

A blurred background image showing several chickens in a grassy field. A large green rectangular overlay covers the middle-left portion of the image, containing the title and subtitle text.

# City of Highland Park

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## Backyard Chicken Keeping Application Packet

2019



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Dear Resident,

Thank you for your interest in keeping backyard chickens in Highland Park! This application packet contains all of the materials and information that you will need to get started. Please refer to the step-by-step guide below to ensure that you have met all of the necessary requirements for keeping chickens in Highland Park.

**Step 1:** Register for a Livestock Premises ID from the Illinois Department of Agriculture.

*The Livestock Premises program is a registry of chicken flocks throughout the State of Illinois that is intended to protect flocks and flock owners in the case of a disease outbreak. It allows the Illinois Department of Agriculture to monitor the spread of disease and promptly notify flock owners if there is an outbreak in the area. All information is kept entirely confidential.*

Register Online: <https://www2.illinois.gov/sites/agr/Animals/AnimalHealth/Pages/Premises-Registration.aspx>.

**Step 2:** Read and review Highland Park's *Chicken Keeping Guidelines* (page 5) to ensure that you meet all requirements.

**Step 4:** Read and review the educational materials on *Biosecurity, Wildlife Management, Food Safety, and Infectious Diseases* (pages 8-22).

**Step 5:** Complete the Chicken Keeping Permit Application (page 4) and obtain a building permit from the Community Development Department to install a chicken coop.

*Please include proof of registration with the Illinois Department of Agriculture Livestock Premises program, permit exception applications if applicable, and a \$50 permit fee. Please return your completed application to the Community Development Department. Chicken Keeping Permits are valid for the period of January 1 – December 31<sup>st</sup> of the year of issuance and must be renewed annually.*

**Step 6:** Complete the Permit Exception Applications if applicable (pages 6-7).

*Residents who would like to keep chickens but cannot meet the required setback limitations or zoning requirements requiring coops to be located in rear yards may complete a Permit Exception Application. Please include any Permit Exception Applications with your completed Chicken Keeping Application.*

# Chicken Keeping Permit Application



Community Development Department  
1150 Half Day Road, Highland Park, Illinois 60035  
Ph: 847.432.0867 www.cityhpil.com

## Applicant Information

\_\_\_\_\_  
Name of Property Owner(s) / Applicant (s) Responsible for the Coop and the Hens

\_\_\_\_\_  
Street Address Where Hens Will Be Kept

(c) \_\_\_\_\_

\_\_\_\_\_

(h) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Phone Number(s)

\_\_\_\_\_  
E-mail(s)

\_\_\_\_\_  
Number of Hens (maximum allowed is 6)

\_\_\_\_\_  
IL. Dept. of Agriculture Premise ID Number

## Additional Requirements

*Please read and initial each item below*

\_\_\_\_\_ I have included the following with this application:

- ☐ Proof of Registration with the Illinois Department of Agriculture Livestock Premises
- ☐ Chicken Coop Building Permit and Approved Permit Exceptions if Applicable
- ☐ Permit Fee (\$50)

\_\_\_\_\_ I have received and reviewed the educational materials included in this application packet.

\_\_\_\_\_ I have reviewed and understand the City's regulations pertaining to backyard chicken keeping.

\_\_\_\_\_ I understand that this Chicken Keeping Permit is to be renewed annually.

\_\_\_\_\_ I understand that a Chicken Keeping Permit will not be issued until the Accessory Structure Chicken Coop final inspection has been completed and approved.

\_\_\_\_\_ I understand that violations of the City's chicken keeping ordinances set forth in Chapters 90 and 95 of the City Code may result in the issuance of a citation requiring an appearance before an Administrative Hearing Officer and that a Chicken Keeping Permit may be revoked by the City upon the occurrence of three violations of Section 90.260 of the City Code within a 12-month period.

*I certify that I intend to keep chickens and operate the coop in compliance with all applicable City, County, State, and Federal laws.*

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Office use only

Received date: \_\_\_\_\_ Payment Type: \_\_\_\_\_ Paid Amount: \$ \_\_\_\_\_ Permit Approved: \_\_\_\_\_

The information provided on this page is intended to summarize the requirements, conditions, and specifications outlined in the City Code pertaining to backyard chicken keeping. Please refer to City Code Sections 90.260 and 95.001(N) for the complete text which can be found on the City's website at [www.cityhpil.com](http://www.cityhpil.com).

#### REQUIRED DOCUMENTATION

- All flock owners must register for a Livestock Premises ID from the Illinois Department of Agriculture and maintain proof of current registration on site at all times.
- All flock owners must obtain a building permit pursuant to Chapters 170 and 174 of the City Code from the Community Development Office prior to the construction or modification of a chicken coop and must provide proof of such building permit being obtained as part of the Chicken Keeping Permit application.
- All flock owners must obtain a Chicken Keeping Permit from the City and pay the associated Chicken Keeping Permit fee. Chicken Keeping Permits are valid for the period of January 1 – December 31 for the year of issuance and are to be renewed annually.

#### GENERAL GUIDELINES

- A maximum of six (6) hens are permitted on any property.
- Roosters are prohibited.
- Hens must be confined to a coop or enclosed chicken run at all times.

