

# ESTABLISHING A PHYSICAL BARRIER AGAINST AVIAN INFLUENZA VIRUS ENTRY

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Everyone, not only in the game bird business but throughout the poultry community in general, is extremely concerned about our present high path H5 avian influenza (AI) situation in this country. This concern is spreading to consumers and exporters as well.

Having lived through three serious outbreaks of AI – including a low path H7 in which we pioneered the use of the first government-approved H7 vaccine – plus being involved in two other low path AI situations, I would like to offer some advice. First of all, every time we think we have a good idea of how AI viruses operate, we get thrown a curve, such as in this current H5N2 situation. It is obvious we don't know everything about how this virus might spread, and we will likely learn important new things as this scenario continues to unfold. However, there is one thing I have learned through hard experience that is common for all AI viruses: they can easily be spread through direct contact of contaminated things. "Things" could be anything – clothes, pets, wild varmints, hands, shovels, airborne dust or moisture particles – you name it. We may not have control over all of these but it is essential we control what we can. Viruses just don't spontaneously generate. They have to somehow gain entry into a host's body in order to wreak havoc. It is our job to do everything in our power to keep this from happening. In other words, we must establish a *physical barrier*. Physical barriers entail many things. I would like to focus on a few aspects we might call *geographic physical barriers*. Another way of describing this principle is *zoning*. Not all of these may be currently feasible for your particular operation, but should be worked towards implementing as soon and efficiently as possible.

## Geographic Physical Barriers (i.e. Zoning)

1. Personnel
  - a. Restrict areas where people work. For instance, the person taking care of the brooder should not also have responsibility for taking care of older birds. If the farm consists of two or more separate geographically separated locations, people working on one farm should not work on any other.
2. Equipment
  - a. Restrict sets of tools and small equipment, such as shovels, screw drivers, saws, rakes, mowers, skid loaders, etc. to a specific location and not shared. These can be color-coded as to where they belong. If larger equipment must leave its designated locale to be used elsewhere, it should be thoroughly cleaned and disinfected before leaving its home premises and thoroughly cleaned and disinfected before returning.
  - b. Clothing should be considered part of this equipment. Coveralls, boots, and other work-specific clothing should be restricted to location. Ideally, separate washing and drying facilities should be available. Another idea is to have a set of two large totes or plastic barrels at each pen/building entry: one containing clean clothes and one to toss in dirty clothes.

### 3. Animals

- a. Pets and working dogs. Pets should never be allowed entry into brooder buildings or flight pens. Who knows what is on their nose and paws? We have little direct control over that. Preserve owners may have trained dogs that are used on hunts. The pack should be kenneled far away from the brooder and flight pens. Ideally, the caretaker of these dogs should not have direct contact with live game birds.
- b. Rodents and varmints. In a broad sense, these pests are considered as potential trespassers of geographic zones. Every effort should be made to reduce their population. Wild birds would also be included in this category.

### 4. Using plants as barriers

- a. Windbreaks may be of use in certain circumstances to act as a physical barrier between bodies of water and game bird pens. Depending on prevailing winds and lay of the land, appropriate stands of shrubbery and trees may be considered not only to decrease wind velocity, but capture particulate matter from the air.

A simple question worthwhile of often asking oneself is, “Is this activity or practice something that could bring in or transfer disease?” If the answer is affirmative, do everything possible to change it. In any worthwhile endeavor, planning, time, and expense are involved in its implementation. However, the consequences of not taking the time to adequately plan and prepare to keep AI out may be much worse in the long run.