Biosecurity for Small Poultry Flocks During High Risk Periods for Avian Influenza

A. Dam, C. Varga, G. Greaves, S. Buttle and A. Bordin

This factsheet provides recommendations that, when followed, can reduce the risk of avian influenza (AI) in small poultry flocks. It is important to have effective biosecurity practices to prevent AI infections and to reduce the spread of infections during an outbreak.

HIGHLY PATHOGENIC AVIAN INFLUENZA
Highly pathogenic avian influenza (HPAI) causes severe illness and death in all domesticated birds, including chickens, turkeys, pheasants, quails, ducks, geese and guinea fowl. This virus strain is believed to originate from wild birds, which can carry it without exhibiting clinical signs. Poultry become infected when they have direct contact with the secretions or feces of infected birds, or with contaminated surfaces or infected food and water supplies. Small flocks, especially if they have access to the outdoors, can be at greater risk of infection.

Because of the increased risk of avian influenza transmission during wild-bird migration in the spring and fall, it is extremely important for producers and small-flock owners in all areas of the province to minimize the risk of introducing fecal material from wild birds into their flocks. The recommendations in this factsheet are of particular importance during these migration periods.

EARLY DETECTION
Be very diligent in observing your birds. Monitor mortalities, and track feed and water consumption. Watch for any signs of disease, such as depression, decreased feed consumption, drop in egg production, swollen wattles, sneezing, gasping, a discharge from the nose or eyes, diarrhea or sudden death.

DEADSTOCK
Proper deadstock handling is critical for limiting the spread of any disease. Do not remove deceased birds from your property unless you have consulted with a veterinarian to ascertain if they have been infected with the AI virus. Dead birds piled outside or in open containers may be scavenged by wildlife and other birds such as raptors. Not only can these species be susceptible to the AI virus but they can potentially transport the virus to neighbouring farms via contaminated carcasses or body parts. Manage deadstock properly, in accordance with Ontario Regulation 106/09 under the Nutrient Management Act, 2002 (ontario.ca/e-laws).

To further reduce the risk of disease spread, do not use industry representatives, including but not limited to feed, hatchery, pharmaceutical and processing company representatives, to pick up and transport deceased birds from your property to a veterinarian.

NEW BIRDS
Moving infected birds can transfer the AI virus to a new location. If infected birds are purchased at an auction or sale, then the AI virus can be transferred to the home flock. Infected birds may appear to be healthy but can transmit AI to other birds before exhibiting any signs of disease themselves. It can take less than a week for symptoms to appear. With HPAI there may be no symptoms before death. During this high-risk period, avoid purchasing new birds and do not allow people who have recently been in contact with other birds (e.g., their own
or birds at a bird sale or show) onto your farm. In addition, do not share equipment with other bird owners.

Whenever you add new birds to your flock, make sure to obtain complete background information, including a history of any diseases and vaccination status. Keep the vendor’s contact information so that any birds that become sick can be traced to the flock of origin. Keep new birds separate from your other birds and preferably in a different airspace (quarantined) for at least 2–4 weeks. Monitor them for signs of illness. Use separate clothing, footwear and equipment when handling quarantined birds, and handle them last. If this is not possible, clean and disinfect the clothing and equipment before and after handling the quarantined birds. Wash your hands and change footwear between handling the two groups.

Pay particular attention to barn entrances. Locate a place at the entrance to your barn for storing clothing and footwear, as well as facilities and/or supplies for people to clean their hands.

Wear dedicated clothing and footwear inside the barn, and do not wear it on other poultry farms.

**OUTDOORS**

Ensure that birds with outdoor access do not share areas with wild ducks, geese or shorebirds. Make sure that free-range areas do not have attractions for wild waterfowl, such as a pond or open feeders, that may become contaminated with wild waterfowl droppings.

Keep tilling and planting equipment away from poultry barns. The AI virus can survive for extended periods of time in the environment, particularly in cool weather. Equipment can become contaminated when used in fields frequented by wild birds. Ensure that anyone using this equipment washes their hands and changes their clothing and footwear before entering a barn where poultry are housed.

This factsheet was written by Al Dam, Provincial Poultry Specialist; Csaba Varga, Lead Poultry Veterinarian; Gillian Greaves, Poultry Assistant Technician; Sarah Buttle, Poultry Assistant Technician and Amanda Bordin, Poultry Assistant Technician, OMAFRA, Guelph.