



Avian Influenza Basics for Organic and Pastured Poultry Flock Producers

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What is Avian Influenza?

Avian influenza (AI) is a disease in domestic poultry, such as chickens, turkeys, pheasants, quail, ducks and geese. Waterfowl and shorebirds are natural hosts for the virus that causes avian influenza and will shed the virus into their environment while often showing no signs of illness. Some types of avian influenza are called highly pathogenic (HPAI) because in contrast to waterfowl, these viruses are rapidly fatal for poultry. In chickens, the clinical signs of highly pathogenic (HPAI) are often a combination of respiratory (gasping) and digestive (extreme diarrhea) signs followed by rapid death. There may be swelling around the head, neck, and eyes as well as purple discoloration around the head and legs. In contrast, other poultry species, including turkeys, may have nervous symptoms such as tremors, twisted necks, paralyzed wings and recumbent pedaling. What is common among all poultry (except ducks and geese) is the sudden onset and high rate of mortality.

Since December 2014, the U.S. Department of Agriculture (USDA) has reported confirmed cases of HPAI, primarily of the H5N2 subtype, in wild waterfowl and backyard poultry in the states of Washington, Oregon, California, Idaho; and commercial poultry flocks in California, Minnesota and Missouri, and Arkansas (updates available at (<http://z.umn.edu/avianinfluenzaupdate>)). The risk to the public is very low and there is no food safety concern because infected birds do not reach the market. The risk of infection is generally limited to people in direct contact with affected birds. As a reminder, poultry and eggs should always be handled properly and cooked to an internal temperature of 165 °F. Do not eat birds that appear to be sick or have died for reasons unknown (<http://z.umn.edu/mdafoodsafetyhpa>).

What to do if you suspect your poultry may have Highly Pathogenic Avian Influenza?

Each state has a designated agency to respond to avian influenza cases. In Minnesota, the Board of Animal Health is that agency. **If your flock experiences a sudden, high mortality or has a high percentage of birds with signs of highly pathogenic avian influenza, please report this immediately to your veterinarian or the Minnesota Board of Animal Health.** Visit their website at:

<https://www.bah.state.mn.us/poultry>, or call the Minnesota Poultry Testing Laboratory (MPTL) at (320) 231-5170. The MPTL cooperates with the University of Minnesota Veterinary Diagnostic Laboratory (VDL) in St. Paul to conduct and coordinate testing for AI. For more information, contact the VDL at 612-625-8787 or visit the website (<http://www.vdl.umn.edu/>).

Key Biosecurity Recommendations

Since introductions of HPAI originate from wild birds, especially waterfowl that frequent wetlands on a farm, poultry that are raised outdoors or with outdoor access are at a *greater risk* for contracting HPAI.

Flocks that are infected with HPAI can then spread the virus to new flocks through the movement of birds, manure, equipment, and people who are in contact with birds. HPAI viruses can exist in bird waste for several months especially under conditions of high moisture and low temperature.

Pasture raised poultry, including birds that are raised as certified organic, have become a popular alternative enterprise on many farms throughout the USA. For pasture-raised poultry production, biosecurity can be more difficult than for confinement raised flocks. However, it is still possible to create a “line of separation” around your farmstead, and to some extent around your birds in the field. That means that appropriate measures are taken to reduce the risk of HPAI by keeping them isolated from other poultry, wild birds, wildlife, and rodents. To help reduce disease risk from HPAI:

- Develop your own biosecurity plan and adhere to it even when it is inconvenient.
- Keep your pasture flock isolated. Don't place the flock near a pond, creek or lagoon where waterfowl might congregate. This is a very high risk activity.
- Don't use pond or stream water to provide drinking water for the birds, unless water is filtered, treated or disinfected. ***(Organic producers often use apple cider vinegar in their water supply as a help, although this practice should not be your only defense against HPAI viruses in water).***
- Keep feed bins covered and store feed in a location that is not accessible to wildlife and birds. Do not feed or have feed available because that attracts wild birds. Discourage any co-mingling activities between wild and domestic birds.
- Provide shelter that could be used to confine the birds due to disease outbreak. Enclosed shelters should prevent entry of wild birds and their droppings. ***(NOP organic standards allow temporary confinement of flocks because of severe weather or other health concerns. The method of temporary confinement used must be approved by the certifying agent and should provide the necessary protection to the birds while meeting the remaining requirements of the NOP standards. Consult with your Certifying Agency if you need to confine the birds).***
- Be clean. Wear clean clothing to check on your pastured flock. Don't track contamination from the pasture back to other areas of the farm or other poultry operations.
- Access for visitors should be limited. Individuals who have poultry should not be permitted to visit your flocks. Provide clean clothing and footwear, washable or disposable, to visitors.
- Self-quarantine your operation if you suspect your birds are sick and contact your veterinarian.

For more detailed information and resources, please visit the following websites:

Minnesota Board of Animal Health at: <https://www.bah.state.mn.us/poultry>

Avian Influenza Home Web Page at <http://z.umn.edu/extorgavianinfluenza>

USDA Animal and Plant Health Inspection Service at <http://z.umn.edu/usdabiosecuritytips>

Minnesota Department of Health Web Page at <http://z.umn.edu/mnmdhflu>

University of Minnesota Extension at www.extension.umn.edu/poultry