

Avian Influenza Handbook

A guide to events and protocols when Avian Influenza is detected

Disclaimer

The Canadian Food Inspection Agency (CFIA) holds the authority for managing cases of Avian Influenza in Canada.

The information presented in this handbook is meant to serve as a guide for industry to the process and steps that are involved with managing a case of Avian Influenza.

The response to any Avian Influenza diagnosis is led by CFIA and guided by their [AI Hazard Specific Plan](#) and associated Standard Operating Procedures, which describes the principles of controlling the disease, defines the different control zones used for containment, and describes actions that can be taken in the vicinity of the Infected Place.

This document includes the policies and procedures of CFIA's 2022 Event Response Plan to address the specifics of the 2022 HPAI virus. Future outbreaks and associated mitigation measures (surveillance, permitting, etc.) may be handled differently based on the virus causing the outbreak.

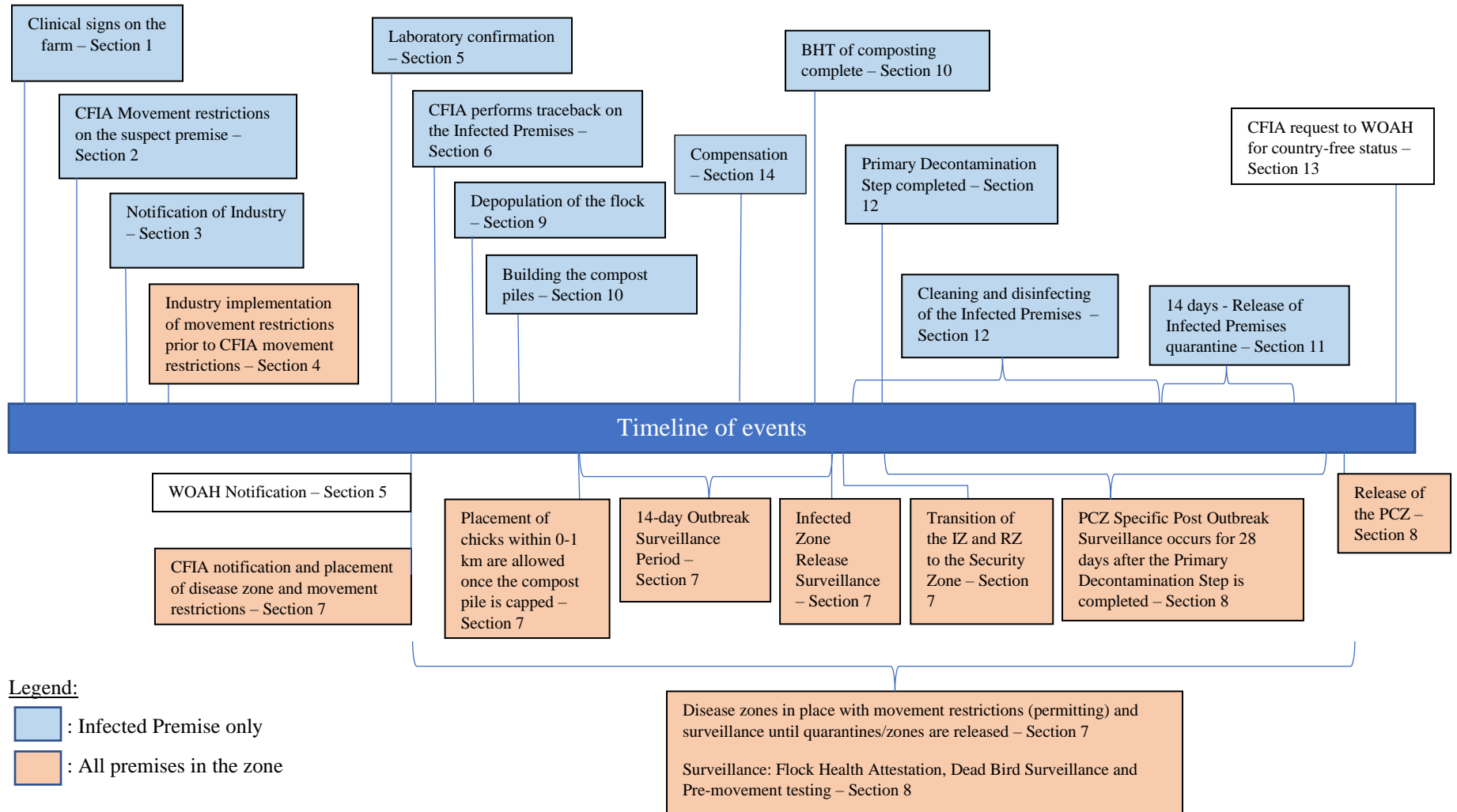
Many aspects of disease management are dependent on the specific details of the outbreak and CFIA has the ability to manage situations differently. As a result, the information provided in this document can change with each disease response scenario.

