

Controlling Birds Around Farm Buildings

Large numbers of birds in and around barns, livestock and poultry facilities, and farm buildings can cause damage and unsanitary working conditions. Birds may consume and contaminate food and water, potentially transmitting diseases to livestock and poultry. Accumulated droppings are messy and can corrode farm equipment. Nests often plug drains and gutters, and birds may cause additional damage by destroying insulation.

You can take steps to keep birds from becoming a problem or to lessen the problem if one currently exists. Before beginning any control program, however, you should be familiar with the laws protecting birds, be able to identify which birds are causing the problem, and know something about their behavior and habits. This is necessary because the nature of a particular bird species determines which methods to use for controlling problems the birds cause. Species that may cause problems, particularly in and around barns and other farm buildings, include pigeons, European starlings, house finches, and house sparrows.

Pigeons, or Rock Doves

Pigeons, familiar to most people, are an exotic (non-native) species. They are generalists in their feeding habits; although they prefer grain and seed, they consume garbage, insects, bread, and other hand-outs from people. Around barns pigeons can subsist on spilled or improperly stored grain. They nest on building ledges, rafters, and beams. Nests are shallow, flimsy platforms made of sticks, twigs, and grasses. Pigeons can breed year-round, although peak production occurs in spring and fall.

European Starlings

European starlings are an exotic (nonnative) species introduced into North America from Europe. Often found in large flocks, starlings are very tolerant of people. Like pigeons, starlings are generalists and feed on insects, seeds, berries, grains, garbage, and hand-outs from people.

These birds are cavity nesters. Inside and around buildings, they construct nests in drain pipes, inside holes in walls and ceilings, and in any other cavity-like opening. Starlings breed from April to July and usually have two broods.

House Finches

House finches, native to the western United States, are relatively new to Pennsylvania. Released in New York in 1940, they have expanded their range and have been breeding in Pennsylvania since the 1970s. They look like purple finches except that males have less extensive red coloring throughout the breast and face. Females are streaked brown overall. House finches consume mainly seeds. Because of this diet, they are attracted to bird and livestock feeders.

House finches are well adapted to urban and suburban environments and nest in a variety of locations. They build nests in vines, conifers, hanging plants, and cavity-like openings in buildings, and on building ledges. House finches can breed as early as March in Pennsylvania. They generally have two or more broods per summer.

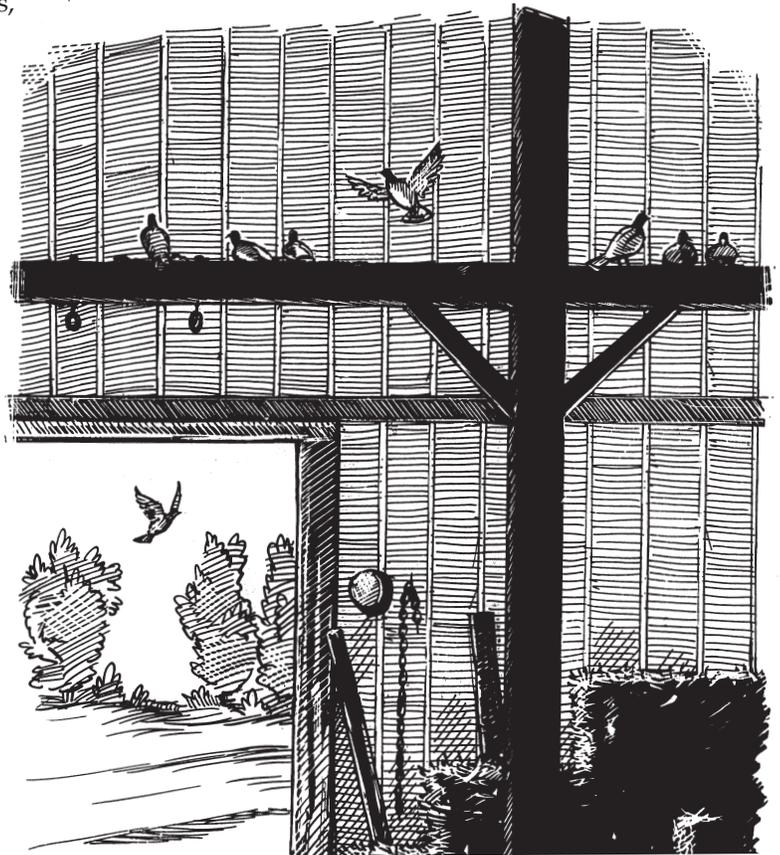


Illustration by Jeffery Mathison



House Sparrows

House sparrows are a nonnative species introduced from Europe. The male is recognized by his black bib and white cheeks. The female, much harder to identify, is often confused with other sparrows. She is gray brown with an unstreaked, dingy breast, a buff eye stripe, and a streaked back. She can often be identified by her noisy monotone chirp. It is important to be able to identify this species because all other sparrows are protected by law.

