



COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

## Special to Poultry Owners and Managers: Avian Influenza and Your Flock

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### What is “avian influenza”?

Influenza viruses that infect birds are called “avian influenza viruses.” Currently, the term is used to describe a particular subtype of influenza virus that has caused problems recently in other parts of the world. (The term “bird flu” is also used to describe avian influenza.)

### What is so special about these avian influenza outbreaks?

The current outbreaks involve a “high-pathogenic” strain of avian influenza. Most avian influenza viruses are “low pathogenic,” meaning they cause only mild symptoms in a few birds. These terms are generally used only to describe avian influenza.

The current high-pathogenic outbreaks are the largest and most severe avian influenza outbreaks on record. Many countries have been affected at the same time, and unprecedented numbers of domestic birds have been lost due to the disease or to culling of suspect flocks. Despite dramatic control measures including culling entire flocks, confining birds, and (in some countries) vaccination of poultry, the disease is now considered endemic (established) in many countries.

The current outbreaks are remarkable also in that human cases have occurred in conjunction with the poultry cases. Affected people have had close contact with diseased poultry or with surfaces and objects contaminated by bird droppings. This strain of influenza has not, as of yet, been shown to be highly transmissible from person to person, although several reports in Asia document potential cases of human-to human transmission.

### What birds can be infected with avian influenza?

More than 90 species of birds have been shown to be susceptible to avian influenza virus. They include wild and domestic chickens, turkeys, ducks, pheasants, quail, geese, guinea fowl, and wild waterfowl.

### How does avian influenza spread between birds?

Wild birds, especially waterfowl, are the natural hosts for the virus. Susceptible birds become infected when they contact the virus by being exposed to nasal/respiratory secretions or fecal material from infected birds.

### What is biosecurity?

Biosecurity refers to measures taken to prevent the introduction of disease into a group of animals. Information on poultry biosecurity can be found at [www.aphis.usda.gov/vs/birdbiosecurity](http://www.aphis.usda.gov/vs/birdbiosecurity)

### How can I keep avian influenza from infecting my flock?

Virus may enter your flock via infected birds or contaminated equipment, people, or vehicles. These biosecurity practices can reduce this risk:

1. Practice “**all-in/all-out**” bird management; in other words, do not purchase birds from other sources to add to your existing flock. Then sell all birds at once, emptying the entire barn so it can be properly cleaned and disinfected before you bring the next birds in. Choose a disinfectant labeled for influenza viruses.
2. **Restrict access** to your property and birds. Only people who work directly with your birds (and do not have flocks of their own) should have access to the barns. They should wear proper safety equipment: boots, coveralls, gloves, and, if working with sick birds, facemasks and goggles. If you raise more than

one species of birds on your property, employees should not move back and forth between the different types of birds. Other people and their vehicles should not enter the property. Prevent migratory or wild birds from having contact with your flock.

3. If outside service people (feed delivery, veterinarians, etc.) must drive onto your premises, have them disinfect their vehicles and equipment before entering and before leaving.
4. Make sure clothing, footwear, equipment, vehicles (including tires and undercarriage), and cages are clean (all traces of droppings are removed) and disinfected before having contact with your birds.
5. Disinfect your vehicle or other equipment before coming home if you have driven to a place where other birds or bird owners may have been (feed store, other farms, etc.) Change clothes before working with your own flock.

#### Can I vaccinate my birds against avian influenza?

Avian influenza vaccines are strain-specific. They may only be obtained and used with special permission from state and federal animal health authorities. Vaccinating poultry is only done under very special circumstances. Use of vaccine may complicate testing for avian influenza.

#### What symptoms will I see if avian influenza is in my flock of chickens or turkeys?

Symptoms of the strain of avian influenza now seen in Asia, Europe, and Africa may be severe and may include:

- Sudden death with no prior symptoms.
- Decreased appetite.
- Lethargy.
- Decreased egg production.
- Swelling of the head, eyelids, comb, wattles, and hocks.
- Purple discoloration of the wattles, combs, and legs.
- Nasal discharge, coughing, sneezing.
- Diarrhea.

Symptoms of low-pathogenic avian influenza may be mild or inapparent within the the flock.

#### How can I know for sure if it is avian influenza?

You can't. These symptoms are similar to many other infectious poultry disease symptoms. It is impossible for you to make a definitive diagnosis on the basis of symptoms alone. Therefore, you need to **notify authorities**. They will take samples from dead birds and live birds for laboratory procedures that will rule out or confirm the diagnosis of avian influenza.

#### Who should I call?

- Your veterinarian.
- South Dakota Animal Industry Board (605-773-3321).
- USDA Veterinary Services, 1-800-536-7593. This number is staffed during regular business hours and will put you through to USDA Veterinary Services in the state from which you call.
- SDSU Veterinary Extension, 605-688-5171.
- Your local Extension educator.

#### Do not delay.

#### Can I catch avian influenza from my birds if they are sick?

The spread of high-pathogenic avian influenza virus from birds to people results from extensive human contact with infected birds. Low-pathogenic avian influenza viruses present a much lower health risk. Some low-pathogenic strains may cause conjunctivitis (eye infection) in humans, while other strains cause no symptoms at all.

Most of the human cases to date have occurred in rural areas where people and small poultry flocks live in close proximity to one another. Poultry farm workers should always use proper common-sense hygiene practices after working with their birds, including hand washing, avoidance of hand-to-mouth or hand-to-nose contact, and proper use of coveralls, boots, and other clothing.

#### Can I get avian influenza from eating poultry? Eggs?

Avian influenza virus (and other viruses and bacteria) is quickly and effectively deactivated by proper handling and cooking of poultry and eggs. These general food safety recommendations protect against other food-borne illnesses in addition to avian influenza:

- Wash hands before and after handling raw food.
- Keep raw poultry and unwashed eggs away from other foodstuffs.
- Wash cutting boards, counter tops and utensils with hot, soapy water after handling raw poultry or unwashed eggs.
- Use a meat thermometer to ensure poultry reaches an internal temperature of 165 F.
- Thoroughly cook eggs (no runny yolks).

The inspection procedures at poultry processing plants ensure that birds sick for any reason, including avian influenza, do not enter the food chain.

#### Where can I find more information on avian influenza?

Useful websites are:

- <http://sdces.sdstate.edu/avianflu/>
- [www.cdc.gov/flu/avian](http://www.cdc.gov/flu/avian)
- [www.usda.gov/birdflu](http://www.usda.gov/birdflu)