



Bird Management

Nebraska Extension





Birds



❖ From the wise old owl to Polly want a cracker, birds are a part of our culture and everyday lives. They share our space and even represent our country!



Birds as Pests

- ❖ Sometimes birds can become pests by being where they are not wanted or by causing damage, noise, or messes that impact areas of human habitation.

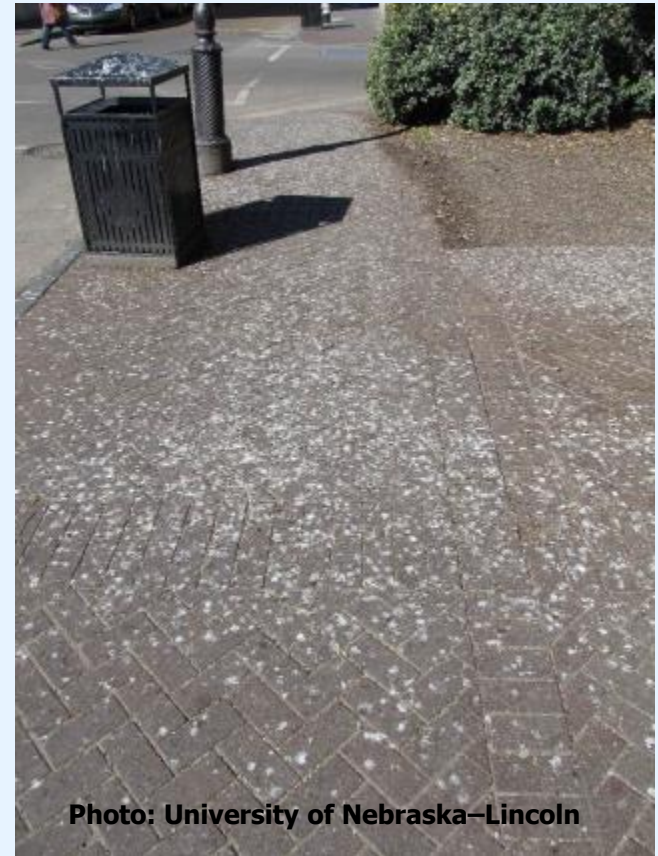


Photo: University of Nebraska–Lincoln



Federally Unprotected Birds



Pigeon



Starling



House Sparrow

- ❖ These species non-native
- ❖ Introduced to the U.S.
- ❖ Not protected by North American Migratory Treaty Act
- ❖ May be protected by local communities

Bottom Line

1. Constant supply
2. Don't leave
3. Adapted to urbanization



Pigeons (Rock Doves)



Photo: University of Nebraska–Lincoln

- ❖ Medium sized, about 12 inches
- ❖ Blue to gray in color but variable; may have two black wing bars and white rump



Pigeon Facts

Photo: University of Nebraska–Lincoln



- ❖ Don't usually fly far, although do have separate feeding and roosting sites that can be across town from each other
- ❖ Nest - structures protected from weather, near people
- ❖ Gregarious - like to be in each other's company, feed, roost, loaf together
- ❖ Broods - multiple times/year
- ❖ Foods - seeds, grains



Pigeon Damage

Photo: University of Nebraska–Lincoln



- ❖ Droppings are unsightly and may contain disease organisms
- ❖ Nest building and perching in and around structures; congregate in large flocks, making many nesting and roosting birds in one area
- ❖ Feeding
- ❖ Many times feed one place and roost at another, so can have problems in more than one area



