

## **PREVENTING AVIAN INFLUENZA IN BACKYARD POULTRY FLOCKS**

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### Avian Influenza – A Problem

Avian influenza (AI) is a highly contagious disease of birds which can be devastating for poultry growers, both backyard and commercial. AI is caused by a virus which occurs commonly in healthy waterfowl, but can cause severe disease in turkeys and chickens. AI is considered a Foreign Animal Disease (FAD) in the United States (US), which means that the government (both State and Federal) work to prevent the introduction of AI into commercial and backyard poultry flocks. Flocks that are confirmed positive for AI are depopulated and buried onsite. Sometimes growers are paid for depopulated birds, but it may be only a portion of the true value of the birds, and can result in severe economic loss for owners and producers of the diseased poultry flocks.

Because of the structure of the commercial poultry industry and the events which many non-commercial or hobbyist poultry people attend, there is considerable movement of poultry and individuals associated with poultry across state lines and around the countryside. Whether your poultry interests are large or small, everyone needs to exercise caution when coming in contact with another poultry person or their birds. The AI virus is most often transmitted from one infected flock to another flock by infected birds, people or equipment. AI infected birds secrete virus via nasal secretions and feces. Moving infected birds would naturally result in transferring the virus to the new location. If infected birds are moved through an auction, or “swap meet”, then the virus can be transferred to multiple new locations. People most often spread viruses via contaminated clothing and/or boots. AI can live in manure for up to 105 days, so it could easily be spread from one farm to another on soiled boots or clothing. Equipment used on multiple farms, that is contaminated with infective feces or nasal secretions can spread viruses to multiple new locations. A major problem with stopping the spread of AI is that apparently healthy birds can be infected and transmitting the virus to other birds before exhibiting any clinical signs or symptoms. This is why one of the best ways to prevent this disease is to avoid contact with other poultry.

### Symptoms and Diagnosis

There are two forms of AI in poultry, one is highly pathogenic or severe, and the other is low pathogenic or milder. The symptoms of AI are varied depending on the form of AI present, the species of bird infected, and other diseases present in the infected birds. All cases of AI infection require laboratory confirmation. The most common symptoms seen in infected chickens and turkeys include: depression and decreased activity, decreased feed consumption, decreased egg production, coughing, sneezing, wet eyes, huddling, and ruffled feathers. Birds infected with the severe or hot form of AI may have edema or accumulation of fluid in the comb and wattles, blueness of the head

area, and severe production drops. Severe cases will show bleeding under the skin in the shanks and high mortality. The less severe form may not be as dramatic as the severe form, but it is still important to eradicate low pathogenic AI. Countries that have chosen to “live with” the milder form of AI have seen the virus become more pathogenic, or hot, after circulating through millions of birds. Any form of AI should be considered very serious. That is why laboratory diagnosis is important. The N.C. Department of Agriculture and Consumer Services’ (NCDA&CS) Animal Diagnostic Labs can test your birds for AI infection. There is no charge to you for this service. Additional information on AI may be obtained from the N.C. Poultry Federation, any County Extension Service office or the NCDA&CS Diagnostic Laboratories.

### Prevention is the Key

Preventing the introduction of AI and other viruses onto your farm should be the goal of all producers. Preventing the introduction of AI into your flock is not difficult to do if you follow some “common sense” guidelines.

1. Avoid taking birds to (or bringing birds home from) all shows and exhibits during an AI outbreak.
2. All avian species can be carriers of AI. All flocks should be fenced or confined, in order to avoid contact with any wild birds, especially waterfowl.
3. Introduce new stock only from sources you are sure are AI free and particularly not from areas in or near an AI outbreak zone.

Additionally, Dr. Bob Hillman, Executive Director of the Texas Animal Health Commission recommends simple biosecurity measures that can be taken to help protect flocks:

1. “Keep a spare pair.” Buy a pair of inexpensive rubber boots, and wear them only on your own premises, to avoid ‘tracking in’ disease.
2. “Give germs the brush off!” Use a long-handled brush to scrape off manure, mud or debris from tires, equipment or boots, then disinfect.
3. “Disinfection prevents infection!” Mix a solution of three parts bleach to two parts water, and use it liberally to clean rubber boots and equipment brought onto your farm. If visitors don’t want their vehicle tires sprayed with disinfectant, ask them to park outside your gate. Other disinfectants that work against AI virus and should be mixed according to package labels include, detergents, hypochlorites, alkalis, phenols, Virkon S and gluteraldehyde.
4. “Make visitors take cover.” Don’t be shy about asking visitors or customers to disinfect their footwear -- or better yet, provide guests with disposable shoe

covers, or footwear worn only on your place.

### The Bottom Line

The measures that you take to protect your birds from AI will also protect them from other viral and bacterial diseases. Commercial poultry operations have found that the additional precautions and sanitation measures which they are using have helped them reduce or prevent other disease problems. You may find the same benefits. Whether you are involved with poultry on a large scale or small scale, loss of your birds and expense of cleaning your premises due to Avian Influenza will affect **YOUR BOTTOM LINE**