



Bird Control

Presented by

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Objective

Attendees will recognize pest birds,
the impacts of bird infestations,
and achieve a basic understanding
of effective control measures

What are Pest Birds?

What constitutes an infestation?

What are the risks of bird infestations?

How do you control bird infestations?



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What are Pest Birds?

- Defined by many states as house sparrows, feral pigeons, and starlings
- For our purposes...
 - Pest birds are any species of bird whose behaviors have a potential or actual negative impact on our operations

Pest Species

Primary

House (English) Sparrows
(*Passer domesticus*)

European Starlings
(*Sturnus vulgaris*)

Feral Pigeons
(*Columba livia*)

Secondary

Swallows

Seagulls

Canada Geese

Crows

Blackbirds

Woodpeckers

Others

Sparrows, Starlings, Pigeons

- Non-native
- Generally not protected by Federal or State laws
- All other species are protected to some degree under the Federal Migratory Species act of 1918

House (English) Sparrow



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Sparrow Biology

- 5-6 inches long, 1 oz., dimorphic
- Live about 2 years
- Found throughout U.S, Canada, Mexico
- Feed on grains, seeds, fruits, insects
- 5 broods per year, 5-6 eggs per clutch
- Breed as early as March, young are ready to leave the nest in 15 days



European Starlings



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Starling Biology



- 7 ½ - 8 ½ inches long, 2-3 oz, sexes very similar
- Wild birds known to live over 5 years
- Throughout continent in rural, urban areas
- Feed on insects, fruits, seeds, grains
- Usually two broods per year, 4-5 eggs per clutch
- 12 day incubation, young fledge in 3 weeks



Feral Pigeons

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Pigeon Biology

- 12-15 inches long, up to 1 lb, sexes very similar
- Live 4-12 years
- Found in all 50 states, especially urban areas
- Feed on seeds, grains, food scraps, leavings
- Usually monogamous
- 3-4 broods yearly, two eggs most often, 3-4 possible
- Hatch in 18 days, young leave nest at 1 month



Other Problematic Birds



Other Problematic Birds



What is a **bird infestation**?

- An infestation is a population of birds (may be multiple species) in, on, or around a facility whose behaviors pose potential or actual risk of damage to property, health, products or **brand**.

Infestations & Degrees of Pressure



- Categories correspond with the degree of commitment birds have to the facility

Low Pressure

- Birds are not yet entrenched at facility
- Birds are new to facility, or ***casual visitors***, and are not committed to the facility
- Easily displaced with a large variety of measures.

Low Pressure Bird Behavior



Casual Exploration
Temporary Resting

Medium Pressure

- Higher level of commitment to the site
- Routine loafing at facility
- Routinely obtains food, water, grit
- Birds are ***regular visitors***
- Not roosting or nesting at this level of infestation
- Require more stringent efforts to resolve

Heavy Pressure

- Birds are roosting, and most importantly- nesting
- Birds are ***habituated*** to the facility
- Only the most extreme control measures will succeed once birds have been allowed to become habituated!



Pressure Levels are Progressive



- Birds do not start out as habituated
- Commitment, level of infestation increase over time, as a function of available resources and absence of effort to address newly developing infestation
- This is sometimes a matter of lack of awareness - which you will no longer have.

Risks of Bird Infestations

What risks do you incur with bird infestations and why should you address them?

Top 8 Bird Risks

1. Spread disease, create other health risks
2. Contaminate feeds, food, facilities
3. Contribute to other pest infestations
4. Cause significant structural damage
 - Fire, catastrophic failure

Top 8 Bird Risks

5. Failed third-party audits
6. Governmental action
7. Loss of profit
8. Brand damage

Disease Transmission

- Birds are highly mobile
- Often carry bacterial, viral, fungal, Rickettsial diseases
- Harbor 40+ parasites, 60 types of disease organisms
- For Food Processing, Food Logistics, and Food Hospitality Industries, several of these bacterial diseases are of ***critical importance***



Food Borne Illnesses

Listeriosis from *Listeria*

Salmonellosis from
various *Salmonella*
serotypes

Colibacillosis from
various
E. coli serotypes



Other Disease, Health Concerns

- Viral infections
 - Encephalitis, Meningitis
- Serious fungal infections
 - Histoplasmosis, Candidiasis, Cryptococcosis
 - Associated with exposure to fecal accumulations
- Ectoparasites of birds will bite humans, especially mites
- Bird waste is a cause of slip/fall accidents