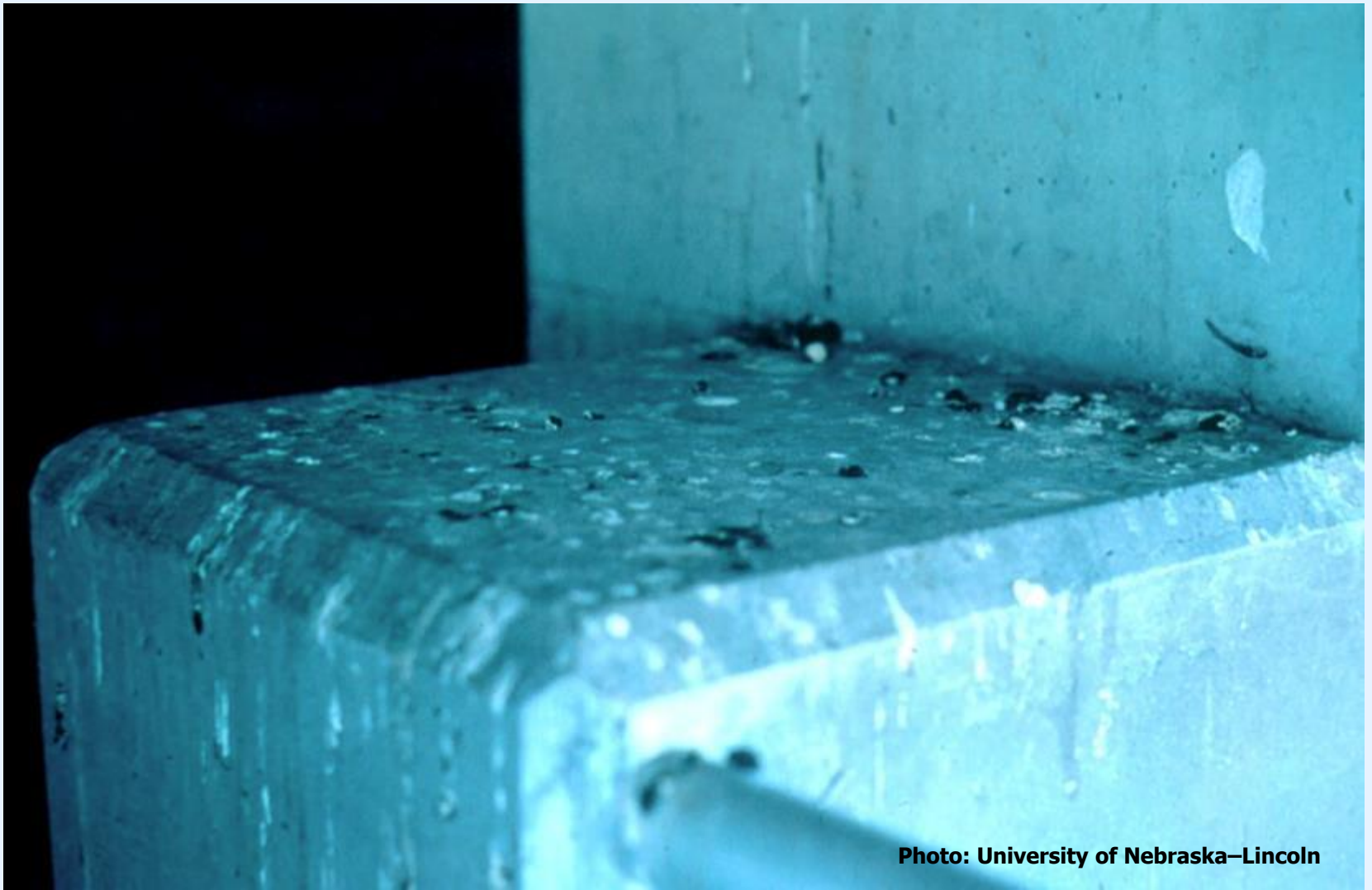


Photo: University of Nebraska–Lincoln

Droppings may be unsightly, cause walkway hazards, and harbor disease organisms. Long-term exposure to droppings can lead to an allergy called Breeder's Lung.



European Starlings

- ❖ Adults black, light speckled, robin-sized; juveniles pale brown to gray
- ❖ Bill is yellow Jan-July, dark other times
- ❖ Short tail, wings triangular shaped in flight
- ❖ Eyes sit far forward - easy to see grubs



Starling Facts

Photo: University of Nebraska–Lincoln



- ❖ Wide ranging; some migrate
- ❖ A perching bird
- ❖ Nest in cavities
- ❖ Foods - grubs, fruits, seeds, etc.



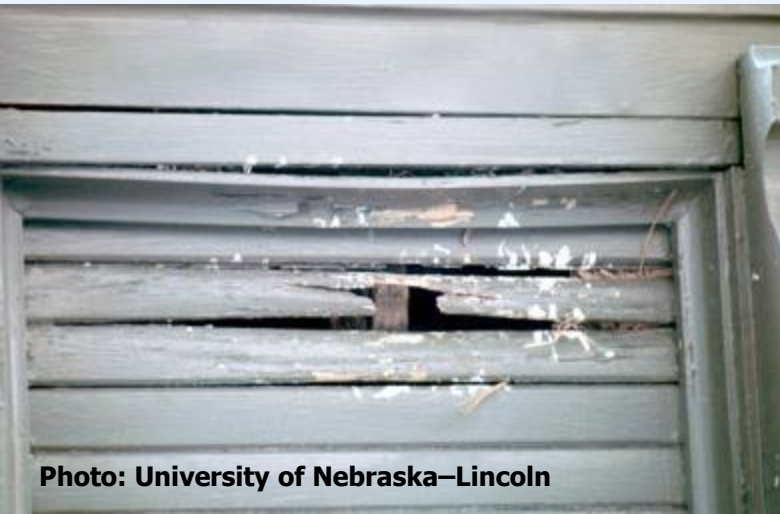


Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln

Starlings nest in cavities, such as trees, holes in buildings, bird boxes, etc.



Starling Damage

- ❖ Droppings cause messes and may contain disease organisms
- ❖ Roosting flocks in buildings, trees, etc.
- ❖ Nest building and perching in and around structures
- ❖ Feeding - livestock and pet foods
- ❖ Many times feed one place and roost at another, so can have problems in more than one area
- ❖ Often take over nest cavities of native species



Photo: University of Nebraska–Lincoln



Droppings from a large roost in a building or in trees can cause walking hazards, be unsightly, and present the potential for disease exposure.



