Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

Fact Sheet

Avian Influenza Response Overview

Wild birds are natural reservoirs for avian influenza viruses and the majority of these viruses circulate in wild bird populations with little or no impact on their health. Certain types of AI virus, particularly H5[1] and H7 subtypes are generally harmless (low pathogenic) to wild birds but have the potential to mutate into illness-causing forms (highly pathogenic) when introduced into commercial poultry.

The Canadian Food Inspection Agency (CFIA) protects livestock in Canada from serious animal diseases. Within this mandate, the CFIA implements disease control measures in response to specific AI viruses that can cause significant illness and death in domestic poultry species such as chicken and turkey. These measures are intended to prevent, contain and eradicate AI outbreaks. The measures are consistent with those recommended by the World Organization for Animal Health.

The CFIA has developed response strategies for all anticipated findings of AI in wild birds and domestic poultry. It should be noted that these strategies are subject to adjustment depending on the circumstances of each case, such as local geography, concentration of poultry operations in a given area or the time of year.

Detection of Avian Influenza in Wild Birds

Low Pathogenic AI

Low pathogenic AI viruses are known to circulate in wild bird populations throughout the world and most do not pose significant health risks to poultry when proper on-farm biosecurity measures are in place. The CFIA does not generally take specific action in response to findings of low pathogenic AI in wild birds. Under some circumstances, a finding of H5 or H7 virus in wild birds could prompt increased surveillance in domestic poultry and/or recommendations to industry to enhance biosecurity measures.

1 The Asian strain of H5N1 is an exception, as it can cause illness and mortality in wild birds.

Highly Pathogenic Avian Influenza

Asian H5N1 Strain

CFIA disease control measures will be activated if the Asian H5N1 strain is found in wild birds. This virus, which is currently present in Asia, Africa and Europe, is marked by rapid and high mortality in infected birds. It has also been associated with illness and death in humans that have had close contact with infected birds. In response to the detection of this virus, the CFIA's actions include movement restriction and surveillance components.

Movement Restriction

Quarantines restricting the movement of poultry or poultry products are placed on poultry operations within 3 km of the location of a detection of Asian H5N1 in a wild bird. The precise boundaries of this zone will be determined by the poultry density and distribution in the area and it could be increased in size depending on an assessment of the circumstances.

Biosecurity

The poultry industry and backyard flock owners in an affected region or province will be reminded of the need to practice strict biosecurity and recommended measures to achieve it.

Surveillance

Birds from poultry operations within 10 km of the location of an Asian H5N1 positive wild bird detection are monitored for evidence of avian influenza infection.

Highly pathogenic AI (Non Asian)

Very little scientific evidence exists to support HPAI non-Asian in wild birds. In fact, this has never been seen. The Canadian wild bird survey conducted in 2005 identified many different AI viruses including four H5 subtypes - H5N9, H5N3, H5N2 and a North American strain of H5N1. These viruses were collected from healthy birds and testing confirmed all of the viruses were low pathogenic. Should a high-path non Asian strain occur, however, we would implement all of the controls and surveillance activities established to deal with the Asian strain of the disease.

Detection of Avian Influenza in Domestic Poultry

Low Pathogenic AI (non H5/H7)

In the event of a find of low pathogenic (non H5/H7) AI virus in domestic poultry, the CFIA may conduct a visit to the farm origin, inspect for possible breeches of biosecurity and recommend corrective measures to the operator. As non H5/H7 viruses do not become highly pathogenic, they do not pose a serious threat.

Low Pathogenic H5/H7

The Canadian Food Inspection Agency implements aggressive control measures in response to low pathogenic H5 or H7 viruses, due to their potential to mutate into to highly pathogenic forms. The response includes, quarantine of infected premises, depopulation of infected flocks and the establishment of a control zone in a 3km radius around an infected premises. Movement of poultry and poultry products in these zones is restricted, and testing of all commercial flocks is conducted for a 21 day period following the most recent finding. The size of this zone could be increased depending on an assessment of circumstances, including the density of poultry operations in the area.

Highly Pathogenic AI including Asian H5N1

Recognizing that all highly pathogenic AI viruses, including the Asian H5N1 strain, can cause serious illness and often fatal illness in poultry, the CFIA takes rapid and decisive action when these viruses are suspected and confirmed in domestic poultry flocks. The principal measures are movement restriction, disease containment and surveillance.

Control Area

In the event of a finding of a highly pathogenic AI in domestic poultry, a control area, which could encompass a region or province would be established. All movement of poultry and poultry products into and out of this area would be restricted. The size of the control area would be adjusted subsequent to an assessment of the scope of the outbreak.

Movement Restriction

Quarantines restricting the movement of poultry and poultry products are placed on poultry operations located in the 3 km area around the infected premises and other poultry operations that may have had contact with infected premises. The quarantine zone could be expanded based on an assessment of circumstances such as density of poultry operations. Traffic and access routes into and out of this zone would be restricted and cleaning and disinfection stations would be established at the perimeter.

Disease Containment

All infected flocks are humanely destroyed and carcasses are disposed of using environmentally acceptable methods. While onsite disposal is the preferred method, other methods could be employed depending on factors such as climate and available facilities. Infected premises are thoroughly cleaned and disinfected before new birds can be introduced. When highly pathogenic virus is confirmed, flocks within 1 km of the infected premises and those from poultry operations that may have had contact with an infected premises are also humanely destroyed and disposed of as a pre-emptive measure. Workers wear protective equipment to protect personal health.

Biosecurity

The CFIA, the implicated provincial/territorial government and industry would employ stringent biosecurity measures when dealing with infected flocks, investigating an outbreak or conducting surveillance activities. All producers would be asked to enhance their biosecurity by adopting aggressive measures to restrict access to their premises, including posting of signage requiring that all visitors obtain the owner's permission to come on the premises.They would also be expected to conduct cleaning and disinfection of all forms of traffic.

Surveillance

Birds from quarantined premises are monitored for evidence of avian influenza infection. In the case of highly pathogenic virus, birds on premises within 10 km of infected premises are also monitored.

Canada's AI response measures are consistent with those recommended by the World Organization for Animal Health. The Minister of Agriculture and Agri-Food has authority to initiate additional response measures if required.

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