Table of Contents

Projected Process Steps for Cases of Avian Influenza	3
Avian Influenza – Background Information	4
Mental Health Resources	5
Media Inquiries	5
Section 1 - What to do if you Suspect Avian Influenza on your Farm	6
Section 2 – CFIA Movement Restrictions on the Suspect Premise	7
Section 3 – Industry Notification	9
Section 4 – Industry Implementation of Movement Restrictions prior to CFIA Movement Restrictions	10
Section 5 – Laboratory Confirmation	12
Section 6 – Tracing Activities on the Infected Premise and Suspect Premises	13
Section 7 – Control Zones, Movement Restrictions and Permitting	14
Section 8 – Surveillance: Flock Health Attestation, Dead-Bird Surveillance and Pre-Movement Testing.....	18
Section 9 – Depopulation of an Avian Influenza positive flock.....	21
Section 10 – Composting/BHT	22
Section 11 – Re-Stocking & Removal of Quarantines	23
Section 12 – Cleaning and Disinfection of the Infected Premise	25
Section 13 – Country Freedom and AI Surveillance - Post Outbreak	26
Section 14 – Compensation	27

Projected Process Steps for Cases of Avian Influenza

The diagram below provides an overview of the projected steps and timeline of events for managing a case of Avian Influenza in a commercial Primary Control Zone.



Avian Influenza – Background Information

Avian influenza (AI) is a contagious viral infection that can affect several species of poultry, such as chicken and turkey, as well as pets and wild birds.

AI viruses can be classified into two categories – low pathogenic (LPAI) and high pathogenic (HPAI) – based on the severity of the illness caused in poultry. HPAI viruses typically cause severe illness and mortality, whereas LPAI viruses typically cause little or no clinical signs.

Birds affected with AI show a variety of clinical signs that may involve the respiratory, digestive, reproductive, or nervous systems.

Clinical signs of LPAI include:	Clinical signs of HPAI include:
<ul style="list-style-type: none">• Decreased food consumption;• Huddling, depression, closed eyes;• Respiratory signs (coughing and sneezing);• Decreased egg production.	<ul style="list-style-type: none">• Sudden onset of high mortality• Marked depression with ruffled feathers;• Decreased feed consumption;• Excessive thirst;• Decreased or cessation of egg production;• Mild to severe respiratory distress (including coughing, sneezing, and excessive eye discharge);• Swollen wattles and combs and watery greenish diarrhea;• Nervous signs are not frequently observed in poultry but can include a lack of coordination and an inability to walk and stand.

Susceptible Wild Species

Avian Influenza is typically found in waterbirds including waterfowl and shorebirds (ducks, geese, etc.) but has also been isolated from a wide variety of birds (owls, eagles, crows, ravens, raptors, corvids/scavengers, sparrows, pigeons and blue jays). Clinical signs in wild birds include neurological disorders (e.g. abnormal head movements or inability to stand up and move around) or mortality. Farmers should stay as far away from suspect wild birds as possible. During the 2022 outbreak, AI was also isolated from wild mammals (e.g. foxes).

Incubation Period

The incubation period varies based on the dose and virulence of the virus strain but can be up to 14 days post exposure.

Environmental Persistence

The length of time the AI virus can persist is highly dependent on the environmental conditions. In cold, wet conditions the virus has been shown to survive for very long periods of time (i.e. greater than 3 months).

Use of Disinfectants

AI viruses can be inactivated using heat, sodium hyperchlorite solutions, formalin, and commercial disinfectants.

Follow the manufacturer's recommendations for application, paying strict attention to the concentration required and contact time.

Mental Health Resources

The occurrence of Avian Influenza on your farm or a neighbouring farm can be an incredibly stressful event. It's important to take care of your health and to access the appropriate resources as needed.

Refer to your provincial board for province-specific mental health resources and hotlines.

Additional resources for mental health support, including provincial call centers, are:

- <https://animalhealth.ca/mentalhealth/>
- <https://www.domore.ag/crisis-contacts>
 - Article by the Do More Agriculture Mental Health Foundation: [Other Ways to Check in Besides Asking “How Are You Doing?”](#)
 - Article by the Do More Agriculture Mental Health Foundation: [The Stress Farmers Are Facing With Avian Influenza](#)

Media Inquiries

If you receive any calls from media, contact your provincial board prior to responding.

Section 1 - What to do if you Suspect Avian Influenza on your Farm

The first symptom of Avian Influenza most often seen by farmers is either a marked change in feed and water consumption, or a change in mortality.

Upon suspicion of Avian Influenza, farmers should:

- Call their veterinarian
- Call the CFIA Animal Health District Office
- Inform their provincial board of a suspect case of Avian Influenza
- Implement a self-quarantine:
 - Restrict movement off the farm to prevent any infected things (poultry, poultry products or equipment) from leaving the property
 - Restrict movement onto the farm, and ensure that strict biosecurity measures are taken for any movement that does occur
 - Wear personal protective equipment (PPE) when going into a suspect barn with Avian Influenza, or dealing with mortalities from those premises
 - Refer to your provincial board protocols for self-quarantines

Note: Quick notification of CFIA is essential to control the spread of Avian Influenza and to trigger compensation under the Health of Animals Act.

Section 2 – CFIA Movement Restrictions on the Suspect Premise

Once CFIA is notified of a suspect Avian Influenza case, CFIA staff will visit your farm to begin an investigation.

CFIA will visit the farm and take samples for laboratory testing.

- If CFIA also suspects Avian Influenza, they will implement a quarantine (also called a Declaration of Infected Place) to control the potential spread of disease until laboratory results are known.

CFIA will provide documentation to the farmer as to the specific rules of the quarantine.

- As part of the CFIA quarantine, there will be a stop movement for any animal movements on or off of the farm (all entry and exit points from the premise will be controlled), and CFIA will implement biocontainment procedures for any entry and exit of the barns/buildings on the farm site for personnel, as well as any vehicles needed to provide essential services to the flock (C&D will be required for vehicles leaving the premises).
- Any movement on the suspect premises will require CFIA approval.

