

Canada Goose Control

Physical, Chemical and Biological Options

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Goose Control

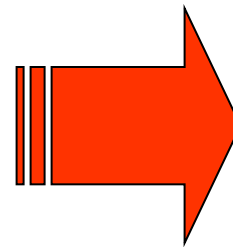
- This presentation focuses on **non-lethal goose control options**.
- Egg addling (a lethal control option), is a very effective goose control technique, but requires a federal permit and training.
- Also note that the “effectiveness” information provided on several slides reflects **claims made by the manufacturer**. Unless specifically stated, it does not reflect my experience or specific use of the product.

Goose Control... Why Bother



- Impacted aesthetics
- Impairment of recreational use
- Shoreline erosion
- Bacteria loading
- Nutrient loading

Nutrient Loading



1 Septic System

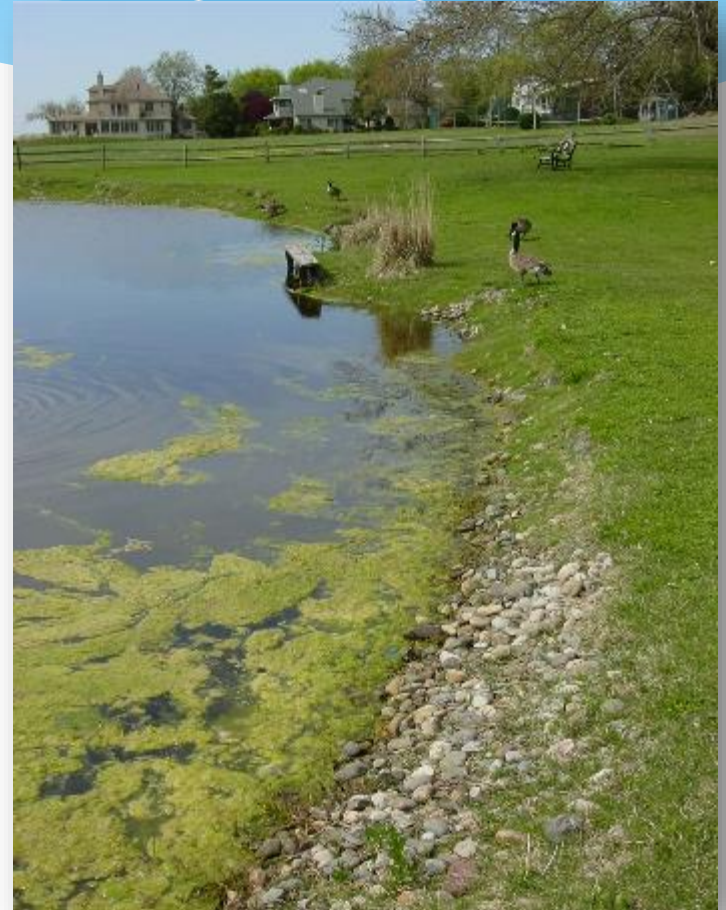


Shoreline Erosion

Goose feeding, nesting and foot traffic undermines shoreline, leading to shoreline erosion



Shoreline Erosion



Non-Lethal Goose Control

- Do not feed
- Auditory harassment techniques
- Visual techniques
- Treatment of grass
- Segregate from habitat
 - Fencing
 - Aquascaping
- Active harassment



DO NOT FEED GEESE!!!!

- Easiest and most effective place to start.
- Educate humans about problems caused by geese (feces, bacteria, nutrients, aesthetics, etc.).
- Not good for health of birds.
- Impact's water quality.
- Geese attracted to and stay in areas where they know food is available.



