Disinfectants
Cleaning and disinfecting is one of the most important steps you can take in practicing backyard biosecurity. Below are some examples of disinfectants available on the market. Follow the directions on the label carefully for the best results.

- Thoroughly clean and scrub objects before applying disinfectants. Disinfectants cannot work on top of caked-on dirt and manure, so thoroughly wash surfaces before disinfecting.
- Apply disinfectants using brushes, sponges and spray units. Allow adequate contact time (follow manufacturer's instructions.)
- Dispose of used disinfectant according to local regulations.

Examples of Disinfectants
- Roccal®: Mix 1/2 fluid 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 3/4 cup of household bleach per gallon of water.
- Lysol® spray for footwear
- Purell® hand pump for hand disinfection

Why Be Concerned?
- Not only could an outbreak of a bird disease such as exotic Newcastle disease or highly pathogenic avian influenza harm or kill your birds, it could spread quickly and kill other nearby birds.
- Early detection and reporting is the most important step in eradicating a disease outbreak. Don’t be afraid of “crying wolf.” State and Federal veterinarians want to hear about sick and dying birds.
- There is no charge for USDA veterinarians to work with you to conduct a disease investigation.

Look for Signs.
Watch for signs of disease or unexpected deaths among your birds.

Report Sick Birds.
Don’t wait—early detection and reporting can make a difference. If your birds are sick or dying, call the USDA Veterinary Services office at 1-866-536-7593 or your State Veterinarian or local cooperative extension office to find out why.

Practice Backyard Biosecurity.
Restrict traffic onto and off your property. Disinfect shoes, clothes, and hands to prevent the potential spread of disease. You are the best protection your birds have.

Note: Trade names used in this publication do not constitute an endorsement, guarantee, or warranty of these products. USDA bears no responsibility resulting from the use of the described products. These procedures are not guaranteed to prevent highly contagious diseases from affecting your birds; however, they will reduce the risks.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, White Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202)720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

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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 your birds. However, by practicing backyard biosecurity, you can keep your birds healthy.

If you follow these 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.

Biosecurity Tips: 6 Ways To Prevent Poultry Disease

1. **Keep Your Distance.**
   Restrain access to your property and your birds. Consider fencing off the area where your birds are to form a barrier between “clean” and “dirty” areas. The clean area is the immediate area surrounding your birds, and the dirty or buffer area must be considered to be infected with germs, even if the birds appear healthy and disease free.
   - Allow only people who take care of your birds to come into contact with them. Your caretakers should not attend bird shows or other events where birds are present.
   - If visitors to your property want to see your birds, be sure they wash up first and clean their shoes. Better yet, keep clean boots for visitors to wear. If your visitors have birds of their own, do not let them near your birds at all.
   - Game birds and migratory waterfowl should not have contact with your flock because they can carry germs and diseases. If your birds are outdoors, try to keep them in a screened area.

2. **Keep It Clean.**
   You wouldn’t think of tracking dirt and disease into your house, where it could infect your family. Don’t do that to your birds either! Germs can be picked up on shoes and clothing and moved from one area to another. To keep your birds “germ-free,” keep a pair of shoes and a set of clothes to wear only around your birds. Many people keep these clean clothes in a covered pail at the entrance to their bird area. Or, clean and disinfect your shoes and launder your clothes before you check on or work with your birds.
   - Scrubbing your shoes with a long-handled scrub brush and disinfectant (see section on disinfectants) will remove droppings, mud, or debris. Clothes should be washed in a washing machine with laundry detergent.
   - Wash your hands thoroughly with soap, water, and a disinfectant before entering your bird area.

3. **Know the Warning Signs of Infectious Bird Diseases.**
   Many bird diseases can be difficult to diagnose. The list below includes some of the things to look for that signal something might be wrong with your birds. Early detection of signs is very important to prevent the spread of disease.
   - 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 (AI)
   - Tremors, drooping wings, circling, twisting of the head and neck, or lack of movement (END)

4. **Don’t Haul Disease Home.**
   New birds should be kept separate from your flock for at least 30 days before putting them with the rest of your birds. To prevent disease, it is best not to mix young and old birds or birds from different species or different sources.
   - Be sure to clean and disinfect these items before you return to your property.
   - Taking some of your birds to a fair or exhibition? Keep those birds separated from the rest of your flock and watch them for at least 2 weeks after the event to ensure that they didn’t pick up a disease.
   - New birds should be kept separate from your flock for at least 30 days before putting them with the rest of your birds.
   - To prevent disease, it is best not to mix young and old birds or birds from different species or different sources.

5. **Don’t Borrow Disease From Your Neighbor.**
   Do not share birds, 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. And remember to clean and disinfect borrowed items before returning them.
   - Never share items such as wooden pallets or cardboard egg cartons because they are porous and cannot be adequately cleaned and disinfected.

6. **Report Sick Birds.**
   Do not wait to report unusual signs of disease or unexpected deaths among your birds. Call your agricultural extension agent, local veterinarian, the State Veterinarian, or U.S. Department of Agriculture (USDA) Veterinary Services office. USDA operates a toll-free hotline (1-866-536-7593) with veterinarians to help you. USDA wants to test sick birds to make sure they do not have a serious poultry disease. There is no charge for USDA veterinarians to work with you to conduct a disease investigation. Early reporting is important to protecting the health of your birds!