Asian Form of Avian Influenza Not Present
In the United States, Poultry Industry Says

The U.S. poultry industry said today that the “Asian flu” form of avian influenza does not exist in the United States and that poultry companies and the government are taking the necessary precautions to keep it out and to help limit the possibility of human illness.

“We have never had this particular form of avian influenza in the United States,” said Steve Pretanik, director of science and technology for the National Chicken Council, referring to the type of H5N1 highly pathogenic avian influenza that has killed millions of head of poultry in Asia or caused them to be destroyed. Approximately 116 human beings in Southeast Asia have also contracted the illness from direct contact with diseased animals. Scientists say the virus has not acquired the ability to move easily from human to human.

Several firewalls exist to protect U.S. flocks from the Asian form (called “type Z”) of H5N1 highly pathogenic avian influenza. They include:

- The United States has never imported poultry products from Southeast Asia, and since the Asian flu crisis erupted, the U.S. government has also prohibited the importation of live birds or other potential carriers of avian influenza.

- Scientists are routinely checking migratory birds in Alaska and along the West Coast to look for signs that wild birds might carry the virus to the U.S. More than 12,000 samples have been collected, with no indication that avian influenza is moving via that route.

- Human beings are considered a possible vector, and the industry has adopted a policy identical to that of the U.S. government, that no one who has been to an area where the “Asian flu” is present should set foot on a U.S. poultry farm for at least seven days after his or her return to the country. In case a person is inadvertently carrying the virus on his shoes or clothing, the virus will die during that period.

Conditions in the United States poultry industry are also radically different from those in Asia, where millions of chickens, ducks, and other poultry live in close conjunction with swine and other livestock and with human beings. Chickens are often allowed to roam at large in the villages that dot the countryside. Live birds are sold by the millions in markets in big cities, where they can infect each other and possibly infect human beings.
By contrast, the vast majority of chickens and turkeys in the United States are raised in sheltered conditions where they have no contact with other animals and very little contact with humans. Few human beings in the United States ever encounter a live chicken or turkey. Therefore the opportunities for transmission of any virus from poultry to humans are limited.

The United States has not had a major outbreak of highly pathogenic avian influenza since 1983-84, when about four million broilers and 11 million laying hens died or were destroyed in an outbreak centered on Pennsylvania. The strain was H5N2 and there were no human health implications.

Milder forms of the disease occur occasionally in the United States and in other countries. The U.S. poultry industry has strict biosecurity practices in place to ensure the health and well being of the birds and employees. While milder forms of the disease have occurred in the United States, it is not endemic in commercial poultry. When an outbreak occurs, the poultry industry works cooperatively with federal, state and local authorities to contain and eradicate the disease. The U.S. poultry industry is committed to a policy of eradicating any outbreak in the H5 or H7 categories by destroying the flocks or through controlled slaughter in keeping with the recommendations of the World Organization for Animal Health. Prompt eradication of any outbreak will help deny the virus the chance to mutate into more virulent forms.

“This is a health issue, not a food safety issue,” said Michael Rybolt, NTF’s manager of scientific and regulatory affairs. “There is no danger of acquiring avian influenza from normally and properly cooked food. Avian influenza is caused by a virus. Like all types of viruses, it is destroyed by the heat of normal cooking.”

The National Chicken Council represents integrated chicken producer-processors, the companies that produce, process and market chickens. Member companies of NCC account for approximately 95 percent of the chicken sold in the United States.

The National Turkey Federation is the advocate for all segments of the U.S. turkey industry, providing services and conducting activities, which increase demand for its members¹ products and protect and enhance the ability to effectively and profitably provide wholesome, high quality, nutritious turkey products.
What is it? Avian Influenza (AI, flu, Fowl Plague) is an infectious viral disease of many avian species, including chickens, turkeys, gamebirds, ratites, waterfowl, pigeons and wild birds. AI has also been isolated from caged birds (parakeets, parrots, cockatoos, finches), but the significance of the infection in these birds is not yet clear.

What’s the big deal? AI is a very serious threat to all poultry industries: commercial, gamebird, exhibition, waterfowl, ratites and pigeons. So serious that infected flocks can be quarantined and depopulated. State poultry shows, exhibitions and sales can close. Quarantined zones can restrict the movement of all avian and possibly livestock traffic. Other countries can ban receiving poultry exports from the U.S., costing the poultry industry and consumers millions of dollars.

