



Dairy Farm Biosecurity: Preventing the Spread of H5N1

Biosecurity is always important. The key biosecurity points outlined here are critical to prevent or slow the spread of highly pathogenic avian influenza (HPAI) H5N1 between dairy and poultry premises. The virus can spread through the movement of cattle, vehicles, equipment, milk, and people from affected locations. Dairy farms are facing significant milk losses, while poultry farms experience devastating death losses. People in contact with infected cows are also at risk of infection. Implementing and following biosecurity measures can help protect cattle, poultry, other animals, and human health.

This document outlines biosecurity measures for dairy premises to prevent introduction or spread of the H5N1 virus. Always follow Federal and State-specific biosecurity requirements. Additional Federal, State, and local biosecurity requirements may apply.

Biosecurity Measures

Monitor cattle for signs of HPAI. Producers should monitor herds closely for cattle with any clinical signs of the disease: decreased milk production, reduced appetite, thickened milk, discolored milk, lethargy, fever, or dehydration. Animals with clinical signs should be separated and moved to a hospital or sick pen. Producers should dedicate caretakers and equipment for sick animals or work with them last. Then, clean and disinfect equipment, boots, clothing, and any other items used while working with the animals.

Test lactating cattle before movement per Federal and State-specific guidance. To prevent the movement of infected cattle, pre-movement testing for H5N1 is required for all lactating cattle and is recommended for other cattle moving into a new herd. This can be accomplished through individual testing or through obtaining cattle from herds enrolled in the national Dairy Herd Status Program. Cattle movements should be minimized and performed in consultation with Federal and State officials.

Isolate newly introduced lactating cows at least 30 days. All animals that move onto a new premises should be isolated, with dedicated equipment and caretakers for at least 30 days. If dedicated equipment and caretakers are not available, these cattle should be handled last.

Do not share equipment. Equipment should not be used on other premises unless thoroughly cleaned and disinfected.



Practice strict milk hygiene. Clinically ill animals should be milked last and separately from the unaffected milking herd. All milking equipment should be thoroughly cleaned and treated to inactivate influenza viruses after milking affected cows. When possible, use separate milking equipment for unaffected cattle. Milkers should change gloves between each milking string. Udder cloths should be clean and dedicated for single use/cow. Milk from known infected cows and waste milk for suspect cattle should be excluded from the bulk tank and discarded after treating to inactivate the virus. Raw waste milk should be treated and disposed of in a manner that does not expose cattle, poultry, pets, wild birds, or other animals to it. Do not feed raw waste milk to calves, swine, pets, or other animals.

Monitor movement of people, equipment, and vehicles on and off the premises. Producers should design drive paths to keep off-farm vehicles and equipment away from live animals and routes used by on-farm equipment. Power wash and disinfect tires/wheel wells and equipment that cross paths with on-farm vehicles, enter animal or feed areas, or come into contact with animals. Limit visitors to essential personnel. Require clean, dedicated footwear and clothing for all who enter the premises.

Monitor and prevent wildlife from interacting with livestock and livestock feed and equipment. Producers should monitor and report any odd behaviors and deaths in domestic and wild animals (such as wild birds, cats, skunks, or raccoons) immediately to State officials. Limit access of nonproduction animals to farm areas. Implement measures to exclude domestic pets, rodents, rabbits, and other wildlife from cattle buildings. Never use untreated

surface water as a source for drinking or barn misters or to wash dry lots/paddocks, flush alleys, or clean equipment that contacts cattle. Do not feed wildlife. Cover any carcasses or compost piles whenever possible.

Manage dairy wastes to mitigate transmission risk. Dairy waste can include: raw (unpasteurized) waste milk, process wastewater used for equipment or floors/alleys, flushing, and any waste material containing raw milk (such as manure, slurry, bedding, urine, or feed).

It is important that producers follow required Federal and State environmental regulations for waste and create a manure/waste management plan. Many State laws specify set-back distances for land application of dairy waste near other premises. When set-backs are not specified by State law, USDA recommends dairy waste should not be land-applied within 5 kilometers of another livestock or poultry premises; however, this recommendation might change as ongoing research improves our understanding of risk related to HPAI in dairy waste. Additionally, producers should pasteurize, heat or chemically treat dairy wastes, or hold waste onsite instead of directly applying it to land.

Vehicles transporting untreated dairy waste should avoid routes near livestock and poultry premises whenever possible. Always pasteurize raw waste milk before feeding to calves or other animals.

Use appropriate personal protective equipment. Follow guidance from the Centers for Disease Control and Prevention at www.cdc.gov/bird-flu/prevention/hpai-interim-recommendations.html.

Know about mixed species risk. In general, housing different species of animals together is a known risk for disease spread. Specifically for influenza, we know that mammals, poultry, and humans are all susceptible to different strains and demonstrate a wide variety of clinical signs ranging from none to severe. We also know that influenza can transmit between avian species and mammals relatively frequently, including the current circulating HPAI clade (see more information at www.biorxiv.org/content/10.1101/2024.05.01.591751v1.full). Additionally, epidemiological investigations and subsequent analysis (see www.aphis.usda.gov/sites/default/files/highly-pathogenic-avian-influenza-national-epidemiological-brief-09-24-2024.pdf) of HPAI-affected dairy farms have highlighted the risk of multiple species present on the farm.

Therefore, USDA recommends:

- Providing physical separation between species, especially poultry and livestock, including their food and water; and
- Preventing contact with or consumption of sick or dead animals or raw milk or colostrum from affected cattle herds.

Specific biosecurity recommendations for producers with mixed species premises are available at www.aphis.usda.gov/sites/default/files/fs-hpai-biosecurity-multi-species-farms.pdf.

Free Testing Available

USDA's Animal and Plant Health Inspection Service and States continue to conduct foreign animal disease investigations and associated testing on farms with suspected disease. Through the National Animal Health Laboratory Network, we provide influenza testing free of charge to the owner for any livestock or poultry species linked to affected livestock or poultry premises or for which owners are concerned.

Resources

You can find producer resources for planning and implementing enhanced biosecurity practices at the following websites:

- **Secure Milk Supply: Enhanced Biosecurity Training**
securemilksupply.org/training-materials/biosecurity
- **Farmers Assuring Responsible Management: Biosecurity**
nationaldairyfarm.com/dairy-farm-standards/farm-biosecurity
- **Texas A&M Agrilife Extension: Biosecurity Practices for Dairy Operations**
texashelp.tamu.edu/wp-content/uploads/2016/02/Biosecurity-Practices-For-Dairy-Operations.pdf
- **University of Minnesota Extension: Biosecurity for Cattle Operations**
extension.umn.edu/dairy-handling-and-best-practices/cattle-biosecurity
- **The Center for Food Security & Public Health: Farm Biosecurity**
www.cfsph.iastate.edu/biosecurity

For More Information

Question, comments, or concerns?

dairy.hpai@usda.gov

Learn more about USDA's response to H5N1 in dairy cattle:

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