House Sparrows (Weaver Finches)

- ❖ Not "true" sparrows
- ❖ Small, brown, and chunky
- ❖ About 5-6 inches long
- ❖ Male - black bib, white cheeks, chestnut upper wing covers
- ❖ Female and young - gray breast, streaked back, buffy eye stripe (see picture)



House Sparrow Facts

Photo: University of Nebraska–Lincoln



- ❖ Don't fly far
- ❖ Nest in and around structures in human populated areas
- ❖ Obligate Commensal - "obligated" to be near people
- ❖ Broods - 3/yr
- ❖ Foods - mostly seeds, grains, and insects



House Sparrow Damage

- ❖ Droppings cause messes and may contain disease organisms
- ❖ Nest building and perching in and around structures
 - Nests can plug gutters; nests around electrical wiring are potential fire hazard
- ❖ Often take over nest cavities of native species





Photo: University of Nebraska-Lincoln

House sparrow nesting site in a sign.



Other Common Birds

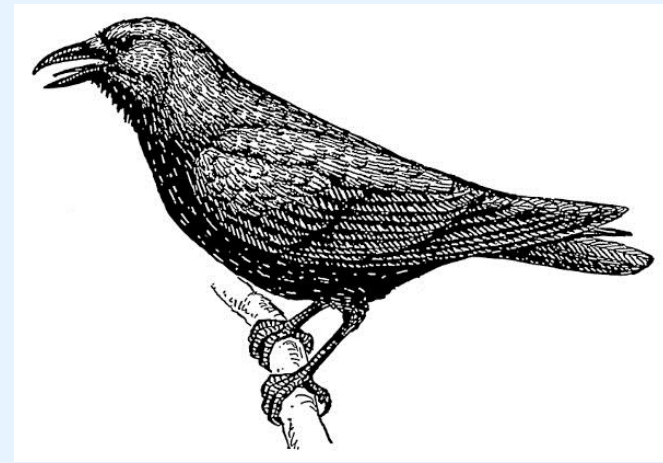


Photo: University of Nebraska–Lincoln

Canada geese



Blackbirds



American crows



Canada Geese



Photo: University of Nebraska–Lincoln

- ❖ Protected under federal Migratory Bird Treaty Act
- ❖ Have increasingly become permanent residents in urban areas near lakes or ponds surrounded by open grassy areas
- ❖ Grazers - eat grass, lake vegetation, grains, and other food fed to them by people
- ❖ Molt in the summer, are flightless for a month



Canada Geese Damage



Photo: University of Nebraska–Lincoln

- ❖ Large numbers
- ❖ Feeding can damage turf
- ❖ Droppings and feathers on grounds, lawns, parks can be excessive and interfere with human activities
 - Produce about a pound per day of droppings, can be substantial if large enough flock
 - Can over-fertilize lawns
 - In water, can lead to algae growth, fish kills, and water contamination health concerns



Blackbirds



- ❖ Includes grackles, cowbirds, redwings
- ❖ Wide ranging, migratory
- ❖ Perching birds
- ❖ Native
- ❖ Protected - but may be taken under limited conditions
- ❖ Nesting
 - Grackles (trees)
 - Cowbirds (lay eggs in other birds' nests)
 - Redwing (grass and hay fields, wetlands)



Blackbird Damage

Photo: University of Nebraska–Lincoln



Red-winged blackbirds in a cornfield

- ❖ Can damage crops
- ❖ Roosting flocks in trees
- ❖ Odor, noise, filth at roosts
- ❖ Droppings cause messes and may contain disease organisms
- ❖ Consume livestock feed



American Crows

- ❖ Large, 17-21 inches long
- ❖ Coal black color
- ❖ Intelligent
- ❖ Widely distributed across North America
- ❖ Omnivorous (eat almost anything!)
- ❖ Found in wooded areas, farmlands, orchards, parks, and suburban areas



Crow Damage



- ❖ Can damage crops
- ❖ At times consume eggs or young of other birds
- ❖ Roosting flocks in trees
- ❖ Odor, noise, filth at roosts
- ❖ Droppings cause messes and may contain disease organisms
- ❖ Feeding



Bird Control Methods

- ❖ Habitat Modification—remove conditions favorable to the species
- ❖ Exclusion—prevent their access
- ❖ Repellents—irritating chemicals
- ❖ Frightening—non-chemical fear inducers
- ❖ Toxicants—poisons
- ❖ Shooting—bullets and pellets
- ❖ Trapping—capture methods



Habitat Modification

❖ Reduce availability of food and water

- Reduce availability of grain by cleaning up spillage from grain storage and shipping areas
- Reduce availability of water. Starlings and pigeons, in particular, are attracted to water

