Highly Pathogenic Avian Influenza:

August 2023

Table Egg Layers Case-Control Study Updated Findings



Highly pathogenic avian influenza (HPAI) is an extremely contagious disease that is often fatal to chickens and turkeys. During the 2022 HPAI outbreak, over 75 percent of affected poultry from commercial farms were part of the commercial table egg production sector. With support from State and national poultry organizations, the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA–APHIS) conducted a study to identify factors that may contribute to transmission of HPAI virus to commercial table egg layers, pullets, and breeder birds.

Study Design

Commercial table egg layer, pullet, and breeder farms from Delaware, Iowa, Maryland, Minnesota, Nebraska, Ohio, Pennsylvania, and Utah were eligible for the study. Forty farms participated. Case (infected) farms were confirmed positive for HPAI between February and September 2022. Control (non-infected) farms were from the same States but did not have HPAI during that timeframe.

Risk Factors Identified for HPAI Introduction on Commercial Table Egg Farms



Proximity of waterfowl or shorebirds to the farm.



Employee movement between barns.



Location within an existing control zone.



Lack of on-site disposal methods, such as composting or incineration.

Biosecurity Improvements to Reduce HPAI Risk

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



Protect feed from wild birds, wildlife, and rodents. Clean up spills immediately.



Assign farm workers to specific barns. If this is not possible, require personnel to change clothing before moving to a different barn.



Thoroughly clean and disinfect vehicles entering and exiting your farm.



Improve traffic control by installing a farm entrance gate and limit unnecessary movement on and off your farm.



Work with a specialist to develop a wild bird management plan by calling USDA-APHIS: 1-866-487-3297.