#### ZONING REQUIREMENTS

- Chicken keeping shall be limited to properties zoned for single-family residential use.
- Coops shall be constructed in the rear yard and must be set back 8 feet from property lines and 10 feet from any occupied residence.
  - Properties which do not have a rear yard may apply for a permit exception to locate a chicken coop in a side yard.
  - Properties which have a rear yard that does not allow for the location of a chicken coop that is set back at least 8 feet from all property lines may apply for a permit exception to locate a chicken coop in the rear yard that is set back at least 3 feet from all property lines and not in a utility easement with screening along each side of the chicken coop located less than 8 feet from a property line.
- Applicants must obtain a building permit from the Community Development Department prior to construction of a chicken coop. Completed coops shall be subject to an initial inspection to ensure compliance with municipal regulations.

#### ENCLOSURE SPECIFICATIONS

- Chicken coops must be of sufficient size and strength to protect hens from predators and weather elements, including extreme temperatures.
- Coops must provide at least 4 square feet per hen, and may not exceed 8 feet in height. Coops may additionally provide open space for hens in the form of an enclosed chicken run, provided they fall within the required setbacks.

#### SANITATION AND NUISANCE

- Hens must be kept, housed, and maintained in a safe and humane manner.
- Chicken coops must be kept in a clean and sanitary condition at all times so as to not cause any public or private nuisance resulting from offensive odor, excessive waste, or the presence of rodents or pests.
- Chicken feed must be stored in rodent-proof containers.

Permit Exception Application to Locate a Chicken Coop in a Side Yard

Properties which do not have a rear yard may apply for a permit exception to locate a chicken coop in a side yard. Permit exception requests are subject to administrative review by City staff and must be approved by the City Manager. To apply for a permit exception to locate a chicken coop in a side yard of your property due to your property not having a rear yard, please complete the following permit exception application and return it to the Community Development Department located on the 2<sup>nd</sup> floor of the Public Services Building at 1150 Half Day Road.

1. Name: \_\_\_\_\_
2. Address: \_\_\_\_\_
3. Phone Number: \_\_\_\_\_
4. Email Address: \_\_\_\_\_
5. Please provide an explanation of your need for a permit to locate a chicken coop in a side yard:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Please attach an aerial image with a depiction of where you propose to locate a chicken coop on your property.

Applicant signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Side Yard Permit Exception Approved: \_\_\_\_ Side Yard Permit Exception Denied: \_\_\_\_

City Manager Authorization: \_\_\_\_\_ Date: \_\_\_\_\_

Permit Exception Application to Locate a Chicken Coop within a Setback of Less Than  
Eight Feet from a Property Line

A property with a rear yard that does not practically allow for the location of a chicken coop that is set back at least eight feet from all property lines may apply for a permit exception to construct a chicken coop with a three foot setback from property lines with required screening along the portions of the coop which encroach into the required eight foot setback. Chicken coops may not be constructed or installed within a utility easement. Permit exception requests are subject to administrative review by City staff and must be approved by the City Manager. To apply for a permit exception to locate a chicken coop with a setback of less than eight feet from a property line, please complete the following permit exception application and return it to the Community Development Department located on the 2<sup>nd</sup> floor of the Public Services Building at 1150 Half Day Road.

1. Name: \_\_\_\_\_

2. Address: \_\_\_\_\_

3. Phone Number: \_\_\_\_\_

4. Email Address: \_\_\_\_\_

5. Please provide an explanation of why the proposed chicken coop cannot be constructed within the eight foot setback requirement on your property:

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6. Please attach a photograph or aerial image of the rear yard showing the existing conditions of the rear yard which prohibit the chicken coop from being built within the eight foot setback.

7. Please attach a depiction of an aerial photograph or plat of survey of where exactly the chicken coop is proposed to be installed.

Applicant signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Setback Permit Exception Approved: \_\_\_\_ Setback Permit Exception Denied: \_\_\_\_  
City Manager Authorization: \_\_\_\_\_ Date: \_\_\_\_\_

## Chicken Keeping Educational Materials and Resources

The City of Highland Park provides all applicants with educational materials pertaining to biosecurity, wildlife management, food safety, and infectious diseases. The resources on the following pages are provided by federal and state public health professionals, and are intended to support flock owners in becoming well informed of the risks associated with backyard chicken keeping and better prepared to protect their health and the health of their neighbors.

**Infectious Diseases** may pose significant harm to backyard chickens and/or humans. Knowing the signs and symptoms of common poultry diseases and how they are spread can help flock owners prevent serious illness. Information about common infectious diseases can be found on pages 9-12.

**Biosecurity** refers to everything that is done to keep diseases and the pathogens that carry them away from birds, property, and people. You will find some basic information about biosecurity and tips to prevent poultry diseases on pages 13-14.

**Wildlife Management** refers to any preventative measures that can be taken to protect your chickens from predators and to prevent the attraction of local wildlife to your chicken coop. You will find information about useful wildlife management practices on pages 15-20.

**Food Safety** refers to the practices to ensure the safe handling, preparation, and consumption of eggs produced by backyard chickens. Information about eggs and food safety can be found on pages 21-22.