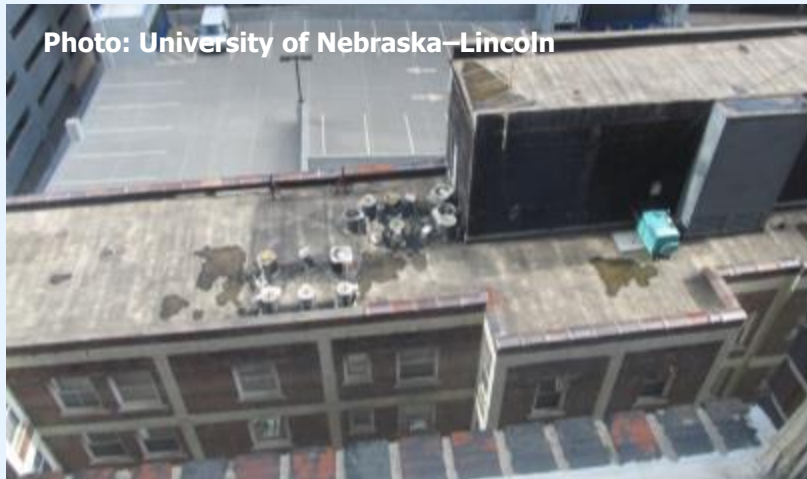


Photo: University of Nebraska–Lincoln

Do not allow water to pool on roofs.



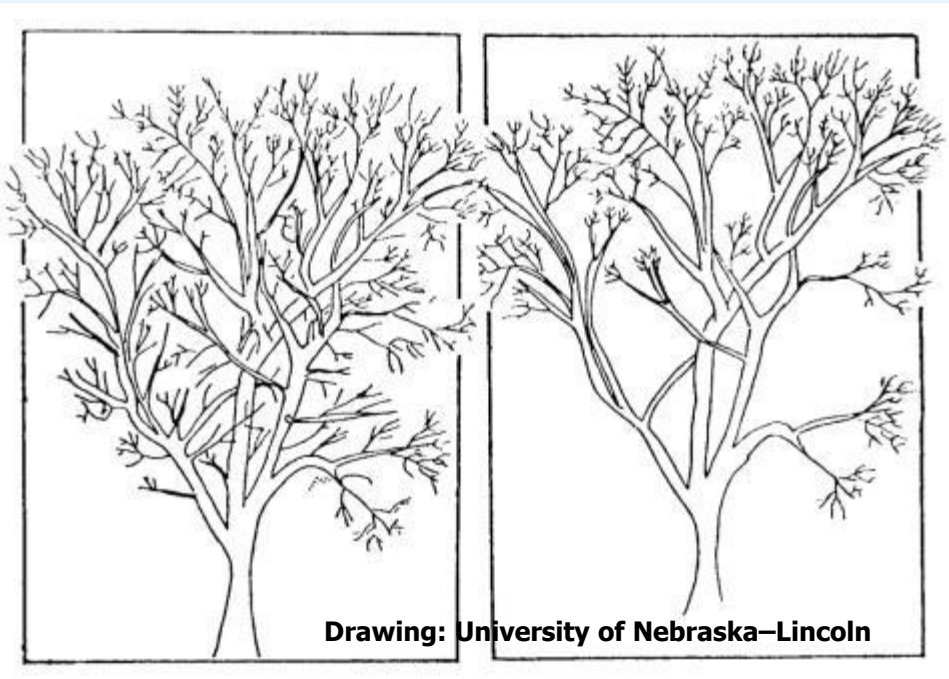


Photo: University of Nebraska–Lincoln

Clean up spilled grain and other foods to reduce availability to birds.



Habitat Modification



- ❖ Discourage birds from roosting in trees by trimming branches (up to 1/3) to open up the canopy



Urban Bird Management

❖ Habitat Modification

- Educate the public
- Enact ordinances
- Stop active feeding



Urban Bird Management

❖ Habitat Modification

- Stop passive feeding
- Trash cans should be covered
- Restaurants should clean up after customers



Photo: University of Nebraska–Lincoln

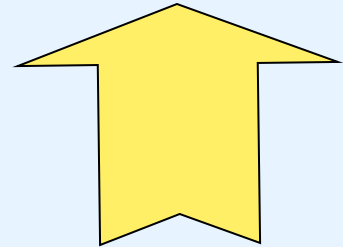
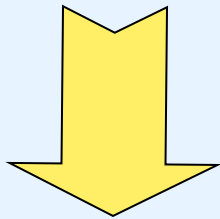


