

Animal disease advisory for Iowa State University Farms

What is Avian Influenza?

Avian influenza (AI) is a viral disease that infects almost all species of birds. Since December 2003, a highly pathogenic H5N1 avian influenza virus (AIV) has spread through Asia, Europe and six countries in Africa. It has been estimated that more than 200 million poultry have been killed by the H5N1 virus or by eradication programs.

The H5N1 avian influenza virus has been transmitted from infected birds to domestic cats, tigers, leopards, dogs and humans. About 50 percent of infected humans have died.

How might H5N1 avian influenza enter the United States?

Migratory Waterfowl. Migratory waterfowl from the eastern hemisphere and the western hemisphere meet in Alaska during the summer breeding season. There is a concern that some of the migrating waterfowl moving south in the fall may carry H5N1 virus.

Smuggled Birds. In 2004, 330,000 birds were imported legally into the USA. It has been estimated that smuggling represents 25 percent of legal trade.

Smuggled Poultry Products. Over a two-month period in the fall of 2005, 165,000 lbs. of smuggled Asian poultry products were seized by federal agents in the United States. Frozen poultry products may contain the influenza viruses.

How is avian influenza transmitted?

Fecal-oral transmission. AIV is excreted primarily through the feces and can survive in water for days. In the environment, it can survive for 30-35 days at 4 C (39.2 F) and for seven days at 20 C (68 F).

Aerosol transmission. AIV can be transmitted to a lesser degree by nasal and respiratory tract excretions. Low pathogenic AIV replicates especially well in the upper respiratory tract.

How does avian influenza spread between flocks?

Man is the primary spreader of AIV between flocks. Equipment contaminated by feces and respiratory secretions containing AIV can readily transmit the disease. Potential carriers include tires on vehicles driven by feed delivery, live-haul to processing plants, flock owners, farm workers, utility workers, catching crews, vaccination crews, AI crews (turkeys) or veterinarians. Fecal dust and contaminated feathers disseminated by air currents also can transmit the virus. Careful disposal of manure and dead birds is critical. Flock owners should not share equipment between farms.

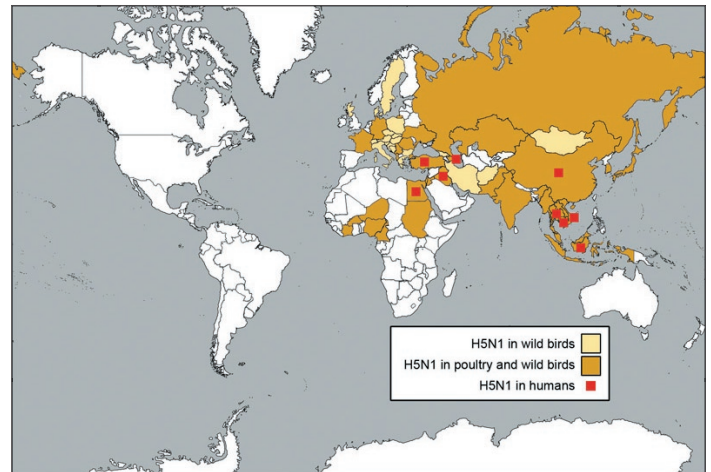
How can avian influenza be kept out of domestic poultry?

Clean and disinfect vehicles and equipment. Clean manure spreaders, tractors, truck tires and undercarriages with a strong detergent then apply disinfectant to kill disease-causing micro-organisms that can linger on surfaces. Delivery trucks and other vehicles should carry a sprayer of disinfectant in the cab so that tires and wheels can be disinfected before entering and leaving a farm. Additional biosecurity can be obtained by taking vehicles through a car wash between farm visits to remove any manure or fecal dust.

Wear sanitized coveralls and boots. Separate outer clothing should be assigned to individual houses. Wash and disinfect hands on entry and exit from houses. Foot pans containing phenolic disinfectant should be available at the entrance to all houses, and solutions should be changed daily. Drivers should carry Lysol spray (or a similar disinfectant) so shoes and floor mats can be disinfected when entering a vehicle.

Keep out unnecessary visitors and equipment. Allow only essential personnel onto your farm. Secure entry gates and lock all poultry buildings. Avoid borrowing equipment. Don't visit other poultry farms or share employees between farms.

Avoid contact with game birds and migratory waterfowl. Don't raise, keep or contact pet birds, ducks, geese or other game birds. If possible, avoid visiting duck ponds and hunting waterfowl. Bird-proof houses, food stores and water tanks.



Confirmed AI cases as of April 27, 2006. Source: USDA

Who should be contacted if a high mortality of unknown cause occurs?

Call the Iowa State University Veterinary Diagnostic Laboratory at (515) 294-4804.

How should ISU faculty and staff handle requests for tours to ISU Farms with livestock?

1. Inquire whether the guests have recently visited a foreign country. If the guests have recently been abroad, politely state that, *"Iowa State University has an animal disease advisory in place stating that those who have recently visited foreign countries will not be allowed on ISU farms with livestock or poultry before taking part in a precautionary waiting period until the global AI outbreak is under control."*

2. Those who have recently come to the United States or returned from a trip abroad should contact the International Ag office in 104 Curtiss Hall to participate in a precautionary five-day waiting period prior to visiting ISU farms.

This advisory was prepared by Dr. Darrell W. Trampel, ISU Extension poultry veterinarian, and issued by the ISU College of Agriculture and Iowa Agriculture Experiment Station. For more information, contact Mark Honeyman, ISU Research Farms, (515) 294-4621, or Dan Morrical, ISU Department of Animal Science, (515) 294-2904.

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