

## **Characteristics of Avian Influenza Virus**

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In 2014-2015, the U.S. experienced an unprecedented outbreak of Eurasian clade 2.3.4.4 H5 highly pathogenic avian influenza (HPAI) virus. Numerous studies were performed to look at the pathogenesis of different viruses in the outbreak. The early viruses appeared to be directly from wild birds and did not transmit efficiently from chicken to chicken. However, viruses later in the outbreak did appear to be more poultry adapted. Because of the widespread nature of the outbreak, vaccination was considered as a control option. Vaccine challenge studies showed that the vaccines readily available early in the outbreak were poorly matched to the field strain, and were not recommended for use. Over the summer months two additional vaccines that were antigenically matched became available, but they were not needed as the outbreak was controlled. A veterinary vaccine bank was used to purchase some vaccine so that it was available if vaccine was to be needed. Fortunately, no new outbreaks of H5N8 have been detected since June 2015 so vaccine has not been needed.