Questions and Answers: Highly Pathogenic Avian Influenza

Q. What is USDA's response process?
A. As part of the existing **USDA avian influenza response plans**, Federal and State partners as well as industry are responding quickly and decisively to these outbreaks by following these five basic steps:

1. **Quarantine**—restricting movement of poultry and poultry-moving equipment into and out of the control area;
2. **Eradicate**—humanely euthanizing the affected flock(s);
3. **Monitor region**—testing wild and domestic birds in a broad area around the quarantine area;
4. **Disinfect**—killing the virus in the affected flock locations; and
5. **Test**—confirming that the poultry farm is AI virus-free.

Once a flock tests positive for avian influenza (AI), USDA or a State animal health official will complete a flock inventory to use for appraisal purposes. The flock will be depopulated as soon as possible using the most efficient method available. The carcasses will be disposed of using one of several methods. These include:

- in-house composting,
- outdoor on-site composting,
- burial,
- off-site composting,
- landfill, or
- incineration.

APHIS and State officials evaluate disposal options based on the size of the flock, local conditions, and applicable local, State, and Federal laws/regulations. There are different timelines associated with each disposal option. It is extremely important to follow all steps as outlined by disposal experts in order to minimize the risk of disease spread during the disposal process.

After all carcasses are removed from the barn, the cleaning and disinfection process begins. First, all organic material is removed. Then all areas and items are washed thoroughly with detergent, rinsed, and allowed to dry. Next, a disinfectant is applied and allowed to remain wet on the surfaces for the label-specified contact time. After the contact time, surfaces are rinsed again and allowed to air dry. These processes help eliminate any remaining virus.

After cleaning and disinfection, environmental samples are collected and tested to confirm that the virus is no longer present.

Premises must remain empty for a minimum of 21 days following these steps before being released from quarantine. After being released, the premises can be restocked.

Q. What do producers need to do?
A. APHIS seeks to engage producers and their employees wherever appropriate during the disease response process. We recognize this can be a difficult time for all involved, and producers are not expected to complete the process without expert assistance.

The first point of contact for reporting sick birds is the producer's veterinarian or the State animal health official. Producers can also report sick or unusual dead birds by calling USDA's toll-free number at **1-866-536-7593.** If AI is suspected, samples should be taken and sent to a local or nearby National Animal Health Laboratory Network laboratory. If the results are positive, the producer will be contacted by either a State or Federal veterinary medical officer (VMO), and USDA will start the process of inventory for indemnity, the epidemiological investigation, depopulation, and so forth—all with caseworker assistance.

Producers should talk to involved animal health officials about their level of involvement and how the responders and producers can work together. Anyone who works on the farm during these processes will need to wear appropriate personal protective equipment and follow strict biosecurity procedures, as outlined by the response team.

If producers have any questions about the depopulation and disposal processes, they should talk to the State or Federal animal health officials responding to the disease event in their area.

Following confirmation of AI in their operation, a producer will need to develop a **flock plan** for all premises with confirmed H5/H7 AI infection or exposure. The flock plan sets out the steps to eradicate the virus and prevent its spread to other flocks. It also specifies the procedures required to get the facility back into production, including requirements for quarantine release. The flock plan will include cleaning and disinfection requirements, but does not require cost estimates. The flock plan must be signed by the owners, a State animal health official, and the APHIS District Director or Assistant Director. This is required before the indemnity payment can be processed. An APHIS Veterinary Services case manager will work with the producer to walk them through the process and the information required to complete all steps.

An **appraisal document** for indemnification will then be prepared by APHIS and be presented to the producer as quickly as possible (see next question for details about the appraisal process). Affected producers need to sign the appraisal document before depopulation can occur.

A **compliance agreement** must be developed if depopulation, disposal, or cleaning and disinfection will be performed by personnel other than Federal or State officials or the State, and indemnity will be requested for those activities. A compliance agreement is separate from the flock plan. The flock plan specifies the necessary procedures for the premises to resume normal production; a compliance agreement indicates what tasks will be completed, who will be responsible for each task, and how much the work is expected to cost. A compliance agreement is comparable to a statement of work produced for a contract.

Q. What is the appraisal process for payment of indemnity?
A. Once a herd or flock is confirmed by a designated laboratory to have tested positive for H5/H7 AI, animal health officials will complete an inventory to use for appraisal purposes. The inventory will list out the number of birds in the flock, along with their age at the time and their intended use.

