



**APHIS Recommendations for Highly Pathogenic Avian Influenza (HPAI) H5N1 Virus in Livestock
For State Animal Health Officials, Accredited Veterinarians and Producers
April 2, 2024**

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, as well as viral genome sequencing, so that we can better understand the situation, including characterization of the HPAI (H5N1) virus strain or strains associated with these detections as well as any other multi-factorial components of the disease event in dairy cattle. This is a rapidly evolving situation. USDA and Federal and State partners will continue to share additional updates as soon as information becomes available. Our goal is to safeguard the health of the herd and protect the industry; keep our milk and beef supply safe; and protect public health and human safety based on the most up-to-date information we have.

Recommendations (subject to be updated as new information is gathered):

Biosecurity

- Heighten biosecurity practices to keep disease off the farm.
- Heighten on farm biosecurity practices to prevent and control disease spread on the farm, with particular attention to mammary health to include special attention to good milking practices, such as equipment disinfection and milking sick cattle separately or last prior to parlor cleaning.
- Isolate newly added cattle when moved onto a premises.
- Avoid housing multiple species of animals together.
- Limit non-production animal access to farm areas and implement measures to exclude domestic pets (e.g., cats) and wildlife from buildings.
- The [Secure Milk Supply Plan](#) offers comprehensive dairy biosecurity practices.*
- Additional Farm Biosecurity Resources are available at:
 - [Biosecurity - National Dairy FARM Program](#)
 - [Secure Milk Supply Plan](#)
 - [Layout 1 \(tamu.edu\)](#)
 - [Biosecurity for cattle operations | UMN Extension](#)
 - [Farm Biosecurity - CFSPH \(iastate.edu\)](#)

Close monitoring for sick animals

- Producers should monitor herds closely for cattle with clinical signs of the disease (decreased milk production; reduced appetite; thickened, discolored milk; lethargy; fever; and/or dehydration).
- Milk samples from lactating cattle and nasal swabs from non-lactating cattle should be submitted to a National Animal Health Laboratory Network (NAHLN) laboratory for testing any suspect animals. See specific guidance on the [NAHLN website](#).
- Although the HPAI (H5N1) virus itself is a foreign animal disease (FAD), we are considering this as an emerging disease in cattle. APHIS encourages States and industry to use the established FAD/Emerging Disease investigation process to investigate credible reports of HPAI (H5N1) virus in dairy cattle (and beef cattle or other domestic livestock species).
 - [VS Guidance Document 12001.4 - Policy for the Investigation of Potential Foreign Animal Disease/Emerging Disease Incidents \(FAD/EDI\)](#) (2020)
 - [VS Guidance 12001.4 Ready Reference Guide](#) (2021)

- APHIS will reimburse for initial testing of suspect animals at NAHLN laboratories; accredited veterinarians can collect samples and should work with State Animal Health Officials (SAHO) and/or APHIS Veterinary Services' Area Veterinarian in Charge (AVIC) to obtain an FAD number.
- At this time, APHIS is not recommending depopulation of cattle; in most cattle, this appears to be a self-limiting disease with resolution with palliative care.

Movement of cattle

- At this time, USDA will not be issuing Federal quarantine orders, nor is APHIS recommending any State regulatory quarantines or official hold orders on cattle.
- HOWEVER, we strongly recommend minimizing movement of cattle as much as possible, with special attention to evaluating risk and factoring that risk into movement decisions.
- Do not move sick or exposed animals.
- If cattle must be moved, we strongly encourage extreme diligence by producers, veterinarians, and animal health officials 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.
- If cattle must be moved, APHIS recommends premovement testing of milk samples from lactating cows and nasal swabs for non-lactating cattle, by PCR for Influenza A and H5 virus, at a NAHLN laboratory for individual animals (statistical sample of lots). Premovement testing will not be funded by APHIS. It should be noted that how the virus is infecting dairy cattle, the duration, and route of HPAI (H5N1) virus shedding is yet unknown; a negative result does not guarantee disease freedom. Additional recommendations for testing can be found [here](#).
- APHIS scientists are working to establish testing protocols, rapidly assessing currently available tests and test performance including sample type to better understand the characteristics; based on this analysis, we may recommend surveillance other than testing sick cows in the future.

Other important points

- APHIS, States, and industry will continue to respond to HPAI in domestic poultry with a stamping out policy. The emergence of HPAI (H5N1) virus in dairy cattle provides additional incentives for domestic poultry producers to practice good biosecurity and conduct vigilant surveillance.
- We continue to work diligently to understand the risk factors associated with this virus, transmission routes, and pathogenicity in cattle.
- Our goal is to safeguard the health of the herd and protect the industry; keep our milk and beef supply safe; and protect public health and human safety based on the most up-to-date information we have.

Worker Safety (contributed by CDC)

CDC's current recommendations are as follows:

- Persons working with or around cattle, including those working with or disposing of milk waste, that are suspected or confirmed with HPAI (H5N1) virus infection should wear personal protective equipment (PPE) when in direct or close contact (within about 6 feet) with sick or dead animals, animal feces, litter, milk, or materials known to be or potentially contaminated with HPAI (H5N1) viruses.

