

ANIMAL HEALTH AND EDUCATION

Questions -- Answers -- Facts

November 2005

Q. What is avian influenza?

A. Avian influenza (AI) is a disease found among poultry. AI viruses can infect chickens, turkeys, pheasants, quail, ducks, geese and guinea fowl as well as a wide variety of other birds, including migratory waterfowl. Each year, there is a flu season for birds just as there is for humans and, as with people, some forms of the flu are worse than others. AI viruses can be classified into low pathogenicity and highly pathogenic forms based on the severity of the illness they cause in poultry. Most AI strains are classified as low pathogenicity avian influenza (LPAI) and cause few clinical signs in infected birds. In contrast, high pathogenicity avian influenza (HPAI) causes a severe and extremely contagious illness and death among infected birds.

---From the USDA website (www.usda.gov)

Q. How is the disease spread?

A. AI is primarily spread by direct contact between healthy birds and infected birds, and through indirect contact with contaminated equipment and materials. The virus is excreted through the feces of infected birds and through secretions from the nose, mouth and eyes.

Contact with infected fecal material is the most common of bird-to-bird transmission. Wild ducks often introduce low pathogenicity into domestic flocks raised on range or in open flight pens through fecal contamination. Within a poultry house, transfer of the HPAI virus between birds can also occur via airborne secretions. The spread of avian influenza between poultry premises almost always follows the movement of contaminated people and equipment. AI also can be found on the outer surfaces of egg shells. Transfer of eggs is a potential means of AI transmission. Airborne transmission of virus from farm to farm is highly unlikely under usual circumstances.

HPAI can be spread from birds to people as a result of extensive direct contact with infected birds. Broad concerns about public health relate to the potential for the virus to mutate, or change into a form that could spread from person to person. The U.S. Department of Health and Human Services is aggressively working to ensure public health is protected. More information about the joint efforts of the federal government is available at <http://www.pandemicflu.gov/>

---From the USDA website (www.usda.gov)

Q. What symptoms do birds with AI demonstrate?

A. LPAI symptoms are typically mild. Decreased food consumption, respiratory signs (coughing and sneezing) and a decrease in egg production might demonstrate the presence of the disease. Birds that are affected with HPAI have a greater level of sickness and could exhibit one or more of the following clinical signs: sudden death; lack of energy and appetite; decreased egg production; soft-shelled or misshapen eggs; swelling; purple discoloration; nasal discharge; coughing, sneezing; lack of coordination and diarrhea.

---From the USDA website (www.usda.gov)

Q. What should producers do if their birds appear to have signs of AI?

A. If birds exhibit clinical signs of HPAI or might have been exposed to birds with the disease, producers or bird owners should immediately notify Federal or State animal health officials.

---From the USDA website (www.usda.gov)

Q. What kind of test is used to diagnose avian influenza in birds?

A. Samples are usually taken by swabbing the mucus that coats the throat of live birds, which does not harm the birds. With wild birds, a fecal sample can be taken instead. These samples go into sealed tubes and are taken to USDA-approved laboratories where a polymerase chain reaction (PCR) test is run. A PCR test is a rapid method of identifying the virus, typically producing results within three hours. If a sample from an area where avian influenza has not been previously detected tests positive on a rapid test, an additional confirmatory test is performed. This test involves growing the sample in embryonated chicken eggs, which then provides the material to allow detailed identification of the strain of virus and whether it is HPAI (high pathogenicity) or LPAI (low pathogenicity). This test can take 3-5 days to produce results.

---From the USDA website (www.usda.gov)

Q. What is done to protect healthy animals and prevent the spread of disease?

A. Poultry companies and farmers practice strict biosecurity at all times and it is heightened during any outbreak of avian influenza. The trucks carrying feed are hosed down, personnel wear protective clothing and plastic boots and go through footbaths, farmers stay away from community gatherings, and farmers generally keep their farms locked down until the problem has passed. The eradication efforts in Virginia, Delaware and Texas in recent years resembled military operations in their scope and precision.

---From the National Turkey Federation website (www.eatturkey.com)

Q. What is “backyard biosecurity?”

A. “Backyard biosecurity” means doing everything you can to protect your birds from disease. There are six basic steps you can take to protect your flocks and to promote “Biosecurity for the Birds:”

- Limit unwanted traffic to your property and your birds.
- Keep it clean. Use bleach or other disinfectant on your shoes, clothes, egg trays, flats, and tools. Wash your hands thoroughly.
- Don’t haul disease home on your truck or car. Clean and disinfect car and truck tires, cages, and equipment before going home if you’ve been near other birds.
- Don’t borrow diseases from other farms by using your neighbor’s equipment, cages, tools, or supplies.
- Know the warning signs of infectious bird diseases.
- Report any sick birds to your local cooperative extension agent, local veterinarian, the State veterinarian, or the U.S. Department of Agriculture (USDA) office at 1-866-536-7593.