### Other Helpful Resources

#### USDA Defend the Flock Resource Center

<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian/defend-the-flock-program/dftr-resources>

#### CDC Healthy Pets, Healthy People: Backyard Poultry

<https://www.cdc.gov/healthypets/pets/farm-animals/backyard-poultry.html>





## **Human Health Concerns Related to Raising Poultry**

An increasing number of citizens want to raise chickens in urban environments as a hobby or they may believe this method of raising birds for food may be safer or less expensive. Citizens should check to make sure that flocks are allowed in the area where they reside before purchasing poultry. This document examines the public health significance of some common concerns about urban poultry farming.

### *Bacterial diseases*

*Salmonella* and *Campylobacter* are common public health hazards potentially associated with chicken contact. These bacteria are carried by healthy chickens and are communicable to people through direct contact, exposure to manure, or consumption of undercooked chicken and eggs. Infection is characterized by diarrhea, vomiting, fever, and/or abdominal cramps; small children, elderly persons, and those with weakened immune systems are more susceptible to severe illness. Young birds may be especially prone to shed these organisms in their droppings. This poses a hazard to anyone who comes into contact with the droppings. The public health hazards associated with *Salmonella* and *Campylobacter* are expected to be limited to those who are in contact with the chickens or their droppings or consume their meat or eggs without thorough cooking. There have been several multi-state outbreaks of human *Salmonella* infections from handling baby chicks. These hazards could be mitigated by avoiding contact with poultry feces, carefully washing hands with soap and water after handling the birds, avoiding hand-to-mouth contact while working with birds and education about food safety.

### *Histoplasmosis*

Histoplasmosis can cause a respiratory disease with cough and shortness of breath. The fungal organism causing this disease is present throughout the Midwest but can be concentrated in areas with quantities of bird droppings. Persons acquire the disease by inhalation of the organism from the environment. Therefore, it is critical that flock owners have a method to maintain the property to minimize the accumulation of bird droppings. Animal waste should be disposed of in a safe manner.

### *Avian influenza (bird flu)*

Avian influenza is a theoretical public health hazard potentially associated with urban chicken farming. Birds can shed the organism in the saliva, nasal secretions and feces. Avian influenza is a viral disease of birds that is communicable to people through exposure to respiratory or fecal secretions. The risk of human avian influenza infections in the United States is extremely low and is expected to be limited to those who are in contact with infected chickens.

### *Exotic Newcastle disease*

Exotic Newcastle disease, a viral disease that is not normally found in the United States, is not a significant public health hazard in this context. While exotic Newcastle disease can cause mild eye infections in people, the greater concern is that the introduction of exotic Newcastle disease

in privately owned chicken flocks can cause major economic damage in communities where commercial chicken farming is an important industry.

#### *Attraction of predators*

The attraction of predators is a public health hazard potentially associated with urban chicken farming. The presence of chickens on a property might attract urban predators such as stray dogs, foxes and coyotes. This would increase the probability of conflict between humans and predators in the urban environment (e.g., animal bites). This hazard could be mitigated by requiring flock owners to provide sufficient structural protection to prevent predator access to their flocks.

#### *Attraction of rodents*

The attraction of rodents is a public health hazard potentially associated with urban chicken farming. Failure to maintain a clean environment for the chickens could attract mice or rats to a property. This hazard could be mitigated by educating flock owners on the proper care and maintenance of chicken flocks including the proper storage of bird feed.

#### *Nuisance issues*

The odor and noise that might be associated with urban chicken farming are not public health hazards. Poultry may escape into neighbors' yards. Flies might be attracted to the area unless adequate fly control is practiced. Communities are advised to have a system in place for handling public complaints regarding these issues if they allow urban poultry flocks. To decrease noise issues, banning roosters may be advisable.

#### *Management and handling of poultry in small backyard flocks*

1. Keep baby chicks and adult poultry away from persons with weaker immune systems, including the elderly, pregnant women, diabetics, patients receiving chemotherapy and people infected with HIV.
2. The Centers for Disease Control and Prevention recommends that person not keep chickens if the household has children younger than five years of age.
3. Make sure that people who handle the chickens or their droppings, wash hands properly with soap and water following contact.
4. Do not eat or drink around the poultry.
5. Keep poultry away from food preparation areas.
6. Do not wash items, such as water or food dishes, from chicken coops in the kitchen sink.
7. Do not allow poultry to roam in the house.
8. Maintain the area where the poultry are present in a sanitary manner.
9. See your physician if you experience fever and diarrhea.

### **Conclusion**

The public health hazards potentially associated with urban chicken farming should be weighed against individual and community benefits. Public health infectious disease hazards can be mitigated by education and regulation and are expected to be limited to those who are in contact with the chickens or consuming their meat or eggs without thorough cooking.

Communities that permit urban chicken farming are advised to ensure that flock owners receive educational materials on infectious diseases, animal husbandry, food safety and biosecurity. These communities also should have a system in place for responding to community complaints.



