

Highly Pathogenic Avian Influenza Turkey Case-Control Study Preliminary Findings

May 2023

Highly pathogenic avian influenza (HPAI) is an extremely contagious disease and often fatal to chickens and turkeys. To date, commercial turkey farms have made up 70 percent of all affected U.S. commercial poultry farms during the 2022-2023 HPAI outbreak. The United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service conducted a study to identify factors that may contribute to the transmission of HPAI virus to commercial turkeys.

Study Design

Commercial turkey farms raising meat turkeys were eligible for the study, and 125 farms from 12 States participated. Case farms were confirmed positive for HPAI between January and October 2022. Control farms were from the same states but did not have HPAI during the same period.

Potential Risk Factors for HPAI Introduction on Turkey Farms



Having a wetland or swamp visible or within 350 yards of the farm increases risk.



Seeing waterfowl on the farm within 100 yards of the barns increases risk.



Seeing wild waterfowl or shorebirds on the closest waterbody to the farm increases risk.



Higher precipitation, temperature, and wind speed increases risk. Most HPAI infections on turkey farms occurred in the spring.



Not having a restroom facility (including portable) available to crews visiting the farm increases risk of spread by increasing movement.

Investments in Biosecurity Improvements to Reduce HPAI Risk

The results of the study concluded that turkey producers could reduce their likelihood of contracting HPAI by investing in the following biosecurity improvements:



Permanent barn ventilation improvements or renovations.



Permanent vehicle wash station improvements or renovations.



Permanent wash stations for employees in older barns.



Temporary wild bird mitigation structures or infrastructure.