Why Bird Feeding Increases Bird Numbers

Supply-Side Economics

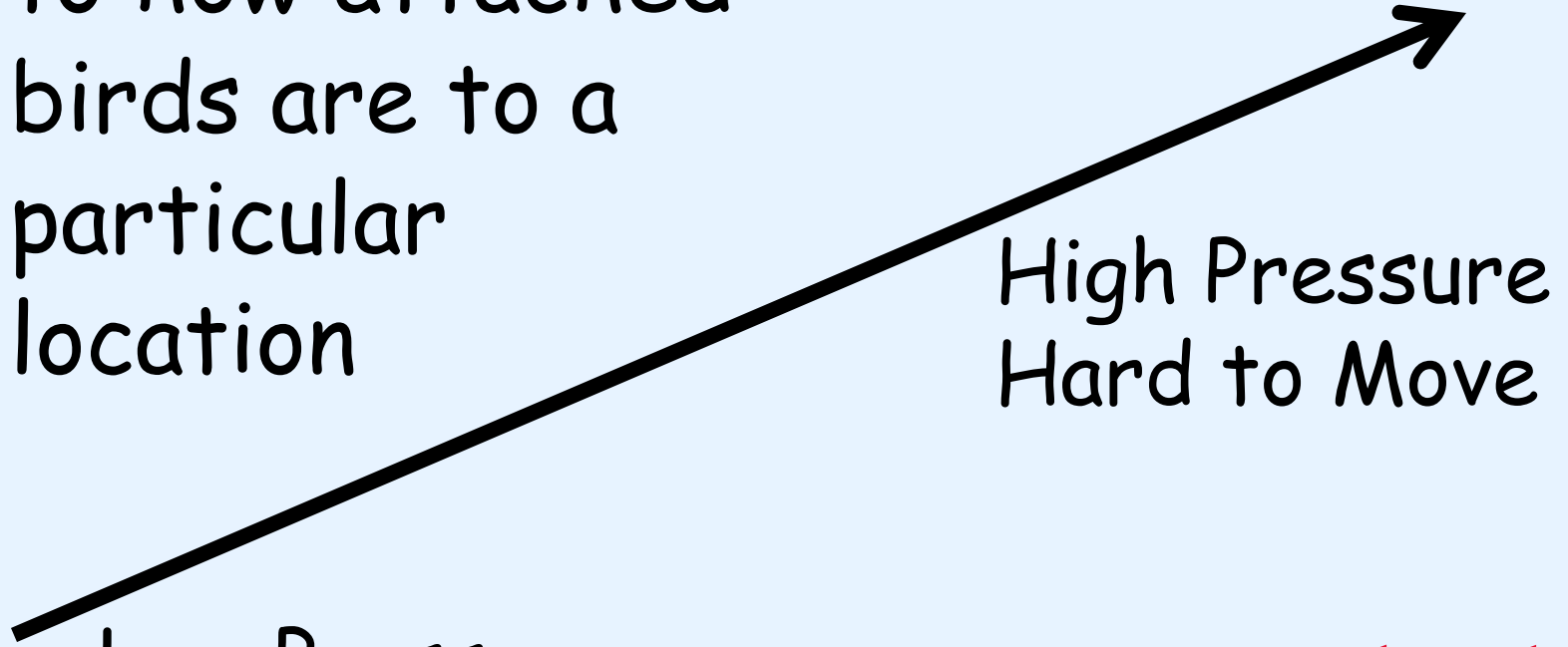
**Supply
pulls/increa
ses demand**

Demand



Understanding Bird Pressure

❖ Pressure refers to how attached birds are to a particular location



High Pressure
Hard to Move

Low Pressure
Easy to Move



Light Pressure

- ❖ Birds use area to sunbathe, digest, and relax
- ❖ No permanent connection to the area
- ❖ Opportunistic source of food and water



Medium Pressure

- ❖ Defined roosting areas present
- ❖ Permanent or regular source of food, water, and cover available
- ❖ No nests



Photo: University of Nebraska–Lincoln



Heavy Pressure

- ❖ Nesting site
- ❖ Regular roosting site
- ❖ Food and water readily available
- ❖ Hard to move nesting birds



Bird Exclusion Products

Photo: University of Nebraska–Lincoln



❖ Medium Pressure

- Daddy long legs
- Birdcoil
- Birdwire

❖ Heavy Pressure

- Netting: different size mesh for different birds
- Bird spikes



Bird Exclusion

- ❖ Close openings larger than $\frac{3}{4}$ inch
- ❖ Cover door openings with rubber strips, PVC, or netting
- ❖ Install nets to prevent roosting on buildings
- ❖ Use ledge products to prevent roosting on ledges



Photo: University of Nebraska–Lincoln



Bird Exclusion Products



Use plastic strips for doors, and netting on trees or buildings to prevent access by birds



Non-electric Ledge Products

- ❖ Needle or razor-like wires are used to prevent birds from perching.
- ❖ Consider failure issues

