



LIVESTOCK POULTRY HEALTH

May 14, 2024

In March 2024, sick lactating dairy cattle in Texas were diagnosed with H5N1 highly pathogenic avian influenza (HPAI) virus. The virus was found in wild birds on the farm, which is believed to be the source of the infection. In early April, a farm worker on a separate farm was diagnosed with the same HPAI virus and developed severe conjunctivitis.

USDA APHIS issued a federal order changing requirements for lactating dairy cattle movement and reporting Influenza A viruses in livestock that took effect on Monday, April 29, 2024. This federal order does not have an end date. The last USDA APHIS federal order was issued in 2012 for the Porcine Epidemic Diarrhea Virus (PEDv) and ended in 2015.

As of today, no cases of HPAI H5N1 affecting livestock have been diagnosed in South Carolina.

This is a rapidly evolving situation with new information being captured daily. This document is to help South Carolina dairy industry stakeholders successfully navigate through the USDA federal order. We will update our website and this document as USDA updates its guidance through frequently asked questions.

Sincerely,

Michael Neault, DVM
State Veterinarian of South Carolina and Director of
Clemson University Livestock-Poultry Health

LIVESTOCK POULTRY HEALTH

Office of the Director

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Table of Contents

FEDERAL ORDER (FAQ) - SYNOPSIS	3
FEDERAL ORDER (APHIS REQUIREMENTS) – DEFINING LACTATING DAIRY CATTLE	3
FEDERAL ORDER (APHIS REQUIREMENTS) – GUIDANCE FOR DAIRY PRODUCERS AND VETERINARIANS EXPORTING LACTATING DAIRY CATTLE.....	4
WHAT SHOULD I DO IF I SUSPECT MY HERD HAS CLINICAL SYMPTOMS OF HPAI H5N1?	6
WHAT HAPPENS IF MY PRE-MOVEMENT TEST OR HERD WITH CLINICAL SIGNS IS POSITIVE?	7
FEDERAL ORDER (APHIS REQUIREMENTS) – CULLED LACTATING DAIRY CATTLE AND SLAUGHTER FACILITIES.....	8
FEDERAL ORDER (APHIS REQUIREMENTS) – LACTATING DAIRY CATTLE AT LIVESTOCK MARKETS	9
BIOSECURITY	12
WORKER PERSONAL SAFETY.....	13
RESOURCES.....	14

FEDERAL ORDER (FAQ) - SYNOPSIS

- Mandatory reporting of positive Influenza A nucleic acid detection diagnostic results in livestock to USDA APHIS.
- Mandatory testing for interstate movement of dairy cattle.
- The Federal Order allows USDA APHIS to control the spread and eliminate HPAI H5N1 from dairy cattle herds.

FEDERAL ORDER (APHIS REQUIREMENTS) – DEFINING LACTATING DAIRY CATTLE

- 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.