## CDC recommendations for keeping live poultry

- Always wash your hands thoroughly with soap and water
  - After handling poultry
  - After handling poultry food and water dishes or other equipment
  - After cleaning poultry coops, or anything in enclosures such as perches or other equipment
  - After being in areas near poultry even if you did not touch the birds
  - Before you eat, drink, or smoke
- Adults should supervise hand washing for children under 5 years of age.
- Use hand sanitizer if soap and water are not readily available. Be sure to have an alcohol-based hand sanitizer that contains at least 60% alcohol near the poultry enclosure to encourage guests and children to clean their hands after handling poultry.
- Do not let children younger than 5 years of age handle or touch chicks, ducklings, or other live poultry without supervision. Children younger than 5 years of age are more likely to get sick from exposure to germs like *Salmonella*.
  - Don't give live baby chicks and ducklings to young children as gifts or Easter presents. Because their immune systems are still developing, children are more likely to get sick from germs commonly associated with live baby poultry, such as *Salmonella*, *Campylobacter*, and *E. coli*.
  - Make sure that your children and anyone who is visiting your home follow these rules as well.
- Do not let live poultry inside the house, in bathrooms, or especially in areas where food or drink is prepared, served, or stored, such as kitchens or outdoor patios.
- Do not eat or drink in the area where the live poultry live or roam.
- Don't snuggle, kiss, or touch your mouth to live baby poultry.
- Set aside a pair of shoes to wear while taking care of poultry and keep those shoes outside of the house.
- Stay outdoors when cleaning any equipment or materials used to raise or care for live poultry, such as cages, feeds, or water containers.



Person washing their hands with soap and water.

## Safe egg handling

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- Collect eggs often. Eggs that spend a significant amount of time in the nest can become dirty or break. Cracked eggs should be thrown away because bacteria on the shell can more easily enter the egg through a cracked shell.
- Refrigerate eggs after collection both to maintain freshness and to slow bacterial growth.
- Eggs with dirt and debris can be cleaned with fine sandpaper, a brush or cloth. Don't wash warm, fresh eggs because colder water can pull bacteria into the egg.
- Cook eggs until both the yolk and white are firm. Egg dishes should be cooked to an internal temperature of 160°F (71°C) or hotter. Raw and undercooked eggs may contain *Salmonella* bacteria that can make you sick.



## Bird bites and scratches

Backyard poultry and waterfowl do not have teeth, but their bills and beaks can still cause a lot of damage if they bite you. Germs can spread from poultry bites or pecking and scratches, even when the wound does not seem deep or serious.

- Avoid bites and scratches from your backyard poultry or waterfowl. This will prevent injury and reduce the risk of your poultry spreading germs to you.
- If you are bitten or scratched by poultry, you should:
  - Wash wounds thoroughly with soap and water immediately — hand sanitizer is not as effective at removing germs as washing your hands with soap and water.
  - Seek medical attention and tell your doctor you were bitten or scratched by a bird, especially if:
    - The poultry appears sick.
    - The wound is serious (uncontrolled bleeding, loss of function, extreme pain, or deep wound with the muscle or bone exposed).
    - The wound becomes red, painful, warm, or swollen.
    - It has been more than 5 years since your last tetanus shot.



## United States Department of Agriculture

### Animal and Plant Health Inspection Service

#### What is Biosecurity?

Biosecurity refers to everything that's done to keep diseases and the pathogens that carry them – viruses, bacteria, fungi, parasites and other microorganisms – away from birds, property, and people. This includes:

- **Structural biosecurity:** measures used in the physical construction and maintenance of coops, pens, poultry houses, family farms, commercial farms, and other facilities.
- **Operational biosecurity:** practices, procedures, policies that are consistently followed by people.

Biosecurity is a team effort. Everyone involved in raising poultry must use structural and operational biosecurity to prepare for and prevent disease outbreaks throughout the U.S. Put simply: we have to work together to protect our flocks.

What can you do? You can make sure that biosecurity is practiced each and every day. By practicing good biosecurity, you can reduce the risk of infectious diseases being carried onto your property by people, animals, equipment, or vehicles – either accidentally or on purpose. You will also help protect other flocks by preventing the spread of disease.

#### Here are the basics:

- **Keep visitors to a minimum.** Only allow people who care for your poultry to come in contact with your birds, this includes family and friends. Keep track of everyone who is on your property at all times. Make sure everyone who does have contact with your flock follows biosecurity principles.
- **Wash your hands before and after coming in contact with live poultry.** In addition to potentially spreading disease from farm to farm or bird to bird, you can also spread germs such as Salmonella that can impact human health. Wash with soap and water (always your first choice). If using a hand sanitizer, remove manure, feathers, and other materials first because disinfectants will not penetrate organic matter or caked-on dirt.
- **Provide disposable boot covers (preferred) and/or disinfectant footbaths for anyone having contact with your flock.** If using a footbath, be sure to remove all droppings, mud or debris from boots and shoes using a long-handled scrub brush BEFORE stepping into the disinfectant footbath and always keep it clean.
- **Change clothes before entering the poultry areas and before exiting the property.** Visitors should wear protective outer garments or disposable coveralls, boots and headgear when handling birds, and shower and/or change clothes when leaving the facility.
- **Clean and disinfect any tools or equipment before moving them to a new poultry facility.** Before allowing service vehicles, trucks, tractors or tools and equipment - including egg flats and cases that have come in contact with birds or their droppings - to exit the property, make sure they are cleaned and disinfected to prevent contaminated equipment from transporting disease. Items that cannot be cleaned and disinfected - such as cardboard egg flats - must not be moved or reused.
- **Look for signs of illness.** Know the [warning signs](#) of infectious bird diseases.
- **Report sick birds.** Don't wait. If your birds are sick or dying, call a local veterinarian, cooperative extensive service, or state veterinarian. USDA can be reached toll-free at [1-866-536-7593](tel:1-866-536-7593).





