

2014-2015 HIGHLY PATHOGENIC AVIAN INFLUENZA SITUATION IN US AND CANADA IN DOMESTIC AND WILD BIRD SPECIES. WHAT CAN GAME BIRD PRODUCERS DO TO PROTECT THEIR FLOCKS?

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In 2014/2015 highly pathogenic avian influenza (HPAI) viruses were suddenly producing disease in North America in commercial poultry, mixed backyard poultry flocks, and captive and wild bird species.

DISEASE INCIDENCE

As of the date of this article, **11** states and Canada have reported HPAI in commercial and backyard poultry and wildlife (Arkansas, California, Washington, Idaho, Minnesota, Missouri, Kansas, Oregon, Utah, Wyoming, and Nevada). Three strains of virus have been detected: H5N8, H5N2 and the Eurasian/American strain of H5N1. In addition a low pathogenicity (LPAI) H7N9 virus was recently identified in a commercial turkey flock in Kansas. All migratory waterfowl flyways EXCEPT the Atlantic Flyway have had AI illnesses identified in birds.

DEFINITION OF HPAI AND LPAI

The definition of “highly pathogenic avian influenza” (simplified version) implies that the virus is very lethal for chickens and will kill a large number of them when they are experimentally inoculated with the virus. For the most part, the serotypes of these viruses (which are based on proteins found in their outer wall components) are H5 and H7. There are also H5 and H7 viruses that are called “low pathogenicity avian influenza” that cause little to no disease in chickens; however, these are also of concern because they sometimes mutate into highly pathogenic viruses.

SYMPTOMS OBSERVED WITH THE CURRENT HPAI OUTBREAKS

The symptoms of the current HPAI outbreaks have been variable depending on the type of birds infected.

Ducks: (Mallard, Pintail, Green-winged Teal, Wood Duck, Widgeon, Shoveler, etc.): These birds generally do not show signs of illness, although they may shed virus for long periods of time. Their feces and saliva contaminate the water and environment. It is believed that these birds (or the water they contaminate) are most likely the main sources of infection for poultry.

Geese, hawks, owls, eagle, falcons, turkeys, quail, pheasants, and guinea fowl: The main symptoms observed in these birds are lethargy, fluffed feathers and sudden death. In some cases, neurological symptoms were seen prior to death.

Chickens: The time from exposure to HPAI until death may be a few days. But during this time the birds excrete large amounts of virus. Fluffed feathers, lethargy, swollen face, and hemorrhages in tissues are seen before death.

HOW DOES HPAI APPEAR TO BE SPREAD?

In the majority of the cases described, some direct or indirect contact with infected ducks or contaminated water has been implicated. Many of the commercial farms were located close to rivers, ponds or reservoirs. In some of the backyard bird outbreaks, ponds or other habitat attractive to wild ducks were present. In some cases, surface water served as drinking water for the poultry. Captive falcons became ill after consuming infected ducks.

RECOMMENDATIONS FOR GAME BIRD PRODUCERS:

Wild ducks are attracted to water sources for feeding and resting during migration. Make your farms as inhospitable to migrating waterfowl as possible.

Drain ponds close to bird pens if possible and consider netting small ponds in other areas of the premises if feasible to keep wild waterfowl out.

Do not use spring or surface water for drinking water for your birds.

If waterfowl hunting be sure to clean birds far away from your upland game flocks. Double-bag feathers and offal from the cleaned ducks and carefully dispose of it. Clean and disinfect your vehicle upon return and launder your clothing in hot water. Disinfect your shoes. Shower and change clothes before caring for your birds.

Precautions should be taken whenever any activities near water (such as boating and/or fishing) are done. Waterfowl frequently contaminate shorelines, parks, and even golf courses. At the very minimum, shoes should be disinfected and the vehicle floor board cleaned and sanitized.

Any farm equipment, such as tractors, front end loaders, shovels, etc., that have been used in fields or other areas of the farm should be thoroughly washed and disinfected before allowing them to be used inside pens or buildings where game birds are housed.

Be very careful regarding biosecurity when delivering birds to your customers. Your biosecurity may be impeccable, but your customer may be having a bird illness that you are unaware of. If possible, agree to unload birds at an off-farm site. Then clean and disinfect your trailers before returning to your farm.

Investigate any unexplained mortality by contacting your veterinarian, your local diagnostic laboratory or your state department of agriculture, bureau of animal health, or USDA. Follow avian influenza testing requirements through participation in the National Poultry Improvement Plan (NPIP).

HUMAN HEALTH IMPLICATIONS

To date, no known cases of human illness has been associated with these HPAI viruses currently. However, the CDC recommends people avoid contact with sick wildlife if HPAI is suspected. If contact occurs, wash your hands with soap and water, shower and change clothing before having any contact with healthy domestic poultry and birds. CDC recommends that people who have had contact with HPAI-infected bird(s) monitor their own health for possible symptoms. The domestic HPAI H5 viruses have been tested at CDC and are susceptible to the recommended antiviral drugs oseltamivir, zanamivir and peramivir. In the event of a human illness following HPAI exposure, these medications may be prescribed. There is no evidence that any human cases of avian influenza have ever been acquired by eating properly cooked poultry products.

DEPOPULATION IN THE EVENT OF AN HPAI-INFECTED FLOCK

If your flock is diagnosed and confirmed with HPAI, you are compensated (indemnified) 100% based on the fair market value of your birds as determined by an appraisal and also includes payment for depopulation, disposal, clean-up and disinfection of your premise. Appraisals of poultry must be signed by the owners of the poultry prior to the destruction of the poultry, unless the owners, APHIS, and the Cooperating State Agency agree that the poultry must be destroyed immediately to prevent further spread of the disease. Reports of appraisals must show the number of birds and the value per head. All data required to determine fair market value will be collected prior to depopulation, including a complete inventory of poultry being destroyed.