CFIA will refer to the flock as a “suspect case” until there is laboratory confirmation.

When CFIA visits the farm, they will also conduct a “Premise Investigation Questionnaire” to begin the Avian Influenza tracing exercise – this will help obtain a history of the animal, personnel, and equipment movement on and off the farm. Being able to quickly track all movements of animals, personnel and vehicles will have a significant impact on being able to quickly control the spread of the virus.

- As a result of the premise investigation, CFIA may further investigate other farms with significant links to the Infected Premise, and these premises may also be placed under quarantine.
- A “significant link” premises is defined as a premises that has had direct or indirect contact with birds, personnel or things from the premises under investigations.

If Avian Influenza is confirmed, be prepared for multiple contacts from CFIA performing various roles (note: phone calls may be from out-of-province phone numbers). These can include:

- Initial testing and premise Investigation team
- Traceback epidemiological survey team
- Biocontainment and Biosecurity team
- Depopulation team
- Disposal team
- Cleaning and Disinfection team
- Compensation team

Upon confirmation of Avian Influenza, CFIA usually assigns a CFIA Liaison to the Infected Premises to help streamline questions and processes with CFIA.

Biocontainment on the Infected Premise:

Biocontainment rules will be established at the Infected Premise to prevent the virus from spreading beyond the Infected Premise. CFIA personnel, and anyone else, entering the Infected Premise must follow these rules.

These biocontainment rules apply both to people and things entering and exiting the premises.

The rules could include:

- wearing PPE (coveralls, boot covers, gloves, masks, etc.) and performing proper donning and doffing protocols,
- decontaminating objects that must be removed from the infected premises;
- taking a shower in situations in which the level of exposure to the infectious material is deemed to be high; and
- having no contact with other susceptible species for at least 48 hours following entry to the infected premises.

CFIA's biocontainment and biosecurity unit is responsible for ensuring that these rules are followed during the control and response operations (i.e. destruction, disposal, cleaning, and decontamination).

Farmers will be required to ensure that all entry points to the premises are protected (i.e. gates closed and/or access points barricaded). Signs are to be also used at all entry points ("STOP" signs) with clear language indicating "no trespassing" and that biosecurity is in effect.

Further information on operational guidance regarding biosecurity on an Infected Premise can be made available to affected farmers.

Section 3 – Industry Notification

When Avian Influenza is suspected on your farm, it is important to notify your provincial board office immediately.

This notification is important to communicate the need for enhanced biosecurity and movement controls throughout the entire industry to help prevent the spread of the virus.

This is an important step for the farmer to perform as the location and farm contact information is confidential, and CFIA is not in a position to be able to share this with industry.

Notifying your provincial board immediately will help to trigger the provincial industry's emergency response procedures and can help to significantly limit the impact of the virus.

Section 4 – Industry Implementation of Movement Restrictions prior to CFIA Movement Restrictions

The period between identifying a suspect case, confirming the laboratory results and the implementation of a CFIA Primary Control Zone can take several days.

During this period, industry is asked by CFIA to voluntarily implement enhanced biosecurity and movement controls to help limit the spread of the virus. Each provincial emergency response team will have specific guidelines for these controls.

In general:

- Industry traffic around the Infected Premise and in the 3km area around the Infected Premise should be limited to essential vehicles only (e.g. feed deliveries).
- Essential industry traffic should be routed to avoid high density areas and the Infected Premise and use paved roads whenever possible. If the vehicle must drive over gravel roads, use caution and reduced speeds.
- Essential industry vehicles are to be free of any visible contamination with mud, feces, or other similar matter before entering any premises. If the vehicle is not visibly clean, it should proceed directly to a truck wash station prior to entering any premises.
- Vehicles entering an Infected Premise should be cleaned upon exit of the premises paying particular attention to remove visible contamination and spray disinfectant over the wheels, wheel arches, mudguards, and underside of vehicle to achieve required contact time. If the vehicle is not visibly clean upon exiting the premise with susceptible species, it should proceed directly to a truck wash station.
- Personnel should not enter barns unless absolutely necessary.
- While performing these activities, personnel should wear personal protective outerwear, including but not limited to disposable foot covers and gloves. Clean and disinfect boots, or remove disposable boot covers and spray with disinfectant for required contact time depending on disinfectant used, and discard in any garbage receptacle on the premises prior to exiting the premises.

Heightened Biosecurity Measures for Industry Personnel:

- Travel onto farms should be limited to essential services only.
- Roads that are contaminated with organic material should be avoided.
- Washing vehicles between farms is ideal. At a minimum, all deliveries or loading in or near a suspect premises should be last on the route.
- Drive slowly when near barns to minimize dust.
- Avoid parking by exhaust fans and air inlets unless required.
- Avoid parking downwind from the barns, if possible.
- Trucks should have steps, wheel wells and tires cleaned and disinfected before leaving the premises or before proceeding with, any other delivery/loading.

- If not using disposable biosecurity apparel provided by the farmer, wear clean clothes and clean and disinfect boots at each farm.
- Use disinfectants such as Virkon, Accel, VIROCID®, Bisentry, Biosolve Plus, Biofoam, etc., abiding by contact time and concentrations as per the label.
- Be sure to clean any equipment used on-farm that could become contaminated.
- Sign the visitor logbook.
- Keep your own records identifying where you have been and when.