# Backyard Biosecurity

## 6 Ways To Prevent Poultry Diseases

### 1 Keep Your Distance.

- Restrict access to your property and your birds. Consider fencing off the area where you keep your birds and make a barrier area if possible.
- Allow only people who take care of your birds to come into contact with them. If visitors have birds of their own, **do not** let them near your birds.
- Game birds and migratory waterfowl should not have contact with your flock because they can carry germs and diseases.



### 2 Keep It Clean.

- Wear clean clothes, scrub your shoes with disinfectant, and wash your hands thoroughly before entering your bird area.
- Clean cages and change food and water daily.
- Clean and disinfect equipment that comes in contact with your birds or their droppings, including cages and tools. Remove manure before disinfecting.
- Properly dispose of dead birds.



### 3 Don't Haul Disease Home.

- If you have been near other birds or bird owners, such as at a feed store, clean and disinfect car and truck tires, poultry cages, and equipment before going home.
- Have your birds been to a fair or exhibition? Keep them separated from the rest of your flock for at least 2 weeks after the event.
- New birds should be kept separate from your flock for at least 30 days.



### 4 Don't Borrow Disease From Your Neighbor.

- Do not share lawn and garden equipment, tools, or poultry supplies with your neighbors or other bird owners.
- If you do bring these items home, clean and disinfect them *before* they reach your property.



### 5 Know the Warning Signs of Infectious Bird Diseases.

- Sudden increase in bird deaths in your flock
- Sneezing, gasping for air, coughing, and nasal discharge
- Watery and green diarrhea
- Lack of energy and poor appetite
- Drop in egg production or soft- or thin-shelled, misshapen eggs
- Swelling around the eyes, neck, and head
- Purple discoloration of the wattles, combs, and legs (avian influenza)
- Tremors, drooping wings, circling, twisting of the head and neck, or lack of movement (exotic Newcastle disease)

Early detection is important to prevent the spread of disease.



### 6 Report Sick Birds.

Don't wait. If your birds are sick or dying, call:

- Your local cooperative extension office
- Your veterinarian
- The State Veterinarian or State animal/poultry diagnostic laboratory
- USDA operates a toll-free number (1-866-536-7593) with veterinarians to help you. There is no charge for this service.



# Improving Biosecurity With Wildlife Management Practices:

## Preventing Access to Barns and Other Facilities

Avian influenza viruses and other pathogens that impact domestic poultry often cause little or no illness in wildlife. For this reason, apparently healthy wild birds and mammals could spread disease onto farms when they are attracted to areas with abundant food, water, and/or shelter.

You can build on and enhance your farm biosecurity by putting wildlife management practices in place. There are several nonlethal ways to make farms less welcoming to wildlife.

Wild birds and mammals visit barns, silos, and other structures at farms and poultry facilities to nest, rest, or seek shelter. The practices below can help you stop wildlife from nesting and living in and near your poultry facilities, and coming into direct contact with your poultry. Keeping wildlife away from your farm also helps you avoid accidentally transporting wildlife fecal material and secretions into your facilities on boots, equipment, and food.

### Inspecting Structures

The design of some poultry facilities may help to attract or deter wildlife. For instance, structures with shorter or no eave overhangs are less likely to attract nesting birds. Structures with top-vent ventilation, roof-top vents, and overhead wires may attract perching birds—allowing their feces to drop near or directly onto the barn floor. You can easily spot problem areas by looking for whitewash from bird fecal material on the ground below eaves or on rafters.

Take time to inspect your facilities and look for design elements that may attract wildlife. Biologists with Wildlife Services, a program within the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service, can help you conduct an onsite assessment.

### Plugging Holes and Burrows

Plug and patch holes in building exteriors to prevent rodents and wild birds such as European starlings from using them for nesting or shelter. Also, check all screens and door openings regularly and repair or replace them when damaged to prevent wildlife from entering your facilities.

Concrete aprons around building side walls can deter rodents, cottontail rabbits, and other small mammals from burrowing into buildings. Fill small burrows, tunnels, and other holes around structures with gravel.



*There are several nonlethal management methods for reducing wildlife's potential spread of disease on farms.*





## Installing Barriers, Netting, and Other Deterrents

Wild birds often use ledges, rafters, and eaves as roosting and nesting sites. Install barriers or other deterrents, such as repellent gel or bird spikes, to these areas.

Nylon netting or wire mesh should be tightly secured on all sides and regularly inspected for holes and wear. Ten- or 12-gauge mesh with 1-inch openings will exclude most bird species if it's properly installed and maintained. If it's improperly installed and maintained, exclusion netting can actually benefit nesting birds by forming small pockets that protect their nests from predators, so be sure to inspect it regularly.

Before nesting season begins, remember to wash away or remove old nests per Federal and State regulations. If their nests were successful, birds often return to the same nesting location year after year. Farm managers can consult with local, State, or Federal biologists to learn more about the wildlife nesting period in their area. Please note that it is unlawful to remove native wild bird nests with eggs or young in them.

