haze or deter from your property.

HOW TO SOLVE A GOOSE PROBLEM

The key to solving the problem is to make your property less attractive to Canada geese. Constant harassment, habitat alterations, and hunting (when hunting is allowed by local ordinances) are the most effective long-term solutions to reduce goose problems. Efforts should also be made to remove attractants:

- Stop **ALL** feeding immediately
- In winter, stop pond aeration to allow ponds to freeze
- When possible, eliminate fertilizing grass or reduce mowing to allow grass to grow especially around ponds

NEGATIVE EFFECTS OF FEEDING

- Feeding geese popcorn, bread, or shelled corn is like feeding a child junk food since the geese are not receiving a balanced diet which can cause wing deformities and poor overall body conditions
- Feeding causes overcrowding allowing diseases, such as botulism and cholera, to spread easily and possibly result in massive waterfowl die-offs
- Geese lose their fear of humans and become aggressive increasing the potential for people getting injured
- Feeding reduces the need for geese to migrate so they stay in an area longer and create more problems



PROTECTED STATUS

Canada geese are protected under both the Federal Migratory Bird Treaty Act and Ohio state law. This protection extends to the bird's nest and eggs. It is illegal for any person, agency, or organization to take or attempt to take (pursue, hunt, shoot, wound, kill, trap, capture, or collect), any bird, nest, or egg outside of the regular hunting season without a special permit from the Ohio Division of Wildlife and the U.S. Fish and Wildlife Service.

WHAT CAN BE DONE WITHOUT A PERMIT?

A permit is not required to merely scare, repel, or herd Canada geese, provided no attempt is made to confine the birds. Nests that do not contain eggs may be removed, however caution should be given before removing a nest as Canada geese only lay one egg a day and will cover their eggs to keep them hidden until all eggs are laid and the female begins incubating (i.e. sitting on) the eggs. If, despite your efforts utilizing the following techniques, further control is needed, a special permit is required from the Ohio Division of Wildlife. Contact the nearest wildlife district office listed below.

WHAT PERMITS ARE AVAILABLE

Permits will only provide temporary relief and are **NOT** a successful long-term solution. If the site is not made less attractive, adult geese will only return to your property next year or other geese will take their place. Permit activities can be performed by the landowner, a landowner-designated agent, or by a Division of Wildlife certified private pest control operator (at the landowner's expense). In most cases, a permit will only be authorized as a last resort when non-lethal techniques, which have been done appropriately, have proven ineffective. There are three permits a landowner may be eligible for:

| Permit | When Issued | Pros | Cons |
|-----------------------------|-------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------|
| Nest/Egg Destruction Permit | When geese are on nest (March-May) | Doesn't allow geese to hatch on your property | Goslings may walk in from other properties |
| Roundup Permit | When geese are flightless (mid-June-early July) | Quickly removes the geese from your property | Geese may not be on the property the day of the roundup; may be expensive |
| Shooting Permit | March 11-August 31 | Reinforces harassment | Not a population reduction tool; in most cases not allowed in municipal limits |

Please contact these offices should you need technical assistance or additional information.

CONTACTS

ODNR Division of Wildlife:

Central Ohio
Division of Wildlife D-1
 Wildlife Management
 1500 Dublin Rd.
 Columbus, OH 43215
 (614) 644-3925

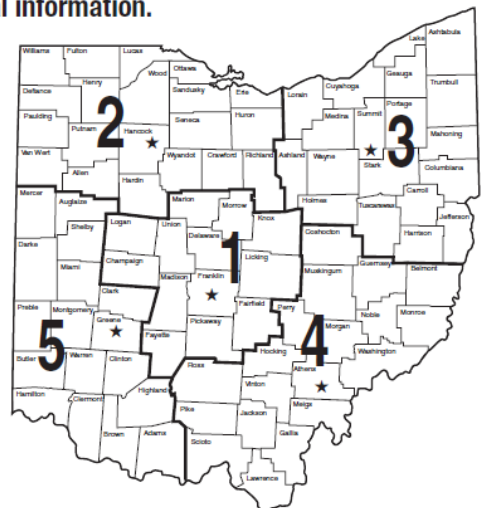
Southeast Ohio
Division of Wildlife D-4
 Wildlife Management
 360 East State St.
 Athens, OH 45701
 (740) 589-9930

www.ohiodnr.com/gooseconflict

Northwest Ohio
Division of Wildlife D-2
 Wildlife Management
 952 Lima Ave.
 Findlay, OH 45840
 (419) 424-5000

Southwest Ohio
Division of Wildlife D-5
 Wildlife Management
 1076 Old Springfield Pike
 Xenia, OH 45385
 (937) 372-9261

Northeast Ohio
Division of Wildlife D-3
 Wildlife Management
 912 Portage Lakes Dr.
 Akron, OH 44319
 (330) 644-2293