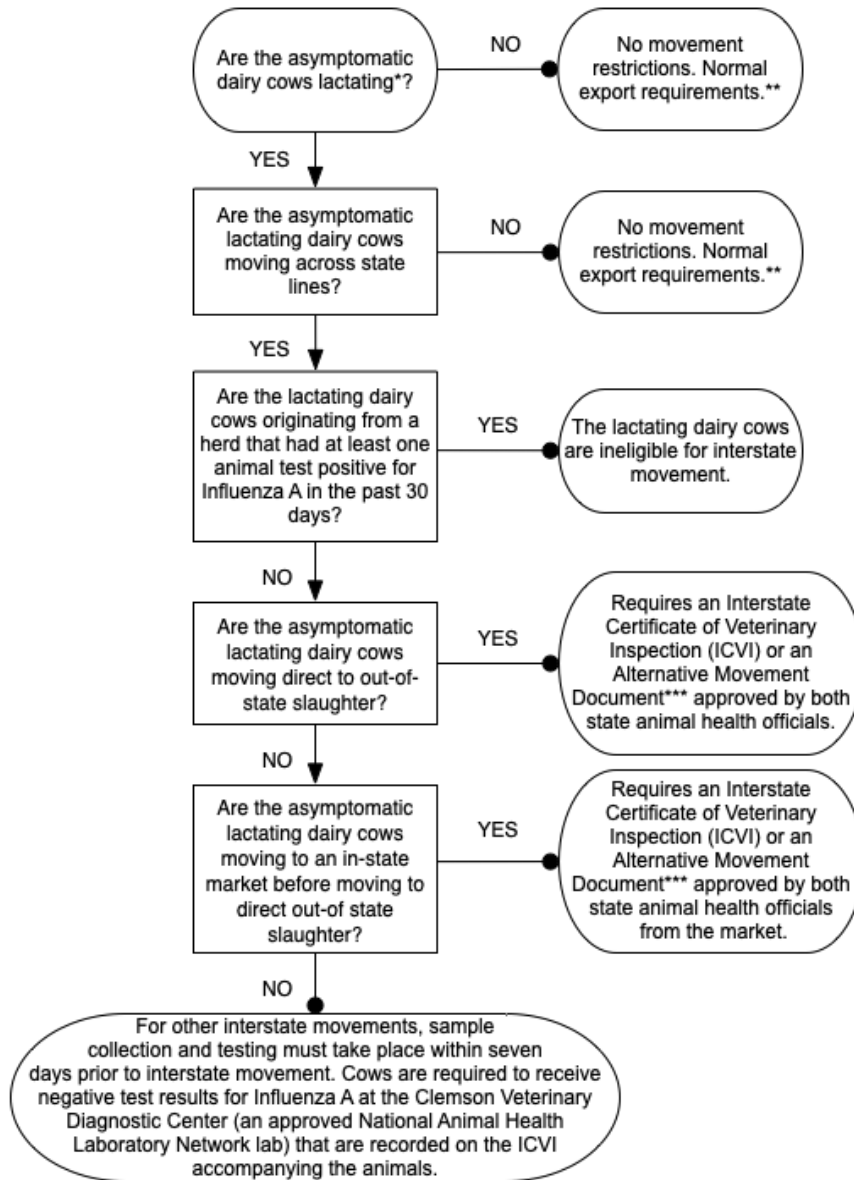
FEDERAL ORDER (APHIS REQUIREMENTS) – GUIDANCE FOR DAIRY PRODUCERS AND VETERINARIANS EXPORTING LACTATING DAIRY CATTLE

- [Contact the State of the destination](#) to see if there are additional movement requirements.
- Samples must be collected and tested no more than seven (7) days before the interstate movement.
 - All milk samples must be sent to the Clemson Veterinary Diagnostic Center (CVDC), a participating National Animal Health Laboratory Network lab, for testing. See the Resources Section for the contact information.
 - See [Appendix A](#) for guidance from the Clemson Veterinary Diagnostic Center (CVDC) on collecting milk samples.
 - The milk submission form is available:
 - By downloading the HPAI Livestock submission form at:
 - [CVDC website](#)
 - Hard copies can be mailed by contacting the CVDC (See the [Resources](#) section).
- Record negative results, accession number, and the date samples were collected in the testing portion of the Interstate Certificate of Veterinary Inspection (ICVI).
 - Clinical lactating dairy cattle are ineligible for interstate movement or movement to slaughter.
- Consider using an electronic certificate of veterinary inspection (faster delivery).
- The ICVI must include a statement –
 - The cattle are both free from, and have not been exposed to, a known contagious and infectious disease.
- See Figure 1 to help with export decisions.

Figure 1

South Carolina Exporting Requirements following USDA APHIS VS Federal Order Movement Requirements for HPAI H5N1 Virus Affecting Lactating Dairy Cows

Version 1.2 - May 6, 2024



* - Lactating dairy cows are currently in one of the lactation phases (e.g., early, mid, and late) of their current production cycle. Nonlactating dairy cows include helpers, dry cows, and bull calves.