## Recommended Actions

- Conduct a wildlife assessment at your farm. Do wild animals have access to food, water, and shelter on your site? If so, learn about and use wildlife management methods to improve your biosecurity.
- Inspect your buildings and other structures regularly for holes, tears, and other openings that would allow wildlife access to poultry or poultry feed and equipment.
- Prevent wild birds and other wildlife from nesting, roosting, and living in or near your poultry facilities by plugging and patching holes and installing barriers and deterrents.
- Do not walk or drive trucks, tractors, or other equipment through areas where waterfowl or other wildlife fecal material may be present.

*Please note that the lethal removal of native wildlife is regulated under Federal and State laws. USDA and other experts do not recommend lethally removing native wild birds to prevent the spread of highly pathogenic avian influenza or other diseases. Because wild birds are abundant and constantly moving, using lethal methods is not practical or environmentally sound. It is much more effective to remove sources of wildlife attraction than to manage wild animals after they have arrived on your property.*

## Learn More

If you have specific questions about wildlife management on your farm or need help conducting a wildlife assessment, call your nearest USDA Wildlife Services office toll free at 1-866-4USDA-WVS (1-866-487-3297).

For general information on avian influenza and emergency response, go to [www.aphis.usda.gov/animal-health/aiupdates](http://www.aphis.usda.gov/animal-health/aiupdates).



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# Improving Biosecurity With Wildlife Management Practices:

## Protecting Food Resources

Avian influenza viruses and other pathogens that impact domestic poultry often cause little or no illness in wildlife. For this reason, apparently healthy wild birds and mammals could spread disease onto farms when they are attracted to areas with abundant food, water, and/or shelter.

You can build on and enhance your farm biosecurity by putting wildlife management practices in place. There are several nonlethal ways to make farms less welcoming to wildlife.

Wild birds and mammals are attracted to various food resources that may be found on or near farms or poultry facilities. The practices below can help you manage natural and artificial food resources at your farm to prevent wildlife from coming into direct contact with your poultry, as well as to avoid accidentally transporting wildlife fecal material and secretions into your facilities on boots, equipment, and food.

### Reducing Natural Food Sources

Many natural wildlife foods, such as fruits, berries, grass seeds, flowers, and insects, are found on farms. To reduce the number of wild animals attracted to these items, remove fallen fruit and mow the grass frequently. The ideal grass height to reduce most wildlife use is 3 inches or less, although this may make it more attractive to geese. You may also want to consider removing fruit trees, shrubs, and other vegetation if they are located within 3 feet of your poultry barns. Grass, weeds, and shrubbery next to buildings provide cover and feed for wildlife.

Finally, do not feed wild birds or other wildlife on the property, including areas around houses or offices. Bird seed, suet, corn, and other feed encourages wild birds and rodents to visit often.

### Preventing Access to Stored Feed

Feed structures should be located on a clean pad for easier cleaning and to reduce their attractiveness to wildlife. We recommend you keep a broom and lidded garbage container near the structures to encourage frequent inspection and cleanup of spilled feed. Even a tiny amount of feed is a meal for a wild bird or rodent. When checking the structure's pipes and connections for leaks, also look for whitewash, droppings, or other signs of wildlife activity, such as tracks or damage from chewing or scratching.



*There are several nonlethal management methods for reducing wildlife's potential spread of disease on farms.*





## Disposing of Waste

All farms need effective waste disposal methods. Common methods are incineration, composting, and dumpsters/rendering. Unfortunately, these methods can also attract wildlife. Look for signs of wildlife getting into waste, such as digging in compost piles, whitewash, and carcass removal.

To prevent wildlife access to waste, keep carcasses and compost piles covered at all times. Covering them at the end of the day or every other day does not stop wildlife and wild birds such as gulls, crows, ravens, vultures, and eagles from scavenging. Keep trash can and dumpster lids closed and latched to prevent raccoon, feral cat, and rodent access. Carcasses being held for incineration and molded or clumped feed should also be kept in a lidded container. Do not compost or dispose of spoiled feed on the farm. Freezer units may also be used to prevent wildlife access to waste.

## Recommended Actions

- Conduct a wildlife assessment at your farm. Do wild animals have access to food, water, and shelter on your site? If so, learn about and use wildlife management methods to improve your biosecurity.
- Reduce the amount of natural wildlife food sources on your property. Mow your grass and remove fallen fruit often.
- Do not feed wildlife.
- Keep areas around stored feed clean and in good working order.
- Store waste and carcasses in covered containers.
- Do not walk or drive trucks, tractors, or other equipment through areas where waterfowl or other wildlife fecal material may be present.

*Please note that the lethal removal of native wildlife is regulated under Federal and State laws. The U.S. Department of Agriculture (USDA) and other experts do not recommend lethally removing native wild birds to prevent the spread of highly pathogenic avian influenza or other diseases. Because wild birds are abundant and constantly moving, using lethal methods is not practical or environmentally sound. It is much more effective to remove sources of wildlife attraction than to manage wild animals after they have arrived on your property.*

## Learn More

If you have specific questions about wildlife management on your farm or need help conducting a wildlife assessment, call your nearest USDA Wildlife Services office toll free at 1-866-4USDA-WS (1-866-487-3297).

For general information on avian influenza and emergency response, go to [www.aphis.usda.gov/animal-health/aiupdates](http://www.aphis.usda.gov/animal-health/aiupdates).



