AVIAN INFLUENZA
OBSERVATIONS AND POTENTIAL RISK FACTORS

Highly pathogenic avian influenza (HPAI) is an on-going risk for Canadian chicken production. With the data collected on infected premises to-date, we're able to see trends in potential risk factors for virus introduction into the barn.

HPAI Biosecurity Risks for Commercial Farms: from low (green) to high risk (red)*

Estimated frequency	Low	Medium	High	Very High
Very high (e.g. daily)	Climate	Barn Integrity	Deadstock Exiting Barns	Farm & Barn Access
High (e.g. weekly)	Feed Delivery	Egg Pick-up	Compost Management/ Rendering	Top Dressing
Medium (e.g. monthly)	Industry Visit	Day-old Placement	Manure Storage/ Removal	Shipment to Slaughter
Low (sporadically)	Veterinarian/ Technician Visit	Vaccination Crew	Equipment for Dirty and Clean Tasks	Outdoor Bird Movement
	Low	**Medium**	**High**	**Very High**
	Likelihood of virus introduction			

The estimated frequencies are based on common activities across species and production types which may vary and impact the risk. The likelihood of virus introduction is based on the frequency that these risk factors have been observed on infected premises.

* Developed by the Canadian Food Inspection Agency

Broiler farms: most frequently observed potential risk factors*

Farm & Barn Access



Examples include:

- No anteroom
- No/improper boot changes
- No hand sanitation
- Lack of physical barrier
- Sharing of employees or equipment

Compost Management/ Rendering



Manure Storage/ Removal



Examples include:

- Compost pile accessible to wildlife
- Dead birds left open on the compost pile and attracting scavengers
- Compost piles close to the barn (for example, within 50m)
- Spreading dust close to a barn with new birds during compost or manure pile collection

Deadstock Exiting Barns



Examples include:

- Bringing the mortality bucket outside and back into the barn
- Mortality piles close to the barn
- Deadstock exiting through the anteroom

Barn Integrity



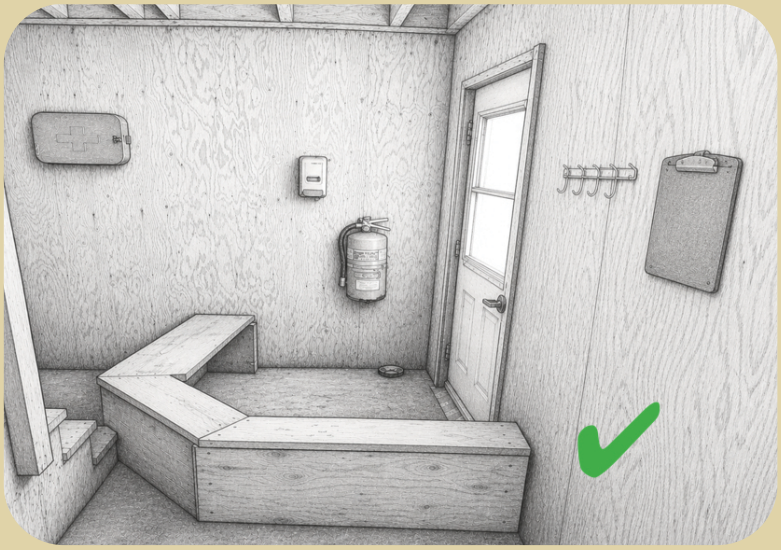
Examples include:

- Signs of rodents
- Rain or snow infiltration through poor door seals, chimney vents, or holes in walls

These observations were made on infected premises. Several risk factors were validated in case-control studies performed in different provinces and species.

*Based on data collected from September 2024 to April 2026 on infected premises that had broilers.

There are a number of ways that HPAI and other pathogens can enter a barn, either by physical movement (e.g. via personnel, equipment, or pests) or through short distance windborne spread. While there is no silver bullet solution to prevent pathogen entry, the risk matrix developed from observations on infected premises provides a good summary of factors to evaluate and explore.



BEST PRACTICES FOR AVIAN INFLUENZA PREVENTION

- Install a bench or other physical barrier at the barn entry, wall to wall, flush to the floor, and used properly every time
- Implement effective pest and rodent control
- Locate compost piles away from the barn, and not accessible to wildlife
- Regularly inspect barns to ensure strong integrity: no holes or water infiltration
- Deter wild birds from the barn, maintain flaps on chimneys and vents
- Keep clean bedding protected from wildlife or avoid storing it
- Use different mortality buckets for inside and outside the barn
- Ship to slaughter using an all-in all-out system
- For farms in high farm density areas, consider an air filtration system
- Clean feed spills promptly to avoid attracting wildlife
- Clean barn anterooms after shipping

CHICKEN FARMERS OF CANADA
LES PRODUCTEURS DE POULET DU CANADA

Version 1