

Avian Influenza

Frequently Asked Questions

1. What is avian influenza (AI)?

Avian influenza is a disease caused by infection with avian (bird) influenza (flu) Type A viruses. These viruses occur naturally among wild aquatic birds (such as ducks, gulls, and shorebirds) worldwide and can infect domestic poultry (such as chickens, turkeys, quail, and geese).

Influenza A viruses have many different subtypes and are named for the two types of proteins on the virus surface. These proteins are referred to as “H” and “N.” There are at least 16 forms of H and 9 forms of N in birds, and they are designated by number (for example, H5N2).

2. Can AI affect humans?

Avian flu viruses do not normally infect humans. However, sporadic human infections with avian flu viruses have occurred. The current strain (highly pathogenic H5N2) in the U.S. that has been killing turkeys, chickens, and raptors has not caused illness in humans.

3. What is highly pathogenic avian influenza (HPAI)?

AI viruses are divided into two groups—highly pathogenic (HPAI) and low pathogenic (LPAI)—based on the ability of the virus to produce disease and the severity of illness it can cause.

- HPAI spreads rapidly and has a high death rate in birds. HPAI is an extremely infectious and fatal form of AI that typically kills 95–100 percent of an infected flock. Since mid-December 2014, there have been several ongoing highly pathogenic avian influenza (HPAI) H5 incidents along the Pacific, Central, and Mississippi Flyways.
- LPAI causes only minor illness in domestic poultry and occurs naturally in migratory waterfowl. The concern is that some LPAI virus strains are capable of mutating into HPAI viruses.

4. What are the signs of AI in birds?

Possible signs include sneezing, coughing, watery eyes, nasal discharge, twisted neck, and swollen sinuses, along with decreased feed and water intake, dehydration, decreased egg production,

misshapen eggs, decreased fertility or hatchability, depression, huddling, diarrhea, lethargy, and an increase in mortality. HPAI viruses usually cause severe illness in chickens and turkeys, with few birds within an infected flock surviving.

5. How is AI transmitted?

AI viruses are shed in the feces and respiratory secretions of birds. The fecal-oral and respiratory transmission routes can rapidly spread the virus throughout a poultry flock. Clothes, shoes, shared equipment, and vehicles can pick up the virus from the environment and so are also transmission routes. Walking through fecal material just before entering the chicken house must be considered as a possible transmission route. It is critical to disinfect footwear before entering the chicken house or wear disposable footwear covers. Also, clean/sanitize hands before entering poultry houses.

6. How can AI be prevented?

The most important thing that can be done to prevent AI in a domestic poultry flock is consistently practicing a strong biosecurity program, preventing contact between your birds and wild birds (particularly waterfowl), and immediately reporting sick or dying birds to proper officials.

7. What is biosecurity?

Biosecurity means doing everything you can to reduce the chances of an infectious disease, such as avian influenza (AI), being carried onto your farm by people, animals, equipment, or vehicles. It also means doing everything you can to reduce the chance of disease leaving your farm.

The United States Department of Agriculture recommends the following six simple steps to help you keep your birds healthy:

1. **Keep your distance.** Isolate your birds from visitors and other birds.
2. **Keep it clean.** Prevent germs from spreading by cleaning shoes, tools, and equipment.
3. **Don't haul disease home.** Also clean vehicles and cages.
4. **Don't borrow disease from your neighbor.** Avoid sharing tools and equipment with neighbors.

5. **Know the warning signs of infectious bird diseases.** Watch for early signs to prevent the spread of disease.
6. **Report sick birds.** Report unusual signs of disease or unexpected deaths.

8. What should I do to report sick birds?

If you suspect a problem, say something immediately. If you are a commercial producer, contact your service tech for guidance and assistance. If you are a backyard producer, contact

- your local county Extension agent;
- your veterinarian;
- the Mississippi Veterinary Research and Diagnostic Laboratory (601-420-4700);
- the MSU Poultry Science Department (662-325-3416); ask for a poultry Extension specialist; or
- the Mississippi Board of Animal Health (601-359-1170 or the animal disaster hotline at 1-888-722-3106).



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