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Highly Pathogenic Avian Influenza (H5N1)

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Highly pathogenic avian influenza (H5N1) is a viral zoonotic disease in wild and domestic bird species that has been monitored since 2022. While this disease is not new, this is the largest bird outbreak ever recorded with large economic impacts, the potential for new and dangerous variants, and transmission to other species. There have been many commercial poultry operations and backyard flocks that have had positive cases of the disease. Since February 8, 2022, 168.26+ million birds have been impacted by H5N1, with a total of 1,675 flocks (779 commercial flocks and 896 backyard/hobby flocks) affected. Arkansas poultry producers have been vigilant in biosecurity efforts; however, three commercial poultry flocks were confirmed positive since December 30, 2024 (1 in 2024 and 2 in 2025) with six backyard/hobby flocks confirmed positive for H5N1 (5 flocks in 2024 and 1 in 2025) since early December 2024.

All 50 states have had positive detections of H5N1 in many wild bird species, including hawks, eagles, buzzards, Canada geese, and ducks. The virus has also mutated and infected other species, including mammals and humans. Over 200 mammals have tested positive for H5N1 since 2022, with positive cases ranging from mice, rats, raccoons, and squirrels to foxes, bobcats, coyotes, and black bears; but this outbreak is not contained to wild animals. In March 2024, there was a multistate outbreak of H5N1 in dairy cattle. Since that outbreak in dairy cattle began, there have been 1,000 confirmed cases in 18 states. Also, positive detections have been found in other domestic livestock, including a pig, goat, alpaca, and a sheep in the United Kingdom. In March 2025 H7N9 was detected in a poultry flock in Mississippi, this strain of HPAI has not been detected in the USA since 2017.

Symptoms

Recognizing the signs of H5N1 in both poultry species and other animals is important to understand. For birds, it is not uncommon to find dead birds with no prior signs of illness. Additionally, there may be a drop or stop of egg production, greater incidence of soft eggshells, or misshaped eggs. Respiratory signs are common for H5N1 in birds, including discharge from the eyes and/or nostrils, sneezing, gasping for air, or difficulty breathing. Some other signs are lack of appetite, diarrhea, stumbling or falling, ruffled feathers, and isolation from

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other birds in the house or flock. For dairy cattle, mild respiratory symptoms include coughing, nasal or ocular discharge, increased respiratory rate, and labored breathing, as well as decreased appetite. Along with decreased milk production, the milk from affected dairy cattle is thicker and colostrum-like, with a yellowish color. Recovery time for dairy cattle that contract H5N1 is around 2 to 3 weeks with supportive care.

There have been cases where H5N1 has been contracted by humans, primarily workers on dairy cattle operations or people who handle sick or dead birds that had contracted the virus. Most of the positive human cases caused mild illness with symptoms of mild flu (headache, runny nose, fever, muscle aches) and pinkeye. In January 2025, though, a person in southwest Louisiana was hospitalized with a severe case of H5N1 and passed away — the first instance of severe illness and death linked to the virus in the United States. With this positive human case, the person was exposed to sick and/or dead birds that are suspected to be infected with H5N1. Avian influenza currently poses a lower health risk for the general public, but people who work directly with birds, poultry or dairy cattle are at a greater risk of contracting the disease. If a person contracts H5N1, recovery time is around one week.

Biosecurity

One of the best ways to combat the spread of H5N1 is adhering to a sound biosecurity plan for your flock and facility. Developing and adhering to biosecurity measures can be a major determinate in keeping your poultry safe and free of sickness. The USDA lists six major steps in the biosecurity process for poultry.

1. **Keep Your Distance**. Restricting access to your birds can cut down on the opportunity for sickness to be brought into your coop or facility. The caretaker of birds should not be attending bird shows or other events where birds will be present. Having disposable boot covers, clean boots, and a foot bath station outside of your coop or facility is also a best practice to cut down on germs being carried inside. Restricting access is not just for humans but also for wild birds as well. Wild birds are known carriers of HPAI and should not be allowed contact with poultry.
2. **Keep It Clean**. Cutting down on the number of germs being carried into your poultry coop or facility is imperative in keeping birds healthy. Having a set of clothes and shoes that are worn only around your birds and nowhere else is ideal. If you are not changing shoes, make sure they are disinfected and any mud, debris, or droppings are scrubbed off before entering. Wash your hands and all the equipment you use, including tools and cages. Keep your poultry area clean by cleaning it daily and removing dead birds.
3. **Don't Haul Disease Home**. Vehicle tires, cages, and equipment can all harbor germs that you do not want to introduce to your flock. If you take birds off your premises, such as to an exhibition show, they should be quarantined for two weeks upon their return. New birds to your property should be quarantined away from your flock for a minimum of 30 days. If you travel to areas where there are other birds, clean and disinfect your vehicle and tires before returning to your premises.
4. **Don't Borrow Disease From Your Neighbor**. Sharing tools, equipment, and other poultry supplies can be risky. If you must borrow supplies, make sure they are properly sanitized before they reach your property. Never share wood pallets or cardboard egg cartons between neighbors as they cannot be adequately cleaned and disinfected. Avoid visiting other property with poultry.
5. **Know the Warning Signs of Disease**. While it can be hard to tell a difference between some poultry diseases, early detection can help prevent the spread of the disease. Major symptoms of HPAI are listed above.
6. **Report Sick Birds**. If you have sick or dying birds, do not wait to report them. There are several options to report sick or dead birds across the state.

Reporting Sick or Dying Wild birds

If you observe sick or dying wild birds, do not try to catch or retrieve them. Notify the Arkansas Game and Fish Commission at agfc.health@agfc.ar.gov. They will ask when and where (county and specific location if possible) you observed these birds, and which species of bird was observed.

Reporting Sick or Dying Backyard Poultry or Commercial Poultry

If you observe sick or dying poultry in a backyard flock or commercial flock, quarantine the sick poultry. After separating the poultry, contact either the Arkansas Livestock and Poultry Division at 501-225-1598, state veterinarian, USDA hotline (866-536-7593) or your local Cooperative Extension agent.

Resources

https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections

https://www.cdc.gov/bird-flu/index.html

https://www.avma.org/resources-tools/animal-health-and-welfare/animal-health/avian-influenza

https://www.aphis.usda.gov/livestock-poultry-disease/avian/defend-the-flock

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