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# Improving Biosecurity With Wildlife Management Practices:

## Reducing Water Access

Avian influenza viruses and other pathogens that impact domestic poultry often cause little or no illness in wildlife. For this reason, apparently healthy wild birds and mammals could spread disease onto farms when they are attracted to areas with abundant food, water, and/or shelter.

You can build on and enhance your farm biosecurity by putting wildlife management practices in place. There are several nonlethal ways to make farms less welcoming to wildlife.

Waterfowl, as well as other birds and mammals, are attracted to water for drinking, bathing, feeding, and loafing. The practices below can help you manage water resources at your farm to prevent wildlife from coming into direct contact with your poultry, as well as to avoid accidentally transporting wildlife fecal material and secretions into your facilities on boots, equipment, and food.

### Removing Standing Water

Even small, shallow pools of standing water, such as those found in tire ruts, can attract waterfowl and other wildlife. So grade your property to avoid pooling water. We recommend a minimum slope of half an inch per foot. You should fill and/or grade all areas where standing water is seen for more than 24 hours after a heavy rainfall. Where standing water is unavoidable, make sure workers don't walk or move equipment in or near the area. This prevents possible contamination of boots and equipment.

### Managing Ponds and Basins

Wildlife are attracted to ponds, catchment basins, and manmade irrigation structures. To make these areas less desirable to most wildlife species, you may want to manage vegetation on the banks. However, this may make the area more attractive to geese. You may need to obtain a permit to manage vegetation around ponds and other water sources per the Clean Water Act. Please consult with a wildlife or wetlands professional before removing such vegetation.

Fencing can also be used to separate natural ponds or vegetation areas from active areas around poultry facilities. You can grid ponds with wires or ropes to discourage waterfowl from landing on the water. Floating a boat or bird deterrent balls on the pond and using predator decoys or other scare devices may also be effective, but the decoys should be moved frequently to prevent wildlife habituation.



*There are several nonlethal management methods for reducing wildlife's potential spread of disease on farms.*





## Filtering Surface Water

Avian influenza viruses can be spread through contaminated water. Never use untreated surface water to water poultry or clean equipment, barns, or other facilities. If you must use surface water, treat the water or install filtration to remove pathogens. Test the water quality regularly to make sure the water treatment or filtration is effective.

## Recommended Actions

- Conduct a wildlife assessment at your farm. Do wild animals have access to food, water, and shelter on your site? If so, learn about and use wildlife management methods to improve your biosecurity.
- Keep waterfowl and other wildlife off of your farm by removing standing water and preventing access to ponds and basins.
- Do not use untreated or unfiltered surface water to wet poultry or clean equipment, barns, or other facilities.
- Do not walk or drive trucks, tractors, or other equipment through areas where waterfowl or other wildlife fecal material may be present.

*Please note that the lethal removal of native wildlife is regulated under Federal and State laws. The U.S. Department of Agriculture (USDA) and other experts do not recommend lethally removing native wild birds to prevent the spread of highly pathogenic avian influenza or other diseases. Because wild birds are abundant and constantly moving, using lethal methods is not practical or environmentally sound. It is much more effective to remove sources of wildlife attraction than to manage wild animals after they have arrived on your property.*

## Learn More

If you have specific questions about wildlife management on your farm or need help conducting a wildlife assessment, call your nearest USDA Wildlife Services office toll free at 1-866-4USDA-WVS (1-866-487-3297).

For general information on avian influenza and emergency response, go to [www.aphis.usda.gov/animal-health/aiupdates](http://www.aphis.usda.gov/animal-health/aiupdates).



## Home-Produced Chicken Eggs

Fact Sheet No. 9.377

Food and Nutrition Series | Food Safety

by M. Bunning and J. Avens\*

Before establishing a backyard chicken flock, check local laws and homeowners' association (HOA) covenants. Chickens are not allowed to be raised in many urban areas. The number of chickens, distance from property lines, and type of house may be defined in local regulations.

Poultry may carry bacteria such as *Salmonella* and *Campylobacter* that can cause illness to you and your family. Infected birds do not usually appear to be sick and baby chicks may be especially prone to shed these microorganisms. Even eggs with clean, uncracked shells may occasionally contain bacteria. While anyone can become ill from exposure to these microorganisms, the risk of infection is especially high for children, pregnant women, the elderly, and persons with weakened immune systems. If small children handle eggs, always supervise hand washing afterwards.

### Steps to Ensure Safe, Home-produced Chicken Eggs

#### Caring for the Flock

- Maintaining the flock in an enclosed shed is often a local requirement and will help protect the flock from predators and make egg collecting easier.
- Eggs will stay cleaner if the shed area is kept clean and dry. Maintain floor litter in good condition. Thoroughly clean and disinfect the shed at least twice a year. Obtain an approved disinfectant from your feed store and apply according to directions.
- Allow one nest for every three to four chickens and make sure nests are large enough for your hens. To protect eggs, pad nests with straw or wood chips. Clean



out nest boxes once a week to remove dirty litter and manure and replace with clean nesting material.

- Allow adequate nest space and plenty of clean nesting material to help to ensure clean eggs and limit egg breakage.
- Provide a perch above the floor over a dropping box away from the nests. Chickens will roost on the perch to sleep and defecate into the wire-mesh covered dropping box.

