



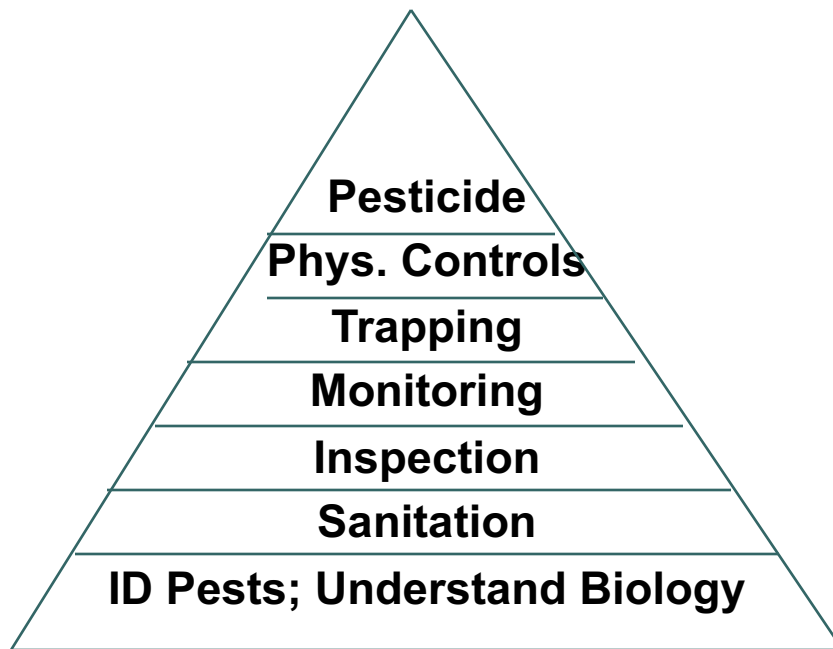
Simplifying Bird Control

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Grainnet Webinar
Sept. 18, 2018



Birds: Applying IPM Concepts





Species Vary!

Successful Tactics Vary.

- Pigeons, sparrows, starlings, and other pest birds vary in biology and behavior
- Large bird/small bird variance in susceptibility to different devices
- Differences in nest sites
- Differences in flight patterns, flocking, feeding and watering habits
- Differences in response to different perceived threats



Pigeons

- Pale grey with two black bars on each wing
- Iridescent coloration along neck and wing feathers
- No sexual dimorphism
- Feed mostly on seeds and fruits
- Most common in urban areas
- Feed on the ground
- Roost together on buildings





Pigeons, cont'd.

- Peak breeding in spring and summer
- Flimsy nest made by female
 - Site chosen by male
 - Materials brought by male
- 1-3 eggs per clutch
- 1-6 clutches per year
- Both sexes incubate
- Nests and plumage harbor lice





Pigeons, cont'd.

- Scattered nesting sites, but congregate into huge flocks. They are social birds.
- High-flying flocks descend to land. Contrast this with sparrows that operate close to ground and fly up to nests. (Variable susceptibility to different devices.)
- Risks: About 60 pathogens, lice, mites, audit risks, food safety and contamination, slip and fall hazards!



Flour Mills & Grain Elevators: A Perfect Storm for Pigeon Problems!

- Tall structures appealing to cliff-dwelling ancestry. Safe places for flock roosting, sunning.
- Food, and usually water nearby.
- Often protected ledges or nooks for nesting, whether from poor design or disrepair.





Your Facility Controls

- Sanitation
 - Grain and product spillage
 - Harborage and roosting opportunities
 - Waste handling
- Inspection
 - Addressing bird presence early
 - Identifying and correcting maintenance issues
- Exclusion
 - Closed door culture prevents entry



What is Feasible in Your Perfect Storm?

- Understand some finer points of pigeon behavior *and observe how they are using your site!*
 - Roof top flocks sunning?
 - Night roosting?
 - Nesting?
 - Edge and ledge roosting in preparation for feeding?
- These points define how strongly attached birds are to your site.



