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Biosecurity: An in-depth defense against avian influenza

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Prevention of avian influenza (AI) in the U.S is achieved primarily through using biosecurity methods such as those listed in "Feed Delivery Biosecurity for Control of Disease." This is a bulletin originally prepared to help fight the spread of porcine epidemic diarrhea (PED) virus and recently distributed to Minnesota turkey, chicken, and egg producers

Biosecurity against these swine and poultry viruses have much in common. However, beyond feed delivery, other slices of the biosecurity pie require attention in order to prevent AI contamination: People traffic, truck traffic, wild birds, pullet movement, spent fowl movement, dead bird disposal, egg pickup, and egg handling materials.

People: Provide an anteroom to allow proper decontamination prior to entering the production areas. Cover workers' and visitors' feet and bodies by providing clean, house-dedicated footwear, dedicated farm clothing, and headgear. Have the workers in the buildings sanitize hands prior to entering the production areas. If a person leaves the production area, have them go through the decontamination process again. Avoid the use of disinfectant foot pans as their maintenance is time consuming and often not performed properly. Don't forget to inform and direct delivery traffic (propane, package, fuel, and other supplies delivery) to designated areas.

Trucks: Use high pressure washing and disinfection of tires and wheel wells to remove organic material that may fall off the truck, then disinfect the clean surfaces.

Wild birds: Net all openings that may allow wild birds access to the interior of the house. If any bird nests are found, remove them very carefully without allowing any of the material to enter the production area. Drain ponds near poultry houses to deter waterfowl use. Use bird deterrent devices such as fake owls, gators, dogs, etc. to keep wild birds away.

Pullet and spent fowl movement: Require that all crew members wear clean clothing, footwear, gloves, and headgear. Require hand sanitation prior to entering the production areas. Meticulously clean and disinfect the transport vehicle for the crew between jobs. In a multi-house complex, ensure that crew members only enter the house where they are working. Provide portable restrooms in order to avoid crew traffic on the farm. Perhaps needless to say – but necessary to follow - thoroughly clean and disinfect the truck, trailer, racks, or coops used to move pullets prior to entering the farm.

Dead bird disposal: For an on-farm dead bird disposal system, designate and dedicate a worker only for that job, which does not require entering the houses. Or, have the house worker deliver dead birds to the disposal site at the end of the day. Again, once a person leaves the production area, require complete decontamination again.

Egg pickup: Provide the driver of the egg truck with on-farm boots, coveralls, and a hat placed near where the truck parks. Require that the driver use hand sanitation prior to entering the egg room. Limit the egg truck driver's work to only the egg room area. Once the eggs have been loaded and materials unloaded, clean and disinfect the floor area where traffic has occurred. Fog any waterproof egg handling materials with an approved disinfectant. If possible, keep poultry house workers out of the egg processing area and provide separate entries for them into the bird housing areas.

Egg handling materials: Take it for granted that all egg handling materials from off the farm may be contaminated and handle them as such. Keep these materials sequestered in a "quarantine area" to avoid traffic in and around them. Require hand sanitation after handling such materials.

These biosecurity steps can help reduce the level of contamination to which the birds may become exposed. In addition, Diamond V Original XPC™ in the feed can help support the poultry immune system with non-specific respiratory viral immune mechanisms, as shown in research with infectious laryngotracheitis (ILT), infectious bronchitis (IB), and Newcastle disease (ND).

Using all the steps above – as many slices of the biosecurity pie as possible – will help reduce exposure and provide a deeper, broader defense against AI.