AAAP (July 2015): Frequently Asked Questions and Answers on Mass Depopulation

The following are an overview of some of the questions that may arise from media and the general public regarding poultry specific foreign animal diseases and the role of emergency depopulation. These FAQ and additional documents (AAAP position statement and backgrounder) are not intended as an instruction guide, but rather a reference for poultry veterinarians and a starting place for information.

For additional questions or concerns, please contact AAAP directly at aaap@aaap.info and a designated spokesperson from AAAP will respond to your request.

1. When/why/where should "alternative methods" for depopulation be considered?

During a foreign animal disease outbreak, depopulation (or mass culling) measures are implemented in accordance with local and national legislative requirements to prevent or mitigate disease spread. Depopulation is an important step to protect the sustainability of agriculture by the elimination of infected flocks and the reduction of disease spread to healthy animals. The promptness of response and human safety are paramount to emergency depopulation planning.

- **When:** In the case of foreign animal diseases, it is critical to promptly reduce shedding of the virus that can contaminate healthy flocks and to avoid prolonged suffering of the infected flock. USDA recognizes “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 the animals as practicable.”¹ Primary methods for poultry should always be considered first when depopulation is required. Yet the challenges of mass depopulation during a foreign animal disease outbreak raise the need for alternative methods of depopulation that should only be utilized on a case by case basis, and after taking extreme care to ensure appropriate justification and when all currently available resources have been considered. Alternative methods should be considered to allow for the expeditious depopulation of the flock if primary methods cannot be implemented, are not available due to limited resources, or there is a potential for further disease spread due to the specific situations of the farm or flock.

- **Why:** Foreign animal disease viruses are highly infectious and spread rapidly to nearby poultry flocks. Depopulation can become overwhelming due to the complexity and magnitude of the disease outbreak. As proven by research and experiences, rapid decisions and actions for depopulation of infected flocks are critical to the control of disease spread. Restricting people and equipment entering and exiting the areas of infected flocks is vital in preventing additional spread of the virus. Under dire circumstances, alternative methods of depopulation become the only recourse ensuring rapid depopulation of the flock.

- **Where:** Alternative methods for killing entire flocks should only be considered during a foreign animal disease outbreak. Age, species, quantity and location of the poultry, as well as

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¹ USDA-APHIS NAHEMS GUIDELINES: Mass Depopulation and Euthanasia (Foreign Animal Disease Preparedness & Response Plan, May 2011)
available resources, are decision factors in the method of depopulation, in conjunction with guidance provided by the state and national animal health officials.

2. **Is a veterinarian involved in the decision-making process for depopulation?**

Veterinarians are dedicated to providing animal care to prevent and relieve disease or suffering. Therefore, depopulation decision-making should involve a veterinarian who is familiar with poultry diseases, welfare, behavior and housing. In the case of foreign animal disease outbreaks, veterinarians and animal health officials from state and national agencies will be integrally involved in the decision-making process.

3. **What is ventilation shutdown?**

Ventilation shutdown is an alternative method that can be utilized during emergency disease situations when a foreign animal disease has been confirmed and when the primary methods are not feasible for depopulation. Ventilation shutdown uses a combination of increasing heat and increasing carbon dioxide levels and is accomplished by sealing the poultry barn and air inlets and turning off fans. Birds become lethargic, then lose consciousness and die. Conditions are monitored and maintained to ensure that depopulation is complete.

4. **Why would alternative methods be used instead of "approved" AVMA euthanasia or depopulation methods?**

Alternative methods should only be used in extreme cases for the mass depopulation of flocks that have been diagnosed with a highly contagious foreign animal disease. Alternative methods may be used if and when other AVMA methods of depopulation or euthanasia are not feasible. Reasons for this may include:

- the severity of the disease and the goal to limit animal suffering
- a requirement for timely and effective depopulation of the flock to reduce the risk of virus spread to other poultry farms in the geographical vicinity
- the size of the flock that needs to be depopulated
- limited availability of trained people
- limited availability of required depopulation equipment

5. **What are the risks if the entire flock is not depopulated within 24 hours in a Foreign Animal Disease?**

Foreign Animal Diseases are infections that we exclude from animals in the United States that cause serious health problems up to and including death. Foreign animal diseases are highly infectious and spread swiftly when not controlled adequately. Animals that remain alive shed the virus while they continue to suffer but ultimately die of the disease. Virus numbers build in the barn increasing the risk of infecting nearby poultry. Our goal is to complete depopulation of a flock within 24 hours after laboratory confirmation to contain future disease outbreaks. This goal is shared by state and federal authorities and poultry farmers.
6. Is the H5N2 HPAI virus a risk to people?

No. The Centers for Disease Control (CDC) considers this virus to be of low risk to people. The U.S. strain of H5 Avian Influenza outbreaks is limited to wild birds, backyard flocks and commercial poultry. Any flock found to be infected with highly pathogenic H5N2 is depopulated on the farm. Only healthy poultry enter the food supply. Poultry workers wear protective clothing to prevent spreading the virus to other healthy birds. All contaminated clothing is discarded on site. During an outbreak the health of farm workers is monitored by health officials.

7. What are the animal welfare considerations when considering depopulation?

Birds infected with the HPAI virus cannot be treated or cured, ultimately leading to a painful death. Methods chosen to depopulate an infected flock must result in a quick death with minimal pain and stress. Mass depopulation is an emotional issue for veterinarians and the farmers responsible for raising their animals. Personnel involved in the depopulation should be familiar with poultry behavior, bird handling and housing. Depopulation methods approved by American Veterinary Medical Association (AVMA) and International Animal Health Organization (OIE) should be assessed before commencing with an alternative depopulation method.

8. Have other countries used alternative methods for poultry depopulation?

The United Kingdom has produced industry guidance for poultry operations, outlining requirements for the use of ventilation shutdown in emergency situations such as HPAI outbreak.2

9. How are alternative methods of depopulation evaluated?

University scientists are researching and developing new and novel techniques for emergency depopulation. Research into alternative methods of mass depopulation is ongoing in small scale and field applied university trials where data are collected, analyzed, and shared. Results from this research will be refined to help farmers and veterinarians implement new methods of emergency depopulation.

10. Who is "in charge" and who "makes the decision" regarding the need or requirement to depopulate a flock for HPAI?

HPAI is a reportable disease under federal law and ultimately the depopulation requirement comes from the federal government.

11. Are there other diseases, other than HPAI, would require depopulation? Why?

Currently Highly Pathogenic Avian Influenza (HPAI) and Exotic Newcastle Disease (END) are the two federally reportable Foreign Animal Diseases of poultry. These viruses need live avian hosts to multiply. If left alone, infected birds release large amounts of virus into the environment. Once in the environment, the viruses can infect new farms and new flocks. Rapid depopulation is our strongest tool in protecting billions of healthy poultry.