Division of Wildlife

GOOSE MANAGEMENT TIMELINE

There are many techniques for managing geese, however none of the techniques will be effective if not employed **correctly** or at the **proper time of year**. Knowing goose activities can help you pick the right techniques. Following the timeline below will help you ensure that you are doing the correct techniques at the proper time of the year

| Month | What Geese Are Doing | What You Should Be Doing | Which Techniques Work |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| January | Migratory geese are moving through the area. Some pairs of breeding age geese may break away from the flocks preparing for nesting. | If feasible, allow goose hunting on your property during hunting season dates. Employ harassment techniques to birds that have been in the area as well as any migrating geese that may come onto your property. | Hunting Deterrents Chasing Deterrents Lasers Barriers Visual Noise Physical |
| February | Geese begin to pair up and separate themselves from the flock. The number of migratory geese begins to go down. | Begin EXTENSIVE harassment techniques to get rid of both migrating geese and paired geese. Fence off nesting areas where geese caused conflicts in previous year (i.e. Doorways and walkways). | Hunting Chasing Lasers Deterrents Spray Repellents Visual Deterrents Noise Physical Barriers |
| March | Geese are paired and begin to set up nesting territories. | Begin to look for goose nests. Continue to use EXTENSIVE harassment techniques until eggs are found in nests. Contact Division of Wildlife in early March if your tactics aren't working to figure out why. If you have crop being eaten now, call your local district office to see about a Goose Shooting Permit to reinforce harassment of geese. | Chasing Lasers Spray Repellents Visual Deterrents Noise Deterrents Physical Barriers Goose Shooting Permit |
| April | Peak of geese are laying and incubating the eggs. | Keep records of where each nest is located. If you find nests, contact your local District office to see if you qualify for a Nest Destruction Permit. Harass non-breeding geese off your property. If you have crop being eaten now, call your local district office to see about a Goose Shooting Permit to reinforce harassment of geese. | Repellents Spray Physical Barriers Nest Destruction Permit Goose Shooting Permit |
| May | Goose eggs begin to hatch. Flocks of non-breeding geese may be in the area. | If you received a Nest Destruction Permit, report the number of nests according to the process noted on your permit. "Herd" family groups off your property. Install barriers to prevent geese from walking back onto your property. If you have crop being eaten now, call your local district office to see about a Goose Shooting Permit to reinforce harassment. | Spray Repellents Physical Barriers Goose Shooting Permit (agricultural fields) |
| June | Geese begin their molting and are unable to fly. | Continue to harass the adult and young geese off your property. If you have been doing EXTENSIVE harassment in May, contact your local District office in early June to see if you qualify for a roundup permit. Harass non-breeding geese off your property. | Repellents Spray Physical Barriers Roundup Permit |
| July | Adult and young geese are capable of flying in mid-July. Resident geese start to form flocks. | If you received a Goose Capture Permit, report the number of geese captured according to the process noted on your permit. Continue to harass the geese off your property. If you have young geese, they will soon be able to fly and when they do begin EXTENSIVE harassment. If you have crop being eaten now, call your local district office to see about a Goose Shooting Permit to reinforce harassment of geese. | Chasing Lasers Deterrents Spray Repellents Visual Deterrents Noise Physical Barriers Goose Shooting Permit |
| August | Resident geese are in flocks. | If you received a Goose Shooting Permit, report the number of geese shot according to the process noted on your permit. Continue to harass the geese off your property. | Chasing Lasers Deterrents Deterrents Spray Repellents Visual Noise Physical Barriers Goose Shooting Permit |
| September | Resident geese are in flocks. | All goose permits expire on August 31st, ensure all permit numbers have been submitted according to the process noted on your permit. Continue to employ harassment techniques to birds that have been in the area as well as any migrating geese that may come onto your property. Allow hunting during early goose season if possible. | Hunting Chasing Lasers Deterrents Spray Repellents Visual Deterrents Noise Physical Barriers |
| October | Migratory geese are moving through the area. | If feasible, allow goose hunting on your property during hunting season dates. Continue to employ harassment techniques to birds that have been in the area as well as any migrating geese that may come onto your property. | Hunting Chasing Lasers Spray Repellents Visual Deterrents Noise Deterrents Physical Barriers |
| November | Migratory geese are moving through the area. | If feasible, allow goose hunting on your property during hunting season dates. Continue to employ harassment techniques to birds that have been in the area as well as any migrating geese that may come onto your property. | Hunting Chasing Lasers Visual Deterrents Noise Deterrents Physical Barriers |



| | | | | |
|----------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------|
| December | Migratory geese are moving through the area. | If feasible, allow goose hunting on your property during hunting season dates. Continue to employ harassment techniques to birds that have been in the area as well as any migrating geese that may come onto your property. | Hunting Chasing Lasers Barriers | Visual Deterrents Noise Deterrents Physical |
|----------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------|

Division of Wildlife
CHASING

BEST “BANG FOR YOUR BUCK”

The best tool for discouraging Canada geese from using your property is active harassment through chasing. If done correctly and at the proper time of year chasing can be the most effective management tool for you to use. Chasing makes the geese feel uncomfortable on your property and when coupled with other harassment techniques can have the most “bang for your buck”. Some tips to ensure proper use:



- Start chasing very early in the spring before goose pairs have arrived (Feb. & Mar.).
- Go out four to five times per day to chase the geese away, and also go out at dusk when some geese may try to return to roost. Most geese leave after three or four weeks of harassment; however, if geese start nesting, almost nothing will drive them away so ensure you start chasing as soon as geese show up on your property.
- It is important to chase new goose arrivals frequently and persistently at least once a day. Remember, the geese you chase off today may not be the same geese you chased off yesterday.
- Don't stop anywhere short of getting the geese completely off your property. Simply chasing them to the water or the neighbor will not keep the geese away (and is counterproductive).
- Dogs can clear a golf course of geese while golfers are there, since it requires less than 60 seconds of interference. Usually, the geese see the dog and start honking, signaling others to fly.



