

Avian Influenza in Commercial poultry - Virginia 2002 Caused by Low Pathogenic H7N2

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The first case of Avian Influenza epidemic in Virginia commercial poultry was reported on March 7 2002. It lasted for four months with a last case diagnosed on July 2 2002. During this period 197 farms got infected with the virus. The virus involved in this epidemic was a low pathogenic H7N2 virus very similar to the one that has been circulating in the live bird markets of NY and NJ.

The virus proved to be very infectious to turkey flocks in the area with over 75% of infected farms happened to have commercial meat type turkeys or breeder turkeys. Both turkey companies operating in the valley had similar infection rate. Flocks that are older than 10 weeks of age had a higher chance to get infected. The symptoms include upper respiratory signs with very low mortality. The egg production was very severely affected in turkey breeder hen. Recovery of flocks left in the field waiting depopulation was excellent with flocks retuning to normal health with in 2 weeks. In addition to turkey flocks, broiler, broiler breeder flocks were also affected. In broiler breeder flocks the infection did not have any effect on egg production

The early detection of the index case and the following response was note worthy. With in a week of diagnosis, the breeder hens at the index farm were humanely euthanized and buried on the farm and the farm was depopulated. The infection continued to spread in spite of control efforts. On April 14 AI Task Force consisting of Federal, State and Industry was organized to address the control activities. By that time the incidence rate had peaked and was beginning to decline as a result of industry initiated control efforts. The task force initiated weekly dead bird surveillance and the industry helped in identifying any remaining infected flocks. These flocks were also destroyed.

This virus from the live bird markets gained entry first in to commercial turkeys in North Carolina through quail operations in the area. One of the infected turkey flock transported to the valley became the source of infection to Virginia flocks. To prevent future AI introduction to commercial poultry efforts need to be focused to clean up the virus at its source, namely the LMB. This virus has been changing slowly since 1994 to wards gene combination required to be a highly pathogenic type. This makes it all the more urgent for this virus to be eradicated NOW.