House sparrows consume many insects during the spring and summer. Being generalists, they also feed on grain and weed seeds around barns and in fields and consume garbage and other food items that people throw out.

Nests that sparrows build in cavities are large, messy masses of grass, straw, leaves, and trash. Nests built in the open are often domed. Favorite nesting sites around barns and buildings include rafters, holes in walls, and areas behind shutters and under eaves. House sparrows nest primarily from March to September. A female has two to three broods per year.

Legal Status and Permit Process

All birds are protected by state and/or federal law except pigeons, house sparrows, and European starlings. It is illegal to kill any other bird species without a special permit; it is also illegal to indirectly cause the death of a protected species. For example, if you put out a toxic chemical to kill starlings and a protected bird is killed in the process, you are legally responsible.

Furthermore, it is illegal to disturb a bird that has young or eggs in the nest. There is one exception to the law. Blackbirds, cowbirds, crows, and grackles may be killed without a permit when they are observed committing or about to commit damage. Crows can be shot during the legal hunting season.

You will need a permit if protected birds are to be harmed by damage control techniques. A Migratory Bird Depredation Permit can be obtained from the U.S. Fish and Wildlife Service (FWS). Pennsylvania is in Region 5 of the FWS, and the permit application must be sent to Region 5 headquarters in Hadley, Massachusetts. You can get a copy of the permit application from the Pennsylvania office of USDA-APHIS Wildlife Services (PO Box 459, Summerdale, PA 17013; 717-728-0400). Wildlife Services can help you with the permit process as well as distribute information and loan damage control materials.

After the permit has been sent to FWS, a copy is sent to Wildlife Services, which then inspects the property for which the permit is being requested and recommends action to the FWS. Wildlife Services also consults the local Pennsylvania Game Commission wildlife conservation officer. The recommendations are sent back to FWS, which in turn sends the permit to the Game Commission's Bureau of Law Enforcement. The Game Commission must co-sign the permit before it becomes legal. If both the Game Commission and the FWS agree that the permit should be issued, they will send it to you.

Damage Control

There is no one best way to control birds around farm buildings since each situation is different. The techniques suggested below have worked for other people. You will probably need a combination of techniques. Whatever you choose, start your control efforts early, before the problem becomes overwhelming, and be persistent. Reducing bird problems takes time. Be familiar with the biology and behavior of the pest species so you know what techniques are most likely to work.

Avoid the Problem

One of the primary reasons birds are attracted to livestock facilities is the superabundant food source they find there. To reduce the likelihood that large numbers of birds will congregate in and around farm buildings, limit food and water availability by following these farm management practices daily:

- Clean up all spilled grain.
- Store grain in birdproof containers.
- When possible, use covered feeders that exclude birds.
- Maintain the water level in livestock waterers so it is deep enough that birds cannot stand in it, but shallow enough that it cannot be reached by a bird perched on the edge of the waterer.

