AVIAN INFLUENZA CONTINUES TO THREATEN TENNESSEE POULTRY FLOCKS

Tom Tabler, Department of Animal Science, University of Tennessee
Shawn Hawkins, Department of Biosystems Engineering and Soil Science, University of Tennessee
Pramir Maharjan, Department of Agricultural and Environmental Sciences, Tennessee State University
Victoria Ayres, School of Agriculture, Tennessee Tech University
Jessica Wells, Department of Poultry Science, Mississippi State University
Jonathan Moon, Department of Poultry Science, Mississippi State University

The Tennessee Department of Agriculture and the National Veterinary Services Laboratory in Ames, IA recently confirmed another case of Highly Pathogenic Avian Influenza (HPAI) in a Tennessee poultry flock. This brings the state's backyard/commercial flock total since the first of the year to five cases. Numerous reports indicate that the virus is being carried by large numbers of migrating waterfowl as well as certain types of scavengers and raptors. Avian influenza (AI), commonly known as "bird flu," is an infectious disease of birds caused by type A influenza viruses. The disease is carried by many wild bird species, particularly migratory waterfowl like ducks and geese, but also scavengers like black vultures and raptors like hawks, owls and eagles that may feed on carcasses of infected waterfowl or other wild birds. Influenza in birds is very contagious and can cause illness and death in domestic species such as chickens and turkeys.

Biosecurity, Disease Signs And Recommendations

It is vital that anyone involved with poultry production should review their premise biosecurity procedures and protocols and stay vigilant to protect commercial poultry and hobby flock birds from this disease. This should be done by small backyard hobby flock owners and growers of commercial poultry to protect the health of their birds. The potential losses and costs associated with avian influenza outbreaks make it extremely important for the commercial producer and small poultry flock owner to protect their flocks against AI and other diseases by utilizing common biosecurity practices listed below.

Commercial poultry growers should work closely with their flock supervisors and live production team personnel and follow all company biosecurity guidelines.

Biosecurity Practices:

1. Post "No Visitors" and/or "Restricted" signs at the road entrance to the farm.
2. All farm personnel should wear separate clothing (including shoes, boots, hats, gloves, etc.) on the farm. Clothes used on the farm should stay on the farm.
3. Completely change all clothing after caring for the flock, and wash hands and arms thoroughly before leaving the premises.
4. Do not visit other poultry farms or flocks or have contact with any other species of birds.
5. Do not allow visitors on the farm or in the poultry houses.

6. All essential visitors (owners, feed delivery personnel, poultry catchers and haulers, service tech personnel, live production managers, etc.) are to wear protective outer clothing (coveralls), boots and headgear prior to being allowed near the poultry flock or farm.
7. Keep all poultry houses securely locked. Lock all houses from the inside while working inside.
8. All equipment, crates, coops, etc. should be thoroughly cleaned first and then disinfected before and after use. Disinfecting dirty equipment/materials is useless. You can't disinfect organic matter.
9. Do not borrow equipment, vehicles, etc. from another poultry farm.
10. Do not visit areas where avian influenza is a problem.
11. Any person handling wild game (especially waterfowl) must completely change clothing and shower or bathe before entering the premises.
12. Monitor all vehicles (service, feed delivery, chick delivery or live haul, etc.) entering the premises to determine if they have been properly cleaned and disinfected. This includes disinfection of the tires and vehicle undercarriage.
13. Sick and dying birds should be submitted to a diagnostic laboratory for proper diagnosis of the problem. All commercial growers should contact their flock supervisor and follow their instructions.
14. Dead birds are to be properly disposed of by burial, incineration or other approved method.
15. Remember to use basic hygiene (as recommended by health experts) to prevent contracting any influenza virus (practices such as covering your mouth when you cough and/or sneeze and then washing your hands with soap and water afterwards).
16. Poultry and egg supplies are safe to eat; however, it's important to properly handle and cook all poultry and eggs for consumption (internal temperature of at least 165 F).
17. We can't medicate or vaccinate our way out of an avian influenza break. Therefore, biosecurity is a very important tool to prevent disease entry into a flock. Also critical is a good rodent control program. Mice and rats can carry numerous diseases that can infect your flock. Pets can easily track the AI virus into poultry houses or chicken pens and, therefore, should not be allowed access to houses or pens.

Recognize Disease Signs

You likely see your birds multiple times each day. As a result, you know them better than anyone else and should be able to detect a change in behavior that may indicate an early sign of illness. If you know what to look for, you should be able to pick up, before anyone else, when your birds just aren't behaving properly. There are numerous poultry diseases, but many show similar behaviors at the first sign of illness. These signs include:

- Coughing/sneezing
- Nasal discharge/swollen sinuses
- Watery eyes
- Blue discoloration to face, comb or wattles
- Dramatic drop in water consumption
- Loss of appetite
- Ruffled feathers
- Huddling
- Drop or cessation in egg production
- Diarrhea
- Birds that are more quiet than normal
- Birds that isolate themselves from the flock
- Hemorrhages on the legs below the feather line
- High number of deaths in a short time period

How Infectious Is Avian Influenza?

There are numerous different subtypes of the influenza type A virus. There are two types of proteins that project from the surface of the virus. These are identified as Hemagglutinin (H) and Neuraminidase (N). There are 16 known types of H proteins and 9 known types of N proteins. Therefore, a wide variety of combinations of H and N proteins are available. The current outbreak in the U.S is highly pathogenic H5N1. The virus is also classified by two types of pathogenicity — the ability of the virus to cause disease in domestic poultry. Pathogenicity is classified as either low or high. Low pathogenic viruses rarely cause illnesses whereas highly pathogenic viruses spread rapidly and cause high mortality in poultry in a short period of time. The influenza viruses of greatest concern are the highly pathogenic varieties and any virus in the H5 or H7 categories, since these have the ability to mutate from low pathogenic to high pathogenic.

Because of the large amount of avian influenza virus currently circulating in the environment, Tennessee State Veterinarian Dr. Samantha Beaty and the Tennessee Department of Agriculture STRONGLY RECOMMEND the following steps be taken to protect flocks with outdoor access, including backyard flocks and commercial flocks that may be in a free range/organic meat or egg program:

1. Keep birds indoors to prevent poultry flocks from coming into contact with wild or migratory birds. Restrict poultry access to any source of water that may have been contaminated by wild birds.
2. Implement strict biosecurity on the premises. Alert all farm personnel of the increased risk of HPAI. Especially, focus biosecurity methods on preventing any exposure to wild waterfowl or their droppings.
3. Monitor all flocks for increased mortality or clinical signs, report any concerns to your local veterinarian or to the Office of State Veterinarian or local USDA Veterinary Services representative.

Report Anything Suspicious

If something in your flock seems suspicious or unusual or you see something that is just not right for your flock, get help immediately. If you're a commercial producer, contact your service tech and ask that they come take a look. Even if your service tech was there yesterday, ask that they come back and make sure everything is okay. Waiting could have disastrous results. If you're a backyard flock owner, contact:

- Your local county Extension agent
- Your local veterinarian
- Tennessee State University Extension poultry specialist (615-963-5823)
- University of Tennessee Extension poultry specialist (931-486-2129)
- Tennessee State Veterinarian's office (615-837-5120)
- C. E. Kord Animal Health Diagnostic Laboratory (615-837-5125)

For additional information on avian influenza and biosecurity, you may visit the USDA's Defend the Flock website at https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease- information/avian/defend-the-flock-program.

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