** - Contact the state of destination or visit InterstateLivestock.com to see if there are additional conditions for entry.

*** - Contact Clemson University Livestock Poultry Health's Animal Disease Traceability Unit at (803) 726-7805 or (803) 726-7832. All ICVIs may only have official identification. Alternative movement documents may have official identification or back tags.

**** - Contact the Clemson Veterinary Diagnostic Center at (803) 721-7831 for testing information.

Adapted from the USDA Federal Order Guidance released April 26, 2024, and the USDA Clarification Communication released on April 27, 2024.



WHAT SHOULD I DO IF I SUSPECT MY HERD HAS CLINICAL SYMPTOMS OF HPAI H5N1?

HPAI H5N1 affecting all livestock species is a reportable disease to the South Carolina State Veterinarian's office.

Clinical signs affecting dairy cattle include:

- Decreased milk production,
- Acute sudden drop in production with some severely impacted cows experiencing thicker, concentrated, colostrum-like milk,
- Decreased feed consumption,
- Abnormal tacky or loose feces,
- Low-grade fever, and
- Early in the outbreak, impacted animals were primarily older cows in mid-lactation, while dry cows, heifers and youngstock were unaffected. Idaho, Michigan, and Ohio indicated that animals of all ages were infected.

If your herd experiences clinical signs, contact your veterinarian for a herd health check. USDA announced on Thursday, May 9, 2024, that they will reimburse producers for veterinarian costs associated with confirmed positive H5N1 premises. This provides support to producers to cover veterinary costs necessarily incurred for treating cattle infected with H5N1, as well as fees for veterinarians to collect samples for testing to diagnose the herd. This may include veterinary fees and/or specific supplies needed for treatment and sample collection. Veterinary costs are eligible to be covered from the initial date of positive confirmation at NVSL for that farm, up to \$10,000 per affected premises.

If the veterinarian suspects HPAI H5N1 is affecting your livestock, they will contact our office at (803) 788-2260 or complete [the LPH reportable disease form online](#), and we will begin an investigation to confirm. If a dairy is confirmed positive, we will work with you and your veterinarian to develop a herd health plan specific to your farm (see the [What Happens if my Pre-Movement Test or Herd with Clinical Signs is Positive?](#) section).

WHAT HAPPENS IF MY PRE-MOVEMENT TEST OR HERD WITH CLINICAL SIGNS IS POSITIVE?

- Samples will be submitted to the National Veterinary Services Laboratories (NVSL) for confirmatory testing.
- A verbal quarantine will be issued while waiting for the test results.
 - Livestock Poultry Health will work with producers on necessary movements under verbal quarantine.
- If the results are negative, the verbal quarantine is removed.
- If the results are confirmed positive for Influenza A:
 - Livestock Poultry Health will work with the dairy manager and veterinarian to create a herd health plan.
 - Milk from asymptomatic animals is allowed to be shipped for processing.
- Lactating dairy cattle from herds that have tested positive for Influenza A are not eligible for interstate movement for 30 days from the most recent collection of any sample that tests positive from any individual animal in the herd. After 30 days, animals must be tested again for movement. If positive again, there will be another 30-day period where animals must be tested again for movement.
- Specific circumstances for isolating test-positive cattle and moving to other premises across state borders may arise. If this occurs, please notify Livestock Poultry Health, and we will discuss it with our respective State Animal Health Officials and USDA VS officials.
- USDA will provide funding for the following:
 - Reimburse producers for veterinarian costs associated with confirmed positive H5N1 premises. This provides support to producers to cover veterinary costs necessarily incurred for treating cattle infected with H5N1, as well as fees for veterinarians to collect samples for testing. This can include veterinary fees and/or specific supplies needed for treatment and sample collection. Veterinary costs are eligible to be covered from the initial date of positive confirmation at NVSL for that farm, up to \$10,000 per affected premises.
 - Provide funding for heat treatment to dispose of milk in a biosecure fashion. This will provide producers with a safe option for the disposal of milk. Heat treatment performed by standards set by the FDA is the only currently available method to deactivate the virus in milk effectively. If a producer establishes a system to heat treat all waste milk before disposal, USDA will pay the producer up to \$2,000 per affected premises per month.
 - Compensate producers for loss of milk production. USDA is taking steps to make funding available from the Emergency Assistance for Livestock, Honey Bees, and Farm-raised Fish Program (ELAP) to compensate eligible producers with positive herds who experience loss of milk production. While dairy cows infected with H5N1 generally recover well, and there is little mortality associated with the disease, it dramatically limits milk production, causing economic losses for producers with affected premises. USDA can support farmers with the ELAP program to offset some of these losses. This compensation program is distinct from the strategy to contain the spread.