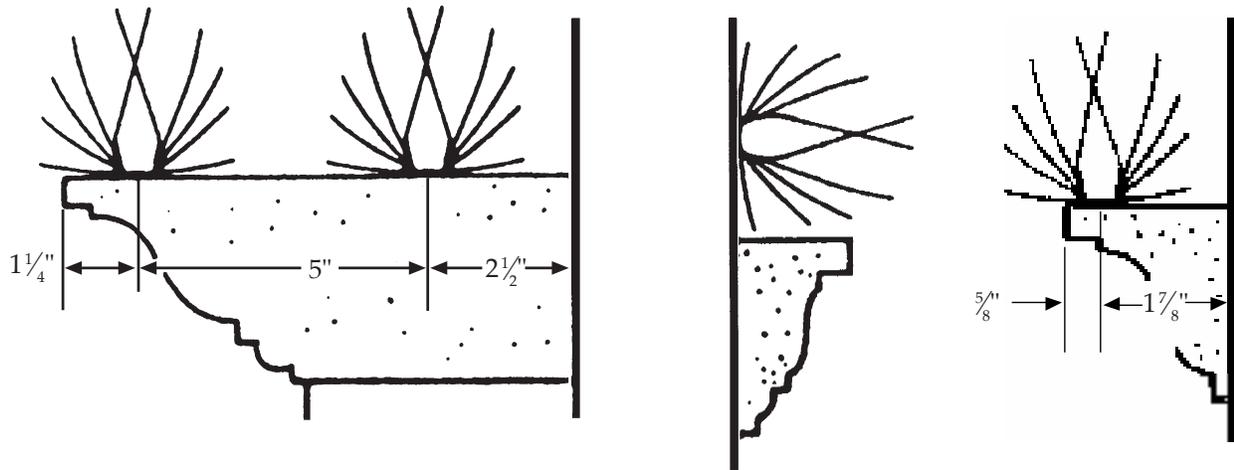
Exclude Birds

- The best way to reduce problems in buildings is to exclude birds from the buildings. This can be costly at first, but in the long run it is often the most cost-effective method.
- Hang plastic strips in doorways. To block doorways that cannot be kept closed, hang strips of heavy plastic vertically in the doorway. They allow machinery and people to pass through but keep birds out.
- Close all openings more than 0.5 inch. Block openings to lofts, vents, and eaves with wood, metal, glass, or wire mesh. Repair broken window panes.
- Exclude birds from roosting sites by covering the undersides of the rafters with netting.

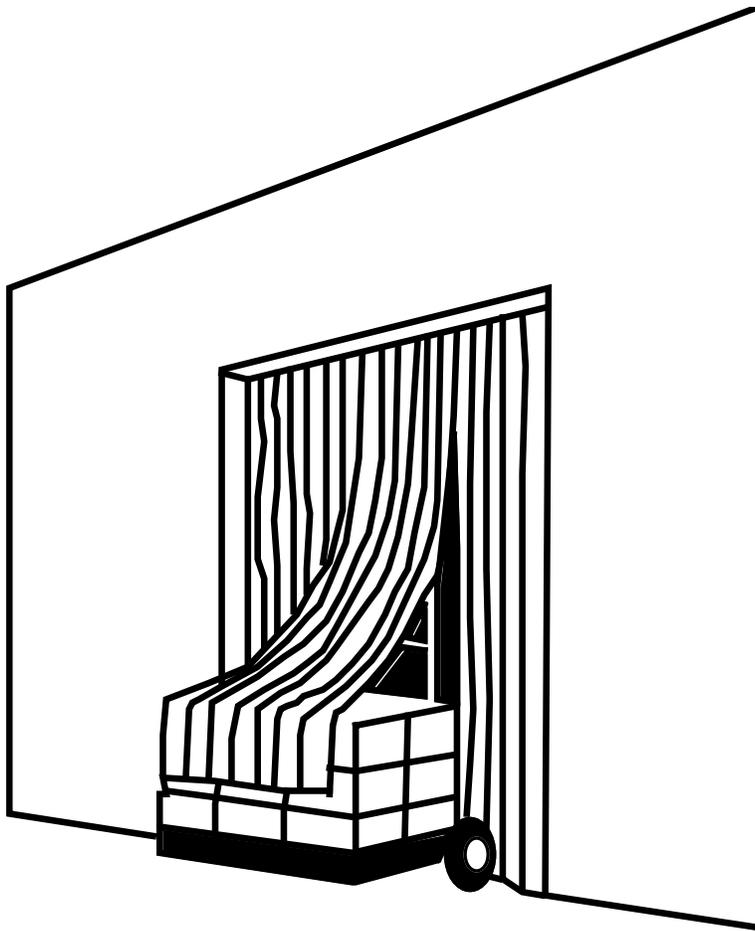
Reduce Attractiveness of Roost and Nest

If exclusion is not possible or economically feasible, try reducing the attractiveness of the roosting (places where birds sit) and nesting sites. These nonlethal methods are safe for people, livestock, and nontarget wildlife, but they are often time consuming to install and expensive.

- **Change the angle of the roosting ledge to at least 45 degrees.** Fit roost sites with slanted metal or wooden boards at an angle of at least 45 degrees.
- **Install mechanical perch repellents (porcupine wires).** These consist of sharp wires or spikes that extend outward at all angles. The spikes are fastened to a solid base and can be installed wherever birds roost or nest. The points inflict temporary discomfort, causing birds to avoid these surfaces. These materials are not effective against smaller birds, such as house sparrows, because the birds can fit between the points and use the site for nesting.



