



## 2022's Highly Pathogenic Avian Influenza Outbreak

On February 8, 2022, the first case of highly pathogenic avian influenza (HPAI) in U.S. commercial poultry (poultry housed for meat or egg production and resale) was confirmed by USDA's Animal and Plant Health Inspection Service (APHIS) in DuBois County, Indiana. Starting on that date, those areas of the country where commercial poultry and egg production are concentrated became the single-minded focus of every federal and state animal health official.

Generally, federal and state veterinarians, their trained staffs, and the nationwide network of federal and state veterinary laboratories toil in relative obscurity, tending to animal disease detection and control efforts that seldom come to the public's attention but are vital to ensuring animal production agriculture can continue to meet market demands. For attorneys involved in agricultural law, animal disease control is rarely even on the radar. But 2022 has been very different.

What follows is a brief overview of 2022's HPAI outbreak in commercial poultry and what may be expected over the balance of 2022.

### Overview of 2022 HPAI Outbreak

The initial North America detection of HPAI, of the subtype H5N1, actually occurred in December 2021 in wild waterfowl in Newfoundland and Labrador, Canada. In the subsequent months, detections grew and the HPAI virus was confirmed in U.S. wild birds, backyard flocks (raised for purposes other than the sale of birds or eggs), commercial poultry of all species, and even wild mammals.

During April 2022 alone, there were well over one hundred confirmed infected commercial poultry premises in twelve states. But, as of August 1, 2022, the first phase of the 2022 HPAI outbreak in commercial poultry had concluded. July 2022 saw only three new detections confirmed in commercial birds, all in turkey flocks in Utah.

Each confirmed detection results in the depopulation of all poultry on the premises in order to immediately contain the virus and attempt to prevent any spread. As of August 12, 2022, the [APHIS totals](#) are 40.14 million birds depopulated from 189 commercial flocks in 39 affected states. The hardest hit states (suffering the loss of at least 2 million commercial birds) were: Iowa (13.37



million); Nebraska (4.85 million); Pennsylvania (4.22 million); Colorado (3.56 million); Wisconsin (3.02 million); and Minnesota (2.96 million). Egg layers and pullets were the overwhelming majority of birds lost in those states, excepting Minnesota which suffered almost exclusively turkey losses (as it did in the last HPAI outbreak in 2015).

A wealth of information is obtainable through the USDA APHIS ["Avian Health"](#) website, and in particular the database titled, ["2022 Confirmations of Highly Pathogenic Avian Influenza In Commercial and Backyard Flocks."](#) This APHIS database is interactive with data downloadable in user-defined spreadsheet formats.

The geographic focus of the most recent previous U.S. HPAI outbreak of 2015 was exclusively in Upper Midwest. The virus was contained to a few states but resulted in approximately 50 million birds depopulated. The 2022 outbreak has been geographically widespread and transmitted from wild birds migrating north via all the major migratory flyways across the U.S. This has resulted in confirmed detections in wild birds from as far east as Newfoundland, as far west as Alaska's Aleutian Islands and as far south as the Florida Everglades. The U.S. Department of the Interior's U.S. Geological Survey (USGS) and National Wildlife Health Center maintain [mapping of all confirmed 2022 HPAI detections](#), including wild birds, commercial poultry, backyard flocks and wild mammals.

The reasons behind the wide scope of 2022's outbreak, as compared to 2015, will ultimately be the subject of avian pathology studies and analysis in the coming years. However, presently, federal and state animal health officials must now ready themselves for phase two of the 2022 HPAI outbreak arriving in the coming months once wild bird migration resumes in southerly direction in preparation for winter. Conditions will soon exist again for HPAI transmission from migratory wild birds via bodily fluids released during overhead flight and/or while alighting on the ground or structures.

The geographic scope, frequency, and duration of resumed 2022 HPAI detections is unknown, as is whether this or some other subtype of HPAI may become a permanent presence in wild avian and other wild animal populations after the widespread nature of this outbreak. Presently, there is no HPAI vaccine approved for use in the United States or anywhere in North America, with arguments on both sides about whether such a vaccine would help disease control or simply hinder disease detection of a virus with so many subtypes.

One potential variable subject to human control during phase two of the 2022 HPAI outbreak, and which could impact transmission in the coming months, is the effectiveness of the lessons learned so far about: (a) strict biosecurity practices on the farm and by all visitors to the farm; (b) increased vigilance in keeping all domestic commercial poultry housed strictly indoors; and (c) ensuring the closure and sealing of all structural openings in housing facilities. Organic production, or other "free range" husbandry practices that involve giving commercial poultry outdoor access, remain a continuing topic for state animal health officials to address with producers and third-party certifiers to reduce transmission risks.

Having provided an overview of 2022's HPAI outbreak and its anticipated future course, an examination of several legal aspects of animal disease control may be instructive.



## General Regulatory Scheme for Disease Control

A traditional primary tool of regulatory control in animal disease detection and control is a quarantine order. The issuance of quarantine orders by the authorized animal health authority is done by official publication in the Federal Register or its state equivalent.

Quarantine orders, as opposed to promulgated regulations, can be flexible, adaptable, and customizable to individual diseases and changing circumstances. On the federal level, the issuance of quarantine orders is authorized by 7 U.S.C. § 8301 – 8322, ([Animal Health Protection](#)). On a state level, Pennsylvania, for example, authorizes quarantine orders pursuant to its [Domestic Animal Law](#), at 3 Pa. C.S.A. § 2329.