Sources of Non-Lethal Goose Control Information

- Rutgers Cooperative Research and Extension
www.rce.rutgers.edu
- Delaware Dept. Natural Resources (DNR)
<http://dnrweb.dnr.state.md.us/dnrnews/pressrelease/33099goose.html>
- USDA
https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/sa_reports/sa_informational+notebook/canada-geese

Publications Available Through Rutgers Cooperative Agricultural Extension

- A Goose is a Goose? Identifying Differences Between Migratory and Resident Canada Geese (4 pp.)
- Canada Goose Management Series: Exclusion (4 pp.)
- Canada Goose Management Series: Habitat Modification (2 pp.)
- Positive Benefits and Negative Impacts of Canada Geese (4 pp.)
- Canada Goose Management Series: Modify Human Behavior (2 pp.)

Rutgers Fact Sheet



FS1031

Fact sheet

For a comprehensive list of our publications visit www.rce.rutgers.edu

Canada Goose Management Series: *Repellents*

David Drake, Ph.D., Extension Specialist in Wildlife Management & Joseph B. Paulin, Program Associate in Wildlife Management



Non-Lethal Controls

Behavioral and harassment techniques ... things to consider

- If the female geese leave, so will the males
- Begin harassment early in the nesting cycle before any eggs are laid or shortly thereafter
- Multi-method, integrated approach yields greatest success... mix things up to avoid behavioral acclimation
- Strictly visual harassment techniques usually are not successful as the geese habituate to the environment and the deterrent rather quickly

Non-Lethal Controls

Some more things to consider...

- Intermittent, unpredictable timing works best with scare tactics, even dogs... geese will habituate to the timing and quickly learn when to leave and when to return.
- Once you begin your harassment or segregation program do not stop until the geese leave.
- Habitat modifications are most successful.
- Geese will leave when habitat makes them feel uncomfortable or does not meet feeding or life history needs.

Understanding Geese

The following behaviors are key to effectiveness of your efforts...

- Canada geese prefer open, grassy areas near or adjacent to water.
- Urban/suburban areas especially attractive; lawns provide lots of available food, easy access roosting and escape areas, and few visual impairments.
- Freshly mowed, fertilized grass is succulent and high in nutrients.
- Prefer to nest within 150 feet of water and with a clear surrounding view.