Section 5 – Laboratory Confirmation

The diagnostic samples taken by CFIA during the farm visit will be sent to the National Centre for Foreign Animal Disease (NCFAD) in Winnipeg, and a CFIA-approved laboratory in the province if applicable.

The timeline to laboratory results can vary dependent on several factors – but these results may take several days to obtain.

CFIA's AI Hazard Specific Plan allows CFIA to issue a notice of destruction based on a CFIA-approved provincial laboratory positive result, in combination with clinical signs at the farm.

Once the test results are known, CFIA will inform the farmer.

A positive laboratory result triggers the subsequent depopulation, zoning, movement protocols and surveillance measures to control the spread of the virus.

Positive laboratory results from NCFAD will also trigger CFIA to notify the WOA (World Organization for Animal Health, previously the OIE). While a positive Avian Influenza case in a wild bird or on a non-commercial farm should not trigger international export restrictions, a positive Avian Influenza case on a commercial farm can trigger these restrictions.

Section 6 – Tracing Activities on the Infected Premise and Suspect Premises

CFIA will conduct an epidemiological survey on Infected Premises and Suspect Premises to determine the location and potential spread of the virus.

- This survey will be conducted on premises in proximity to the Infected Premises (e.g. 3km), premises with high-risk epidemiological links and can include those in the Restricted Zone.
- When CFIA visits the farm, they will be implementing biocontainment protocols and will be using full biosecurity protection (coveralls, boots, eye and respiratory protection, gloves, etc.).

Be prepared for the epidemiological survey to take a significant amount of time (e.g. 2 hours). Some of the information will likely be collected by phone prior to the farm visit. Have the following information at hand for these questions.

Examples of Epidemiological Survey Content

- General flock health
 - Clinical signs, mortality, production records, feed and water intake, etc.
 - Veterinary records and/or laboratory reports
 - Farm veterinarian contact information
- Premises information
 - Production type and number of birds
 - Number of barns
 - Map of the premises (including Controlled Access Zone and Restricted Area)
 - Location of power and water supplies
- Biosecurity considerations
 - Parking area and location to meet the owner
- Movements of immediate concern
 - Identification of recent movements (e.g. feed, catching crews, vaccination crews, hatcheries, veterinarians, farm employees, manure, utilities, visitors)
 - Future placements, shipments, feed deliveries, etc.
- A detailed description of the farm management practices (e.g. OFFSP SOPs)
 - Records of placements, shipments, feed deliveries, etc.
 - Farm visitor logbooks
 - Movement of personnel, vehicles and equipment on and off the farm for the past 21 days
- Identification of any linked premises (same owner or management, shared equipment, etc.)

CFIA's disease response follows a risk-based approach. CFIA will prioritize the premises during the trace-out process by giving priority to premises that pose the greatest risk of disease spread or amplification.

Section 7 – Control Zones, Movement Restrictions and Permitting

Once Avian Influenza is confirmed by the laboratory, CFIA implements a Control Zone and associated movement controls associated with the Control Zone.

There are two Control Zone options that CFIA has used for controlling Avian Influenza:

- 1) Avian Influenza Control Zone
- 2) Primary Control Zone

The difference between the two zones is how CFIA controls movement. The Avian Influenza Control Zone requires licenses for movement on and off individual premises, whereas the Primary Control Zone requires permits for movements of all poultry and poultry by-products into, out of, within and through the Control Zone.

Note: CFIA is managing the 2022 outbreak using Primary Control Zones.

In both cases, the “Infected Zone” is defined by a zone of 0-3km surrounding the Infected Premise, while the “Restricted Zone” is defined by a zone from 3-10km surrounding the Infected Premise.

- These distances can be modified dependent on the topography and a situational assessment of environment (e.g. poultry density) surrounding each IP.
- If a farm is identified as an epidemiological link, they may be required to act as though they are in an Infected Zone or a Restricted Zone, regardless of where they are located.
- If additional farms are declared Infected Places, the sizes of the infected and restricted zones would change accordingly.

1) Avian Influenza Control Zone

- In this case, movement restrictions are applied to individual premises in the Infected Zone and the Restricted Zone – these premises are placed under quarantine - and licenses are needed for each movement of poultry (placements, shipments) and poultry related products (equipment, manure, feed, renderers etc.).
 - Infected Zone (0-3km):
 - Premises are declared “Infected Places”
 - Licenses are required for both movement of poultry and poultry related products on and off of the premises.
 - Restricted Zone (3-10km):
 - Licenses are required for movement of poultry and poultry related products off of the premises only (note: a feed truck may need a permit if it has subsequent deliveries after a farm in the Restricted Zone).
 - There are no restrictions as to what can move onto the premises.
- With an Avian Influenza Control Zone there are no restrictions on the movement of poultry and poultry related products through the zone (i.e. no licence is required).

- Movement on the same site does not require a license (e.g. movement of manure to a storage pile on the same site, on-farm feed manufacturing delivering to a barn on the same premises).
- Each application for a movement license will require a documented enhanced biosecurity procedure. For example, the specific disinfectant to be used must be named along with the specific contact time.

2) Primary Control Zone

- The Primary Control Zone is comprised of the Infected Zone (0-3km) and the Restricted Zone (3-10km).
- In this case, all movements within the Control Zone require a permit for the movement of birds, and poultry by-products in, out, within and through the Control Zone.
- Two different permits are used: Specific permits and General Permits.
 - Both have biosecurity requirements for movement permissions.
- CFIA has the authority to decide which poultry and poultry related products movements require a Specific Permit or a General Permit. These are based on a situational assessment of the outbreak and can change for subsequent cases.
 - For the 2022 outbreak, CFIA has developed an interactive tool to view the permitting requirements. [Click here](#) to access the webpage.
- For more information on Primary Control Zones and permitting, see [this presentation](#) provides a description of the permitting process used in Alberta during the 2022 Avian Influenza situation.