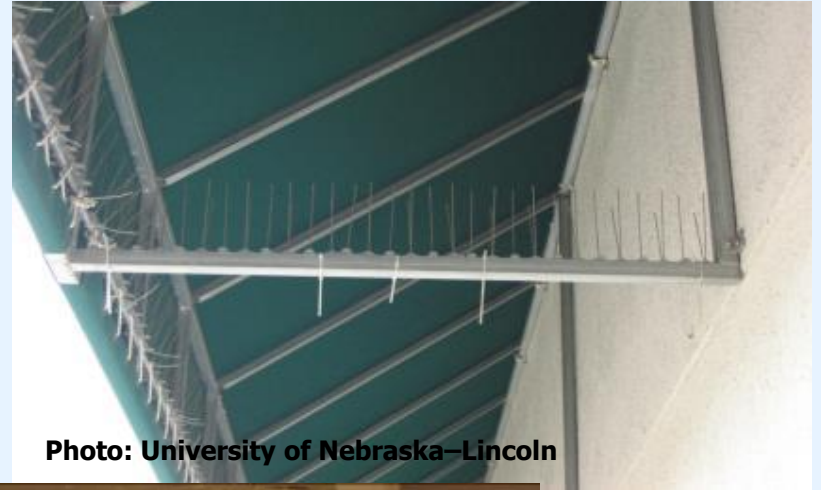


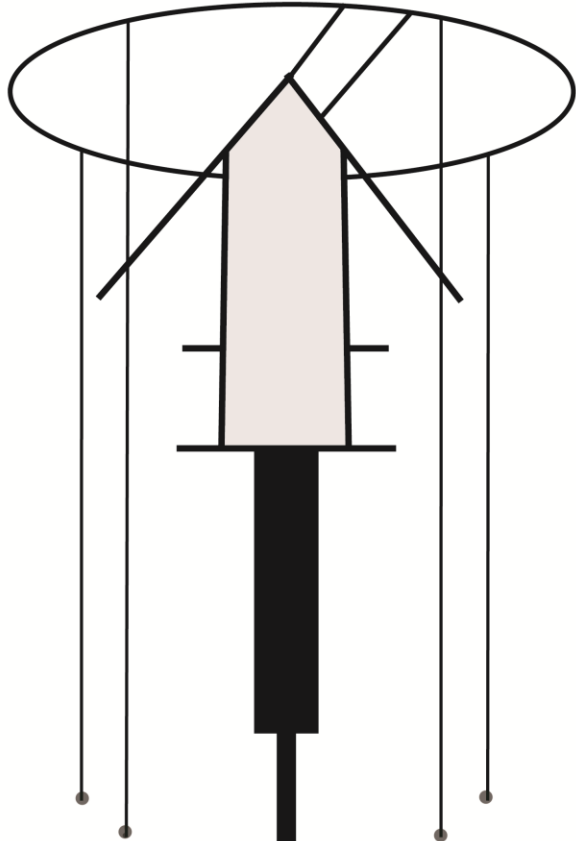
Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln



Use of Lines or Wires



Drawing: University of Nebraska–Lincoln

- ❖ Widely spaced lines interfere behaviorally with certain birds, possibly related to predation risk
- ❖ House sparrows, particularly adults, repelled from feeder sites by monofilament lines placed 1-2 ft. apart
 - Does not repel from nesting sites



Electric Ledge Products



Bird's feet come in contact with both wires to connect the circuit.

- ❖ Electric shock systems placed on ledges repel birds through use of harmless electrical shock.
- ❖ For heavy pressure



Frightening Devices

❖ Often only a temporary solution

❖ Visual

➤ Balloons

➤ Effigies



Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln



Frightening Devices

❖ Audio

- Distress
- Propane cannons

❖ Audio-Visual

- Fireworks
- Pyrotechnics



Best Use of Frightening Devices

- ❖ Use in combination with other techniques
- ❖ Best when used BEFORE birds habituate to a site
- ❖ Lethal control increases frightening efficacy



Photo: University of Nebraska–Lincoln

Too late to haze



Frightening Strategies



Photo: University of Nebraska–Lincoln

- ❖ Begin early before birds get settled in an area, and be persistent!
- ❖ Keep them novel/scary and use as many different products as possible