Photo Credit-Ohio Geese Control

DOGS CAN BE MAN’S BEST FRIEND IN MANAGING GEESE

Almost any obedient breed of dog, when trained, can be used to discourage Canada geese; however, border collies seem to be the breed of choice. A border collie’s natural herding instinct, along with some command training, make it particularly useful for discouraging Canada geese from areas with ponds including golf courses, apartment complexes, and industrial parks.

In herding, border collies circle and stalk the object of interest. Border collies work to discourage geese by simply keeping the birds on the run and/or in the water until they become frustrated and leave the area. A dog in a boat/kayak can also be used to chase the geese from the water. Once geese are actively nesting almost nothing will work to drive them off your property.

Border collies are widely available on both the sheepdog and pet market. Some border collies are not suited for the rigors of field trials. These dogs make good goose dogs, as well as a good pet for someone who wants to own and care for the dog. There are organizations set up to place these border collies into situations where they can be useful.



Border collies need to work. If left alone, the collies become hyperactive and may dig in the lawn and chew flowers. Therefore, we do not recommend you purchase one of these dogs unless you are able to properly care for them. Some goose management companies have dogs that can be hired for harassment instead of purchasing a dog.

WHEN TO USE

Chasing, including the use of dogs, is best done from January – March (prior to nesting) and mid-July – December (after molt).

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| X | X | X | | | | X | X | X | X | X | X |

SUPPLIERS

- Fly Away Geese Management - Donna Lumme (740) 927-2323 - Service all of Ohio
- Julie Lauwers (614) 760-7247 - Service Columbus area
- A-1 Wildlife Removal (614) 231-4667 - Service Dublin area
- Martin Lodge (440) 236-5353 – Service southwestern Cuyahoga County area
- Ohio Geese Control - Jeff Hower (216) 228-4822 or (216) 403-9370 E-mail: jeff@ohiogeeseccontrol.com – Service Cleveland, Canton, Akron, Columbus, and Toledo areas
- SAS Animal Control - Steve Suder (440) 232-2964 – Service Cleveland and Akron area
- All Creatures Big and Small - Paul Badgett (330) 499-7074 – Service Stark County area
- Geese-B-Gone (513) 295-4716 or (513) 844-1995 – Service southwestern Ohio
- Wild Geese Control - Michelle Hegedis (440) 679-8828 – Service Lake, Geauga, and Cuyahoga county area
- Geese Management Services, LLC - (513) 625-0349 or (513) 604-4035 www.geesemanagementservices.com – Service Cincinnati and Dayton area
- Goose Whisperers - Glenn DeMott (614) 323-8897 – Service Dublin, Hilliard, and Upper Arlington area
- Go Geese Go - Pat Lee (614) 841-4663 • pat_lee@gogeesego.com • www.gogeesego.com – Service Columbus area out to 15 miles beyond I-270
- GooseBusters - Judi Wilkinson (330) 715-0497 • goosebusters@aol.com – Service Summit County area
- Duck Duck Goose Wildlife Control (614) 604-3023 - Service Columbus area
- The Goosebuster-Mark Dormire (937) 239-5324, (937) 414-0167, (614) 596-1657 www.thegoosebuster.com – Service Dayton, Cincinnati, and Columbus area
- Advanced Wildlife Management - Chris O'Banion (937) 750-8727 - Service Dayton and Cincinnati area

Commercial Nuisance Wild Animal Control Operators can be contracted for chasing geese. A list of operators can be found at www.wildohio.gov under Species and Habitats→Nuisance Wildlife.

COST AND EVALUATION

A landowner/property manager chasing on foot is free. If contracting someone to chase for you, the cost can be variable depending on the level of service requested and whether dogs are used or not. Cost to purchase a trained dog can be \$1,000 or more. Pet dogs may be effective but must be very responsive to commands since the owner can be held liable if a dog injures, or kills, a goose.



Division of Wildlife

GOOSE ATTACKS



GENERAL INFORMATION ABOUT ATTACKS

In the spring, geese will aggressively defend their nesting territories. The Ohio Division of Wildlife has documented goose attacks on humans that have caused serious physical injury, such as broken bones and head injuries, and emotional distress. In most cases, these injuries have occurred when the person tried to avoid an attack and tripped over an object (e.g., stairs, curbs, etc.). When fed by humans, geese tend to lose their natural fear of people. This lack of fear often leads to more violent attacks during the spring nesting season. In addition, when geese lose their fear, they will begin nesting closer to areas that people frequent such as buildings, flower


beds, parking lots, picnic tables, etc. People who have had a negative experience are more likely to be afraid of geese upon their next encounter. Individuals who are not afraid of geese usually have trouble understanding how someone could possibly be afraid of a bird, but to the person who has been attacked and/or injured these threats are real.

