What Is Avian Influenza?
Avian influenza, or “bird flu,” is a respiratory disease of birds caused by influenza A viruses. Wild birds, such as ducks, gulls, and shorebirds, can carry and spread these viruses but may show no signs of illness. However, avian influenza can kill domestic poultry (such as chickens, turkeys, ducks, and geese).

Avian influenza viruses are classified based on a combination of two groups of proteins: the hemagglutinin or “H” proteins, of which there are 16 (H1–H16), and neuraminidase or “N” proteins, of which there are 9 (N1–N9). These viruses are further categorized as either low or high pathogenicity, indicating their ability to produce disease in poultry.

Low pathogenicity avian influenza is common in wild birds in the United States and around the world. In most cases, it causes few or no signs of infection. However, some strains can become highly pathogenic in poultry.

Highly pathogenic avian influenza is extremely contagious and deadly to domestic poultry. If we find it in the United States, we must quickly eradicate the disease to protect our Nation’s flocks and economy.
Avian influenza spreads quickly by direct, bird-to-bird contact. It can also spread indirectly, such as when birds come in contact with contaminated surfaces or materials. Migratory waterfowl (including wild ducks and geese); smuggled poultry and poultry products; and the movement of poultry, poultry equipment, and people are potential sources for introducing the disease to domestic birds. Avian influenza viruses can be moved in manure; on egg flats, crates, or other farming materials and equipment; and even by people who may have inadvertently picked the virus up on their clothing, shoes, or hands.
BIOSECURITY IS KEY TO PROTECTING YOUR FLOCK

Everyone who owns or works with poultry—whether you’re part of a large commercial operation or raise birds as a hobby—needs to know the right steps to keep avian influenza from entering the premises. Making biosecurity an “every day, every time” practice is the best way to protect your birds. Even if you’re already familiar with biosecurity, it’s always good to double-check your procedures. You are the best protection your birds have!

It takes just one contact with this virus to sicken or kill your birds. In a single day, the avian influenza virus can multiply and infect every bird on your premises.

Fencing your bird area can help keep your flock safe from predators and from contact with other birds that could spread disease.
Complete the self-assessment of biosecurity practices available at uspoultry.org/programs/poultry-health/biosecurity (click on “USDA Biosecurity Self-Assessment”). The U.S. Department of Agriculture (USDA) partnered with States and industry to develop this assessment as an aid for all commercial poultry owners in understanding and putting in place enhanced biosecurity measures. You can also contact your industry organization for more resources.

ATTENTION COMMERCIAL PRODUCERS!

Protect your birds with a few simple steps:

**Keep Germs Away**
Disinfect shoes, clothes, hands, egg trays or flats, crates, vehicles, and tires. Avoid exposing cleaned and disinfected equipment and tools to wild birds.

- Wash hands and scrub boots before and after entering a poultry area. Wear disposable boot covers and coveralls if possible.
- Isolate any birds returning from shows for 30 days to observe for signs of illness before placing them with the rest of your flock.
- Buy birds from reputable sources so you know you are getting healthy birds.

**Limit Visitors**
Restrict traffic onto and off of your property.

- Prevent visitors from having contact with your flock, and avoid visits to other poultry farms or with bird owners.
- If you or others must visit (such as service providers), make sure to wash hands and scrub boots before entering the bird area.

**Avoid Wild Birds and Pests**
Keep wild birds and rodents out of poultry houses and coops.

- Don’t let your poultry have contact with migratory waterfowl or other wild birds. These birds can introduce germs and diseases to your flock.
- Secure feed bins and water to prevent wildlife contamination.

**Have a Plan**
If you own a commercial farm, you should have a site-specific biosecurity plan in place.

- Make sure that anyone who enters the poultry area or has contact with your birds knows and follows your biosecurity rules.
- For backyard bird owners and hobbyists, we encourage you to have a written biosecurity plan, too. It’s one of the best ways you can defend your birds from disease.

Allowing your flock to come in contact with wild birds could put it at risk for infectious poultry diseases.
Early detection is vital to prevent the spread of HPAI. Here’s what to look for:

- Sudden death without any prior symptoms of illness
- Lack of energy and appetite
- A drop in egg production or soft-shelled, misshapen eggs
- Swelling of the eyelids, comb, wattles, and shanks
- Purple discoloration of the wattles, comb, and legs
- Gasping for air (difficulty breathing)
- Nasal discharge, coughing, sneezing
- Twisting of the head and neck (torticollis)
- Stumbling or falling down
- Diarrhea

Swelling of the tissue around the eyes and purple discoloration of the comb and wattles

Twisting of the head and neck

Complete paralysis

Swelling around the eyes and twisting of the neck
**ALERT!**

While an occasional unexplained bird death is normal, a large percentage of dead or dying birds in your flock is not normal. If there’s no obvious cause (such as predators, weather issues, or other external factors), report the deaths to animal health officials immediately.

**ALWAYS REPORT SICK BIRDS**

If you see these signs, take action right away! Contact your agricultural extension office/agent, local veterinarian, local animal health diagnostic laboratory, or the State veterinarian, or call USDA toll free at:

1-866-536-7593
LEARN MORE

USDA has free resources online for anyone who owns or handles live poultry. This includes a series of checklists to help you practice good biosecurity consistently. Download the checklists and more at www.aphis.usda.gov/animalhealth/defendtheflock (click on “Resource Center”).

And don’t forget—report sick birds right away by calling 1-866-536-7593.

This publication supersedes Program Aid No. 2212, “Protect Your Birds From Avian Influenza,” which was published in March 2017.

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