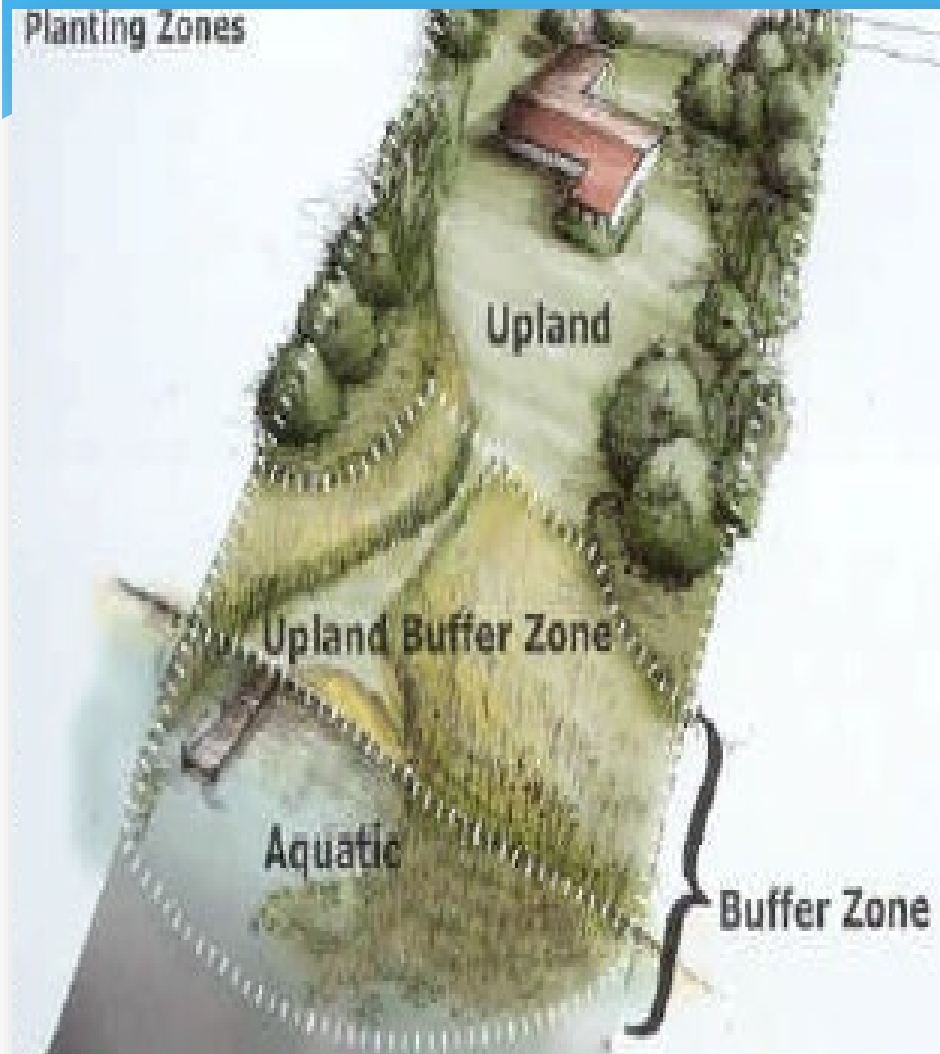
Habitat Modifications

- Change mowing practices –
 - Reduce lawn / increase naturalize areas.
 - Where possible let grass grow 10” to 14” tall, creates a “discomfort zone”... can’t see predators.
- Prefer Kentucky bluegrass; less attracted to fescues.
- Replace lawn with alternative ground covers, plants that geese do not like to eat or use for nesting habitats include shrubs, *pachysandra*, periwinkle, and *euonymus*.

Habitat Modifications

- Aquascaping... shoreline naturalization
 - Use native aggressively growing species that grow dense and 2-3 feet high... Sedges, rushes, pickerel weed, marsh mallow, etc.
 - Resulting lake-side buffer should be at least 10 feet wide.
 - Angle pathways so there are no clear view of lake from land and vice versa.
 - Protect plantings when first installed with goose fencing... if not geese will trample or eat the plant material.

Goose Control... Planted Buffer



Example Goose Deterrent Shoreline Plants



Blue Flag Iris



Little
Bluestem



Swamp Milkweed



Sedges



Duck Potato

Fencing and Barriers

- Goal... Keep geese out of specific area.
- Create exclusion areas (tolerate geese in given areas, keep them out of other areas).
- Make areas inaccessible (no tolerance).
- For small areas very inexpensive and effective... if maintained.
- May impact aesthetic / site line / access
- Time consuming if fencing needs to be erected and lowered daily.

Fencing and Barriers

- Low Tech – (but ugly)
 - Snow fencing
 - Chicken Wire
 - Silt Fencing
 - High visibility construction fencing
- Permanent.
- Seasonal (to protect beach, picnic and planted areas).
- Daily (to protect lawns, beach, play, and picnic areas).



Monitor daily
to address
breaks,
“knock
downs”, etc.

Fencing and Barriers



- Higher Tech –
 - Number of specialized fencing applications on market.
 - Designed to decrease maintenance and visual impacts to users.
- Used to either segregate areas and exclude access and use of site by geese for feeding or nesting.

Monofilament lines



Failed Attempted Fencing



- Monofilament initially inhibited geese from entering pond.
- Over time learned to “tight rope” on horizontal aluminum stanchions.
- Once stanchions were bent, attached monofilament no longer effective barrier.

Geese are resourceful!!

Harassment – Noise and Light



- Two Main Categories:
 - Visual
 - Auditory
- Constant, intermittent or “on-demand”.
- May also annoy users.
- Geese often acclimate to noise or light within short time.