Porcupine wires discourage pigeons from roosting on structures.



Plastic strips hung in the doorway will keep birds out.

- **Install electronic bird-control devices on roost and nest sites.** This device consists of a cable embedded with two electrical conductors. The conductors carry an electric charge and give birds a shock when they land on it. These devices must be maintained to be effective.
- **Use chemical perch repellents.** These are sticky or slippery substances that you caulk, spray, or paint on rafters and ledges where birds perch or nest. They do not work in very dusty areas.
- **Install catwalks.** Install catwalks along the rafters and ledges to allow cats access to prime roosting and nesting sites. Birds avoid these areas when cats are patrolling.

Reduce Reproductive Rate

Along with other methods, use techniques to reduce bird reproduction rates. Such methods may only be used against species that are not state or federally protected. These include pigeons, house sparrows, and European starlings.

Use a hook fastened to the end of a long pole to tear down nests at two-week intervals. If you can reach the nests, take a pin and poke holes in the eggs. This method often works better than outright destruction of nests. The reason is that the birds will continue to sit on the eggs waiting for them to hatch—instead of building a new nest as they often do when eggs are destroyed. Both methods are very time consuming.

Trapping

Birds can be caught and removed with live traps. Many designs for traps are available, or traps can be purchased. The most widely used design is the “bob” trap, so named because of the swinging rods, or bobs, at the entrance. Pigeons can push their way into the trap, but because bobs only push inward, the birds can’t get out.

The most effective house sparrow traps are funnel traps. Their large entrances make it easy for birds to enter, but they also make it easy for birds to escape. Traps should be checked at least daily and the nontarget birds released. Target species may either be killed humanely or released in another location.

For the traps to work efficiently, the area must be prebaited for a number of days. This accustoms the birds to feeding in the area and, if possible, gets them used to feeding in the traps. After a few days of prebaiting, the traps should be set and checked frequently. The effectiveness of some traps is improved when decoy birds are kept inside. This gives incoming birds a feeling of security. Always keep a supply of food and water in traps.

Lethal methods

Review the section above on legal status to determine permit requirements for using lethal methods. When using lethal methods, be careful not to harm nontarget species. Lethal techniques may only be used on the three nonprotected species and on blackbirds that cause damage to an area. Consult USDA-APHIS Wildlife Services officials before using lethal control methods if you are

unsure whether protected species could be harmed.

- **Shooting.** Pigeons, starlings, and house sparrows can be removed by shooting in areas where this is legal. Refer to local firearms ordinances or consult the Pennsylvania Game Commission to determine the legality of shooting in your area.
- **Chemical frightening agents.** Avitrol is a chemical frightening agent. Birds that consume the bait display distress symptoms such as erratic flight, which frightens away other members of the flock. Depending on the amount of bait consumed, birds will either die or become ill. Only certified pesticide applicators with bird control training may use Avitrol.

Summary

Controlling birds around buildings is difficult, and you may need to use a combination of techniques. Sometimes it may be necessary to hire a professional to deal with the problem. Wildlife pest control operators are available throughout the state. These people are permitted by the Pennsylvania Game Commission to deal with nuisance wildlife. County extension offices have lists of nuisance wildlife control operators for each county, and some individuals are listed in the yellow pages under the heading “Pest Control.”

Before deciding on a control method, consider the following factors:

- **Effect on nontarget species.** This point is particularly important when using lethal methods of control. You must be sure that nontarget species will not be harmed in the process.
- **Safe for operator.** Choose a method that is safe for the operator. When using toxic substances, read the label and follow all precautions.
- **Economical to use.** Select a method that is economically practical. If control measures exceed damage, the method is not practical.
- **Socially acceptable.** Use a method that is socially acceptable, and be sensitive to public concerns. For example, if your site is highly visible to the public, lethal methods of control are not advisable even if they are the most effective.

Acknowledgments

Partial funding for this fact sheet was provided by the Wild Resource Conservation Fund.

Prepared by Margaret C. Brittingham, professor of wildlife resources, and Shannon T. Falker, assistant wildlife extension specialist.

Illustration on page 3 © Penn State College of Agricultural Sciences.

extension.psu.edu

Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone 814-865-6713.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Extension is implied.

This publication is available in alternative media on request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Produced by Ag Communications and Marketing

© The Pennsylvania State University 1999

Code UH126 2/17pod