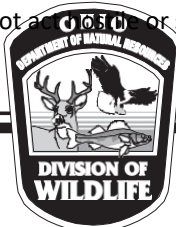
WHY DO GEESSE ATTACK ME, WHY DON'T THEY LEAVE ME ALONE?

Breeding instincts are among the strongest drives of animals. Canada geese usually start choosing mates and selecting a territory for nesting in late February to early March. The females start laying eggs anytime from mid-March to mid-May. Incubation by the female begins as soon as all her eggs are laid. The male's job during nesting season is to defend the female, their nesting territory, and eggs. If a person or another goose enters the territory, the gander will usually give a warning call to the intruder before chasing it away such as hissing or spreading their wings to look large. Some geese can be very aggressive and will only stop their attack when the intruder has left. Geese will sometimes also be defensive of their young, but by giving the geese and their young space and avoiding getting near them will often remedy any goose attacks.

WHAT SHOULD I DO IF A GOOSE ATTACKS ME?

Waterfowl have excellent vision. Geese seem to pay very close attention to the eyes and body language of humans and other animals. If a goose flies up towards your face, duck or move away at a 90-degree angle to the direction of flight, still facing the attacking goose. If the goose makes an aggressive move towards or is hissing and/or spreading out its wings:

- Maintain direct eye contact and keep your chest and face pointed at the goose. Never turn your back or shoulders away from the hostile goose.
- Calmly and slowly back away, watching for obstacles. Never run from the goose.
- Maintain a neutral demeanor, i.e., do not  or show fear.



I AM A FACILITY/PROPERTY MANAGER, WHAT CAN I DO?



First, ensure no one is feeding the geese. If geese have not started laying eggs and/or are not nesting, harass the geese to make the geese feel like the property is not a safe place to nest. If avoidance and harassment tactics have failed to discourage geese from nesting on your property and the male becomes defensive of a nest, often installing tall fencing, such as orange snow fencing, around the area will stop the geese from being aggressive, will demonstrate to employees that efforts are being made to address the situation without using lethal means, and while also provide a visual for people to avoid that area. If that doesn't solve the goose attacking issue, the landowner or facility manager can apply for a Nest Destruction Permit by contacting their local wildlife district office. Occasionally, a Goose

Capture Permit may be approved by the Division of Wildlife for removal of extremely aggressive geese after all other techniques have proven ineffective.

Prior to using the permit, the facility manager should notify all employees that the eggs, nest, and/or geese are being removed for the health and safety of all concerned. Some people will be in favor of the removal, some will be adamantly opposed. You will have a better chance of gaining their consent if you are up front and honest in your explanation. Everyone needs to understand the point of view of the people who are frightened by geese - the ones that will be attacked, several times per day, and who are traumatized just thinking about facing the geese.



Photo Credit-Brunswick Animal Control

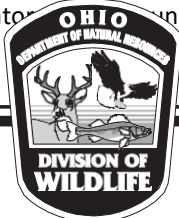
WHEN TO USE

Goose attacks generally occur March -May, but sometimes will also occur through July if there are young.

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | X | X | X | X | X | | | | | |

SUPPLIERS

Commercial Nuisance Wild Animal Control Operators who have passed a certification test are allowed to work on goose permits (at the landowner's expense). These same operators can also be contracted for harassment of the geese and installation of barriers. A list of operators can be found at www.wildohio.gov under Species and Habitats → Nuisance Wildlife.



COST AND EVALUATION

The cost for snow fence is approximately \$30 for a 4' by 50' roll and stakes (plastic, wooden, fiberglass, etc.) are needed to hold the fence up, but both may be reused for many years. Costs for hiring a Commercial Wild Animal Control Operator is variable depending on the level of service requested if you hire someone to install the fencing.

Division of Wildlife

Lasers



Lasers have the advantage of being less noisy than noise deterrents and are more aesthetically pleasing than visual or physical deterrents. Using lasers can have similar effectiveness as chasing geese. If done correctly and at the right time, geese are scared by the laser beam and quickly leave an area when harassed with a laser. The average harassment time needed before the geese leave the area generally decreases with more frequent use of the laser. Using strong lasers offers the benefit of being able to use it from long distances away from the geese. The laser is not effective on areas where people feed the geese. The lasers will cause the geese to leave temporarily, but they will return if food is available.

When harassing the geese with a laser, start by directing it at a point several yards away from the geese, and slowly move the beam towards the geese. The geese see the beam moving toward them and usually take flight before the beam reaches them. If the beam needs to be directed towards the geese, aim it at their chests or sides and not at their eyes. This will avoid possible disorientation of the geese and any possible eye damage. Be aware of any people or houses that are behind the harassment areas so that they are not subjected to the beam reflecting off the water. Also be cautious to not point the laser into the sky as it may affect aircraft in the area.