FEDERAL ORDER (APHIS REQUIREMENTS) – CULLED LACTATING DAIRY CATTLE AND SLAUGHTER FACILITIES

- There are no direct-to-slaughter pre-movement testing requirements for lactating dairy cattle.
- Lactating dairy cattle being shipped intrastate directly to a slaughter facility requires no further documentation.
- Lactating dairy cattle shipped interstate directly to a slaughter facility requires an Interstate Certificate of Veterinary Inspection (ICVI) or an Alternative Movement Document approved by both state animal health officials.
 - If both state animal officials agree, back tags may be an approved way to identify animals on an Alternative Movement Document.
- Clinical lactating dairy cattle are ineligible for interstate movement or movement to slaughter.

FEDERAL ORDER (APHIS REQUIREMENTS) – LACTATING DAIRY CATTLE AT LIVESTOCK MARKETS

Important points (see Figure 2 for specific details):

- Lactating dairy cattle arriving at the livestock market
 - Out-of-state animals (interstate)
 - Within South Carolina (intrastate)
- Lactating dairy cattle leaving the livestock market
 - Out-of-state movement (interstate)
 - Within South Carolina (intrastate)

- All interstate movements of lactating dairy cattle must be recorded on an Interstate Certificate of Veterinary Inspection (ICVI).
 - Clinical lactating dairy cattle are ineligible for interstate movement or movement to slaughter.
- Lactating dairy cattle moving interstate must be tested BEFORE going to market.
 - Lactating dairy cattle arriving at a South Carolina livestock market originating from an out-of-state movement remaining in South Carolina:
 - The samples were collected and tested no more than seven (7) days before the interstate movement.
 - The following is recorded on the ICVI:
 - The Influenza A test results were performed at a National Animal Health Laboratory Network laboratory.
 - The results were negative, and the lab name and accession number were recorded.
 - The following statement is on the ICVI:
 - The cattle are both free from, and have not been exposed to, a known contagious and infectious disease.
 - Lactating dairy cattle arriving at a South Carolina livestock market originating from an out-of-state movement that will be exported out-of-state by the livestock market:
 - Out-of-State Slaughter Market
 - Out-of-State Location (e.g., livestock market, farm, etc.)
 - Lactating dairy cattle arriving at a South Carolina livestock market originating in South Carolina that will be moving interstate:
 - Samples must be collected and tested no more than seven (7) days before the interstate movement.
 - All milk samples must be sent to the Clemson Veterinary Diagnostic Center (CVDC), a participating National Animal Health Laboratory Network lab, for testing. See the [Resources](#) section for the contact information.
 - See [Appendix A](#) for guidance from the Clemson Veterinary Diagnostic Center (CVDC) on collecting milk samples.
 - The milk submission form is available:

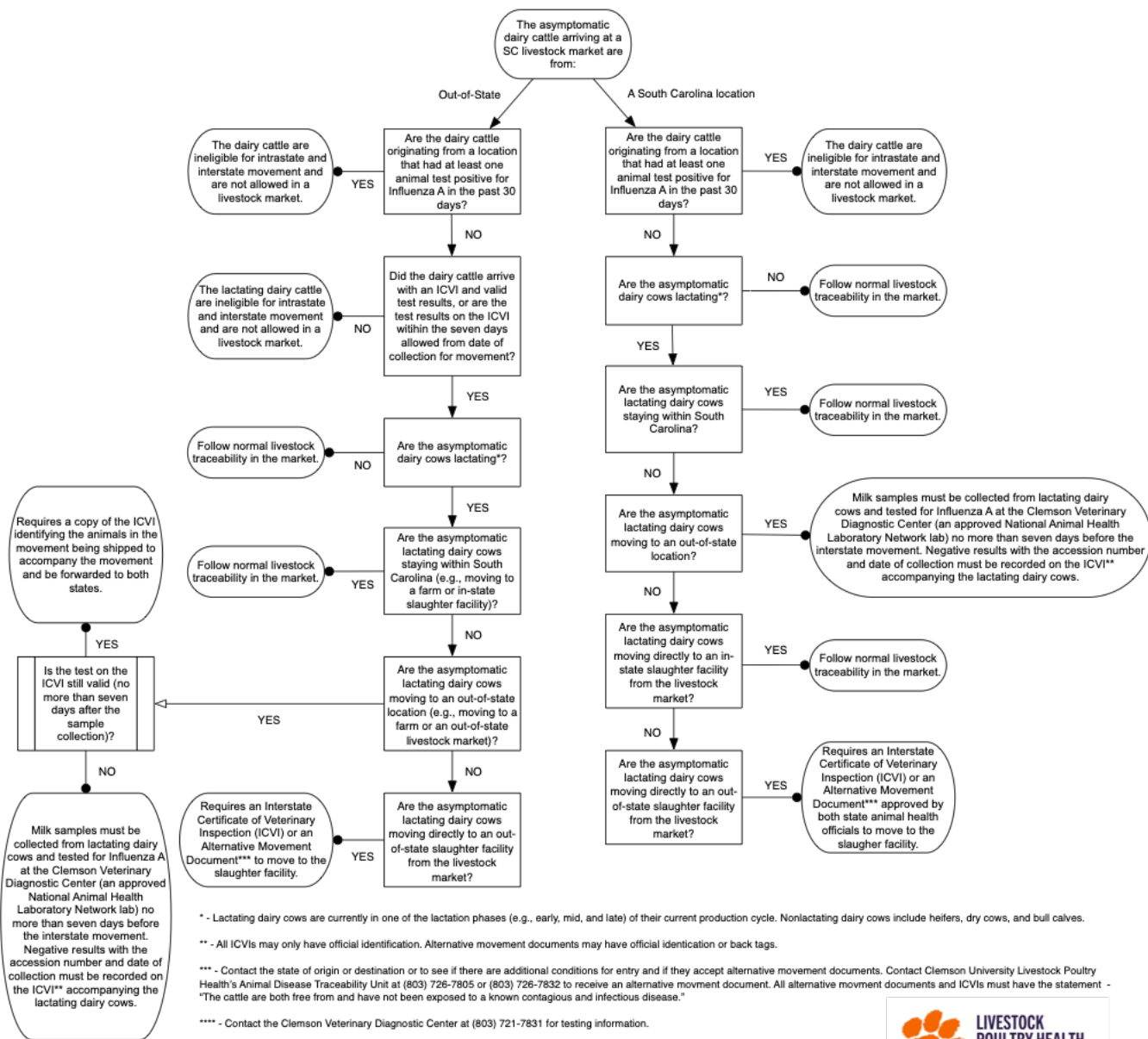
- By downloading the HPAI Livestock submission form at the or
- Hard copies can be mailed by contacting the CVDC (see the [Resources](#) section).
- Record negative results, accession number, and the date samples were collected in the testing portion of the Interstate Certificate of Veterinary Inspection (ICVI).
- Lactating dairy cattle arriving at a South Carolina livestock market originating in South Carolina that will remain in South Carolina:
 - Normal traceability at the livestock market.
- See Figure 2 to help with movement decisions.