There is no federal preemption regarding animal disease detection and control so federal and state jurisdiction remains concurrent. However, federal supremacy and the fact that USDA APHIS controls the purse strings of Congressionally appropriated indemnity funds payable to owners for depopulated animals, dictates an extremely intimate level of cooperation between federal and state animal health officials, as well as cooperation from premise/bird owners.

In the case of a known and potentially recurring poultry disease such as HPAI, and to avoid having to individually craft voluminous quarantine orders for each outbreak, USDA APHIS primarily operates its HPAI response efforts by reference to a published guidance document titled [USDA APHIS HPAI Response Plan: The Red Book \(Updated May 2017\)](#). The Red Book consists of 224 pages outlining all aspects of USDA APHIS's intended method of operating during an HPAI outbreak, but leaving it open that "further policy guidance may also be released depending on what is requested, required, and based upon current events."

The Red Book provides detailed protocols for HPAI controls that will be incorporated by reference into either individualized APHIS quarantine orders, or preferably voluntary compliance agreements signed by the owner of an infected premise or birds. Cooperation is exchanged for receiving federal assistance in completing its obligations re: depopulation, disposal, and disinfection sufficient to allow the infected poultry premise to be re-populated and put back into production.

Thus far, 100% cooperation has been forthcoming in all instances of infection but resorting to injunctive relief from state or federal courts would be the avenue to enforce quarantine orders and violations of a previously executed compliance agreement.

The Red Book provides the basic framework used in state regulatory controls. One example is Pennsylvania's [General Quarantine Order: Virus Control for Highly Pathogenic Avian Influenza](#), last updated and officially published in the Pennsylvania Bulletin on April 30, 2022. "General quarantine orders" are those applicable to particular geographic areas and activities within that area while "special quarantine orders" are those applicable to individual premises, bird owners or growers.



## USDA APHIS Indemnity and Compensation Resources

One issue that attorneys may find themselves needing to quickly familiarize themselves with is the question of the eligibility and process by which a premise or bird owner may be eligible for USDA APHIS indemnity payments for losses. The USDA APHIS website is not well organized on this topic. Therefore, the following is a more user-friendly outline of USDA APHIS's [essential resources on HPAI producer indemnity and compensation](#).

### A. Process and Procedure

- [HPAI Response: Overview of Finance & Administration Procedures](#) (Feb. 2022). This document is the outline of the process to be followed to be paid for birds/eggs and potentially virus elimination if not done 100% by USDA APHIS contractors.
- This document extensively incorporates contents of another guidance document, titled [VS Guidance 8603.2 Procedures for Indemnity and Compensation Claims in Cases of H5/H7 Low Pathogenic Avian Influenza Infection in Poultry](#). Within this document are mentioned forms that can be found either: (a) directly within VS Guidance 8603.2 discussed above; or (b) on the APHIS webpage titled, [Highly Pathogenic Avian Influenza](#) (under the green drop-down menu titled "Response and Policy Information" and then under the heading "Finance and Administration Processes").

### B. Producer Indemnity (payment for birds and eggs destroyed)

- [HPAI Response: Poultry Indemnity Valuation](#) (Apr. 2022). This document explains the process and how valuations are set.
- [USDA Indemnity Values for 2022: Commercial Table](#) (Mar. 2022). This document contains the actual published amounts for 2022 for birds/eggs.
- [VS Indemnity Values for 2022: Specialty Table](#) (Mar. 2022). This document contains the actual published amounts for 2022 for specialty birds/eggs.

### C. Producer Compensation (payment for services provided in depopulation, carcass disposal, and disinfection, i.e., collectively "virus elimination")

- [HPAI Virus Elimination: Per-Square-Foot Rates for Floor-Raised Poultry](#) (Sep. 2020 – still current as of Aug. 1, 2022). This document explains the process, how amounts are set and contains the actual published amounts.
- [HPAI Virus Elimination: Per-Cubic-Yard Flat Rates for Table Egg-Laying Bird Barns and Table Egg Storage and Processing Facilities](#) (Sep. 2020 – still current as of Aug. 1, 2022). This document explains the process, how amounts are set and contains the actual published amounts.



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**References:**

- USDA – 2022 Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks
- USGS – Distribution of Highly Pathogenic Avian Influenza in North America, 2021/2022
- 3 Pa. C.S.A. § 2329
- USDA FAD PReP, Highly Pathogenic Avian Influenza Response Plan, The Red Book (Updated May 2017)
- General Quarantine Order; Virus Control for Highly Pathogenic Avian Influenza Poultry, Poultry, Litter, Conveyances, Feed, Refuse, Containers and Material Standards, 52 Pa.B. 2597 (Apr. 30, 2022)
- HPAI Response: Overview of Finance & Administration Procedures (Feb. 4, 2022)
- VS Guidance 8603.2 Procedures for Indemnity and Compensation Claims in Cases of H5/H7 Low Pathogenicity Avian Influenza Infection in Poultry
- HPAI Response: Poultry Indemnity Valuation (Apr. 12, 2022)
- USDA Indemnity Values for 2022: Commercial Table
- VS Indemnity Values for 2022: Specialty Table
- HPAI Virus Elimination: Per-Square-Foot Flat Rates for Floor-Raised Poultry (Sep. 2020)
- HPAI Virus Elimination: Per-Cubic-Yard Flat Rates for Table Egg-Laying Bird Barns and Table Egg Storage and Processing Facilities (Sep. 2020)

*This material is provided as part of a partnership with the National Agricultural Law Center and is based upon work supported by the National Agricultural Library, Agricultural Research Service, U.S. Department of Agriculture.*

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