GREEN OR RED LASERS

Lasers come in both red and green beams. While red beam lasers are easier to find, they tend to only be effective when harassing geese at night. Green beam lasers usually can't be purchased locally but offer the added benefit of being effective during daylight hours. However, both are limited depending on the amount of sunlight present. In either case, the stronger the beam the better.

WHEN TO USE

Lasers are not effective against geese that are actively nesting, on goslings that cannot fly, or on adult geese that are molting and cannot fly. Laser harassment is most effective around sunrise and sunset.

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| X | X | X | | | | X | X | X | X | X | X |

SUPPLIERS

- Bird-B-Gone www.birdbgone.com or call (800) 392-6915
- Birdbusters www.birdbusters.com or call (886) 915-8225
- Bird-X, Inc. www.bird-x.com or call (800) 662-5021
- Margo Supplies, Ltd. www.margosupplies.com or call (888) 652-1199
- Laser Glow Technologies. www.laserglow.com or call (866) 924-1673
- Reed-Joseph International Co. www.reedjoseph.com or call (866) 647-5554



- Wildlife Control Technology, Inc. www.wildlife-control.com or call (800) 235-0262

COST AND EVALUATION

Some people have had success with the \$40 or less lasers that are sold at hardware stores, however these typically do not project a strong laser beam. Some stronger lasers can be purchased for around \$125. For very large areas lasers that project a very strong beam can be purchased but typically will cost anywhere from \$600-\$1200.

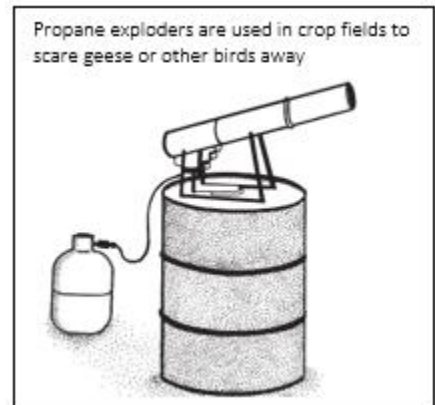
Division of Wildlife **Noise Deterrents**

USING NOISE TO YOUR ADVANTAGE

Birds react to unfamiliar sounds. Almost any loud, foreign sound will startle, and repel geese and other waterfowl. Birds do learn to ignore sounds that have proven harmless, especially if they are used often and for long periods of time. The key to using noise to haze geese off your property is to start using it as soon as the geese show up to prevent them from getting comfortable. Prior to initiating a harassment program in urban areas, consult state, county and local authorities regarding noise ordinances.

In addition to products specifically designed to scare birds, many ordinary appliances found around the home can be used. Mechanical scare devices include, but are not limited to:

- leaf blowers
- electronic alarms
- air horns
- sirens
- alarm or distress calls



BANGERS AND SCREAMERS

Bangers and screamers are specialized “fireworks” that are shot out of a modified starter’s pistol. However, because they are designed and used for wildlife control they are not “fireworks” and are legal for use in Ohio.

- Screamers are like bottle rockets, producing a high 100dB shrill and leaving a trail of smoke. They will travel 250-300 feet.
- Bangers produce a loud bang equivalent to a 60mm firecracker after traveling 75-125 feet.



FEDERAL REGULATIONS FOR THE PURCHASE OF EXPLOSIVE PEST CONTROL DEVICES



As of May 1, 2011, the US Bureau of Alcohol, Tobacco, Firearms and Explosives require users of certain bangers to have a federal explosives permit. Screamers and regular bird bangers have been exempted from the need for a federal explosives permit. However, Bird Banger EXP's and shellcrackers do require a federal permit unless you are a city, county, or governmental agency. All users must follow federal storage and transport requirements. Call the ATF with questions at 888-283-2622.

USING BANGERS AND SCREAMERS

Bangers and screamers have many uses for controlling wildlife species including, but not limited to, geese and deer in agricultural fields, keeping birds such as vultures and turkeys from roosting in an area, chasing off flocks of blackbirds, chasing a bear away from an area, and harassing gulls at a marina.

For best results, begin harassment as soon as the animal is using the property. This is often early morning and late evening as that is the time when wild animals move around the most. Note: **Using bangers and screamers when birds are nesting or with young is not effective and may be illegal.**

Do not overuse bangers and screamers because wildlife can become accustomed to the persistent noise. You will see extended effectiveness by switching regularly between using bangers and using screamers. **The key to their use is being persistent and using them consistently.**

SAFETY

- Always wear eyeglasses and hearing protection when using bangers and screamers.
- Be aware of possible fire hazards. Never fire bangers and screamers where smoldering debris may fall in dry grass or on building roofs. Always keep a fire extinguisher handy.
- Never fire bangers and screamers into strong winds. Be aware of wind direction.
- Noise makers should be launched from a 45-degree angle to the horizon.
- If you don't hear or see the banger or screamer explode, do not look down either end of the firearm. Keep the barrel pointed in a safe direction and be prepared for a delayed firing. Wait at least one minute. If it still does not explode, keep the barrel pointed in a safe direction and then remove the shell from the gun. Follow the manufacturer's recommendation for disposing of the unfired shell (i.e., Water deluge).
- Abide by local laws and inform law enforcement officials before using noise makers, especially if used within municipal limits.