Sound Devices

Intended to scare geese away or create an annoyance that makes the area undesirable.

- Low / high frequency noise.
- Audible / inaudible to humans.
- Continuous or variable timing.
- Annoy or shock.
- Problem is that often equally annoying to humans

Sound Devices and Noisemakers

Work best as preventive measure before geese become established.

- May work well in confined situations where geese cannot simply move away from the noise.
- If consistent and predictable, studies show geese may become acclimated within 1-2 weeks.
- Not usually effective in moving nesting geese.
- Work best as small area control, can be effective in keeping geese from defined areas such as greens, lawns, beaches, etc.

Sound Harassment



- Ultrasonic/Sonic
- Repels using any of following...
 - Species-specific distress cries.
 - Predator calls.
 - General harassment noise.
 - Pulsed sound.

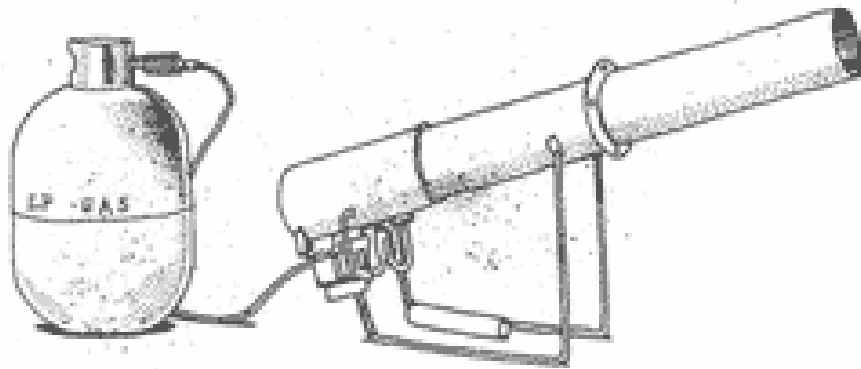


Sound Harassment



- Continuous or variable timing
- As per manufacturer -
“projects the distress and alarm calls of Canada geese, based on actual recordings from their natural habitat!”

Let's Make Some Real NOISE!



Air cannons

Shellcrackers

Starter pistols



Noise Makers ... Please Note

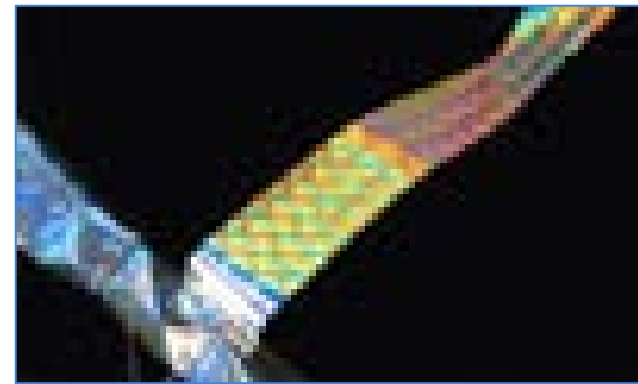
- Not a viable option for lakeside homeowners
- Shell crackers are special shells fired from a 12-gauge shotgun that project a firecracker up to 100 yards.
- Pyrotechnics, such as screamer sirens, bird-bangers, and whistle bombs fired from a relatively inexpensive (approximately \$25) hand-held 15 mm. pistol can be effective, have range of 25 to 30 yards.
- Please note that the use of these techniques may be regulated, considered a handgun, and require permits. Check with your local/state law enforcement agencies before implementing.

Visual Scare Tactics

- Behavioral measure designed to create a fright/flight response
- Intended to make geese cautious due to presence of a “predator”
- Intended to disrupt routine of birds
- Geese quickly adapt limiting effectiveness



- Balloons
- Flags
- Kites
- Decoys



Mylar tape

Visual Harassment

- Fake “Predator”
- Variety of decoys intended to scare geese with a fake “predator”.
- May look realistic to humans, but often ignored by geese... doesn’t make them scared.