Specific Permits

- Specific permits are used for higher risk activities such as the transportation of live poultry.
- Specific permits need to be completed for each movement, and these must be submitted to CFIA for approval prior to the movement occurring.
- To help streamline working with the CFIA permitting office, these specific permits are generally applied for by the service provider (e.g. hatchery, processor) performing the movement. Follow the specific direction provided by your provincial board.
- A documented enhanced biosecurity procedure is required with each specific permit application. For example, the specific disinfectant to be used must be named along with the specific contact time.
- For live bird movements, additional requirements of the specific permits can include pre-movement testing and Flock Health Attestation prior to movement.

General Permits

- General Permits are used for lower risk activities such as the transportation of feed or poultry products (fresh, frozen, processed and further processed) to retail or food service.
- General permits are required for anyone movement in, out, within or through the Control Zone.

- General permits can be obtained on a self-serve basis by completing the form that is provided by CFIA. These completed forms are then sent to CFIA via email. Anyone performing these movements must have a print or electronic copy of the general permit with the products being moved.
- General permits can be used immediately after they are filled out and submitted.
- A documented enhanced biosecurity procedure is required with each general permit; the specific procedure is detailed in the permit.
- The general permits may serve as a source of movement information should a company become implicated in a disease investigation and should be maintained for such purposes.

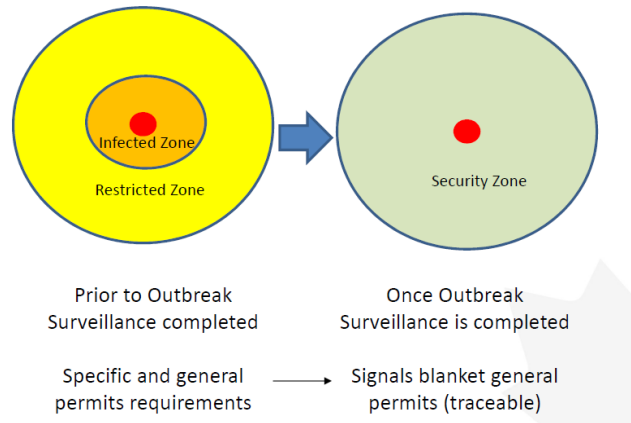
Types of Primary Control Zones

- For the 2022 HPAI event, CFIA has developed 2 types of Primary Control Zones. There are:
 - Commercial Primary Control Zone
 - Non-Commercial Primary Control Zone
- These two different zones will have different surveillance and permitting associated with them.
- CFIA uses a risk categorization tool to determine the type of zone needed by assessing the size, commercial nature of the farm, and if there has been any direct or indirect contact with a commercial premises during the virus critical period.

Commercial Primary Control Zone

- This zone is used when the Infected Premises is defined by CFIA as a commercial premises.
- Once the 14-day outbreak surveillance testing and the Infected Zone Release Surveillance testing are complete, the Infected Zone and Restricted Zone are transitioned to a Security Zone. This transition effectively changes the types of permits needed for movement.
 - Once the Security Zone is in place, all movements will only require a general permit.
- For an up-to date description of movement requirements and the types of permits required, see the [CFIA Permitting and Conditions website](#).
- In order to revoke a Commercial Primary Control Zone, PCZ-specific post-outbreak surveillance will be implemented, as is also the case for a Non-Commercial Primary Control Zone.

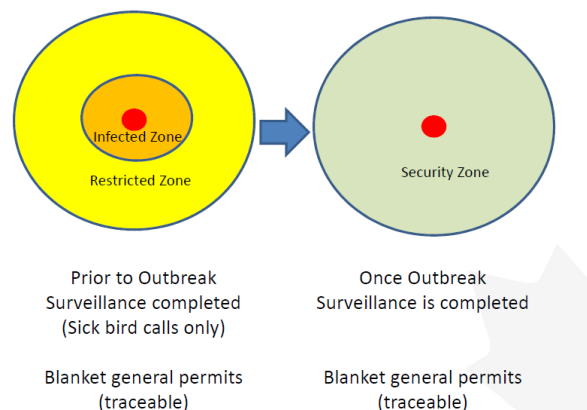
Figure 1: Progression of Zones within a Commercial Primary Control Zone



Non-Commercial Primary Control Zone

- This zone is used when the Infected Premises is defined by CFIA as a non-commercial premises.
- This zone is for smaller operations and is implemented for trade purposes; however, the movement restrictions and types of surveillance required are diminished.
- All movements only require a general permit, and the type of surveillance performed is limited to passive surveillance/sick bird calls.
 - For an up-to date description of movement requirements and the types of permits required, see the [CFIA Permitting and Conditions website](#).
- In order to revoke a Non-Commercial Primary Control Zone, PCZ-specific post-outbreak surveillance will be implemented, as is also the case for a Commercial Primary Control Zone.

Figure 2: Progression of Zones within a Non-Commercial Primary Control Zone



Section 8 – Surveillance: Flock Health Attestation, Dead-Bird Surveillance and Pre-Movement Testing

There are a number of different surveillance requirements for farms within the 0-3km Infected Zone and the 3-10km Restricted Zone.