WHEN TO USE THIS TECHNIQUE

Noise makers are best used from January – March (prior to nesting) and mid-July – December (after molt).

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| X | X | X | | | | X | X | X | X | X | X |

SUPPLIERS

- Reed Joseph International <https://reedjoseph.com/> or call 800-647-5554
- Margo Supplies <https://www.margosupplies.com/us-en/> or call 1-888-652-1199
- Sutton Ag Enterprises <http://www.suttonag.com/index.html> or call 866-280-6229
- Wildlife Control Supplies <https://www.wildlifecontrolsupplies.com/> or call 877-684-7262
- Gempler's <https://gemplers.com/> or call 1-800-382-8473

COST AND EVALUATION

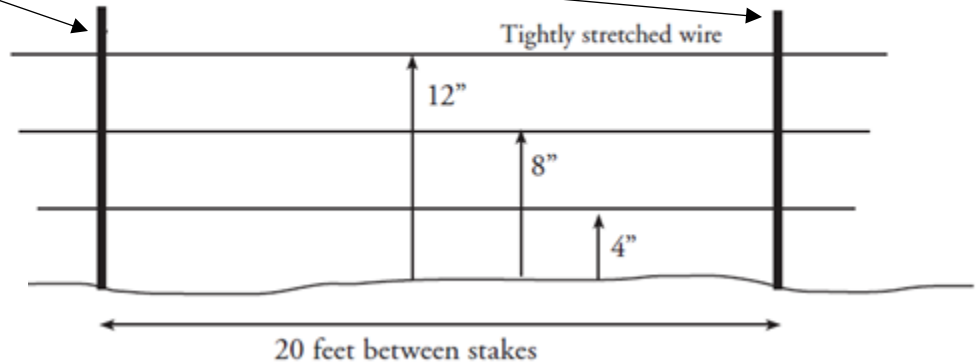
Cost of bird bangers are \$0.50 per shot; screamer siren \$0.45 per shot; shell crackers \$1.35 per shot. Pyrotechnics work great if used at the right time, but the noise may be bothersome to surrounding neighbors.



PHYSICAL BARRIERS



Light duty green U-posts
(driven in deep for stability)



PERIMETER FENCING

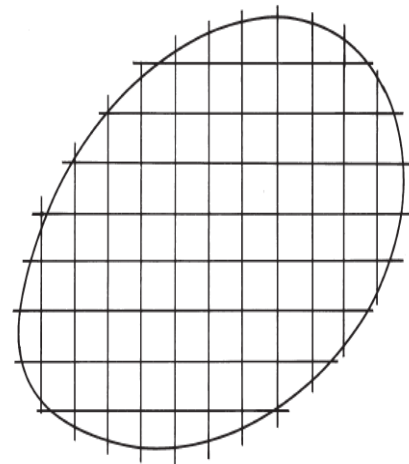
Perimeter fencing is a way to have a deterrent working 24 hours a day even when you are not home or work. It prevents geese from easily being able to walk into the water. This fencing may be constructed for permanent or temporary use. Plastic garden fencing is most suitable for temporary fencing and is sometimes helpful when ponds are near agricultural fields to provide protection while crops are growing. It is relatively cheap and can be easily installed by utilizing existing fence posts and twist ties. Other alternatives include 3' high chicken wire or orange snow fence.

For permanent perimeter fencing you can erect a multi-strand fence completely around the perimeter of the pond. The fence consists of 3 strands of thin wire (14-gauge stainless steel wire works well) strung 4", 8", and 12" off the ground. Wire is durable and will last many years. Do **NOT** use fishing line as it easily breaks down in sunlight or when hit with a weed-eater and geese can easily become entangled in the fishing line causing other issues. The wire can be suspended using three-foot green light duty u-posts, purchased at local home improvement stores. They are easy to install and have the perfect 4" spacing for running wire through the pre-drilled holes in the posts. It is important when doing any type of perimeter fencing to not leave any openings in the barrier or the geese will walk through the opening.

POND GRIDS

Denying geese easy ability to fly into a pond can be an effective way to deter them from your property. Overhead grid systems composed of sturdy posts and wire have been used successfully to deny geese access to water. While this is not practical for large lakes, it can be useful on smaller ponds. For initial installation, attach wires to posts spaced 20' apart. If this spacing proves ineffective, additional posts can be placed between the original posts, thus creating a 10' grid. Installation of perimeter fencing may also be needed if the geese learn how to walk into the water under the grid.

A grid system is most effective if installed approximately 1' above the water surface. Effectiveness is also enhanced by installing bright reflective objects on the line at scattered locations. As it will be necessary to keep the lines taut, posts must be well anchored, and each line should be equipped with a device (e.g., turnbuckles) to take up the slack.



