



Please note: This situation is evolving rapidly; this is guidance is subject to change. Check back frequently for updated versions. The intended audience for this document is State Animal Health Officials, Accredited Veterinarians and Producers

**APHIS Requirements and Recommendations for Highly Pathogenic Avian Influenza (HPAI) H5N1 Virus in Livestock For State Animal Health Officials, Accredited Veterinarians and Producers
April 26, 2024**

Table of Contents

Scope and Definitions..... 2

Clinical Signs in Dairy Cattle..... 3

APHIS Requirements for Interstate Movement of Cattle..... 3

Sample Collection and Testing for Interstate Premovement Testing of Lactating Dairy Cattle..... 3

Cattle Moved Directly to Slaughter..... 4

Certificates of Veterinary Inspection..... 4

APHIS Recommendations 4

Cattle Movement Recommendations. 4

Biosecurity..... 5

APHIS Recommendations for Highly Pathogenic Avian Influenza (HPAI) H5N1 Virus in Livestock for State Animal Health Officials, Accredited Veterinarians and Producers..... 5

Milk Safety..... 5

One Health: Agriculture and Public Health Coordination..... 6

Highly Pathogenic Avian Influenza A (HPAI) H5N1 virus is an emerging disease in cattle. Federal and State agencies are moving quickly to conduct additional testing for HPAI (H5N1) virus, including viral genome sequencing to provide a better understanding of the situation to characterize the HPAI (H5N1) virus strain or strains associated with these detections as well as other components of this disease event at the connection between animals, people, and the environment. The genetic and epidemiological data indicate spillover of the virus from wild birds to dairy cows and some instances of spread from dairy to dairy and from dairy premises to poultry premises. Based on this analysis, we have learned that the whole genome sequence for virus found in positive herds in 8 states and on two recent commercial poultry premises in two different states indicates it is the same strain affecting both dairy cattle and poultry. While it is still unclear exactly how virus is spreading, the virus is shed in milk at high concentrations; therefore, anything that comes in contact with unpasteurized raw milk, spilled milk, etc. may spread the virus including other animals, vehicles, and other objects or materials. Therefore, both dairy and poultry producers should re-double biosecurity efforts and be vigilant about monitoring for and controlling disease in their herds and flocks.

Additionally, in order to continue to monitor and understand the extent of this virus and reduce the risk of further spread of HPAI H5N1, resulting in greater threats to poultry and livestock, APHIS issued a [Federal Order](#) on April 24, 2024 that requires premovement testing for lactating dairy cattle moving interstate and reporting of positive test results from all laboratories and State Animal Health Officials (SAHO). This document outlines both the interstate movement requirements, as well as APHIS recommendations to limit the spread. Updated laboratory guidance, including details on required reporting, are located on the [APHIS website](#).

Our goal is to safeguard the health of U.S. livestock and poultry, protect the industry, keep our food supply safe, and protect public health and human safety based on the most up-to-date information we have. We continue to work diligently to understand the risk factors associated with this virus, transmission routes, and pathogenicity in cattle. This continues to be a rapidly evolving situation. USDA and Federal and State partners will continue to share additional updates as soon as information becomes available.

Scope and Definitions

Per the Federal Order, these steps are immediately required for lactating dairy cattle. Any requirements for other classes of dairy cattle, or expansion beyond dairy cattle, will be based on scientific factors concerning the virus and its evolving risk profile.

Definitions used in this document:

- Cattle – The requirements outlined within this guidance apply to the movement of members of the Family: Bovidae; Subfamily: bovinæ; Genus: *Bos*; Species: *Bos taurus* and *Bos indicus*.
- Lactating – The requirements outlined within this guidance apply to the movement of dairy cows currently in one of the lactation phases (i.e., early, mid, and late) of their current production cycle.
- Dairy – The requirements outlined within this guidance apply to the movement of lactating cattle breeds raised for the primary purpose of milk production.
- Nonlactating – Nonlactating cattle include: heifers, dry cows, and bull calves.
- Affected herd – Any dairy cattle herd with suspect, presumptive, or confirmed positive cattle cases present as defined in the [case definition](#), or exposed cattle present.
- Exposed cattle – Any cattle that have been on the same premises as an affected herd within the

last 30 days (which is roughly equivalent to two incubation periods of influenza in other species; we currently have studies underway in cattle to better determine) and/or are epidemiologically connected.

- Herd – Any group of one or more [animals](#) maintained on common ground

Clinical Signs in Dairy Cattle

See the [case definition](#) for a complete description. Briefly, dairy cattle may experience a sudden drop in feed intake; a marked drop in herd level milk production with some more severely affected cows having thickened milk or may have essentially no milk; subsequent acute drop in milk production; and respiratory signs including clear nasal discharge.

Current [case definition](#) – [HPAI H5N1 clade 2.3.4.4b in Livestock](#)

APHIS Requirements for Interstate Movement of Cattle

Interstate movements of lactating dairy cattle must follow the Federal requirements outlined below. Additionally, state-specific guidance for moving cattle must be followed. Clinical lactating dairy cattle are ineligible for interstate movement or movement to slaughter.

