If you are a backyard or pet bird owner, you know your birds depend on you to keep them healthy. There are some basic practices you can follow to be sure you have “backyard biosecurity.”

**What is Backyard Biosecurity?**
Backyard biosecurity means doing everything you can to protect your birds from disease. As a bird owner, keeping your birds healthy is a top priority. Your birds can become sick or die from exposure to just a few unseen bacteria, viruses, or parasites. In a single day, these germs can multiply and infect all of your birds. By practicing backyard biosecurity, you will help keep your birds healthy.

If you follow some basic tips and make them part of your routine, you decrease the risk of disease entering your flock and persisting in soil, droppings, and debris. Practicing biosecurity is an investment in the health of your birds.

**What Can I Do To Protect My Birds?**
The basic biosecurity steps are:

1) Keep your distance.

2) Keep it clean.

3) Don’t haul disease home.

4) Don’t borrow disease from your neighbor.

5) Know the warning signs of infectious bird diseases.

6) Report sick birds.

To learn more about each of these steps, see our “Biosecurity Tips: 6 Ways To Prevent Poultry Diseases” factsheet or visit healthybirds.aphis.usda.gov.

**Cleaning and Disinfecting**
Cleaning and disinfecting is one of the most important parts of backyard biosecurity. But you need to make sure you do it correctly to inactivate disease.

1) Thoroughly clean and scrub objects before applying disinfectants. Disinfectants cannot work on top of caked-on dirt and manure, so wash surfaces thoroughly before disinfecting them.

2) Apply disinfectants using brushes, sponges and spray units. Allow adequate contact time (follow manufacturer’s instructions).

3) Dispose of used disinfectant according to local regulations.

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Below are some examples of disinfectants available on the market. Follow the directions on the label carefully for the best results.

- Roccal®: Mix one-half fluid ounce (oz) of Roccal per gallon of water.
- Nolvasan® (chlorhexidine diacetate 2 percent): Mix 3 fluid oz of Nolvasan per gallon of water.
- Household bleach (sodium hypochlorite 6 percent): Mix three-fourths of a cup of household bleach per gallon of water.
- Lysol® spray for footwear
- Purell® hand pump for hand disinfection

**Making an Easy Footbath**

A footbath is a handy tool to help you practice backyard biosecurity. You can easily make one yourself. You will need:

- A low plastic pan or bin, wide enough to fit an adult's foot and shallow enough to step into easily.
- A plastic doormat (the "fake grass" mats work well).
- A disinfectant that works well for most situations, such as Tek-trol™ or One Stroke Environ™.
- Water

Mix the disinfectant with water according to the label instructions. Put the doormat in the plastic pan. Add disinfectant so that the bottom of the mat is wet.

Ask visitors to walk through the footbath, wiping their feet on the mat. The mat scrubs their shoes a bit as they wipe them and applies the disinfectant.

When the liquid starts to get dirty, empty it and put in new disinfectant.

**Report Sick Birds at 1-866-536-7593.**

If your birds are sick or dying, call your agricultural extension agent, local veterinarian, or the State veterinarian. Or, call the U.S. Department of Agriculture (USDA) toll-free at 1-866-536-7593, and we'll put you in touch with a local contact.
Defend the Flock Program

Sign up for the FREE Biosecurity Bulletin to help keep your flocks safe from disease!

Select: “Defend the Flock e-Newsletter” under Veterinary Services

Become a Flock Defender

The U.S. poultry industry is one of the largest in the world and an important sector of our agricultural economy. Keeping birds safe from infectious disease is a top priority and responsibility for all owners, growers, workers, and enthusiasts involved in raising poultry. Disease outbreaks, such as Avian Influenza (AI), Virulent Newcastle Disease (VND) and Salmonella, lead to devastation of our flocks and result in job and financial losses, quarantines limiting trade, and affect prices on eggs, prepared poultry, and other staples.

USDA’s Animal and Plant Health Inspection Service (APHIS) is committed to helping everyone protect our poultry – from commercial enterprises that raise the poultry and eggs that we consume, to individuals who raise chickens and other breeds in their backyards, to poultry fanciers who participate in shows and fairs.

APHIS continues to expand the Defend the Flock education program, providing the information, tools, and resources you need to make sure that you are doing everything possible to keep your birds healthy and reduce the risk that an infectious disease will spread from your property to other flocks.

