







2022 HPAI Epidemiological Interim Report Summary *(as of May 31, 2022)*

Through May 2022, the 2022 highly pathogenic avian influenza (HPAI) event surpassed the 2014–2015 HPAI event in both numbers of States and producers affected. Yet, in multiple ways the impacts of the 2022 outbreak were less than in 2014–2015: fewer birds were lost to HPAI or depopulation, export losses were reduced, and the number of response personnel deployed by APHIS and the States was lower. Although more counties have seen HPAI detections in 2022, many represent a small number of cases with no further spread. These improvements reflect lessons learned after the 2014–2015 outbreak and the improved processes for biosecurity, quarantine, cleaning, disinfection, and restocking birds that were adopted by APHIS, States, and producers.

Notable Numbers: 2015 vs. Interim May 2022 Reporting

<p style="text-align: center;">States</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">21</td> <td style="text-align: center;">35</td> </tr> </tbody> </table>	2015	2022	21	35	<p style="text-align: center;">Response Personnel</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3,400</td> <td style="text-align: center;">1,000</td> </tr> </tbody> </table>	2015	2022	3,400	1,000	<p style="text-align: center;">Birds Dead or Depopulated</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">50.5 million</td> <td style="text-align: center;">38 million</td> </tr> </tbody> </table>	2015	2022	50.5 million	38 million
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<p style="text-align: center;">Backyard Flocks</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">21</td> <td style="text-align: center;">174</td> </tr> </tbody> </table>	2015	2022	21	174	<p style="text-align: center;">Commercial Producers</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">211</td> <td style="text-align: center;">220</td> </tr> </tbody> </table>	2015	2022	211	220	<p style="text-align: center;">Export Losses</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>2015</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">\$1.3 billion</td> <td style="text-align: center;">\$800 million</td> </tr> </tbody> </table>	2015	2022	\$1.3 billion	\$800 million
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How is APHIS tracking the 2022 HPAI outbreak? Wild birds, such as ducks, gulls, and shorebirds, can carry and spread HPAI. To maximize our ability to detect HPAI, APHIS tests wild birds in areas with extensive mixing of different wild bird populations and a history of virus detection. APHIS also uses publicly available tools, like BirdCast and eBird, for real-time monitoring of wild bird migration patterns. To understand the risk of spillover from waterfowl to domestic poultry, APHIS works with the University of Maryland and the U.S. Geological Survey to study trends in waterfowl and poultry distribution and environmental factors that influence spillover from waterfowl to domestic poultry.

APHIS uses multiple tools to better understand how HPAI infects domestic poultry flocks. Studies of the genetic relatedness of HPAI viruses find that 84 percent of U.S. HPAI detections are consistent with wild birds introducing the virus to domestic poultry, and 16 percent of detections are consistent with farm-to-farm transmission. **There has been no evidence to support backyard flocks as a driver of HPAI spread to commercial poultry.** To better calculate the timing of HPAI infection in poultry flocks, APHIS works with the University of Minnesota to determine the day the HPAI virus was introduced, which can help focus investigations into possible routes of introduction. To understand how on-farm practices may contribute to the risk of infection, APHIS uses interviews with poultry owners and operators. This analysis shows that risk factors previously identified in past outbreaks remain as trends in this outbreak and maintaining farm biosecurity including biosecurity with visitors and employees can reduce the spread of infection. Finally, to understand the range of possible outcomes that could result from continued HPAI infection of domestic poultry, APHIS uses computer simulations of HPAI outbreaks to aid in evaluating disease control strategies.

Full Interim Report: [Epidemiologic and Other Analyses of HPAI Affected Poultry Flocks](#)

Changes to any numbers noted in this summary will be updated in a final report.