Additional guidelines for animals moving to exhibitions and shows are being developed. They must have a negative test result from samples collected within seven days of movement. These animals may travel to their home herd using the same negative test result provided to the exhibition or show that does not exceed ten days in length.

Figure 2

South Carolina Livestock Market Guidelines following USDA APHIS VS Federal Order Movement Requirements for HPAI H5N1 Virus Affecting Lactating Dairy Cows

Version 1.3 - May 6, 2024



* - Lactating dairy cows are currently in one of the lactation phases (e.g., early, mid, and late) of their current production cycle. Nonlactating dairy cows include heifers, dry cows, and bull calves.

** - All ICVIs may only have official identification. Alternative movement documents may have official identification or back tags.

*** - Contact the state of origin or destination or to see if there are additional conditions for entry and if they accept alternative movement documents. Contact Clemson University Livestock Poultry Health's Animal Disease Traceability Unit at (803) 726-7805 or (803) 726-7832 to receive an alternative movement document. All alternative movement documents and ICVIs must have the statement - "The cattle are both free from and have not been exposed to a known contagious and infectious disease."

**** - Contact the Clemson Veterinary Diagnostic Center at (803) 721-7831 for testing information.

Adapted from the USDA Federal Order Guidance released April 26, 2024, and the USDA Clarification Communication released on April 27, 2024.



BIOSECURITY

Biosecurity is the best way to prevent the disease from entering the dairy.

Resources:

- [American Association of Bovine Practitioners](#)
- [National Milk Producers Federation](#)
- [USDA Veterinary Services Recommendations for Veterinarians and Producers](#)
- [Secure Milk Supply Plan](#)
- [Biosecurity – National Dairy FARM Program](#)
- [Biosecurity for Dairy Operations | TAMU](#)
- [Biosecurity for Cattle Operations | UMN Extension](#)
- [Farm Biosecurity – CFSPH \(iastate.edu\)](#)

USDA is offering funding for:

- Support producers in biosecurity planning and implementation. Provide support (up to \$1,500 per affected premises) to develop biosecurity plans based on existing secure milk supply plans. This includes recommended enhanced biosecurity for individuals who frequently move between dairy farms – milk haulers, veterinarians, feed trucks, AI technicians, etc. In addition, USDA will provide a \$100 payment to producers who purchase and use an in-line sampler for their milk system.
- Protect against the potential for spread between humans and animals. Provide financial support (up to \$2,000 per affected premises per month) for producers who supply PPE to employees and/or provide outerwear uniform laundering for producers of affected herds who facilitate the participation of their workers in USDA/CDC workplace and farmworker study. Complementary to USDA's new financial support for producers, workers who participate in the study are also eligible for financial incentives to compensate them for their time, regardless of whether federal, state, or local public health professionals lead the study.
- Provide funding for heat treatment to dispose of milk in a biosecure fashion. This will provide producers with a safe option for the disposal of milk. Heat treatment performed by standards set by the FDA is the only currently available method to effectively inactivate the virus in milk. If a producer establishes a system to heat treat all waste milk before disposal, USDA will pay the producer up to \$2,000 per affected premises per month.

WORKER PERSONAL SAFETY

Although the risk is low for people to develop illness from HPAI, people with close or prolonged, unprotected exposures to infected birds, livestock, or other animals, or in environments contaminated by infected birds, livestock, or other animals, are at greater risk of infection.

Some safety steps to take on your farm include:

- Wear the correct personal protective equipment (PPE), including an N95 filtering facepiece respirator, eye protection, and gloves. While eye protection (safety goggles) can be easy to forget or forego, its importance is emphasized by the human case of H5N1 in Texas, whose symptom was conjunctivitis (eye redness and irritation from infection by the virus).
- Bring a clean change of clothes and change into them after work before heading home.
- Wash hands thoroughly after contact with poultry or livestock.

