

## **Avian Influenza – What is it?**

Avian influenza, commonly known as “bird flu,” is an infectious disease of birds caused by type A Influenza viruses. The disease is carried by many wild bird species including migratory waterfowl like ducks and geese, which show few if any clinical signs of the disease. Influenza in birds is very contagious and can cause severe illness and death in domestic species such as chickens and turkeys.

### **What do the N and H mean?**

There are many different subtypes of the influenza type A virus. The virus has two types of proteins that project from the surface of the virus. These proteins are called Hemagglutinin (H) and Neuraminidase (N). With 16 different types of H proteins and 9 different types of N proteins, many different combinations of H and N proteins are possible. The current avian influenza outbreak in the USA is a Highly Pathogenic H5N1 virus. The disease has been detected in Arkansas poultry as of October 6, 2022.

### **How infectious is it?**

The virus is also classified by pathogenicity -- the ability to cause disease in domestic chickens. There are two types of pathogenicity: low and high. Low pathogenic viruses usually do not cause illness whereas highly pathogenic viruses spread rapidly and cause high mortality in poultry. The types of Influenza viruses of greatest concern are the highly pathogenic and any H5 and H7 virus, since they have the ability to change from low pathogenic to high pathogenic.

### **Symptoms**

Avian Influenza has a variable incubation period in birds depending on the virus dose, poultry species infected, route of exposure, and several other factors. The symptoms exhibited by an infected bird also vary and depend on the pathogenicity of the virus. Some of the possible symptoms are: depression, diarrhea, dehydration, appetite loss, weight loss, huddling, a drop in egg production and respiratory symptoms such as cough, sneeze, and sinusitis.

Lesions that could be observed include: a bloody nasal discharge, facial swelling, blue discoloration of the face, under-the-skin hemorrhaging, tracheal inflammation, nasal inflammation and hemorrhages on the shanks and in the proventriculus, which is part of the bird's digestive system. There is no acceptable or practical treatment for poultry infected with high pathogenic avian influenza.

Avian influenza viruses do not usually affect people; however, rare cases of human infection from certain strains of Avian Influenza viruses have been reported.

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