NATURAL BARRIERS

A no-cost alternative would be to create a barrier around the perimeter of the pond using tall, thick vegetation (e.g., prairie grass or shrubs) to deter geese from having easy access to the water. Geese tend to stay away from areas with brushy edges or thick cover can hide predators. Dense plantings around feeding areas and tall trees in flight paths will deter geese from using these areas. Natural barriers can be pleasing to the eye and will effectively deter geese from coming on shore as well as help with other harassment techniques.

WHEN TO USE

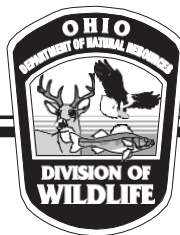
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SUPPLIERS

Local home improvement or hardware stores.

COST AND EVALUATION

14-gauge stainless steel wire typically costs around \$.05/foot. U-posts typically run \$3-\$4 per post. Posts and wire should last 10+ years and typically requires little maintenance other than ensuring wires remain tight. Plastic garden fencing costs approximately \$1/foot but usually requires more maintenance to ensure it stays up. In addition, plastic garden fencing can cause some issues when mowing or weed-eating and in autumn when leaves fall. Pond grids should be evaluated prior to pond freeze-up to ensure the wires are tight and not touching the water, otherwise the ice formed on the surface of the pond will pull on posts creating more needed maintenance in the spring.



SPRAY REPELLENTS



TYPES OF REPELLENTS

While brand names may vary, all spray repellents for geese will use one of two active ingredients: methyl anthranilate (MA) and anthraquinone (AQ). Both are designed to be sprayed on grass, thus making the grass unpalatable to geese. MA is a naturally occurring nontoxic, biodegradable food ingredient found in concord grapes and orange blossoms. It has been used as a fragrance and flavoring in many consumer products, such as grape bubble gum and is less toxic than table salt. AQ is a naturally occurring compound found in a wide variety of plants and is virtually odorless. The compound is harmless to wildlife and humans, and it persists in all weather conditions (rain, snow, ice).

FOLLOW THE LABEL

Spray repellents are regulated by the U.S. Environmental Protection Agency and therefore anyone using them must adhere to following the rules for use listed on the label. The labels have specific instructions on the label which explain the proper application techniques and directions. It is extremely important to follow the label directions so that the repellents will work properly. In general terms, for turf application MA or AQ is mixed with water at the specified dilution rate and applied to grass areas where the birds are feeding. When geese feed on the treated grass, the repellent causes a strong reaction in the geese, thus causing them to avoid the treated grass.

POINTS TO CONSIDER

Effectiveness of the turf repellents varies for each conflict situation. The type of repellent, timing of application, frequency of application, size of the area, number of geese present, and use or non-use of other harassment techniques all contribute to success or failure. Some considerations to make when deciding to use spray repellents are:

- Spray repellents will need to be reapplied regularly to be effective.
- If only part of your grass area is treated, geese will continue to feed in untreated areas and may still leave feces on your property as they travel to the untreated grass.
- Spray repellents have shown to be effective on golf greens or newer seedings when geese pull the entire plant out of the ground.
- Large grass areas may not be practical for application because to be most effective all grass must be treated.
- Spray repellents must be used in conjunction with other harassment techniques for maximum effectiveness, not as a stand-alone measure.
- Spray repellents will not be effective against geese that are actively nesting (i.e. sitting on eggs).

WHEN TO USE



Spray repellents are effective when grass is actively growing. Situations when grass is mowed more than once a week, sprinklers are used, or there is heavy rain the effectiveness may be minimized and/or additional applications may be needed.

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SUPPLIERS

- Many local lawn maintenance companies (ex. TruGreen Lawn Care)
- Bird-B-Gone www.birdbgone.com or call (800) 392-6915
- Birdbusters www.birdbusters.com or call (886) 915-8225
- Goose Chase (Methyl Anthranilate) www.amazon.com or local herbicide supplier
- Goose Migrate (Methyl Anthranilate) www.amazon.com or local herbicide supplier
- Goose Doctors www.thegoosedoctors.com or call (330) 705-5700
- RejeX-iT (Methyl Anthranilate) www.rejexit.com or call (866) 532-4737
- Flight Control (Anthraquinone) www.flightcontrol.com or call (877) 554-3373

COST AND EVALUATION

Depending on the area to be treated, the cost may be expensive. Cost will also be dependent on whether the landowner applies the repellent, or a contractor is hired to apply it. Costs could be as much as \$1000/acre/year for contracting someone to spray repellents. Those choosing to apply it themselves will spend \$75-\$100/acre/application.



VISUAL DETERRENTS

Almost any foreign object placed in your yard or field will initially repel geese. The length of time that they can be effective depends on the type, number, and variety of devices used. Regardless of the type, devices should be moved every two to three days to prevent habituation by the geese. Visual repellents should be used in combination with other techniques and in place before the start of the damage season (Feb./Mar.) to prevent geese from establishing a use pattern.