Contamination



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Contamination

- Bird feces, feathers, nesting materials, nestlings and other products of their behaviors are a serious contamination risk

**You have lost control
critical control points if bird
hazards exist**

Contaminated Facilities



Exteriors are also subject to contamination



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BEWARE

Secondary Pests Problems

Increased
Fly Activity

Cloths Moths

Medically important pests such as warehouse beetles are frequently found with nests, carcasses, accumulated waste

Structural Damage



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Structural Damage

- Uric acid in bird droppings is highly corrosive
 - Can half the life of construction materials, destroy production machinery and HVAC units
- Nesting materials can clog roof drains and result in roof collapses
 - This is not uncommon in warehouses and happens every year in the U.S.

Structural Damage

- Birds can damage siding and even roof membranes with their beaks
 - Seagulls are known to destroy even heavy butyl rubber membranes



Structural Damage

- Birds can cause fires by nesting in machinery, electrical signs
- Nests can clog ventilation systems
- Automobile finishes are damaged by bird droppings

There is evidence that pigeon droppings contributed to the corrosion of the bridge pilings and Interstate bridge collapse in Minneapolis

Audits and Governmental Actions

- Bird infestations are cause for failure of third party audits
 - What does this mean for you and your company?
- FDA, Dept. of Agriculture, Health Dept. can take actions including closure of your facilities for unresolved bird problems
- Food related safety issues continue to escalate, awareness of auditors has increased as well

Brand Damage

- Negative publicity can damage your company image, brand
- The presence of bird droppings and infestations at your business delivers a message to visitors that you are not properly maintaining your facility



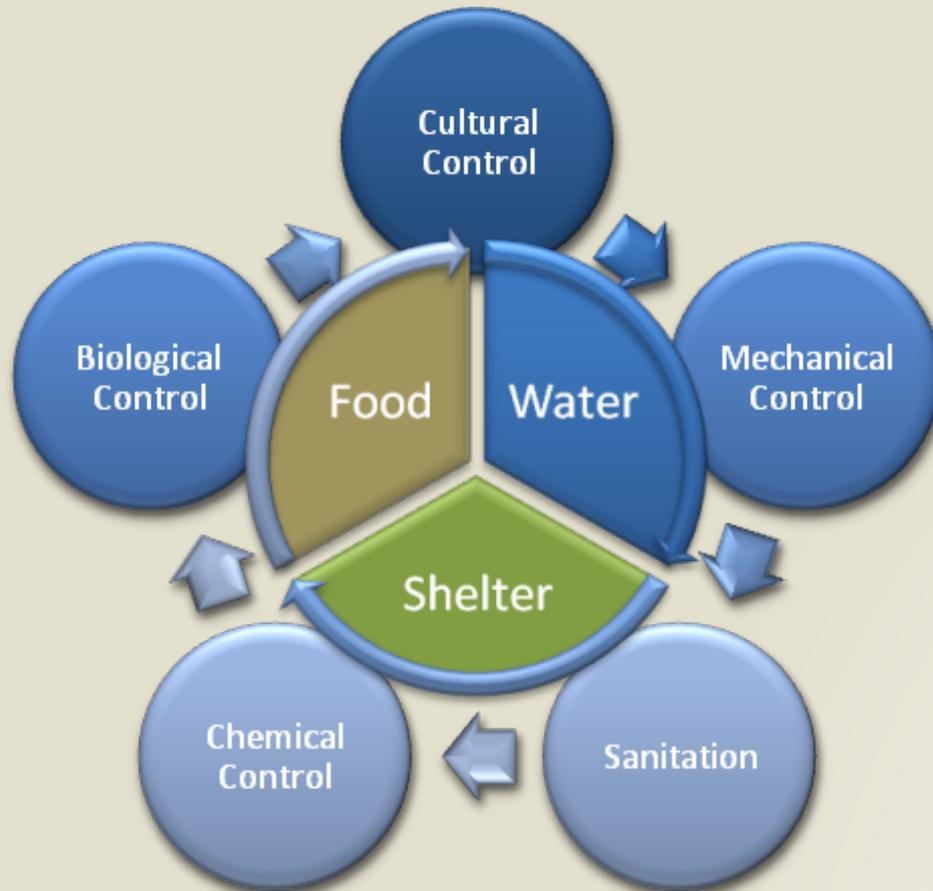
Brand Damage = Loss of Profits!

Bird Control

- How do you control pest birds?
- Basis of effective bird control is . . .