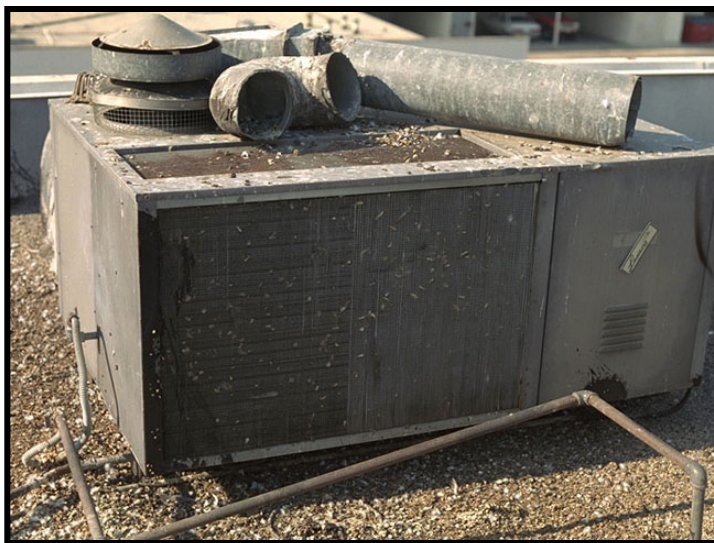
Prioritize and Attack What's Feasible

- **Do not tolerate nesting!** Nesting on a site makes it a multi-generational rookery.
- A relatively small exclusion effort from certain ledges and nooks can limit this aspect of bird pressure.
- **Night roosting** is the other element that defines the strongest attachment of birds to a site. This might require more extensive and expensive measures.



DIY Exclusion Fix

- The center of a bird/droppings issue might be rooftop equipment that provides protection.





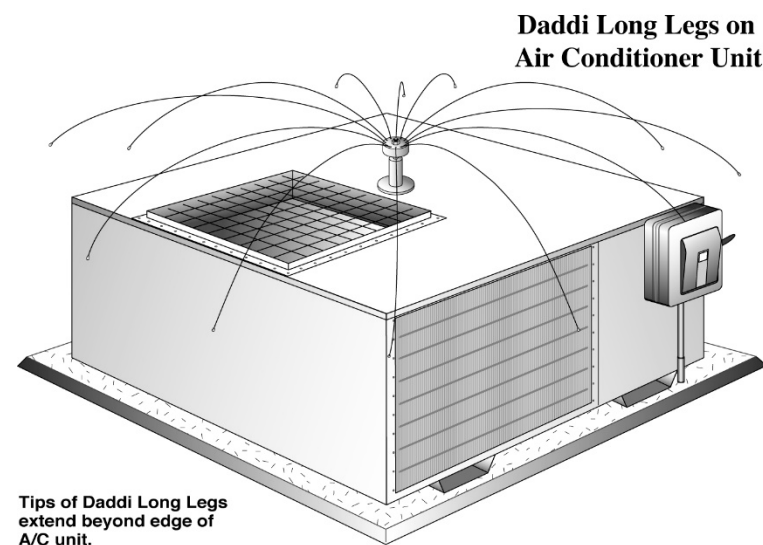
Attacking What's Feasible

- **Roof top flocks?** What happens if the birds are frightened away? They move to a neighboring site (indicates relatively easy relocation). Or, they typically circle right back (indicates some deeper attraction to site).
- Consider the rationale behind “Daddy Long Legs” devices: **birds will be afraid of getting tangled.** Different ways to adapt this concept with wire or monofilament line?



Daddy Long Legs / Flight Disruptors

- Wire or line grid over a pond (about 4-6 foot spacing) stops geese from using a pond, or repels certain birds from entering courtyard dining areas.





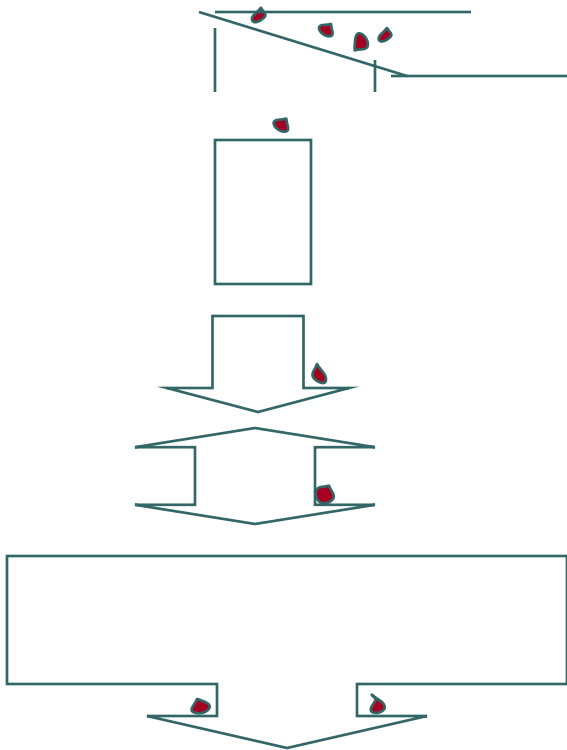
Scare Tactics

- Over 100 device types or tactics are available for bird control, mostly “scare” or “harassment” tactics. There is **not a single silver bullet**.
- Devices match with certain levels of “bird pressure” or attachment to a site. ***Mis-matches can be expensive and likely ineffective.*** Know the limitations of a tactic.