Gator Guard

AS PER MANUFACTURER...

- Floating replica of an alligator head, 25 threatening inches long, moves and bounces with the wind and water while its life-like eyes flash in the light to add realism.
- “Effective against geese, ducks, fish-eating birds and small animals, even those who have never seen a gator, as this fear is instinctive not learned”.



Visual Scare Tactics

AS PER MANUFACTURER:

- Life-size realistic predator with wingspan of nearly 4 feet - patented wings lift and fall as the head and "airfoil" body move in the wind
- “Always-moving "hunting" postured owl never perches so birds can't get used to it (don't be fooled by imitations that just sit there - without movement they're useless)”



Visual Scare Tactics

AS PER MANUFACTURER:

- Attach to garden hose.
- Scarecrow ...motion activated sprinkler deterrent .
- When it “sees an intruder”, it instantly sprays the trespasser with water under full garden hose pressure.
- It is completely harmless but extremely effective.
- Less expensive than physical barriers.

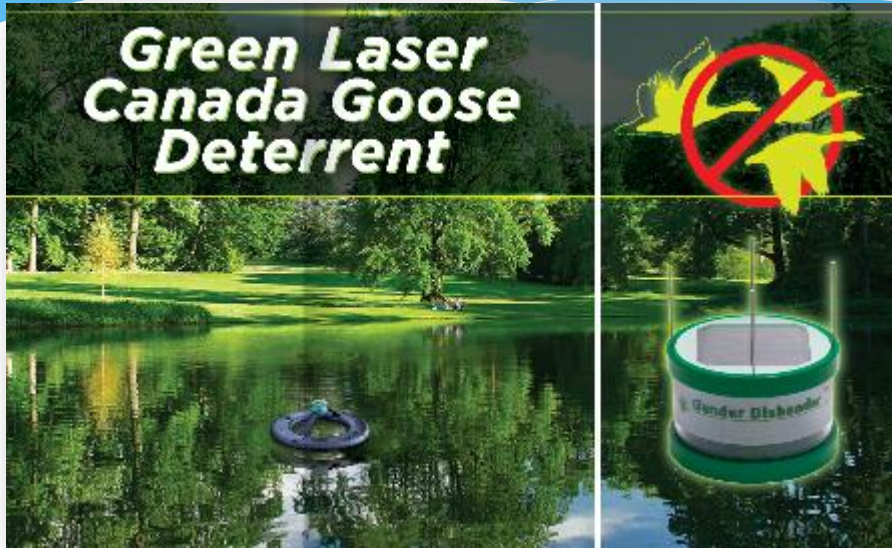


Visual Harassment

- Powerful solar or battery powered handheld or mounted DPSS green laser
- Range: Up to 545,000 ft in darkness
- Repeated use (3 to 6 nights)... reduces/eliminate roosting.
- Efficiency is maximum between dusk and dawn as well as in cloudy weather conditions.
- Seems to be working at Wesley Lake



Laser Harassment



Chemical Controls

- These chemicals are non-toxic to geese and humans.
- The majority of these controls are intended to make the grass taste bad, give it a weird color (only visible to the geese) or do both.
- Birds associate bad taste/color with digestive discomfort and move elsewhere to graze.
- For more product details go to Purdue Univ site:

http://www.entm.purdue.edu/wildlife/Chemical_Control/CANGEESECHEM.htm

Chemical Controls

- USEPA approved ReJeXiT® and Goose Chase®, as goose repellants for lawns and turf.
- Active ingredient is MA (methyl anthranilate), a human-safe, food flavoring derived from grapes.
- About \$125 / acre / application. Washes off after rain/irrigation, thus needs to be reapplied after multiple mowing.
- Practical for small areas of lawn/turf (1/2 – 1 acre).
- If too concentrated may kill grass
- Check with NJDEP... may need permit.

