



Please note: This policy may be revised as the situation develops.

## HPAI RESPONSE GOALS AND POLICY (STAMPING-OUT)

The USDA Animal and Plant Health Inspection Service (APHIS) goals for a highly pathogenic avian influenza (HPAI) response are to (1) detect, control, and contain HPAI in poultry as quickly as possible; (2) eradicate HPAI virus using strategies 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.

The United States' primary control and eradication strategy for HPAI in domestic poultry, as defined by international standards and the World Organization for Animal Health (OIE), is "stamping-out."

"Stamping-out" is defined in the OIE Terrestrial Animal Health Code as the "Killing of animals which are affected and those suspected of being affected in the herd and, where appropriate, those in other herds which have been exposed to infection by direct animal to animal contact, or by indirect contact with the causal pathogen; this includes all susceptible animals, vaccinated or unvaccinated, on infected establishments."

The USDA will continue to evaluate with States, producers, and industry the potential use of HPAI vaccine. However, stamping-out of HPAI infected poultry will always be part of any HPAI response policy, even if a protective vaccination strategy is implemented.

## APHIS EPIDEMIOLOGICAL PRINCIPLES OF HPAI 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 Area), 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 other 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 by infected or exposed animals.* This is accomplished by rapid mass depopulation (and subsequent 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.* This may be accomplished by strategic emergency vaccination if a suitable vaccine is available and can be administered in a timely manner.

## MASS DEPOPULATION AND EUTHANASIA

Mass depopulation and euthanasia are not synonymous, and APHIS recognizes a clear distinction. Euthanasia involves transitioning an animal to death as painlessly and stress-free as possible. Mass depopulation is a method by which large numbers of animals must be destroyed quickly and efficiently with as much consideration given to the welfare of animals as practicable, given extenuating circumstances.

Mass depopulation is employed in an HPAI response to prevent or mitigate the spread of HPAI through elimination of infected or potentially infected poultry. In 2007, the American Veterinary Medical Association (AVMA) issued best practice guidance which stated that “Under unusual conditions, such as disease eradication and natural disasters, euthanasia options may be limited. In these situations, the most appropriate technique that minimizes human and animal health concerns must be used.”

In 2013, the *AVMA Guidelines for the Euthanasia of Animals* continues to recognize depopulation, defining it as “The killing of animals in large numbers in response to an animal health emergency (e.g., catastrophic infectious disease, mass intoxication, natural disaster) where all due consideration is given to the terminal experience of the animal, but the circumstances surrounding the event are understood to be exigent and extenuating. Depopulation may not meet the requirements of euthanasia due to situational constraints.” This document also provides that further recommendations related to depopulation will be addressed in a separate document, the *AVMA Guidelines for the Depopulation of Animals*. This document continues to be under development.

In any event, euthanasia or mass depopulation should be provided to affected poultry as safely, quickly, efficiently, and humanely as possible. In addition, the emotional and psychological impact on animal owners, caretakers, their families, and other personnel should be carefully considered and minimized.

## APHIS STAMPING-OUT AND DEPOPULATION POLICY

When criteria for a presumptive positive have been met (per the [HPAI case definition](#)), the APHIS Administrator or Veterinary Services Deputy Administrator (Chief Veterinary Officer of the United States) or their designee will authorize APHIS personnel—in conjunction with State and Tribal officials, and Incident Command personnel—to initiate depopulation, disposal, cleaning, and disinfection procedures on the Infected Premises.

Investigation of Contact Premises is also authorized at this time. Depopulation of poultry on Contact Premises, or poultry meeting the “suspect case” definition, may also be authorized by APHIS officials—in coordination with State and Tribal officials and Incident Command—depending on epidemiological information and outbreak characteristics. Preemptive depopulation of poultry on other premises in the Infected Zone (typically 3 kilometers around the index case, also known as the Infected Premises) may also be authorized.

Indemnity funds for depopulated poultry and reimbursement for cleaning, disinfection, and disposal activities are authorized by APHIS as funds are available.

Best practices for containment and eradication of HPAI require rapid depopulation of infected poultry. Swift stamping-out is required to prevent the amplification of HPAI virus and subsequent environmental contamination. In all cases, depopulation activities must incorporate excellent biosecurity practices to control the HPAI virus and prevent further transmission: contaminated fomites (e.g., people and equipment) are a threat to the containment and eradication of the virus in domestic flocks.

## APHIS DEPOPULATION GOAL

Due to the risk of virus amplification in infected poultry, poultry that meet the HPAI presumptive positive case definition will be depopulated as soon as possible, with the depopulation goal of 24-hours or less. Poultry on Contact Premises, or those meeting the suspect case definition, may also be depopulated as soon as possible, if such depopulation is determined necessary by State/Tribal and APHIS officials. Again, the final determination to depopulate the entire Infected Premises, or specific houses on Infected Premises, or to depopulate Contact Premises will be made by State Animal Health Officials, or Tribal officials, and APHIS.

## APHIS DEPOPULATION METHODS

In almost all cases, water based foam, carbon dioxide, or alternative methods will be the depopulation methods available to rapidly “stamp-out” the HPAI virus in poultry. Each premises will be evaluated individually, considering epidemiological information, housing and environmental conditions, currently available resources and personnel, and other relevant factors.

However, if standard methods cannot achieve the 24-hour goal, the APHIS National Incident Coordinator will approve—on a case-by-case basis—the use of ventilation shutdown for depopulation. This method is considered by some to be less humane than other methods, but it can spare the lives of potentially thousands of other birds by halting the infection as soon as it is detected. Ventilation shutdown requires no specialized equipment or personnel. It would be implemented only upon recommendation by Federal and State officials and the producer, with concurrence by the National Incident Coordinator that all other options have been considered and that no other method will achieve the 24-hour depopulation goal.