Through the Defend the Flock program, APHIS is encouraging and preparing all poultry owners, including backyard growers, to maintain biosecurity practices at all times. Biosecurity is the key to keeping our nation’s poultry healthy. It’s a responsibility that we all share. Working together, we can defend all flocks from avian influenza and other infectious diseases. Visit the Defend the Flock Commercial Biosecurity and Backyard Biosecurity pages to learn more.

The Defend the Flock Resource Center has 24/7 access to checklists and other tools, videos, webinars and educational resources to help you keep your flocks safe and healthy. Materials are available for download or print to share with friends and family, staff, partners, students and other current and future “Flock Defenders.” Connect with Defend the Flock on Facebook and Twitter for up-to-the-minute news and information, including notice of new resources.

Defend the Flock reflects the knowledge, insights, and experience of USDA, veterinarians, professional owners and growers, scientists, and other poultry management experts about the practice of good biosecurity. By committing to making biosecurity an “every day, every time” practice, all growers are partners in keeping diseases, and the pathogens that carry them, away from birds, property and people.
Biosecurity

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.
The **Defend the Flock** program provides practical tips and information from USDA and other experts for keeping poultry healthy. Visit the Defend the Flock **Resource Center** for tools and resources to make your daily and seasonal routines do double-duty to prevent the outbreak and spread of disease. Follow **Defend the Flock** on **Facebook** and **Twitter** for up-to-the-minute news and information.

Biosecurity is the key to keeping our nation’s poultry healthy. It’s a responsibility that we all share. Working together, we can defend all flocks from avian influenza and other infectious diseases.

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**Commercial Poultry | Backyard/Exhibition | Wild Birds | Pet Birds**

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**Defend the Flock | Biosecurity | Outbreak/Illness | Resource Center**
Outbreak and Illness

The U.S. Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) works closely with commercial operators, states and backyard and hobby growers to prevent avian influenza and other diseases from becoming established in the U.S. poultry population.

Protecting the health and safety of our nation’s poultry must be a top priority for flock owners of all sizes. The U.S. poultry industry is one of the largest in the world and an important sector of our agricultural economy. If U.S. poultry are exposed to highly contagious diseases like highly pathogenic avian influenza (HPAI) and virulent Newcastle Disease (vND), the impact on our economy could be severe and international trade can be impacted.

In addition to viral infections such as avian influenza (AI) and virulent Newcastle Disease (vND), bacterial infections such as Salmonella can affect the integrity of our nation's food supply, cause public concern, and generate financial loss. Practicing good biosecurity is one of the best ways to protect our flocks from the risk of infection and the spread of disease. Here’s what you can do now:

- Review the basics of **biosecurity** and follow the best practices.
- Make sure you know the **signs of illness**.
- Check the Defend the Flock **Resource Center** for information about how you can prepare for and prevent disease outbreaks.

**Avian Influenza**

AI is caused by an influenza type A virus which can infect poultry such as chickens, turkeys, pheasants, quail, domestic ducks, geese, and guinea fowl and wild birds, especially waterfowl. There are two types:

- Highly pathogenic avian influenza (HPAI) virus strains are extremely infectious, often fatal to domestic poultry, and can spread rapidly from flock to flock.
- Low pathogenicity avian influenza (LPAI) virus strains occur naturally in wild migratory waterfowl and shorebirds without causing illness. LPAI can infect domestic poultry, with little or no signs of illness.

Poultry owners and growers are encouraged to practice good biosecurity at all times to prevent the spread of AI. Learn more about AI and what to do if you suspect AI in your flocks.

**Virulent Newcastle Disease**
Virulent Newcastle Disease (vND), formerly known as Exotic Newcastle Disease, is a contagious and fatal viral disease affecting the respiratory, nervous, and digestive systems of birds and poultry. The disease is so virulent that many birds and poultry die with showing any clinical signs of illness.

**Learn more about vND and what to do if you suspect vND in your flocks.**

**Salmonella**

Salmonella is a bacteria that can spread from infected poultry to people who eat raw or undercooked poultry meat and eggs. Symptoms of salmonella infection include nausea, vomiting, and intestinal distress. Children younger than age 5, adults older than 65, and people with weakened immune systems are especially vulnerable.

The most important action you can take to prevent the spread of Salmonella is to wash your hands thoroughly with soap and water after handling live poultry. Additionally, poultry meat and eggs should be thoroughly cooked and surfaces that come in contact with them cleaned and disinfected.

For more information about how to prevent the spread of Salmonella, visit the Center for Disease Control’s Salmonella homepage.