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PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

Containment of avian influenza outbreak requires diligence by USDA and farmers

In the week since we last reported on the avian influenza epidemic in the US, the number of detections of the disease that have been reported has increased by 14 to 163. The total number of birds dying of the disease or being euthanized now stands at 33.8 million.

Three of the new detections were in the Central Flyway, which had not seen a new influenza event since April 24. One of these new events in the Central Flyway involved a 1.7 million chicken flock, the first one in that flyway in a chicken flock and also the first time the disease has appeared in Nebraska in this outbreak. The vast majority of avian influenza detections (87.1 percent) have been in the Mississippi Flyway.

The USDA has a strong surveillance program for avian influenza, conducting a routine testing program for "avian influenza in commercial poultry, the live-bird marketing system, and backyard flocks." These samples are collected by State and Federal staff. In addition, the USDA "tests for avian influenza in wild bird mortality events."

According to the Centers for Disease Control and Prevention (CDC) (http://tinyurl.com/8tgcdcr), "Avian influenza…viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species. Wild aquatic birds can be infected with avian influenza [Type] A viruses in their intestines and respiratory tract, but usually do not get sick…. Infected birds can shed avian influenza A viruses in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with the virus as it is shed by infected birds. They also can become infected through contact with surfaces that are contaminated with virus from infected birds." Therefore it is important for all poultry farms to take biosecurity seriously.

The USDA offers a two-page set of recommendations on protecting both backyard and commercial flocks from avian influenza (http://tinyurl.com/kbabask). Chief among the recommendations is to keep poultry away from any water or surfaces that could have been contaminated by wild fowl. In addition, growers need to protect against bringing the disease onto their place from other poultry operations either on their person or on equipment. The list for commercial producers is longer than that for owners of backyard flocks. Poultry owners are urged to "know the warning signs (sudden increase in bird deaths, sneezing, coughing, nasal discharge, watery or green diarrhea, lack of energy, poor appetite, drop in egg production, swelling around the eyes, neck, and head, and purple discoloration of wattles, combs, and legs); and report sick birds (call [their] local or State veterinarian, or USDA toll-free at 1-866-536-7593)."

Birds are susceptible to two different varieties of avian influenza low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI). It is possible for birds with LPAI to show no signs of infection or they may have lower egg production or ruffled feathers. With HPAI, bird mortality is high. Some waterfowl can be carriers of the disease without showing any signs of infection. It is also possible for LPAI strains to mutate into HPAI strains.

There have been 31 detections of avian influenza in chicken flocks accounting for 27 million birds that have either died of the disease or have been euthanized to prevent the spread of the disease. If the disease is found in one barn of a given operation then all of the birds on the premises must be euthanized. Over 90 percent of the chicken losses have occurred in egg laying operations. The US produces 8.54 billion broilers and 99.8 billion eggs.

Turkeys account for 116 of the avian influenza detections and account for 5.9 million bird deaths by disease and proactive culling. US producers raise 238 million turkeys a year.

Mixed flocks are responsible for 14 of the avian influenza detections and only one of those flocks was commercial, the remaining were backyard flocks. In total these involve 72,000 bird deaths. One detection of avian influenza was in a pheasant flock in Oregon with 5,803 birds.

Ten events involved over 1 million birds each for a total of 24.2 million birds. One of the problems facing farmers is finding ways of disposing of large numbers of birds. Until the birds can be disposed of properly the barns cannot be disinfected and readied to be brought back into production. A story about the problems of disposal can be found in the New York Times (http://tinyurl.com/ohrugk8).

The number of birds involved in 15 of the detections of avian influenza is listed the number of birds involved as pending. Three of these detections involve mixed poultry flocks which would be expected to involve less than 500 birds each. One of the detections where the number of birds involved was listed as pending was a chicken flock. So far the smallest chicken flock involved has had 33,000 birds. The remaining 11 flocks where the number of involved birds is listed as pending involve turkeys where flock sized can run from 4,000 to over 300,000 birds. This suggests that the current number is larger than the 33.8 million birds officially listed by the USDA.

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Clearly farmers, state agricultural agencies, the CDC and farmers have significant roles to play in controlling and reducing the current outbreak of two strains of highly pathogenic avian influenza. The advice that our mothers gave us when they said "cleanliness is next to godliness" may turn out to be excellent advice when it comes to reducing the potential for cross-contamination by humans or equipment moving from one flock to another.

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