APHIS will use this inventory as the basis for the flock appraisal. APHIS economists developed a series of species-specific appraisal calculators that use publicly available prices, costs, and productivity data to develop a value per animal. The calculators are updated monthly to account for changing feed costs and values.

The value per animal type multiplied by the number of each animal type is used to calculate total indemnity. In most cases, APHIS provides 100 percent of the indemnity amount; however, there are certain situations where APHIS may provide a lesser percentage to producers. For example, indemnity percentage may be less than 100 percent for large-scale producers who do not participate in the National Poultry Improvement Plan (NPIP; www.poultryimprovement.org).

Q. When can producers restock their facilities?
A. After cleaning and disinfection, environmental samples are collected and tested to confirm that the virus is no longer present. Animal health officials will determine the number and frequency of samples needed and will collect them accordingly. The samples will be tested at a designated laboratory, usually the National Veterinary Services Laboratories in Ames, IA.

In general, premises must remain empty for a minimum number of days after the completion of cleaning and disinfection to ensure that any residual virus has been eliminated. For HPAI, that period must be at least 21 days, as this is a single incubation period for avian influenza. (Note that this is not an OIE requirement, but a basic disease control measure and part of USDA’s response plan.) The actual number of days will depend upon the specific disease agent and method of disposal used. Please discuss the exact timeline with the animal health officials responding on your farm.

Surveillance testing must also be complete in the area around the affected premises before APHIS can release it from quarantine and restocking can occur. However, in most cases, this surveillance will be completed before the 21-day waiting period begins.

Q. Can producers compost outside of barns?
A. Composting out of doors is an option in facilities (such as egg layer barns) where indoor space is restricted. However, outdoor composting requires a great deal of space and additional mitigations to discourage scavengers and keep viable pathogens from being blown around. Mitigations include a compost fleece or a thick layer of clean woodchips or other clean carbon source covering the compost pile. This cover keeps particles from blowing around and keeps scavengers out. In addition, in most instances, the State would have to permit the outdoor compost pile. APHIS is working with each facility to determine the best course of action given the size, scope, and needs of the individual operation, as well as the goal of ensuring that necessary disease control measures are taken.

Q. What can producers do with compost? Can it be sold?
A. APHIS does not regulate sale of the compost. The State agency that regulates fertilizers in any given State (could be Dept. of Ag, DNR, or Dept. of Environment) would have regulations pertaining to what the producer can or cannot do with the compost. This varies from State to State.

However, APHIS does regulate when anything can be done with the compost (sell, store, use, etc), as it can lead to the further spread of AI. Once the compost pile is assembled, it goes through two 14-day heat cycles. This is just letting the compost sit around to naturally compost. After 14 days, a composting consultant checks the temperature and turns the compost over (the turning over could take a day or so). We then wait another 14 days and check the temperature again. If the composting consultant determines that the appropriate temperature has been reached for an acceptable amount of time, APHIS releases the compost to the owner to use as allowed by State law.

Q. What can APHIS do to reduce wait times for depopulation?
A. To reduce wait times for depopulation, APHIS has increased its number of foaming units. APHIS started with one but as the number of infected premises expanded, APHIS' National Veterinary Stockpile (NVS) increased its capability to five foaming depopulation teams and contracted for six additional teams. For depopulating the layer houses, incident command teams and the NVS acquire CO_2 carts through various means and are having some fabricated locally. These additional assets allow us to begin depopulation within 72 hours of a presumptive positive result.

Q. Has APHIS discussed coordinating with National Guard forces?
A. The National Guard is invited to participate in a response by that State once the Governor has declared a state of emergency. APHIS works with the National Guard, but does not activate them.

Q. How is APHIS working to manage all of these steps in the larger and more complicated scenario of an egg-laying hen operation?
A. APHIS is bringing in personnel that can manage large disposal jobs, such as companies like Clean Harbors that manage massive HAZ-Mat, tornado, and other disaster-type cleanup. We're contracting with incinerator companies, setting up mass incineration sites that could be used in a region, and working with landfills to ease their concerns about the suitability of this sort of waste in their landfills.

Q. What do OIE guidelines state about lifting trade restrictions on infected regions?
A. There are additional international trade considerations in play. The OIE guidelines include a 90-day waiting period after the last infected premises has been cleaned and disinfected before a zone or region can regain its freedom from HPAI. Most countries that have accepted our definitions of regions or zones follow this guideline and may reinstate trade after this 90-day period.