

This document provides a brief overview of the *HPAI Response Plan: The Red Book (Updated May 2017)*. This version of the HPAI Response Plan reflects the knowledge and lessons learned during recent outbreaks as well as supplemental policy guidance developed by the National Incident Coordination Group. This HPAI Response Plan provides strategic guidance; whereas, additional policy guidance provides information on how to operationalize activities, particularly for the unified Incident Command.

Please see the HPAI Response Plan and HPAI policy guidance for further information, located at www.aphis.usda.gov/fadprep.

Goals of a HPAI Response

The goals of an HPAI response are to

1. detect, control, and contain HPAI in poultry as quickly as possible;
2. eradicate HPAI using strategies that seek to protect public health and the environment, and stabilize animal agriculture, the food supply, and the economy; and
3. provide science- and risk- based approaches and systems to facilitate continuity of business for non-infected animals and non-contaminated animal products.

Achieving these three goals will allow individual poultry facilities, States, Tribes, regions, and industries to resume normal production as rapidly as possible. The objective is to allow the United States to regain disease-free status without the response effort causing more disruption and damage than the disease outbreak itself.

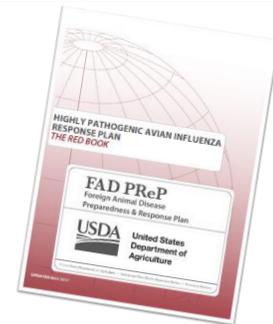
Primary Response Strategy

The United States' primary control and eradication strategy for HPAI in poultry is stamping-out. If the spread of HPAI outpaces the resources for stamping-out, or if other factors direct the response away from a stamping-out strategy alone, emergency vaccination strategies might be considered.

Factors Influencing HPAI Response Strategies

Detection of HPAI may result in emergency intervention by Federal, State, Tribal, and/or local authorities; the scope of regulatory intervention depends on the following factors:

- ◆ consequences of the HPAI outbreak,
- ◆ acceptance of the outbreak,
- ◆ scale of the outbreak,
- ◆ rate of outbreak spread,
- ◆ veterinary countermeasures available, and
- ◆ resources available to implement response strategies.



Three Epidemiological Principals of Response

Three basic epidemiological principles form the foundation to contain, control, and eradicate HPAI in the U.S. poultry population:

1. *Prevent contact between the HPAI virus and susceptible poultry.*
 - a. This is accomplished through quarantine of infected poultry and movement controls in the Infected Zone(s) and Buffer Zone(s) (Control Areas), along with biosecurity procedures to protect non-infected poultry.
 - b. Certain circumstances may warrant accelerating the depopulation or slaughter of poultry at risk for exposure to HPAI to decrease the population density of susceptible poultry.
 - c. There is a serious transmission risk posed by people, material, conveyances, and animals that may have been in contact with HPAI and serve as mechanical vectors. Contact between poultry and these items should be prevented, and transmission risk mitigated through stringent biosecurity and cleaning and disinfection measures.
2. *Stop the production of HPAI virus in infected or exposed animals.*
 - a. This is accomplished by rapid mass depopulation (and disposal) of infected and potentially infected poultry.
3. *Increase the disease resistance of susceptible poultry to the HPAI virus or reduce the shedding of HPAI in infected poultry.*
 - a. This may be accomplished by strategic emergency vaccination if a suitable vaccine is available and can be administered in a timely manner.

What Else Will Occur During an HPAI Response?

Critical activities and tools must be implemented to execute and support any response strategy. These activities and tools must support a science- and risk-based approach that protects public health, animal health, the environment, and stabilizes animal agriculture and the economy. Some of the critical activities that will be employed are as follows:

- ◆ swift imposition of effective quarantine and movement controls;
- ◆ stringent and effective biosecurity measures;
- ◆ rapid diagnosis and reporting;
- ◆ epidemiological investigation and tracing;
- ◆ rapid appraisal and indemnity process for producers;
- ◆ increased surveillance;
- ◆ continuity of business measures for non-infected premises and non-contaminated animal products [*Secure Poultry Supply Plan* (<http://securepoultrysupply.com/>)];
- ◆ rapid mass depopulation and euthanasia;
- ◆ effective and appropriate disposal procedures;
- ◆ cleaning and disinfection (virus elimination) measures.

Coordinated Public Awareness Campaign

In all HPAI outbreaks, a public awareness campaign must be effectively coordinated with audience-appropriate information both created and distributed. This supports the response strategy by

- ◆ engaging and leveraging Federal, State, Tribal, local, and stakeholder relationships to provide unified public messages for all audiences;
- ◆ addressing the issues/concerns relating to food safety, public health, the environment, and animal welfare;
- ◆ addressing issues and concerns related to interstate commerce, continuity of business, and international trade; and
- ◆ widely disseminating key communication messages to consumers and producers.



Authorization for Response Activities

When the criteria for a presumptive positive HPAI case have been met (per the H5/H7 AI Case Definition), the Animal and Plant Health Inspection Service (APHIS) Administrator or Veterinary Services Deputy Administrator can authorize APHIS personnel—in conjunction with State, Tribal, and unified Incident Command personnel—to initiate depopulation, cleaning, and disinfection procedures of the Index Case and investigation of Contact Premises. Depopulation of poultry on Contact Premises or those meeting the suspect case definition may also be warranted and conducted depending on the epidemiological information; this action will be authorized by APHIS and State/Tribal officials.

Appraisal

- ◆ State and APHIS officials approve depopulation prior to its occurrence.
- ◆ Indemnity is a key component of APHIS's disease control programs in that the promise of fair compensation for losses helps to ensure cooperation from the owners of affected poultry.
- ◆ Such cooperation is important for rapid disease control and eradication.

Mass Depopulation and Euthanasia

Due to the risk of virus amplification in infected poultry, authorized depopulation activities should be completed as quickly as possible; the goal is within 24 hours. Carbon dioxide and water-based foam concentrate have most commonly been used to depopulate poultry flocks. However, to meet the goal of depopulation within 24 hours and halt virus production, other alternative methods may be considered by State and APHIS officials.

Cleaning and Disinfection (Virus Elimination)

Because of HPAI's high survival rate on both organic and inorganic materials, aggressive cleaning and disinfection practices are required for both ongoing biosecurity measures to contain the HPAI virus to Infected Premises and to eliminate virus from contaminated equipment, materials, and all other fomites. Cleaning and disinfection steps are necessary to control and eliminate HPAI during an outbreak.

Cleaning is the removal of gross contamination, organic material, and debris from the premises. This can be mechanical, like sweeping (dry cleaning) and/or the use of water and a soap or detergent (wet cleaning). Disinfection refers to the methods that are used on surfaces to destroy or eliminate HPAI virus. This can be physical (e.g., heat) or chemical (e.g., disinfectant). Cleaning and disinfection activities should focus on eliminating the virus in the most cost-effective manner possible.