Nonlactating dairy cattle – including heifers, dry cows, and bull calves – are not currently subject to testing for interstate movement due to their risk profile.

Prior to interstate movement, lactating dairy cattle **are required to receive a negative test for Influenza A virus** at an [approved National Animal Health Laboratory Network \(NAHLN\)](#) laboratory using an NAHLN approved assay.

Sample Collection and Testing for Interstate Premovement Testing of Lactating Dairy Cattle

- Samples are to be collected by an accredited veterinarian, or a state licensed veterinarian, or a sample collector approved by the appropriate state animal health official. Designated individuals on production sites can be trained to collect milk samples and nasal swab samples for diagnostic testing.
- Samples must be collected under the supervision of a licensed or accredited veterinarian or as determined by the respective State Animal Health Official.
- Milk samples: Samples to be collected include milk/udder secretions from individual cows. Each quarter is sampled and combined into one sample for submission to the laboratory. Submissions must be between 3-10 ml of milk per animal.
 - Pooling of milk samples can be done only at the laboratory.
- For groups/lots of 30 or fewer animals moving interstate, all animals being moved must be tested. If more than 30 animals are moving interstate, then only 30 animals total must be tested.
- Sample collection and testing must take place no more than seven (7) days prior to interstate movement.
- Samples for interstate premovement testing need to be submitted to an approved National Animal Health Laboratory Network (NAHLN) Laboratory for testing. NAHLN laboratories will conduct NAHLN-approved PCR testing: FluA matrix, H5 and optionally 2.3.4.4b. Please see HPAI Livestock Testing Recommendations for details.

- APHIS will reimburse for all interstate premovement testing at NAHLN laboratories; therefore, this testing at NAHLN laboratories will be completed at no cost to the producer/submitter.
- At this time, APHIS is not reimbursing for sample collection or shipping.

For Cattle with Positive HPAI Test Results

- Lactating dairy cattle from herds which have tested positive for Influenza A are not eligible for interstate movement for thirty (30) days from the most recent collection of **any sample that tests positive from any individual animal in the herd**. After the 30-day period, animals must be tested again for movement.
- If there are specific circumstances for isolating test-positive cattle and moving to another premises across state lines, this would need to be discussed and agreed upon with the respective State Animal Health Officials and APHIS.

Cattle Moved Directly to Slaughter

- Nonclinical lactating dairy cattle moving interstate direct to slaughter are not required to have a premovement test but must move on a certificate of veterinary inspection or other documentation of movement approved by the sending and receiving state animal health officials and provided to the sending and receiving state animal health officials.
- Clinical lactating dairy cattle are ineligible for interstate movement or movement to slaughter.

Certificates of Veterinary Inspection

The interstate movement of all lactating dairy cattle **must be accompanied by a Certificate of Veterinary Inspection (CVI) per [9 CFR Part 86](#)**, Animal Disease Traceability. The destination/receiving state(s) will continue to use CVIs as a basis to track the interstate movement of lactating dairy cattle.

- All cattle on the CVI must have individual official identification.
- The individual official identification must be recorded on the CVI.
- The CVI must include a statement that the cattle are both free from, and have not been exposed to, a known contagious and infectious disease.

APHIS Recommendations

Additional detailed actions are provided later in this document, subject to updates as information is gathered.

Cattle Movement Recommendations. In addition to the interstate movement requirements above, APHIS provides the following recommendations. ⁽⁰⁶⁾

- APHIS strongly recommends minimizing movement of cattle as much as possible, with special attention to evaluating risk and factoring that risk into movement decisions.
- If you have any animals with clinical signs on the premises, do not move animals off the premises.
- All animals that move on/off a premises should be isolated for 30 days to prevent the spread of disease.
- If cattle must be moved, we strongly encourage extreme diligence by producers, veterinarians, and States to ensure only healthy cattle are moving and to ensure the validity of interstate

health certificates. APHIS stands ready to assist SAHOs with developing language for interstate certificates of veterinary inspection, as needed.

- APHIS recommends premovement testing of non-lactating cattle as well. This testing at NAHLN laboratories will be completed at no cost to the producer. Additional recommendations for testing can be found [here](#).
- State-specific guidance for moving cattle will also need to be followed.
- APHIS scientists are working to establish testing protocols, rapidly assessing currently available tests and test performance including sample types to better understand the characteristics; based on this analysis, we may recommend testing for other classes of cattle beyond lactating dairy cows in the future.

Biosecurity. Producers should implement enhanced biosecurity practices for keeping disease off farms and controlling disease spread on the farm. The [Secure Milk Supply Plan](#) is a collaborative initiative among the dairy industry, USDA, State officials and three universities. The Secure Milk Supply website offers comprehensive materials on dairy biosecurity practices, including posters and information sheets in English and Spanish.