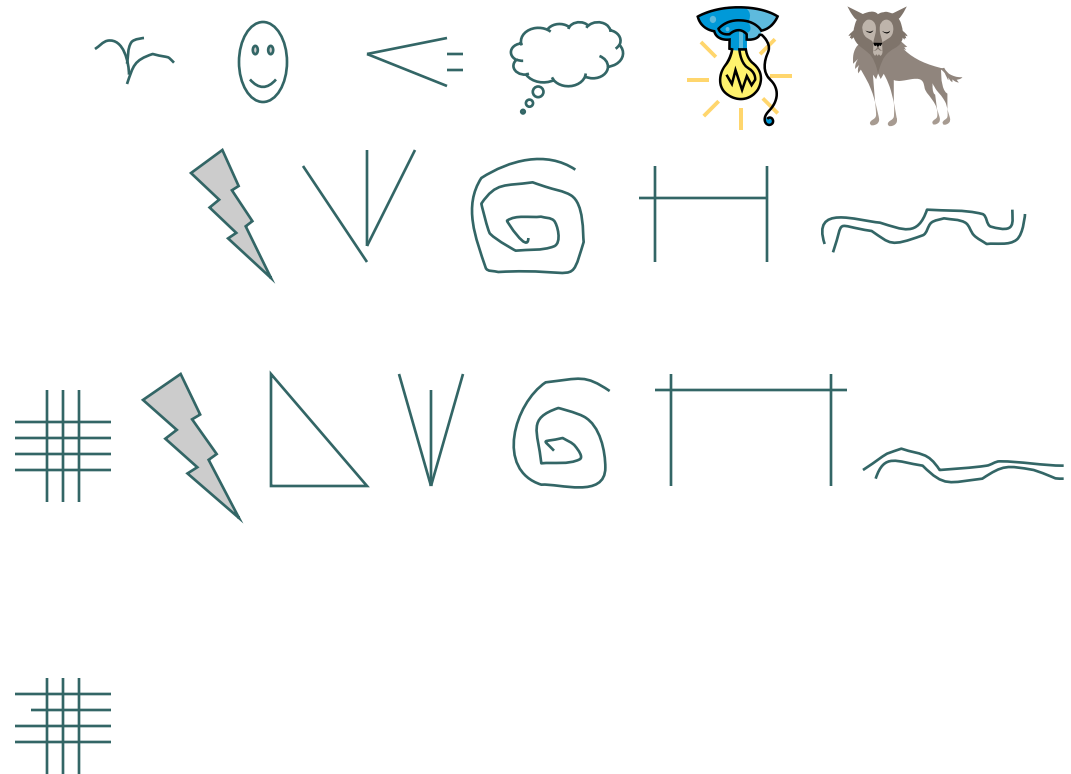


Site Evaluation & Better Remedies

Increasing Pressure



.....Better Remedies





Reduce Food Attraction Feasibility

- Spillage and blow-out control?
- Consider whether grain dump areas could be protected by exclusion measures.
- Methyl anthranilate material is available for taste deterrence on spilled grain. Needs some trial use.



Trapping to Reduce Populations?

- Very labor intensive. Requires daily trap service.
- Demands humane treatment: Food, water, shade, etc. provided for trapped birds.
- Disposal?
- Thousands have been trapped from flour mill roof tops with no visible impact on flock sizes.



Focus on Droppings?

- Sometimes bird control projects are capital projects that need to wait.
- Recognize that droppings alone are safety risks or may require cleanup before certain control measures can be installed.
- Workers may need protective equipment.
- **Probiotic cleaners** can be efficient and effective for remediation or routine sanitation.





Pesticide Use

- Often the crutch in pest management when the root cause cannot be corrected.
- Not easy protocols. They are labor intensive.
- Fraught with liabilities: off site mortality or sick birds...they are not a good option for most service providers. And not recommended for DIY applications.



USDA, Animal & Plant Health Inspection Svc. (APHIS) Wildlife Control Programs

- Cost-sharing programs are available with USDA personnel applying avicides, trapping, shooting and even using a net cannon.
- Milling clients seem happy with results.
- Visit APHIS Wildlife Control's website and consult your state agency.



As you can see, there are no easy solutions. But, we hope this provided a couple new ideas!

Thanks for your attention.

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