What are the signs of disease? Variable – can be no symptoms, mild to severe respiratory signs (sneezing, snicking), head swelling, combs turn blue, hemorrhages (red spots) on leg shanks, nervous signs (can’t walk, twisting of head and neck), diarrhea, decrease in egg production and feed intake, low to high death rate depending on strain (Low-Path or High-Path). These clinical signs are seen in quite a few viral and bacteria diseases, so a proper diagnosis is needed.

How is the disease diagnosed? Through flock history, clinical signs, gross lesions, blood tests and virus isolation or PCR molecular testing from tracheal/cloacal swabs and bird organs performed at a diagnostic lab.

How is the disease transmitted? The virus is shed in nasal secretions and feces of infected birds. The virus can then be spread by bird-to-bird contact, through infected manure, contaminated equipment, vehicles, bird & egg crates and people whose clothing or shoes have come in contact with the virus. Airborne spread may be possible if a high concentration of virus is present. The virus can be killed with disinfectants and drying, but if protected by organic material (manure, feathers, eggs debris, etc.) it can survive for weeks.

How is the disease prevented? Prevent introduction onto the farm by keeping a closed flock and practicing biosecurity – disease prevention management – whether you have a commercial poultry farm or own a few backyard chickens:

- **People** – Avoid visiting other poultry farms or live-bird shows & markets. If you do, shower and change clothing and footwear before working with your birds. Don’t allow people who have birds to visit your farm without showering and changing clothes beforehand or have them wear protective clothing and footwear and visa versa.

- **Equipment** – Do not loan or borrow equipment or vehicles from other farms. If you have to, wash and disinfect all equipment before and after use. Wash and disinfect your vehicle/trailers/crates (including tires and undercarriage) after leaving a poultry farm, show or market. Keep your houses/pens, equipment and work areas clean and sanitary.
• **Birds** – Keep a closed flock. Do not bring birds from poultry shows & markets back to the farm – this is a great way to introduce any disease. Separate new birds away from the flock for 2-4 weeks to see if they show any signs of disease. Protect loose backyard poultry from coming in contact with wild or migratory birds, which can be carriers of the virus. Keep poultry away from lakes or ponds that may have been contaminated by wild birds. Take sick or fresh dead birds to a diagnostic lab to determine cause of illness/death.

• **Rodents, wild birds** – keep your rodents and wild birds away from your poultry buildings/cages. Use rodent bait stations, keep the grass cut, pick up garbage piles and don’t allow wild birds to build nests around your poultry area.

• **International travel** – if you travel to another country you may not know what types of exotic diseases their birds may have that you may come into contact with and mistakenly bring back home to your own flock. If you have any contact with foreign flocks, you should not even go near any types of birds back home for at least 5 days. Thoroughly clean all travel clothing, shoes and equipment after returning home.

**What type of poultry monitoring or surveillance is being done in SC?**

• Avian Influenza state surveillance through Clemson University Livestock Poultry Health:
  o AI serology (blood) testing -- 10% of all routine blood samples from commercial poultry flocks. 100% of all live, sick bird submissions (commercial & backyard).
  o Post-mortem examinations (necropsies) on all commercial and backyard poultry submitted to the veterinary diagnostic laboratory.
  o Spot testing at state permitted livestock auctions that sell backyard poultry.

• National Poultry Improvement Plan has state monitoring programs for AI:
  o NPIP AI Clean classification for poultry breeder flocks.
  o New upcoming NPIP H5/H7 AI program to sample the commercial product birds (broilers, turkeys, egg layers).

Many states have started new import restrictions for poultry entering their states because of AI outbreaks. So before you move hatching eggs/chicks/birds across state lines for sale or exhibition – you will need to contact the state of destination to see if you can do so – otherwise the birds or eggs may be quarantined at the other end. You can call this office for phone numbers of all the State Vet Offices.

• **Can people get infected with Avian Influenza?** Only one strain of Highly-Pathogenic Avian Influenza (subtype H5N1) has shown to be infectious to people causing illness and deaths. This strain was first seen in Hong Kong in 1997 and in Asia (Thailand & Vietnam) in 2003-05, but is currently not in the U.S. It is not uncommon to see Low-Path (H2, H3, H7) Al cases in U.S. poultry. Remember just because it is Avian Influenza, does not make it the High-Path H5N1 “Asian Bird Flu”.

