Avian Influenza and Outdoor Access for Organic Poultry Flocks

USDA organic standards require organic poultry to have access to the outdoors. Because of the outbreak of Avian Influenza (AI) in some regions of the country, some have raised the question about whether or not it is safe to allow organic poultry to go outside during the AI outbreak, or even whether outdoor access at all is safe.

The science on this complex issue continues to evolve (as does the virus itself), and there is no consensus among veterinarians and scientists regarding the need for either permanent indoor confinement or outdoor access. Below is a discussion of the science that challenges the belief that permanent indoor confinement is necessary in the age of avian influenza outbreaks, and in fact points to benefits of outdoor access. Given that temporary confinement in areas of an active outbreak may be necessary, we discuss the existence of emergency provisions in the USDA organic rules to allow temporary confinement of organic poultry for the safety of the birds.

Research Shows:
Avian flu viruses generally carried by wild birds are almost invariably harmless to poultry (low pathogenicity avian influenza, or LPAI). Some LPAI strains, however, have the potential to mutate into “highly pathogenic avian influenza” (HPAI) strains, which are deadly to poultry. Research shows that the mutation of LPAI to HPAI occurs almost exclusively in crowded indoor poultry houses.

This is consistent with one of the theories of virulence transmission, that highly virulent strains develop in crowded confinement where the host, even when sick and immobile, can continue to pass the virus to others. In these conditions, the success of the virus no longer depends on keeping the host mobile and alive.

The AI virus transmits through feces and does not easily survive sunlight and drying. It is therefore more likely to survive and spread in or between crowded, unsanitary, indoor poultry houses.

Lower stocking densities and outdoor access are part of the solution, not the problem. Preventing future outbreaks of HPAI should involve addressing the root of the problem by building a system of poultry farming with low densities, outdoor access, and healthy birds with strong immune systems.

However, given the current system of poultry farming, the emergence of new HPAI viruses will likely continue. The question becomes: should organic flocks be kept indoors to protect them from HPAI?
- **Wild birds are one of many risk factors.** One school of thought is that wild birds spread the virus and indoor confinement stops the spread. However, it does not explain the rapid spread from indoor farm to indoor farm, or that indoor farms appear to be worst affected.12 13 14

- **The real risk factor: indoor confinement poultry operations.** Wild birds do not infect domestic poultry with HPAI; rather, confined poultry infect wild birds.15 16 17

- **HPAI viruses spread from indoor chicken farms,** even when no wild birds are involved.

- **People** (veterinarians, farm workers, catchers, vaccination crews), trucks, water, feed, and shared equipment can all spread the virus.18 19

- Even **flies** — impossible to keep out of chicken houses — are carriers.20 21

- Recent (June 2015) USDA findings suggest that HPAI can be transmitted through **air** and **wind.**22

Therefore, flawless biosecurity — a complete barrier between indoor houses and the outside world — is a solution in theory, but not in practice. Total biosecurity is impossible, whether on outdoor farms or in indoor confinement farms.23 The only way to prevent outbreaks and the accompanying economic losses to farmers is by preventing HPAI strains from developing in the first place.

While we question whether temporary indoor confinement of organic flocks is in fact protective, we note that **organic regulations (7 CFR 205.239) do allow temporary indoor quarantine during emergencies:**

“The producer of an organic livestock operation must establish ... year-round access for all animals to the outdoors, ... except that animals may be temporarily denied access to the outdoors ... because of conditions under which the health, safety or well-being of the animal could be jeopardized.”24 25


11 ibid


13“A notable feature of the Dutch epidemic was that large, densely-stocked flocks were worst affected. Some extensively managed flocks were infected by the virus without showing significant illness of either birds or people.” In: Meredith, M. 2004. Bird flu epidemics, what more can be done. World Poultry 20(2): 28-29.


18 ibid
24 7 CFR 205.239(a)(1) and (b)(3)