The types of surveillance described below have been used to manage cases of Avian Influenza in 2022. Actual surveillance requirements may differ for future cases based on CFIA’s situational assessment at the time of the outbreak.

Active Surveillance Procedures in the Different Zones:

Type of Surveillance	Commercial Primary Control Zone			Non-Commercial Primary Control Zone
	Infected Zone (0-3km)	Restricted Zone (3-10km)	Security Zone	Infected Zone and Restricted Zone
Baseline Surveillance	Only for ducks and geese			
Dead-Bird Surveillance during the Outbreak Surveillance Period	2x/week			
Passive Surveillance/Sick-bird calls	X	X	X	X
Pre-Movement Testing	X	X		
Pre-Movement Flock Health Attestation	X	X		
Infected Zone Release Surveillance	X			
Primary Control Zone Post-Outbreak Specific Surveillance to revoke the PCZ			X	X

Baseline Surveillance:

- When a Primary Control Zone is initiated, CFIA will perform baseline testing only on commercial duck and geese farms within the Infected Zone.

Dead-Bird Surveillance during the Outbreak Surveillance Period:

- CFIA will conduct dead-bird surveillance twice a week during the Outbreak Surveillance Period on farms in the Infected Zone. This surveillance will begin as soon as an infected premises is known and the commercial farms within the Infected Zone have been

identified. This surveillance will continue for 14 days after the compost pile has been capped.

- CFIA will supply tote bins for each barn on the farms involved to collect samples from poultry that have died of natural causes in the previous 24 hours. CFIA will coordinate this surveillance, and the specific day for sampling, with the farmer.
- The protocol for dead-bird sampling usually involves the following:
 - Collect a maximum of five (5) dead birds from each barn on your farm a maximum of 24 hours prior to your designated pickup dates. Note: collect the most recently dead birds for sampling if possible. Place the birds into the supplied bags, close with cable tie and place into the corresponding marked tote for each barn.
 - After placing the birds in the tote, close lid tightly and place bin at the end of your driveway on the morning of your pick-up day.
 - A CFIA Inspector, wearing biosecurity equipment, will open the tote, complete throat and cloacal swabs on the birds, and tape the bin closed with fluorescent tape to indicate sampling has been completed.
 - After the dead birds are sampled by the CFIA, the birds, plastic bags and colored tape may be disposed of in the usual manner used on your premise. The tote bin is then to be washed thoroughly with a soap solution concentrated enough that it forms an abundance of suds. The tote bin should then be thoroughly rinsed. The water can be disposed of on farm property.

Passive Surveillance/Sick-bird calls:

- Throughout the existence of a Primary Control Zone, CFIA will request that farmers notify CFIA of any increases in mortality or changes in production levels. CFIA will provide contact information to make this notification.

Pre-movement testing:

- In both the Infected Zone and the Restricted Zone, flocks are required to:
 - Have participated in dead bird surveillance twice in the week prior to slaughter, or
 - Complete a pre-movement HPAI test and receive a negative test result within 72 hours of the scheduled movement
 - This pre-movement test can be performed by a CFIA veterinarian or a private veterinarian.
 - Pre-movement testing usually involves swabbing 60 birds from the barn being shipped. The farmer has significant control over this process in terms of determining how the birds are caught and provided for sampling – the process goes faster if the farmer has them caught/penned in advance.
 - This testing is not required when moving from the Restricted Zone to processing within the same Primary Control Zone.

Pre-Movement Flock Health Attestation:

- All farms in the Infected Zone and the Restricted Zone will be required to submit a Flock Health Attestation form to CFIA within 24 hours prior to movement of live birds to processing. This form will be provided by CFIA.

Infected Zone Release Surveillance:

- Infected Zone Release Surveillance is performed in the Infected Zone prior to transitioning the Infected Zone and the Restricted Zone to a Security Zone.
- This surveillance only occurs on commercial premises within the Infected Zone.
- This surveillance will consist of sampling 60 birds per barn or airspace.
- Once this testing is complete, with no positive AI results, CFIA will transition both the Infected Zone and the Restricted Zone to a Security Zone.

Primary Control Zone Specific Post-Outbreak Surveillance to revoke the PCZ:

- Prior to revoking the Primary Control Zone, CFIA will perform surveillance; this surveillance period will last for 28 days.
- The 28 days begins once the primary decontamination step on the infected premises is completed.
 - “Primary decontamination” is completed once the litter and organic material are removed from the barn, the barn is blown down and the equipment used for destruction or disposal has been cleaned and disinfected.
- The purpose of this surveillance is to be able to demonstrate to international trading partners that the virus has been effectively eradicated.
- Upon successful conclusion of the Post-Outbreak Surveillance with no positive AI samples, the Primary Control Zone will be revoked. All existing permitting requirements will cease at this point. (Note: it is possible that the Infected Premises remains quarantined even after the Primary Control Zone has been revoked).
- The number of commercial premises within the Primary Control Zone will dictate the sample size for the Post-Outbreak Surveillance. The surveillance will occur in both a commercial and a non-commercial Primary Control Zone. This surveillance will consist of:
 - Dead-Bird Surveillance until 10 birds/farm have been sampled during the 28 days, or
 - A single on-farm visit during the 28-days where swabs from 10 birds will be taken.

Section 9 – Depopulation of an Avian Influenza positive flock

Canada's strategy to control Avian Influenza is stamping out – this involves depopulating positive flocks.

