

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

USDA preparing for reappearance of bird flu this fall and winter

In response to the December 2014–June 2015 outbreak of high pathogenic avian influenza (HPAI) that infected 232 flocks in 21 states, the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) and Veterinary Services (VS) released the “Fall 2015 HPAI Preparedness and Response Plan” on September 18, 2015 (<http://tinyurl.com/owkk2cr>). To make the plan as comprehensive as possible, the document outlines the APHIS and VS response to a worst case outbreak this coming fall and winter “with HPAI occurring simultaneously in multiple sectors of the poultry industry throughout the nation. Under this scenario, 500 or more commercial establishments of various sizes across a large geographical area could be affected.” This includes states on the Eastern Seaboard along the Atlantic Flyway that experienced no infection in the outbreak that ended in June 2105.

In recent months, genetic analysis has shown that the devastating outbreak US poultry producers experienced resulted from the combination of Asian HPAI genetic material with North American low pathogenic avian influenza (LPAI) genetic material to form a new “Eurasian-American (EA/AM) HPAI viruses that infected wild birds and domestic poultry earlier in 2015 [and] serve as a potential threat to poultry this fall and winter. Wild birds, particularly resident and migratory dabbling ducks, appear to be the reservoir for these viruses.”

To determine the extent of HPAI in the wild population, “during the year beginning July 2015, over 40,000 wild bird samples will be collected across the United States and evaluated for the presence of HPAI viruses. During July and August, over 6,000 wild bird samples have been collected, with no detections of HPAI.” The USDA will keep producers updated on the results of wild bird samples so they can take appropriate actions.

While the original outbreaks in various geographic areas were the result of viral infection from the wild population, it has been determined that less than adequate biosecurity measures enabled the farm-to-farm spread of the virus. Producers are urged to implement their own site-specific biosecurity plans to protect their birds from infection from other barns on their own premises as well as from neighboring farms. In order to receive indemnification in the case where they lose birds as the result of an HPAI outbreak, “commercial poultry producers [will have to] to self-certify that biosecurity procedures were in place at the time HPAI was detected.”

For their part APHIS and VS have determined ways in which they can increase the effectiveness

of their response to any future incidents of HPAI in the future. As a result of their having, at times, been overwhelmed by the size of the recent outbreak, they have increased their ability to deploy personnel to a future outbreak. In addition, they have enhanced the safety, training, and monitoring of incident responders to make sure that HPAI does not infect any workers. The agencies have stockpiled “sufficient quantities of personal protection equipment to supply 1500 responders for 60 days, changing protective equipment 6 times per day.”

In the case of an HPAI outbreak, APHIS has determined that “based on a regular 8-hour shift in [state diagnostic laboratories in the APHIS network], a total of over 30,000 samples per day across [this] network can be tested using currently available equipment and proficiency tested personnel.” They also have options available to increase this capacity if needed. These data will provide critical information needed to appropriately respond to and manage any outbreak in a timely manner.

Given the experience of the recent outbreak where it took time for confirmatory tests to be conducted before the depopulation of an infected site could be initiated, APHIS has determined that it will use a preliminary diagnosis by a state diagnostic laboratory to initiate depopulation actions. The goal is to “depopulate all affected flocks within 24 hours of preliminary diagnosis. Rapid depopulation is necessary both to control disease spread—thus safeguarding other flocks—and to spare birds from suffering death by HPAI, which can have a mortality rate of 100 [percent]. Based on scientific data, APHIS, States, and industry agree that depopulation within 24 hours of an HPAI diagnosis is optimal to reduce the risk of disease spread.”

One of the concerns of growers is to be able to get back in business as quickly as they safely can. To this end, APHIS has studied the various means by which cleaning and disinfection (C&D) can be completed so that “the facility can be restocked with minimal risk of becoming re-infected.” In some cases during this last event, the C&D involved doing work that should have been part of the normal cleaning and maintenance that producers should carry out between production cycles. APHIS has determined that “the most cost-effective method to ensure elimination of the virus is to conduct dry cleaning and subsequent heating of the affected facility. We have determined that heating a facility to 100-120 degrees F for 7 days, with at least 3 of those days being consecutive, is adequate to eliminate HPAI.”

APHIS has also worked on identifying ways that it

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can engage in the proper disposal of the birds that have been killed in the depopulation process. The particular process used to dispose of the birds will depend on location-specific criteria and weather conditions. The goal is to minimize the potential spread of the virus.

For the USDA agencies, state agencies, and producers this recent outbreak was a learning process despite the plans that were in place to handle an outbreak of avian influenza. If the disease reappears this fall, this plan will be continuously updated as circumstances dictate. For all involved, each incident is a learning experience that can be used to improve the response of everyone involved.

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