Photo: University of Nebraska–Lincoln



Ultrasonics

❖ Ultrasonic devices have NOT proven effective in management of nuisance birds



Photo: University of Nebraska–Lincoln



Repellents-Olfactory



Photo: University of Nebraska–Lincoln

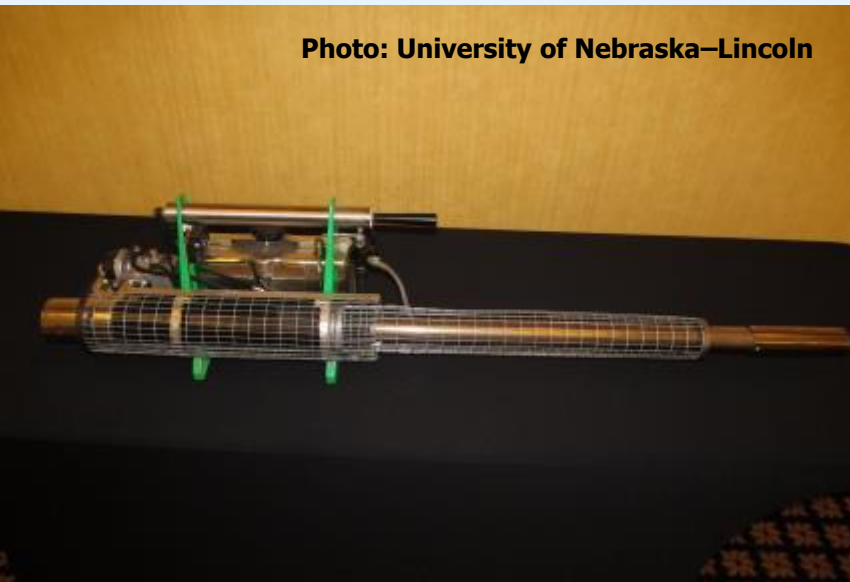


Photo: University of Nebraska–Lincoln

- ❖ Methyl anthranilate
- ❖ Made from grapes (left)
- ❖ Relatively expensive
- ❖ Apply repellent by fogging (lower-left) or by haze-Ultra-low volume

Considerations with MA

- ❖ Sensitize birds with fog (10-30 microns), then change to haze
- ❖ Outdoors
 - 225 days of prevailing wind needed
 - Small birds will roost on periphery and wait for wind to change
- ❖ Indoors
 - Haze (2 to 10 microns)
 - Reported to work well (long-term)
 - Liability of long-term exposure?



Repellents-Tactile



- ❖ Polybutene repellents - soft, sticky non-toxic substances placed on ledges to discourage birds from roosting
 - Place on wide masking tape strips to facilitate removal
 - Replace periodically since dust and dirt collect on sticky surface



Toxicants

- ❖ Chemical agents such as Avitrol® can be used to control birds. However, non-lethal controls should be employed first
- ❖ Non-lethal methods such as exclusion or reducing attractiveness are needed for long-term control



Read and Follow Label Directions

- ❖ When using Avitrol, Starlicide Complete, or any other chemical agent or toxicant, always read the label!
 - The right way for both effectiveness and safety
 - Required by law and backed by penalties
 - "Court" of public opinion and your reputation



Avitrol®

- ❖ A Restricted Use Pesticide (RUP)
- ❖ Read and follow label directions!
- ❖ Pre-bait and use bait containers
 - Monitor to ensure no non-targets are present
- ❖ Consider use prior to major flock build up (e.g., fall)
- ❖ Birds react and die at site; be prepared for public response or questions
- ❖ Avitrol.com - training materials on how to use product, assistance



Avitrol®

- ❖ Restricted-use Pesticide
- ❖ Causes distress amongst affected birds to frighten flock

Step 1. Evaluate site (warn neighbors?)

Step 2. Pre-feed

Step 3. Choose formulation

Step 4. Treat flock

Step 5. Pick up dead birds



Avitrol®

- ❖ Flock alarming - do not need to kill entire flock of birds, just a portion to frighten away flock from the area
- ❖ Bait with non-treated corn, seeds, etc. before instigating Avitrol® program
- ❖ Mix ratio of Avitrol® to untreated bait, depending on the percentage of the flock you wish to eliminate

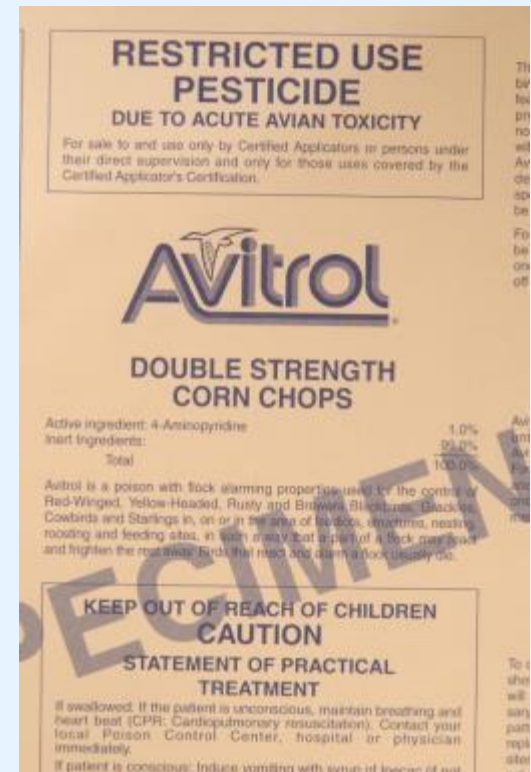


Photo: University of Nebraska–Lincoln



Photo: University of Nebraska–Lincoln

Starlicide Complete™

❖ Used for starlings and blackbirds in rural areas



Photo: Avitrol Corporation



Starlicide Complete™

- ❖ Used as a toxicant, as opposed to Avitrol® , which is used for flock alarming (though Avitrol® does kill some birds)
- ❖ Consider Starlicide Complete when:
 - Most of the problem starlings/blackbirds come to the control area at the same time (e.g., winter)
 - Monitoring shows no non-targets
 - Potential public response in planning (birds dying ELSEWHERE)