CFIA is responsible for the oversight of humane depopulation of Avian Influenza positive (H5 or H7) flocks. Historically CFIA has performed depopulation, or contracted to have depopulation performed, but the depopulation may also be performed in conjunction with industry or provincial governments.

Flocks will be humanely depopulated on farm, using carbon dioxide, other recognized mixtures of gas, or another approved method (e.g. cervical dislocation). Whole barn gassing with CO₂ is the preferred method.

Prior to conducting depopulation, extensive work will be required to thoroughly seal the barn.

CFIA's policy is to pre-emptively depopulate all flocks on the same premises as the infected flock. However, CFIA will evaluate on a case-by-case basis if there is an option of not depopulating all flocks on the same premises. The following criteria will be used to evaluate if a premises can be partially depopulated:

- The barns are separated by more than 200m
- All poultry are raised inside barns
- Biocontainment on the farm site is possible (e.g. separate entry and exit routes)
- Biosecurity practices are implemented
- The barns are managed as separate entities (e.g. dedicated equipment and personnel)

Producers should contact CFIA for the full list of criteria. Interested producers will need to submit a request to CFIA for assessment.

Any premises that is permitted a partial depopulation will be subject to additional surveillance and movement protocols as defined by CFIA.

Farmers are provided compensation by the CFIA for all flocks that have been ordered destroyed by the CFIA (see Section 14).

Section 10 – Composting/BHT

Once depopulation is complete, compost piles are used to inactivate the Avian Influenza virus. The critical process is the BHT (Biological Heat Treatment) to allow for the appropriate time/temperature process to occur.

Building of the compost piles can either be performed by the farmer, or contracted to a 3rd party.

In either case, CFIA is responsible to oversee the compost/BHT process and will approve the composting process and the procedures used to build the compost piles.

- If the farmer performs or contracts the composting services, CFIA will provide compensation to cover the composting process. Refer to CFIA for more precise information. The compensation provided for composting is over and above the compensation maximums listed in the Health of Animals Regulations.

Prior to beginning the composting, CFIA will have a Disposal Technical Specialist or Veterinarian work with the farmer through the disposal process to help develop the plans and assist and guide the farmer through the appropriate disposal actions. Each outbreak situation and barn/farm is unique and therefore disposal options and procedures are assessed on a case-by-case basis and are adapted to the specific situation of each premise.

- In-barn composting is the preferred method.

The timeline for composting is highly dependent on the size of the operation and the success of getting the compost piles up to, and maintained at, temperature. The compost piles will need to be held for 6 days at a minimum temperature of 37C for the BHT (Biological Health Treatment) to be completed. CFIA will monitor the temperature of the compost piles daily.

Once complete, CFIA will issue a letter to the farmer indicating the BHT process is complete. At this time, the compost piles are now the responsibility of the farmer to remove from the barn prior to Cleaning and Disinfection. A secondary composting process, which is not overseen by CFIA, may be needed to fully compost the carcasses.

A further description of how to build the compost piles can be made available to affected farmers – this also includes a Standard Operating Procedure template for each farm to describe the processes on their farm.

Section 11 – Re-Stocking & Removal of Quarantines

All disease response situations are different, and CFIA will perform a situational assessment to determine re-stocking protocols and removal of quarantines. The information provided below should be confirmed with CFIA on a case-by-case basis for each outbreak.

For the most up-to-date information, see the [CFIA Permitting and Conditions website](#).

Re-Stocking of Non-AI positive premises within each Zone

- **Infected Zone:**
 - Within 0-1km of the Infected Premises, re-stocking is prohibited until the compost piles are capped (or disposal has been completed).
 - Within 1-3km of the Infected Premises, re-stocking can occur as long as barn placement conditions from CFIA are met. These placements conditions are:
 - Placement must occur in a fully confined barn;
 - Barn has undergone cleaning and barn preparation for placement of day-old poultry as per commercial industry standards;
 - There is new bedding in the barn ready for the day-old poultry to be placed, before the barn being heat-treated;
 - The barn for day old poultry placement has been heat-treated to 30°C, according to normal industry standards, for at least three days;
 - CFIA determined bio-containment and biosecurity conditions for the pick-up and transportation of the birds must be met;
 - A biosecurity SOP for commercial transporters must be submitted to CFIA for review and approval (this activity only needs to occur once if the operator uses the same transporter); and,
 - Biocontainment and biosecurity conditions as per reviewed protocol and general biosecurity and biocontainment requirements to be followed by all holders of licences or permits.
- **Restricted Zone:** Re-stocking can occur on premises within this zone.
 - If using an Avian Influenza Control Zone, a license would not be required, as only movements off of premises in the Restricted Zone require a license. Routing of transport should avoid the Infected Zone.
 - If using a Primary Control Zone, a specific permit would be required from CFIA to allow this movement to occur, until such time that the Security Zone was implemented, at which time a general permit would be required.
- In all cases, barns that have been re-stocked will need to undergo the surveillance and movement protocols specific to their disease control zone.

Re-Stocking of the Infected Premises

- After cleaning and disinfection has been completed and approved by CFIA, Infected Premises can either 1) remain empty for 14 days and then re-stock with no surveillance requirements, or 2) re-stock and undergo CFIA surveillance on the new flock for a period of 14 days.
 - This applies to all barns on the Infected Premises.

