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

- These species are non-native.
- Introduced to the U.S.
- May be protected by local communities.

Bottom Line
1. Constant supply
2. Don’t leave
3. Adapted to urbanization
Pigeons (Rock Doves)

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

- 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

- 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

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

Photo: University of Nebraska–Lincoln
House Sparrow Facts

- 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
House sparrow nesting site in a sign.

Photo: University of Nebraska–Lincoln
Other Common Birds

Canada geese  Blackbirds  American crows
Canada Geese

- 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

- 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

Photo: University of Nebraska–Lincoln
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

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

Photo: University of Nebraska–Lincoln

Red-winged blackbirds in a cornfield

IPM Easy as ABC
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

Photo: University of Nebraska–Lincoln
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.

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.

Drawing: University of Nebraska–Lincoln
Urban Bird Management

- Habitat Modification
  - Educate the public
  - Enact ordinances
  - Stop active feeding

[Photo: University of Nebraska–Lincoln]

[Photo: University of Nebraska–Lincoln]
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/increases demand

Demand
Understanding Bird Pressure

- Pressure refers to how attached birds are to a particular location.

- Low Pressure: Easy to Move
- High Pressure: Hard to Move
Light Pressure

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

Photo: University of Nebraska–Lincoln
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

Photo: University of Nebraska–Lincoln
Bird Exclusion Products

- **Medium Pressure**
  - Daddy long legs
  - Birdcoil
  - Birdwire

- **Heavy Pressure**
  - Netting: different size mesh for different birds
  - Bird spikes

Photo: University of Nebraska–Lincoln
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
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
Use of Lines or Wires

- 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.

Drawing: University of Nebraska–Lincoln
Electric Ledge Products

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

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

Photo: University of Nebraska–Lincoln
Frightening Devices

- Often only a temporary solution
- Visual
  - Balloons
  - Effigies

Photo: University of Nebraska–Lincoln
Frightening Devices

- **Audio**
  - Distress
  - Propane cannons

- **Audio-Visual**
  - Fireworks
  - Pyrotechnics

Photo: University of Nebraska–Lincoln
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
Frightening Strategies

- Begin early before birds get settled in an area, and be persistent!
- Keep them novel/scary and use as many different products as possible.
Ultrasonic devices have NOT proven effective in management of nuisance birds.
Repellents - Olfactory

- 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

Photo: University of Nebraska–Lincoln
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
Starlicide Complete™

- Used for starlings and blackbirds in rural areas

Photo: University of Nebraska–Lincoln

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

- 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

- Survey area
  - How much traffic?
  - Shooting lanes
  - Back stop?

- 1” pattern @ 50ft
- Shoot 3-5 AM
- Have a spotter

Air rifle .177 cal
Follow laws!!!
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](http://www.sialis.org/hosp.htm)
- Repeating Nest Trap
- [http://www.chuckspurplemartinpage.com](http://www.chuckspurplemartinpage.com) (under Starling and Sparrow Control)
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

Photo: University of Nebraska–Lincoln
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

Photo: University of Nebraska–Lincoln

OvoControl P
Pigeon birth control

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
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