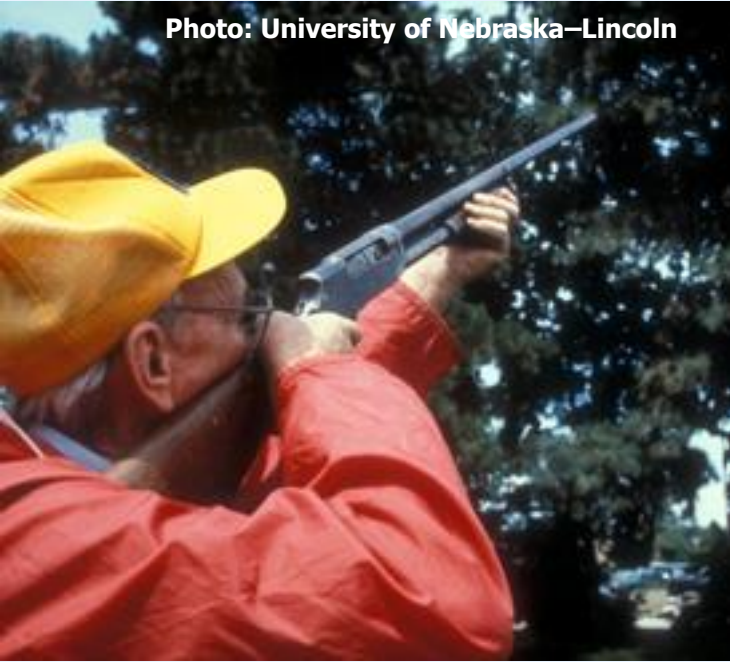
Starlicide Complete™

- ❖ A Restricted Use Pesticide (RUP)
- ❖ Read and follow label directions!
- ❖ Pre-bait and use bait containers
- ❖ Winter - cold, snow, starlings concentrate in areas
- ❖ Birds die quietly, often at roost away from site. Notify wildlife officials so they can respond to questions



Shooting

Photo: University of Nebraska–Lincoln



- ❖ Useful for small pigeon and house sparrow flocks where re-invasion is limited
- ❖ Use pellet guns or low-powered rifle ammo such as .22 caliber shot shells or .22 caliber rimfire CB cartridges
- ❖ Not as effective on larger populations, mobile starlings or blackbirds, but can be an effective temporary frightening tactic



Shooting-Rifle/Pellet Gun



Photo: University of Nebraska–Lincoln

**Air rifle .177 cal
Follow laws!!!**

- ❖ Survey area
 - How much traffic?
 - Shooting lanes
 - Back stop?
- ❖ 1" pattern @ 50ft
- ❖ Shoot 3-5 AM
- ❖ Have a spotter



Trapping



- ❖ Traps available for starlings, sparrows, and pigeons
- ❖ Inefficient for hundreds of starlings or blackbirds
- ❖ Check daily, release any non-target captures
- ❖ Trapped target pest birds can be humanely killed by carbon dioxide or cervical dislocation (quickly breaking neck)



Sparrow Trapping Tips

- ❖ Secure & cover traps to prevent predation & exposure
- ❖ Check daily
- ❖ Include food & water
- ❖ Use decoys
- ❖ Additional trapping tips can be found at <http://www.sialis.org/hosp.htm>
- ❖ Repeating Nest Trap
- ❖ <http://www.chuckspurplemartinpage.com> (under Starling and Sparrow Control)



Photo: University of Nebraska–Lincoln



Decoy Trap for Blackbirds



Photo: University of Nebraska–Lincoln

Trapping can be used to capture and control a small population of problem birds. Not as effective if re-invasion is likely or if there is a larger population of mobile birds.



WCS® Net Blaster™

- ❖ Uses compressed air (not explosives) to project net
- ❖ \$5,000 (net and air compressor extra)
- ❖ Requires pre-baiting



Biological Control

❖ Falconry

- Trained falcons are used to haze and sometimes kill pigeons



❖ Addling Eggs

- Puncture, shake, or oil (Corn) rendering them unproductive



Limited effectiveness and/or time consuming



OvoControl

- ❖ Active Ingredient--Nicarbazin
- ❖ Developed in cooperation with USDA-APHIS-NWRC
- ❖ Interferes with egg hatchability
- ❖ No secondary poisoning
- ❖ Reversible
- ❖ Relatively safe for non-targets
- ❖ Can achieve 50% flock reduction in first year



OvoControl P
\$6/lb/day/80 birds
Dispenser available



Resources/Information

❖ Internet Center for Wildlife Damage Management

➤ <http://icwdm.org>

❖ Prevention and Control of Wildlife Damage

➤ <http://icwdm.org/handbook/index.aspx>



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