Additional biosecurity resources can be found at the following links below:

- [Biosecurity - National Dairy FARM Program](#)
- [Biosecurity for dairy operations | TAMU](#)
- [Biosecurity for cattle operations | UMN Extension](#)
- [Farm Biosecurity - CFSPH \(iastate.edu\)](#)

APHIS Recommendations for Highly Pathogenic Avian Influenza (HPAI) H5N1 Virus in Livestock [for State Animal Health Officials, Accredited Veterinarians and Producers](#):

- **Monitoring for Sick Animals.** Producers should monitor herds closely for cattle with clinical signs of disease.
- **Movement of Cattle.** Movement of cattle should be minimized; movement of cattle should be focused on preventing movement of disease.
- **Vehicles, Equipment, and People on the Farm.** Producers should limit the movement of vehicles and visitors on and off livestock and poultry premises and establish dedicated routes for vehicles that do come onto the premises.
- **Wildlife Management.** Producers should monitor and report any odd behaviors and die offs in domestic and wild animals immediately.

Milk Safety. The Food and Drug Administration (FDA) recommends special attention to raw milk safety and handling practices for discarded milk. Additional resources available at [Questions and Answers Regarding Milk Safety During Highly Pathogenic Avian Influenza \(HPAI\) Outbreaks | FDA](#).

- **Safety of Feeding Waste or Discarded Milk to Animals.** The FDA recommends producers discard milk from symptomatic cows. Young calves are susceptible to disease and disease-causing pathogens can be transmitted through raw milk. If milk from cows showing symptoms of illness, including those infected with HPAI A (H5N1), cannot be discarded and is intended to be used to feed calves (or other animals, such as farm cats), the FDA strongly encourages that it be heat treated to kill harmful bacteria or viruses, such as influenza, before calf feeding. This heat treatment should be similar to times and temperatures commonly found in commercial milk pasteurization processing.
- **Safety of Unpasteurized Milk and Dairy Products for Human Consumption.** Raw milk and raw milk dairy products should not be sold or distributed for human consumption.

- **Disposal of Discarded Milk.** Disposal of milk should be handled in such a way as to prevent exposure to other animals. The FDA recommends producers take precautions when discarding milk from affected cows so that the discarded milk does not become a source of further spread. Producers should consult with their state regulatory authorities for specific recommendations or requirements, however, such precautions could include heat-treatment or pasteurization of discarded milk prior to dumping in lagoons or application of waste solids and ensuring biosecurity around lagoons (e.g., ensuring that animals and birds do not have access to lagoons).
- **Segregation of Milk from Infected Lactating Cows:** Maximal care should be taken to segregate lactating cows known to be actively infected with H5N1 so their milk does not enter the food supply, consistent with the [Pasteurized Milk Ordinance](#).

One Health: Agriculture and Public Health Collaboration. Monitoring farmers and farm workers with exposure to infected cattle is important to human and animal health. APHIS will continue to share information from their investigations as they coordinate with CDC, as has been standard procedure with influenza in poultry and swine. The Centers for Disease Control and Prevention (CDC) is working with state and local health departments to continue to monitor workers who may have been in contact with infected or potentially infected animals and test those people who develop symptoms.

People exposed to HPAI A(H5N1)-infected cattle, birds, or other animals (including people wearing recommended PPE) should be monitored daily for signs and symptoms of acute respiratory illness beginning after their first exposure and for 10 days after their last exposure. Farms with HPAI-positive herds should implement farm-administered daily active monitoring using a simple symptom survey, that CDC provides to state and local public health agencies and that can also be made available directly to farmers.

On a daily basis, farms should share the aggregate number of staff who may have been exposed to infected cattle or other animals and are now being monitored for symptoms to a local public health department to a local public health department to maintain awareness of possible spillover infection.

Symptomatic persons should be referred to local public health for prompt medical evaluation, testing, and treatment, such as initiation of antiviral treatment with oseltamivir (Tamiflu) as soon as possible. [Additional information related to public health monitoring and preventing exposures to H5N1 are available on CDC's website.](#)

People should take steps to reduce the risk of infection with avian influenza A viruses associated with working with animals or materials like raw milk. Farms should follow CDC's guidance for workers, including the use of personal protective equipment to minimize the risk of on farm HPAI transmission. These recommendations and additional information can be found at the links below:

- [Recommendations for Worker Protection and Use of Personal Protective Equipment \(PPE\) to Reduce Exposure to Novel Influenza A Viruses Associated with Severe Disease in Humans | Avian Influenza \(Flu\) \(cdc.gov\)](#)
- [Prevention and Antiviral Treatment of Bird Flu Viruses in People | Avian Influenza \(Flu\) \(cdc.gov\)](#)

Producers with positive herds are encouraged to collaborate with local and state public health agencies, for example, permitting public health access conduct on-farm activities. Human and animal health experts have a pressing need to better understand the spread of H5N1 and how the virus manifests and might impact both animal and human health. There is no substitute for capturing real-time information from

farmers and farmworkers who are or have experienced symptoms through surveys and monitoring of key health indicators. Willing producers and farmworkers should contact their local public health agency.