---From APHIS' "Biosecurity for the Birds" website
(www.aphis.usda.gov/vs/birdbiosecurity/)

Q. What can poultry producers do to prevent an AI outbreak on their farms?

A. Poultry producers should strengthen biosecurity practices to prevent the introduction of AI into their flocks. The following are some sound biosecurity practices:

- Keep an "all-in, all-out" philosophy of flock management. Avoid skimming flocks- birds left behind are exposed to work crews and equipment that could carry poultry disease viruses. Process each lot of birds separately, and clean and disinfect poultry houses between flocks.
- Protect poultry flocks from coming into contact with wild or migratory birds. Keep poultry away from any source of water that could have been contaminated by wild birds.
- Permit only essential workers and vehicles to enter the farm.
- Provide clean clothing and disinfection facilities for employees.
- Thoroughly clean and disinfect equipment and vehicles (including tires and undercarriage) entering and leaving the farm.
- Do not lend or borrow equipment or vehicles from other farms.
- Change footwear and clothing before working with your own flock after visiting another farm or live-bird market or avoid visiting another bird farm if possible.
- Do not bring birds from slaughter channels, especially those from live-bird markets, back to the farm.

If AI is detected, farms must be thoroughly cleaned and disinfected. AI is inactivated by heat and drying and it is also very sensitive to most disinfectants and detergents. The area to be disinfected must be clear of organic material, which greatly increases the resistance of avian influenza virus' resistance to disinfection.

---From the USDA website (www.usda.gov)

Control Measures for Egg Facilities

- The importance of biosecurity measures cannot be over emphasized.
- Protect domesticated (or commercial) birds from contact with wild and migratory birds.
- Restrict the farm and facilities to essential personnel only.
- Monitor all visitors and restrict access when necessary.
- Provide clean or disposable clothing and shoe coverings to employees and visitors and recommended personal protective equipment.
- Sanitize all equipment and vehicles when entering and leaving the farm especially if there has been contact with live bird markets.
- Protect water and feed sources from possible contamination.
- Implement the recommended biosecurity practices for poultry production facilities.
- Order and implement an interactive CD-ROM on biosecurity plans available free from the U.S. Poultry and Egg Association (www.poultryegg.org).

---From the Egg Safety Center website (www.eggsafety.org)

Q. Can pet birds get these diseases?

A. Virtually all birds, including pet varieties, are susceptible to ... AI.

---From APHIS' "Biosecurity for the Birds" website
(www.aphis.usda.gov/vs/birdbiosecurity/)

Q. What are the warning signs of infectious bird diseases?

A.

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

---From APHIS' "Biosecurity for the Birds" website
(www.aphis.usda.gov/vs/birdbiosecurity/)

Q. Who should you call?

A. Don't wait. If your birds are sick or dying, call your local cooperative extension office, local veterinarian, the State veterinarian or the USDA's Veterinary Services office to report it. USDA operates a toll-free hotline (1-866-536-7593) with veterinarians who can help you. There is no charge to conduct a disease investigation.

---From APHIS' "Biosecurity for the Birds" website
(www.aphis.usda.gov/vs/birdbiosecurity/)

Q. Should I report a sick bird even if I am not sure it is AI?

A. Yes. Let the experts make the determination. It is better for people to be cautious than to let [a] highly contagious disease go unreported.

---From APHIS' "Biosecurity for the Birds" website
(www.aphis.usda.gov/vs/birdbiosecurity/)

Putting risk in perspective, here's what you need to know . . .

Avian influenza is transmitted from the droppings, nasal secretions and saliva of infected birds. Currently, the risk of anyone contracting avian influenza outside farm and agricultural areas is quite low. Safeguards have been put in place by USDA and other government agencies to prevent avian influenza from spreading among poultry flocks and preventing any infected poultry and eggs from reaching consumers. Proper cooking techniques should be used to kill pathogens and will eliminate avian influenza in poultry and eggs should they be present. When traveling to areas affected by avian influenza, it is always wise to check with international travel authorities or the CDC for updated traveler's advice.

---From the International Food Information Council website (www.ific.org)