- Recommended PPE includes properly fitted unvented or indirectly vented safety goggles or a face shield (if there is risk of liquid splash onto the respirator), disposable gloves, boots or boot covers, a NIOSH Approved® particulate respirator (e.g., N95® filtering facepiece respirator)*, disposable fluid-resistant coveralls, and disposable head cover or hair cover. Perform thorough hand washing before putting on and taking off PPE.
 - For younger children, it is important to remember that respirators are designed primarily to be used by adults in workplaces. The risks and benefits of children using them are not yet fully known. Additionally, for a respirator to be most effective, it must form a seal to the face to keep particles from leaking around the edges. Some respirators may be too big for younger children’s faces.
- Persons working with or around cattle, even if not in close contact, should avoid eating, drinking, smoking, chewing gum, and other such activities in potentially contaminated areas; avoid rubbing or touching the eyes, as it can result in conjunctivitis (pink eye); and perform thorough handwashing regularly, especially before eating, smoking, touching your face, and leaving work (including breaks), and before and after wearing PPE or going to the bathroom.
- People exposed to HPAI (H5N1) virus-infected cattle (including people wearing recommended PPE) should be monitored for signs and symptoms of acute respiratory illness beginning after their first exposure and for 10 days after their last exposure. Signs and symptoms in people can include:
 - Mild illness (e.g., cough, sore throat, eye redness or eye discharge such as conjunctivitis, fever or feeling feverish, rhinorrhea, fatigue, myalgia, arthralgia, headache)
 - Moderate to severe illness: (e.g., shortness of breath or difficulty breathing, altered mental status, seizures)
 - Complications: pneumonia, respiratory failure, acute respiratory distress syndrome, multi-organ failure (respiratory and kidney failure), sepsis, meningoencephalitis
- If any person exposed to HPAI (H5N1) virus infected cattle develops acute respiratory illness symptoms (see above) during the monitoring period, the State health department (including the State Public Health Veterinarian or equivalent) should be notified, the sick person should be isolated, and respiratory tract specimens should be collected for influenza A and A (H5) testing at a state health department laboratory. Empiric antiviral treatment with oseltamivir (twice daily x 5 days) should be prescribed and administered as soon as possible to any person with suspected H5N1 virus infection.
- When relevant, animal health and public health officials should use a One Health collaborative approach to conduct epidemiological investigations into animal and human infections of HPAI (H5N1).
- Additional guidance and details are available on the CDC webpages at:
 - <https://www.cdc.gov/flu/avianflu/hpai/hpai-interim-recommendations.html>;
 - <https://www.cdc.gov/flu/avianflu/index.htm>

Safety of Unpasteurized Milk and Dairy Products for Human Consumption from Exposed, Asymptomatic Cows (Contributed by FDA)

FDA recognizes this is an evolving situation and we still have limited data on asymptomatic or pre-symptomatic shedding in cattle. FDA’s current best recommendations are as follows:

- Raw milk, raw milk cheese, and other raw dairy products should not be manufactured from asymptomatic cattle that have been exposed.

- Exposed cattle generally means cattle located on a premises with cattle with suspected or confirmed H5N1. Given the variety of premises sizes and the potential for state requirements, FDA recommends producers consult with State regulatory officials and their veterinarian for further guidance.
- Test for HPAI in pooled milk prior to resuming commerce in unpasteurized dairy products following apparent resolution of illnesses on the premises.
- As guidance and recommendations on milk safety and HPAI may change as more is learned, please visit FDA's question and answer page here for the latest: <https://www.fda.gov/food/milk-guidance-documents-regulatory-information/questions-and-answers-regarding-milk-safety-during-highly-pathogenic-avian-influenza-hpai-outbreaks>

Safety of Feeding Waste or Discarded Milk to Animals (Contributed by FDA)

FDA's current best recommendations are as follows:

- Young calves are susceptible to disease and disease-causing pathogens that can be transmitted through raw milk.
- FDA recommends that on a farm with exposed cattle, all milk intended to be fed to calves and other animals (i.e., cats fed on the farm), including milk from cattle which are asymptomatic, should be pasteurized or heat treated-similar to times and temperatures commonly found in commercial milk pasteurization processing.
- Any other dairy products, such as raw milk cheeses or byproducts from exposed cattle, intended to be fed on the farm should be heat treated or pasteurized, as well.
- Any raw milk or raw milk products from exposed cattle that cannot be heat treated or pasteurized should be discarded.
- Many state Cooperative Extension Service programs have published detailed information on how to pasteurize or otherwise effectively treat waste milk before using it to feed calves (Penn State - [Pasteurization of Non-Saleable Milk](#)).
- Producers should also consult with their State regulatory authorities for state-specific recommendations or requirements.
- As guidance and recommendations on milk safety and HPAI may change as more is learned, please visit FDA's question and answer page here for the latest: <https://www.fda.gov/food/milk-guidance-documents-regulatory-information/questions-and-answers-regarding-milk-safety-during-highly-pathogenic-avian-influenza-hpai-outbreaks>

Disposal of Discarded Milk (Contributed by FDA)

- FDA recommends that producers take precautions when discarding milk from affected cows so that the discarded milk does not become a source of further spread.
- Such precautions include considering 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).
- FDA also recommends producers consult their State regulatory officials on any state requirements.

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