Sources of Goose Repellents

- Becker Underwood
501 Murray Rd.
Cincinnati, OH 45217-1014
1-800-423-2473
- Bird-X Inc.
300 North Elizabeth St.
Chicago, IL 60607
1-800-662-5021
- Lesco Inc.
3521 Silverside Rd.
Wilmington, DE 19810
1-800-321-5325
- Nixalite of America Inc.
PO Box 727
East Moline, IL 61244
1-800-624-1189

Rejex IT... As per Manufacturer

- Feeding aversion; makes grass taste bad without staining grass
- No human re-entry time limit.
- Used at golf course, lawns, parks, and cemeteries.
- Dilute with water and apply via backpack sprayer, tank sprayer, etc.
- Surfactant helps it stick to grass.
- Reapplication frequency function of rain, irrigation and mowing.



Goose Chase... As per Manufacturer

- Makes grass & plants undesirable .
- Geese are turned away by the taste and odor.
- Environmentally safe foliar spray resolves the contact between geese and humans without harming either!
- 1 Gallon will cover an acre
- Pint - Treats 4,000 square feet
- Last for up to 3 months



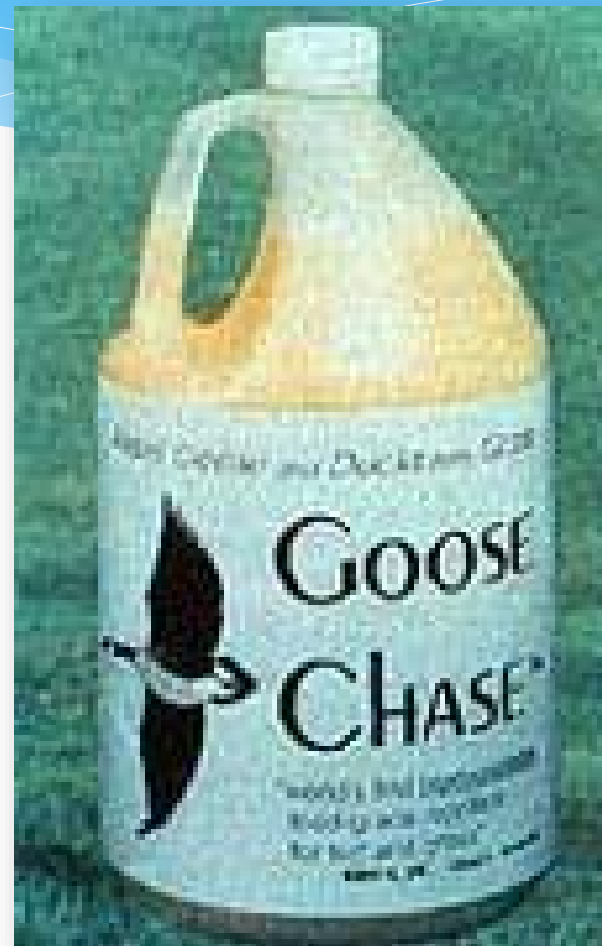
Goose Repellent... As per Manufacturer

- Liquid Fence Goose Repellent Concentrate.
- 32 oz Concentrate. Mix 16 oz. per gallon water, makes 2 gallons.
- Spray on landscaping or lawn.
- All natural ingredients.
- Lightly cover foliage with the spray and repeat as needed to change the feeding habits of invasive birds.



Goose Chase... As per Manufacturer

- Made from concord grapes (methyl anthranilate).
- Grass unpalatable and inedible.
- Environmentally friendly.
- USDA development assistance,
- 1 diluted gal/acre. Reapply every 7-14 days or after mowing.



Goose Repellent... As per Manufacturer

- Lemon grass oil and white pepper.
- BioDefend contains Extendex, a proprietary formula that magnifies the repelling process; may keep geese away for up to 90 days.
- Concentrate (32 ounce) mixed with water and treats 4,000 ft².
- Environmentally friendly, biodegradable, child and pet safe... but be careful with dogs .



