

History of Avian Flu

The Avian Flu disease has captured considerable international attention over the past year with serious epidemics of this disease affecting Japan, South Korea, and areas of South-east Asia earlier this year. Now considered a pandemic, serious outbreaks of avian influenza had also affected the Netherlands, Belgium, and Germany in 2003. Avian flu had also been reported in Australia, Pakistan, Italy, Chile, and Mexico. The impact of this serious disease has been disruptive to the poultry industries as millions of chickens, geese, and turkeys were slaughtered to prevent further transmission of this highly contagious disease.

Besides its devastating effect on domestic poultry, Avian Flu has received unprecedented publicity because of what occurred in Hong Kong in 1997. Before this time, Avian flu was thought to infect birds only, however, a different strain of Avian Flu virus was detected in humans, marking the first time that Avian Flu was transmitted to humans. During this outbreak, 18 people were hospitalized and 6 of them died. To control the outbreak, authorities killed about 1.5 million chickens to remove the source of the virus.

Earlier this year in January, a major outbreak of Avian influenza surfaced again in Vietnam's and Thailand's poultry industry. Within a few short weeks, the disease had spread to ten countries and regions in Asia, including Indonesia, South Korea, Japan and China. Over 50 million chickens, ducks, geese, and turkey were slaughtered in an intensive effort to stop the disease from spreading any further. The outbreak was then contained in March. Unfortunately, this outbreak took a considerable toll on human lives. There were 34 people infected with the Avian Flu in Vietnam and Thailand, of which 23 of them tragically died.

Though scientists determined that the spread of the Avian flu virus from birds to humans are rare occurrences, they were also quick to express grave caution that this problem could become significantly worse if the virus mutated into a more lethal form, or a form that could pass easily from humans to humans. The World Health Organization (WHO) is particularly concerned about the Avian virus' potential to swap genes with a common flu virus, creating a lethal form of the virus that could spread around the globe within months.

Avian Flu was first recorded in Italy more than 100 years ago in 1878. As the cause of massive poultry epidemics, this disease was then known as "Fowl Plague". This disease reared its ugly head in the United States in 1924-25, and then again in 1929. In 1955, it was determined that the virus causing Fowl Plague was one of the influenza viruses. All influenza viruses affecting domestic animals (equine, swine, avian) belong to Type A, and Type A influenza virus is the most common type producing serious epidemics in humans. Types B and C do not affect domestic animals.

There are two forms of Influenza A viruses occurring worldwide – (i) highly pathogenic and (ii) mildly pathogenic. The outbreaks in Hong Kong, and those that were found reported recently are caused by the Highly Pathogenic Avian Influenza A virus (HPAI –

subtypes H5 and H7). It is a form of this virus that has the ability to be transmitted to humans. Although our understanding of Avian Flu is relatively limited, the recent outbreaks have stimulated research all around the world to further our knowledge of this important disease and virus.