**For additional information or to report signs of disease, contact any of the following:**

Your Local Veterinarian, Clemson Veterinary Diagnostic Center – ask for Drs. Parnell or Helm (803-788-2260). SC Birds may be submitted without charge if determined by a veterinarian through clinical signs or mortality to be suggestive of AI.
AVIAN INFLUENZA –
The Concern About People Getting the “Bird Flu”

What’s all the excitement about? There has been a lot of media coverage lately about the “Bird Flu” and the fear that this will be our next pandemic. And there has been concern here locally that students and employees working with poultry are in danger of getting the Bird Flu.

So what is the big deal? The deal that the risk of the Asian Bird Flu (H5N1) could be the next pandemic is real and I won’t belittle that fact. BUT – let’s put the steps in order and not run around like Chicken Little, since the sky is not falling yet.

Some facts on Avian Influenza (AI or Bird Flu):

- Chickens, ducks and other poultry do not spontaneously erupt with avian influenza. This is a virus, just like the human influenza viruses, that needs to be spread around to infect other birds. The spread is either through movement of the infected birds or movement of virus contaminated coops, equipment, vehicles, personnel clothing/boots, etc. that end up infecting new birds.

- All avian influenzas are not created equal. There are many strains of avian influenzas and the only one currently affecting people is the High-Path H5N1 strain. So at this moment in the U.S., there is probably some type of AI strain infecting poultry. It is not uncommon for the U.S. to see sporadic cases of Low-Path AI (H2, H3, H7) in poultry. Just because you hear that there is an AI outbreak in the U.S., it does not automatically mean it is the Asian H5N1 strain.

- Low-Path vs. High-Path – pathogenicity is the ability of an agent to produce disease in the host. Low-Path AI viruses produce none to moderate disease signs, mainly respiratory, egg production losses, with low death rate. High-Path AI viruses produce the more severe disease signs of respiratory, nervous, depression and a high death rate. As a Low-Path virus runs through flocks of birds it can mutate and become High-Path. Historically, this has occurred with H5 and H7 subtypes. The last large High-Path outbreak in the U.S. was H5N2 in 1983. It is rare for an AI virus to suddenly pop up out of the blue as a High-Path type. So far, it is the High-Path types (H5 or H7) that have infected people and those people worked closely with infected poultry.

How would the Asian Bird Flu (H5N1) come to the U.S.? It could come through infected birds, either as smuggled birds or through wild migratory birds, or it could through an infected person. The U.S. automatically bans all shipments of birds coming from High-Path AI infected areas. We cannot stop the entry of wild fowl, but wildlife scientists are on location in Alaska doing surveillance on those migratory birds coming from Russia to see if they are carrying the Asian strain.

So if High-Path H5N1 gets into the U.S. through birds, what then? Even if the Asian AI strain gets into our wild migratory fowl, it would still have to get into our commercial poultry flocks – which is not an easy feat. Commercial poultry flocks are raised in confined housing to keep them protected from wild birds, disease prevention practices (biosecurity) are used routinely on the farm to keep out diseases. Biosecurity measures are the best weapons a poultry grower has to keep avian influenza viruses away from their birds.

So what happens when a SC poultry flock gets infected with H5 or H7 AI viruses? All poultry states, including SC, are working on or updating their H5/H7 Avian Influenza Response Plans to detail the steps to follow in case of an outbreak, which would include quarantines, surveillance zones, depopulation, disposal, cleaning & disinfecting and finally repopulation of the farm(s).

What type of poultry monitoring or surveillance is being done now? Avian Influenza has been a concern to the poultry industry long before the Asian strain appeared. Monitoring in the U.S. for all types of avian influenza is routine and will be continued. In SC, through the Clemson University Livestock Poultry Health, post-mortem examinations (necropsies) and AI blood testing is performed on commercial and backyard poultry. Surveillance is performed at state permitted livestock auctions that sell backyard poultry. The National Poultry Improvement Plan has had state monitoring programs for AI in poultry breeder flocks since 2000, and a new upcoming NPIP H5/H7 AI program to sample the commercial broiler, turkey and egg layer flocks.

What is your risk as a student or worker of getting the Asian Bird Flu from the Clemson Poultry Farm = Nil. The risk that the poultry farm would get infected with any type of avian influenza virus is very low. The farm maintains strict protocols for allowing the different types of birds entry onto the farm, annual disease testing (including avian influenza) and maintaining sanitation and biosecurity standards.