Flight Control... As per Manufacturer

- Treated grass causes temporary digestive irritation minutes to hours after feeding .
- Associate taste with digestive aftereffects.
- May take multiple encounters to “brand” association of taste and aftereffects.
- Discolors grass (not visible to humans)... Geese associate color with taste and digestive irritation.
- Reapply after 2-3 mowing.



Dogs and Swans

- Two popular control/harassment techniques.
- Of the two, dogs are most reliable.
- Swans although aggressive may not always chase off geese.
- Dogs need to be trained and kept active.
- Best breed is the Border Collie as they are herders and don't need to catch the geese to feel successful.

Swans

- Not reliable goose control option.
- Swans often tolerate geese, especially on a large lake or pond.
- Aggressive or defensive when nesting or when cygnets are especially vulnerable.
- If a swan pair does not nest and raise a family, they usually will not chase geese



Swan Harassing Geese

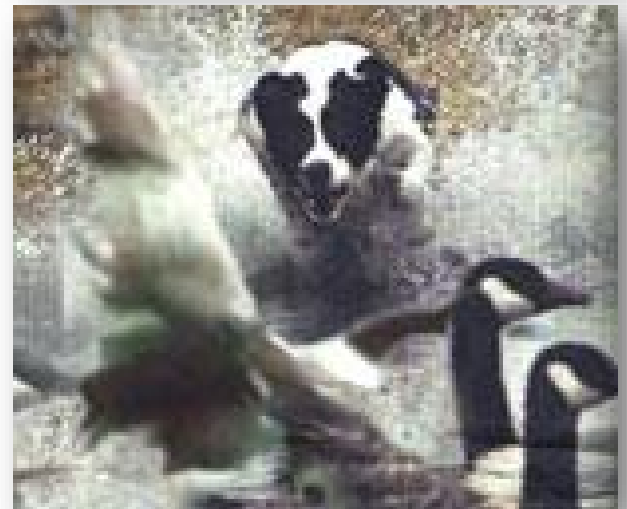


Swan Harassing Geese



Border Collies

- Trained for goose control.
- Carefully screened for temperament and trainability.
- Silent workers, don't rely on bark to move or disturb the geese.
- Have a lot of energy, high endurance, and herding mentality.



Border Collies

- Border collies, though effective, require a significant capital investment.
- Dogs are expensive and need extensive special training. and other breeds can be effective in chasing geese.
- Dogs will need to be cared for and kept active.
- Can use “rent-a-collie” firms that will supply dogs. Reduces expense and long-term responsibilities... example: Geese Police

Something Different!



RC Model Speed Boat Used to Harass Geese

Final Considerations

To increase the success of any of the discussed measures need to capitalize on the bird's natural behaviors...

- Reduce available food (alternative plantings, “no feeding” regulations, no mow zones, etc.)
- Reduce accessibility to feeding, roosting and escape areas
- Habitat modification typically most successful, low cost, low maintenance option... plus attractive

Final Considerations


- Time your control actions to synch with seasonal behaviors, get them out before they get “comfortable”
- Get public educated and involved so they understand why goose control is being done
- **BE PERSISTENT AND USE INTEGRATED APPROACH.**

What Works Best?

- Do not feed the geese... education!!!
- Habitat alteration... buffers, aquascaping, alternative land covers... don't make gees feel invited/comfortable.
- Grass treatments... pro: effective and somewhat inexpensive... con: must be repeated.
- Egg addling... a lethal option, requires permit and training of addlers.

Other Notable Options

- Fencing – works on small scale, can be labor intensive, better to segregate areas using aquascaping and buffers.
- Lasers show some promise... being used effectively at golf courses... could raise issue with neighbors in lake community.
- Border collies... somewhat expensive, active harassment, need dedicated approach.



Thank You
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