Removal of Quarantines for Non-AI Positive Premises within the Zones

- The movement restrictions and quarantines on premises within the Infected Zone and the Restricted Zone will be revoked after the Primary Control Zone Specific Post-Outbreak Surveillance is completed with no new Avian Influenza detections. All permitting requirements will cease at this point.
 - CFIA will communicate with each farmer/premise to release the quarantines.

Removal of Quarantines of the Infected Premises

- Infected Premises will have their quarantines removed either 1) after the barn has been left empty for 14 days after cleaning and disinfection has been approved by CFIA, or 2) based on negative surveillance results conducted for 14 days on any birds that have been placed.
 - Once this has occurred, the Infected Premise will become part of the Security Zone and will follow the movement requirements of the Security Zone.
 - The Primary Control Zone will be revoked after the Primary Control Zone Specific Post-Outbreak Surveillance is completed with no new Avian Influenza detections. All permitting requirements will cease at this point.

Section 12 – Cleaning and Disinfection of the Infected Premise

Farmers are responsible to perform cleaning and disinfection of their AI positive premises. CFIA does not provide compensation for this process.

While the farmer is responsible for the process, CFIA is required to approve both the plans for cleaning and disinfection and the actual process.

Cleaning and disinfection on the premise can only begin after the BHT process is complete and CFIA has released the quarantined barn to the farmer.

To develop the cleaning and disinfection protocols, CFIA will conduct a site assessment with the farmer to determine which areas require cleaning and disinfection.

The farmer will be required to submit the cleaning and disinfection protocol to CFIA for approval prior to starting the process. Once approved, the farmer will conduct the cleaning and disinfection process under the supervision of CFIA. CFIA will assess the effectiveness of cleaning and disinfection throughout the process (e.g. after the dry-clean/water wash, and after disinfection).

In a situation where there are multiple barns on the Infected Premise, all barns will be subject to the same cleaning and disinfection requirements by CFIA.

Once the primary decontamination step is complete on the Infected Premises, Primary Control Zone Specific Post-Outbreak Surveillance will be conducted for 28 days prior to revoking the Primary Control Zone. “Primary decontamination” is completed once the litter and organic material are removed from the barn, the barn is blown down and the equipment used for destruction or disposal has been cleaned and disinfected.

A template for the Cleaning and Disinfection used by previous Infected Premises can be made available to affected farmers.

Section 13 – Country Freedom and AI Surveillance - Post Outbreak

Canada can request country freedom from the WOAHA after all of the Primary Control Zones have been revoked, and there are no more quarantined farms.

Canadian Notifiable Avian Influenza Surveillance System (CanNAISS)

CanNAISS is a surveillance program operated by CFIA on an annual basis to help identify if Avian Influenza is circulating in commercial flocks. After a case of Avian Influenza, CFIA may increase the number of flocks sampled as part of the CanNAISS program to be able to ensure the virus has been eradicated.

Wild Bird Surveillance

Wild bird surveillance is coordinated by the Canadian Wildlife Health Cooperative. The survey includes sampling of live birds during the spring, summer and fall and continued year-round sampling of dead birds.

The survey is intended to provide early detection of HPAI in Canada and determine the presence and characteristics of Avian Influenza strains in North America's wild bird population. Survey results are reported as they are confirmed and are available at the [Canadian Wildlife Health Cooperative Web site](#).

Section 14 – Compensation

Compensation for Flocks Ordered Destroyed

All flocks ordered to be depopulated by CFIA will be compensated as per the *Health of Animals Act* and regulations.

The purpose of compensation under the *Health of Animals Act* and [regulations](#) is to trigger early reporting of disease situations by farmers to more effectively manage the spread of the virus.

CFIA may compensate farmers for:

- Animals ordered destroyed
- Other things ordered destroyed, such as contaminated feed or animal products
- Disposal costs including transportation of animals
- Cleaning and disinfecting the equipment used for the disposal
- Vaccination costs for animals ordered to be treated
- Fair market value of things ordered destroyed

CFIA does not compensate for lost production or cleaning and disinfection.

Farmers that have received a depopulation order from CFIA will be contacted by the CFIA “Evaluation and Compensation Group” to work through this process. CFIA’s expectations are to finalize claims within 6-8 weeks, however this is dependent on the number of cases being processed. CFIA does however offer interim payments to affected producers while they wait for the full compensation payment.

Compensation for Disease Management Activities (e.g. destruction and disposal)

CFIA will also compensate for costs that are outside of the market value referred to in the *Health of Animal Act* and Regulations.

Compensation can include costs for the labour, equipment and the supplies that are used. The costs must be reasonable and justifiable and consulted upon with the CFIA prior to commencement. CFIA will require invoices for each of these expenses. Farms that are not incorporated, or where costs incurred for personal labour by the farmer cannot be demonstrated by paid employment income, should discuss this with CFIA prior to commencing work.

Agriculture and Agri-Food Canada’s (AAFC) Business Risk Management Programs

In addition to compensation provided by CFIA, AAFC offers programs that may be accessible to farmers impacted by Avian Influenza. These programs include the [AgriStability](#) program and the AgriRecovery program.

The [AgriRecovery](#) program is a shared program between the federal government and the provincial government to help farmers with the extraordinary costs of activities needed to

recover from a disease event. AgriRecovery has been used previously as a result of Avian Influenza outbreaks.

AgriRecovery is a framework, and each AgriRecovery program is developed for a specific disease/emergency event. Therefore, these programs are a case-by-case decision and are decided upon after the event occurs. Further information on AgriRecovery can be obtained from your provincial board and provincial government.