#### Caring for the Eggs

**Collect the eggs often.** Eggs that spend more time in the nest have an increased chance of becoming dirty, broken, or lower in quality. Collecting eggs at least twice daily is recommended, preferably before noon. Consider a third collection in late afternoon or early evening, especially in hot or cold weather. Coated wire baskets or plastic egg flats are good containers for collecting eggs. Discard eggs with broken or cracked shells.

**Cleaning.** Dirty eggs can be a health hazard. Eggs with dirt and debris can be cleaned with fine sandpaper, a brush, or emery cloth. If eggs need to be washed, the temperature of the water should be at least 20F warmer than the egg. This will prevent the egg contents from contracting and



### Quick Facts

- Eggs from your own backyard chicken flock can be a convenient and nutritious source of protein, plus they offer the added reward of producing your own food.
- To ensure egg safety and quality, home producers should manage chickens and handle eggs properly.
- Following these practical tips can help you enjoy safe home-produced eggs.

\*M. Bunning, Colorado State University, food science and human nutrition, Extension food safety specialist and assistant professor; J. Avens, professor, food science and human nutrition. 3/2010







producing a vacuum. It will also prevent microscopic bacteria from being pulled by vacuum through the pores of the egg. A mild, non-foaming, unscented detergent approved for washing eggs can be used. A dishwashing liquid that is free of scents and dyes is acceptable. Eggs can be sanitized by dipping in a solution of 1 tablespoon household bleach to 1 gallon of water before storage. Dry eggs before storing because moisture may enter the shell pores as eggs cool on refrigeration.

**Storage.** Store eggs in the main section of the refrigerator at 35°F to 40°F; the shelves in the door tend to be warmer than interior shelves. If collected and stored properly, eggs can have a safe shelf life of greater than three weeks. Date the storage carton or container and use older eggs first. If you have more eggs than you can use, you can break them out of their shells and freeze them. Only freeze fresh eggs. Beat until just blended, pour into freezer containers, seal tightly, label with the number of eggs and the date. Add a small amount of salt, sugar, or corn syrup to prevent gelling and improve the keeping quality of the eggs. It's a good idea to note any additional ingredients on the freezer container. The whites and yolks may also be frozen separately.

**Preparation.** Never eat eggs raw. Undercooked egg whites and yolks have been associated with outbreaks of *Salmonella enteritidis* infections. To prevent illness from bacteria, cook eggs until yolks are firm and cook foods containing eggs thoroughly to 160°F. Use a food thermometer to be sure. Do not keep cooked or raw eggs at room temperature for more than two hours.

### Caring for Manure

- Compost chicken manure to proper temperatures to kill harmful bacteria before being used to fertilize garden plots that are used for growing fruits and vegetables. Improperly applied manure can be a source of bacterial contamination for produce grown in the garden. A better option is to use chicken manure in flower gardens, shrub borders, and other nonfood gardens however chicken manure can be high in nitrates and may damage plants if applied directly.

### Caring for Yourself

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- Do not wash feed and water dishes from the chicken shed in the kitchen sink.
- In Colorado, there are no laws that prevent the sale of eggs by the producer from a home laying flock. Small egg producers are exempt from licensing requirements as long as the eggs are sold directly to the final consumer of the eggs. If the eggs are sold to restaurants, stores, commercial establishments or another egg distributor, then an Egg Producer/Dealer License is required.
- If you choose to share eggs from your flock with friends and neighbors it is important to follow the safety recommendations outlined in this fact sheet. Use generic egg cartons that do not display a store or brand name and provide the date eggs were collected. Plastic egg holders sold for camping or plastic egg trays available from farm supply stores are good options for distributing eggs because they can be washed and reused.

When sharing eggs from your flock with friends and neighbors, it is important to follow the food safety recommendations in this fact sheet and use generic egg containers that show the collection date.

## Home Chicken Flock Management Resources

Mississippi State University Extension Service. The Home Flock, [www.poultry.msstate.edu/extension/pdf/home\\_flocks.pdf](http://www.poultry.msstate.edu/extension/pdf/home_flocks.pdf).

North Carolina Cooperative Extension Service. Small Flock Management, [www.ces.ncsu.edu/depts/poulsci/tech\\_manuals/small\\_flock\\_resources.html#eggs](http://www.ces.ncsu.edu/depts/poulsci/tech_manuals/small_flock_resources.html#eggs).

Sustainable Agriculture Research and Education. Profitable Poultry: Raising Birds on Pasture, [www.sare.org/publications/poultry.htm](http://www.sare.org/publications/poultry.htm).

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- Colorado Department of Agriculture. Eggs, [www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1167928229830](http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1167928229830).
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- University of New Hampshire Cooperative Extension. Producing Your Own Eggs, [http://extension.unh.edu/resources/representation/Resource000472\\_Rep494.pdf](http://extension.unh.edu/resources/representation/Resource000472_Rep494.pdf).
- USDA Food Safety and Inspection Service. Shell Eggs from Farm to Table, [www.fsis.usda.gov/Factsheets/Focus\\_On\\_Shell\\_Eggs/index.asp](http://www.fsis.usda.gov/Factsheets/Focus_On_Shell_Eggs/index.asp).
- Virginia Cooperative Extension. Proper Handling of Eggs: From Hen to Consumption by PJ Clauser, <http://pubs.ext.vt.edu/2902/2902-1091/2902-1091.pdf>.

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