

# Avian Influenza and Biosecurity Practices

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In the spring of 2015, the largest outbreak of avian influenza (AI) in US history had devastating effects on poultry flocks in the Midwest. More than 200 farms and 40 million birds have been affected. The loss of millions of laying hens has driven up the price of eggs and is threatening the livelihoods of thousands of farm owners and employees. Though the outbreak seems to have ended, all poultry owners must remain alert to this threat to their flocks.

## What is AI?

Though some strains have been known to cause illness in humans, avian influenza is a virus that mainly infects birds. The strain at the center of the US outbreak in spring of 2015 has not been shown to infect humans. The Centers for Disease Control and Prevention (CDC) considers the risk of human infection to be low.

Avian influenza is categorized by its ability to cause illness in birds. Highly pathogenic avian influenza (HPAI) causes severe illness and high mortality rates in birds. Low pathogenic avian influenza (LPAI) causes only minor illness with a low mortality rate. For either form of the disease, Texas protocols require all AI infected flocks to be reported and quarantined. Under most circumstances, the birds will be euthanized and the carcasses destroyed to prevent the spread of the virus to other poultry and birds.

## Where does AI come from and how is it spread?

Available information indicates that AI is spread by migratory birds. The virus does not appear to sicken the migratory birds that carry it—wild birds serve as a reservoir for the virus. As the birds travel in their migratory pat-

terns, they can spread the virus to other birds, including domestic poultry. Once the virus infects domestic poultry, it can spread from bird to bird through direct contact. AI can also be spread by contaminated manure, equipment, rodents, insects, vehicles and by clothing and shoes. Findings regarding the spring 2015 outbreak indicate that the virus may also be spread by contaminated airborne particulates such as dust, feathers, and hair.

## Can we vaccinate for AI or treat infected birds?

There is no vaccine for AI at this time. Because AI is a viral disease, there are no antibiotics or drugs that can be used to kill the virus in infected birds.

## Who should be concerned?

Everyone who owns or works with birds should be concerned. All domestic poultry is susceptible to being infected with AI. Scientists are concerned there may be additional outbreaks of AI in the fall of 2015 as wild birds migrate south for the winter. Outbreaks could also occur in the spring of 2016 as wild birds return north for the summer.

## What can be done to protect flocks from infection?

Currently, the only way to protect domestic poultry from AI infection is to keep the virus from infecting them. Prevention requires strict biosecurity practices.

## What is biosecurity?

Biosecurity is a set of practices you can use to avoid exposing animals to the disease. At its core, biosecurity is “protection from infection.” Effective biosecurity requires that you isolate your birds from anything that could transmit a disease, such as AI, to the birds. The following are basic biosecurity measures:

- ◆ Secure poultry houses against wild birds, pets, and livestock.
- ◆ Restrict visitor access to poultry houses and coops.
- ◆ Have dedicated shoes or rubber boots for use in the poultry house. They are not to be worn anywhere else.
- ◆ Establish a rodent and insect control program.
- ◆ Do not visit other flocks of poultry and then enter your poultry house without first washing and disinfecting thoroughly.
- ◆ Do not go into a poultry house after contact with any other birds (waterfowl, wild birds, pet birds, other show flocks or backyard flocks). This includes contact with birds during hunting activities.
- ◆ Do not introduce new birds to your flock that have not been tested for AI, unless they come from an AI-free certified supplier.
- ◆ Thoroughly wash and disinfect any shared equipment before transferring between premises (scales, pens, feeders, drinkers, etc.).
- ◆ If you see an increase in sick or dying birds, seek veterinary assistance immediately.

For more information about AI and biosecurity practices, see:

- ◆ Texas A&M AgriLife Extension Poultry Science  
<http://posc.tamu.edu/texas-agrilife-poultry-extension-specialists/publications/>
- ◆ Texas Animal Health Commission  
<http://www.tahc.state.tx.us/>
- ◆ United States Department of Agriculture, Animal and Plant Health Inspection Service  
<http://www.aphis.usda.gov> and <http://healthybirds.aphis.usda.gov>

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