Pest Management & Prevention

Pest Management & Prevention



Understanding the
pest is the

KEY

to selecting the right
control strategies

Pest Management & Prevention



Elimination of one or more of these resources will stress a pest population and lead to elimination.

However...

birds are unique because of their ability to travel great distances to secure resources.

Control as a Process

- **Identify** the species correctly
- **Evaluate** site for conducive conditions, level of infestation
- **Develop** control program based on evaluation
- **Implement** program with agreement from facility management

Bird infestations are dynamic.
Control programs should be routinely re-evaluated.

Control Strategies

- For the best results, “stack the effects” by combining strategies in an action plan
- This is at the heart of

Pest Management & Prevention

Prevention

- Often a critical and under-utilized strategy
- Includes:
 - Facility design
 - Elimination of ledges, nesting sites, exposed beams
 - Use of rapid close doors
 - Protection for pallets, garbage areas
 - Proper grading of parking lots to eliminate standing water
 - Landscaping that does not attract birds
 - Fruit trees, seed-bearing plants



Sanitation & Education

- Sanitation is critical
 - Regular clean-up of food, water spills
 - Cleaning under dock levelers
 - Improved garbage procedures
- Employee behaviors
 - Close garbage receptacles
 - Do not feed the birds
 - Educate your staff about their role in solving your bird problems



Population Control

- A great concern for many people
- People like birds, many are opposed to lethal controls
- Never the less, elimination of habituated birds is often key to the success of other control measures
- Population control should be evaluated, humane techniques should be employed

Population Control

Avicides

- Effective, but difficult to legally perform
- We do not recommend avicides

Shooting

- Highly effective, but
- Has legal implications in most municipalities

Trapping

- Highly effective
- We employ this in several different ways

Contraception

- OvoControl
- Available for pigeons
- Endorsed by P.E.T.A.
- May take 1+ years

Trapping: Repeating Cage Traps

- Multi-catch traps are especially effective for pigeons



Live Catch Traps Must Be Routinely Inspected!



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Mist Netting

- Mist nests can be effective for smaller birds inside buildings
- **Only available for non-protected species**



OvoControl

- Program to reduce pigeon population through contraception
- Utilizes programmable feeders to distribute active ingredient *daily*.
- As long as pigeons feed daily, eggs will not develop.
- Population is controlled over time by accident, disease, predation and old age.

Deterrence

- Technique most commonly used
- Can be very effective, but are often species specific and very dependent on the level of ***pressure***
- There are many different types of deterrents and they can be used in combination

Scare Tactics

usually visual and audio stimuli

- Designed to chase birds away
- Stimulate “flight or fight response”
- Auditory devices include propane cannons, recordings of bird panic, predator calls
- Visual devices include predator simulators, Mylar flash tap, powerful hand lasers and rotating prismatic devices

Scare Tactics Limitations

- Work for new infestations and low pressure situations
- Birds can become inured to the stimulus and/or ignore it
- Tactics are best used temporarily, in conjunction with other control measures

Taste Aversion

- Methyl Anthranilate (grape seed extract)
- Available as sprays, fogs and other formulations
- Used to disburse flocks
 - From roosts as a fog, from turf as a spray
- Can be effective, but is costly
- Requires frequent re-applications

Landing Deterrents



Landing Deterrents

- Often referred to as ledge products
- Most are only effective for pigeons, larger birds
- Types include:
 - Post and wire
 - Coil
 - Stainless or polycarbonate spikes
- Smaller birds are undeterred
- In high pressure situations, birds will defeat these systems

Landing Deterrents



- Sparrows will often nest in spike
- Pigeons will defecate, drop sticks on spike to reclaim their nesting sites

Landing Deterrents

- Newer generation ledge products (like electrical deterrence)
 - Work on all species
 - Low profile, virtually invisible systems
- Electrical systems are “living systems”
 - Require continuity checks
- Daddy Long Legs, Bird Spiders effectively prevent larger birds from landing on light poles, tanks, HVAC units and roofs. Sloped plastic products also deny ledges and nesting opportunities

Net Exclusion

- Complete barrier to birds
- Available in different mesh sizes

2"
Pigeons

1- 1/8"
Starlings

3/4"
Sparrows

- Polyethylene materials insure longevity
- Attached to wire frameworks with galvanized or stainless fittings
- Zippers can be added to preserve service access to valves, light fixtures, etc.
- Requires a high degree of skill



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Thank You

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