TYPES OF VISUAL DETERRENTS

- **DECOYS**
 - Life-like coyotes and dead goose decoys. Using a decoy alone does not deter nesting pairs of geese. It is important to combine this with other techniques.
- **BALLOONS**
 - Eyespot or helium balloons staked in open fields or anchored around water.
- **FLAGS**
 - Black trash bags tacked onto wooden stakes throughout a large grass area or crop field.
- **SCARECROWS**
 - Three features should be incorporated in any scarecrow design: movement, bright colors, and large eyes. The arms and legs should readily move in the wind.
- **MYLAR/FLASH TAPE**
 - Shiny foil-colored tape that comes in rolls approximately 1/2" – 3" wide. Mylar works by reflecting in the sunlight and blowing in the wind causing noise and the bright red and silver coated sides to alternate. Place on stakes in the ground or tie on a tree branch.
- **STROBE LIGHTS**
 - Install prior to nesting season (Jan.-Feb.). Once pairs of geese show up and claim their territory, it is best to turn off the strobe lights or remove them. They can be put back in place once the molt season is over and geese are flying again (mid-July through August).

WHEN TO USE

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SUPPLIERS

- **Bird-B-Gone** www.birdbgone.com or call (800) 392-6915
- **Birdbusters** www.birdbusters.com or call (886) 915-8225
- **Bird-X, Inc.** www.bird-x.com or call (800) 662-5021
- **Reed Joseph International** <https://reedjoseph.com/> or call 800-647-5554
- **Margo Supplies** <https://www.margosupplies.com/us-en/> or call 1-888-652-1199
- **Sutton Ag Enterprises** <http://www.suttonag.com/index.html> or call 866-280-6229
- **Wildlife Control Supplies** <https://www.wildlifecontrolsupplies.com/> or call 877-684-7262

COST AND EVALUATION

Costs vary widely depending on the type of visual deterrent used. Scarecrows can be made cheaply using stuff around the house, while other visual deterrents like strobe lights can cost \$400 each. Mylar can be purchased as a roll for only \$.01-\$.03/foot. The more motion the deterrent has the more effective it will be. All visual deterrents will lose effectiveness if not moved regularly (2-3 times a week).

MUTE SWANS





MUTE SWANS - NOT A GOOD IDEA

Mute swans, swans with an orange bill, are sometimes suggested to repel Canada geese; however, the Division of Wildlife strongly advises AGAINST this technique for the following reasons:

- Mute swans are an exotic/non-native species that will cause conflicts with our native trumpeter swans. Mute swans do escape, turn feral, and drive out native ducks and geese from their natural habitat. Therefore, mute swans should never be used as goose deterrents.
- Swans, when actively nesting, are extremely aggressive towards humans, more so than Canada geese. In fact, there have been instances of human fatalities by mute swans.
- Swans seem to be very aggressive towards ducks, however swans are not always effective against larger species like Canada geese.
- Mute swans must be pinioned to prevent their escape; therefore, the excess food not eaten by the swans and an aerated pond in the winter makes your property even more attractive to geese.
- Improper pet ownership has led to young mute swans invading other people’s properties.

WHEN TO USE

The Division of Wildlife does not encourage the use of mute swans at any time for goose control.

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SUPPLIERS

The Division of Wildlife does not encourage the use of mute swans at any time for goose control.

COST AND EVALUATION

Mute swans can cost \$1000 or more each. In addition, mute swans often need to be supplemental fed and, like other pets, will need periodic vet treatment. They may also need to be cared for in winter months.



Hunting

HUNTING: USUALLY THE BEST OPTION

The most successful way to keep a goose population in check and resolve conflicts is to allow hunting. Hunting decreases the number of geese in an area. It also reinforces harassment techniques. Geese that have been hunted notice helium balloons, loud sounds, or anything else unnatural in an area. They will be more likely to seek a different area to feed and rest than geese that have only been harassed.

Advantages of hunting include:

- Decreases the local population
- Makes other harassment techniques more effective
- No cost to landowner
- Provides recreation for hunters
- Provides food



Establishing a Goose Hunting Program

Goose hunting is well suited to rural agricultural area, however, hunting within the city limits may be possible. In some situations (e.g. golf courses, large parks, away from high use area, farms within city limits, and some businesses with large amounts of property), geese can be safely hunted within municipalities. The local police department should be contacted to receive permission for discharging a firearm and/ or hunting within city limits.

Goose hunting can be either controlled (limits placed on who and how many people hunt) or open to the public (with written permission). Landowners or managers can charge for permission to hunt.

Contact your district office or county wildlife officer if you would like to learn more about conducting a hunting program on the land you manage.

WHEN TO USE THIS TECHNIQUE

Canada geese are hunted in the fall and winter throughout Ohio. The Division of Wildlife (DOW) established an early goose season specifically to harvest resident geese involved in conflict situations. Refer to DOW Hunting and Trapping Regulations (Publication 5085) or visit www.wildohio.gov. A hunting license, state wetlands habitat stamp, federal waterfowl stamp, or HIP certification may be required before hunting geese or ducks.

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SUPPLIERS

Hunters are often found by discussing the opportunity with family, friends, or co-workers. You can also contact the county Wildlife Officer to let them know you are willing to let people hunt your property as they often talk to hunters looking for a place to hunt.

COST AND EVALUATION

There is no cost to the landowner. Effectiveness of hunting is best achieved by hunters constantly being present on the property and focusing efforts at the beginning and end of the hunting seasons.