

Small Farms, Big Business



UF/IFAS EXTENSION MARION COUNTY

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Recognizing Avian Influenza in Backyard Poultry



Figure 1. Protect your flock by implementing strict biosecurity against H5N2 Avian Influenza.

According to the National Wildlife Health Center as of April 30th, 2015, Iowa, Minnesota, Wisconsin and now Kentucky are experiencing a poultry disease outbreak caused by the avian influenza strain H5N2. There is a chance that we will see this virus affecting our backyard poultry, and we must know how to recognize this disease and monitor our birds on a regular basis for it.

So, what is Avian Influenza?

Avian influenza is a viral disease affecting the respiratory, digestive and/or nervous system of many species of birds. Avian influenza virus infection can occur in most, if not all, species of birds, both domestic and wild. Influenza viruses vary widely in their ability to cause disease (pathogenicity) and their ability to spread among birds.

Avian influenza has affected our flocks in the past

A highly pathogenic form of avian influenza was known as "fowl plague". It first appeared in Italy more than 100 years ago (around 1878). Pathogenic avian influenza was first recognized in the United States in 1924-25. It

occurred again in 1929. It was eradicated both times.

A major epidemic of highly pathogenic avian influenza occurred in the northeastern United States in 1983-84. It took more than 2 years to eradicate, at a cost of more than 70 million dollars. Approximately 17 million birds were affected. The United States has not had a major outbreak of highly pathogenic avian influenza since 1986, although less pathogenic strains of avian influenza virus are present and have caused significant losses in the poultry industry. Another major outbreak of highly pathogenic avian influenza would be disastrous to the American poultry industry.

In 1996-97 a number of table-egg farms in Lancaster and Lebanon Counties, PA tested positive for H7N2 avian influenza.

Continues on page 2...

Upcoming Events:

Click on the underlined links for more information.

- [Growing for Profit](#)
May 11
Jacksonville, FL
- [Florida Beef Cattle Short Course](#)
May 13-15
Gainesville, FL
- [Managing Your Queen and Expanding Your Apiary](#)
May 29
Green Cove Springs, FL
- [More Events](#)

Inside this issue:

RECOGNIZING AVIAN INFLUENZA IN BACKYARD POULTRY	1,2
UPCOMING EVENTS	1
BEEF CATTLE REPRODUCTIVE MANAGEMENT SCHOOL	1

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Beef Cattle Reproduction Management School



This week long school is for the serious cattle producer interested in improving their bottom line. All factors involved in reproduction management of the beef herd are covered including artificial insemination and pregnancy diagnosis. Mornings instruction and practice is conducted in the pens

with afternoon instruction in an a/c classroom.

Don't miss it! Register now by clicking [here](#).

For more information, call the UF/IFAS Extension Brevard County at 407-948-8810.

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Recognizing Avian Influenza in Backyard Poultry, Continued

What should we look for in our flock?

The severity of the disease ranges from unapparent (mild) to rapidly fatal. Lethal strains of the virus can strike so quickly, particularly in young chickens, that there may be no clinical signs other than sudden death.

Clinical signs vary greatly and depend on many factors including the age and species of poultry affected, husbandry practices, and the inherent pathogenicity of the influenza virus strain. Clinical signs may include:

- Ruffled feathers.
- Soft-shelled eggs.
- Depression and droopiness.
- Sudden drop in egg production.
- Loss of appetite.
- Cyanosis (purplish-blue coloring) of wattles and comb.
- Edema and swelling of head, eyelids, comb, wattles, and hocks.
- Diarrhea.
- Blood-tinged discharge from nostrils.
- Incoordination, including loss of ability to walk and stand.
- Pin-point hemorrhages (most easily seen on the feet and shanks).
- Respiratory distress.
- Increased death losses in a flock.

**Avian influenza may be confused with infectious bronchitis, infectious laryngotracheitis, fowl cholera, and the various forms of Newcastle disease. Typical history, signs, and lesions may be suggestive of

mild forms of avian influenza. Confirmation of a diagnosis is by serologic testing and virus isolation and identification. Because virulent strains of avian influenza are considered to be exotic to the United States, they are reportable to the USDA. Virulence level is evaluated by virus isolation and controlled laboratory challenge of experimental chickens.

Is the serotype H5N2 a new strain?

The answer is no. The highly pathogenic serotype of avian influenza responsible for the 1983-84 outbreak in the United States and the 1994 outbreak in Mexico was H5N2.

How does it transmit?

Infected birds shed the virus in fecal and oculo-nasal discharges. Even though recovered flocks shed less virus than clinically ill flocks, recovered flocks will intermittently shed and should be considered infected for life.

Waterfowl (wild and domesticated) are the primary natural reservoir of influenza viruses. Wild waterfowl usually do not show clinical signs, but they can excrete the virus for long periods of time. In addition, waterfowl can be infected with more than one type of influenza virus. Detection is further complicated by the fact that they often do not develop a detectable antibody response after exposure to the virus.

Influenza virus has been recovered from water and organic material from lakes and ponds utilized by infected ducks. Comingling of these birds with range-reared flocks is a factor in some outbreaks.



Figure 2. Loos for signs of depression in your flock.

Avoid Live Bird Markets

Live-bird markets are a reservoir of infection. Such markets serve as a focal point for gathering and housing many species of bird. These facilities are rarely cleaned or disinfected.

Is there a treatment for H5N2?

There is no effective treatment for avian influenza. However, good husbandry, proper nutrition, and broad spectrum antibiotics may reduce losses from secondary infections. It must be remembered that recovered flocks continue to intermittently shed the virus.

Prevention in the best strategy

A vaccination program, in conjunction with strict quarantine, has been used to control mild forms of the disease in commercial chicken and turkey flocks. With the more lethal forms of the disease, however, strict quarantine and rapid depopulation of infected flocks remains the only effective methods of stopping avian influenza. The success of such a program depends, of course, on the full cooperation and support of the poultry and allied industries.

For more information on this topic click [here](#). Or call 352-671-8400 for more information.

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