For workers with backyard birds, increased biosecurity is essential when going from the dairy farm to the backyard birds or traveling from backyard birds to the dairy. It is best to change clothes and footwear between areas and wash hands or wear gloves.

The CDC outlines its recommendations for preventative measures for farm workers [here](#).

USDA is offering funding for:

- Protect against the potential for spread between humans and animals. Provide financial support (up to \$2,000 per affected premises per month) for producers who supply PPE to employees and/or provide outerwear uniform laundering for producers of affected herds who facilitate the participation of their workers in USDA/CDC workplace and farmworker study.

Complementary to USDA's new financial support for producers, workers who participate in the study are also eligible for financial incentives to compensate them for their time, regardless of whether federal, state, or local public health professionals lead the study.

RESOURCES

FEDERAL LINKS

- [USDA's Highly Pathogenic Avian Influenza \(HPAI\) Detections in Livestock](#)
- [USDA Support for Producers with Affected Dairy Premises](#)
- [USDA Federal Order](#)
- [Federal Order Frequently Asked Questions](#)
- [Federal Order Guidance Document](#)
- [Testing Guidance for Labs for Influenza A in Livestock](#)
- [USDA, HHS Announce New Actions to Reduce Impact and Spread of H5N1](#)
- [Clarification to Inquiries Received on April 24 Federal Order](#)

CLEMSON UNIVERSITY LINKS AND CONTACTS

- [Clemson Veterinary Diagnostic Center](#): (803) 726-7831
- [Clemson University Livestock-Poultry Health H5N1 Dairy Cattle](#)
- Livestock-Poultry Health Ruminant Programs Lead Contact:
 - [Dr. Patty Scharko](#), c: (803) 422-6998, (o): (803) 726-7803
- Register for free eCVIs or obtain RFID tags: [Charles Kelly](#), (o): (803) 726-7805
- South Carolina State Veterinarian's Office: (o): (803) 788-2260



HPAI Testing: Milk collection guidelines

Clemson Veterinary Diagnostic Center (CVDC) is approved to test dairy milk samples for HPAI testing. It is critical that the samples are submitted to the laboratory appropriately packed with complete paperwork for quick turnaround times. Please follow the instructions below for efficient sample accessioning and testing –

- Samples must be collected by or under direct supervision of an accredited veterinarian, or a sample collector approved by the State Animal Health Official.
- Collect milk/udder secretions from individual cows. Ensure each quarter is sampled. Combine milk from each quarter into one sample and submit between 3-10 ml per cow.
 - Use clean milk tubes or red-top tubes with no additives to submit milk and appropriately label the tubes.
 - You may pick up clean, empty 15 ml tubes from the laboratory.
- Include properly completed HPAI Livestock Submission Form along with the sample.
 - Make sure to complete the reason for testing and Premises ID.
 - Include all animal IDs.
- 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 occur no more than seven (7) days before interstate movement.
- For shipping, place the labeled tube samples in a Ziplock bag and place the bag(s) in a Styrofoam container with absorbent material and ice packs.
- Ship [overnight (Monday-Thursday)] or drop off samples: 500 Clemson Road, Columbia, SC – 29229.
- CVDC Sample receiving hours: M-F 8:00 AM – 6:30P M, Sat 10:00 AM – 2:00 PM. Closed on Sundays and State Holidays.
- If you are not shipping the milk samples immediately, store them at refrigerated temperatures. Do not freeze them unless you can store them at -80°C.
- You may request FedEx billable stamps from the laboratory ahead of time by calling 803-726-7831.
- Results will be reported within three (3) calendar days after receipt of the samples.
- USDA APHIS will reimburse the testing for interstate movement, clinical cases, herd status or any contact farm testing. The testing will be done at no cost to the producer.
- Currently, USDA APHIS is not paying for pre-movement sample collection.
- USDA is validating a bulk tank test. New guidance will be added when this is available.
- Don't hesitate to contact the laboratory at 803-721-7831 for assistance

