

HPAI In Dairy Cattle UPDATES

UTCVM VIROLOGY/IMMUNOLOGY LABORATORY

INFORMATION AS OF April 16th, 2024

What and where have cases been reported?

164 livestock cases across thirteen states – Idaho, Wyoming, Colorado, New Mexico, Texas, Oklahoma, Kansas, South Dakota, Minnesota, Iowa, Michigan, Ohio, and North Carolina – have reported positive for H5N1. Dairy and poultry workers have also been affected.

What are the symptoms?

In cattle – decreased herd-level milk production, acute drop in individual milk production, decreased appetite, dry feces, and mild fever. Other symptoms include drop in rumination, the thicker and darker milk (resembling colostrum) potentially with flakes, and cows with severe signs often have all quarters involved. Symptoms are generally mild and cattle recover within a few days.

Human cases thus far, the major reported sign has been conjunctivitis and a mild fever while a select few have experienced typical flu-like symptoms.

What do we know about this strain of HPAI?

The strain of Highly Pathogenic Avian Influenza (HPAI) within the dairy cattle cases matches that of H5N1 Eurasian lineage from the Goose/Guangdong clade 2.3.4.4b. The strain found in dairy cattle has no mammalian pathogenicity markers. However, the strain from the one human case so far reportedly has some genomic mammalian pathogenicity markers.

What do we know about transmission?

It has been reported that the originally exposed dairy herd (TX) came into direct contact with infected birds. The cases in MI and NM have reported lateral transmission between cows of the affected herd.

Key findings identified to date as potential transmission risk factors include shared personnel and vehicles between premises and frequent visitors on/off premises.

What samples are best for diagnostics?

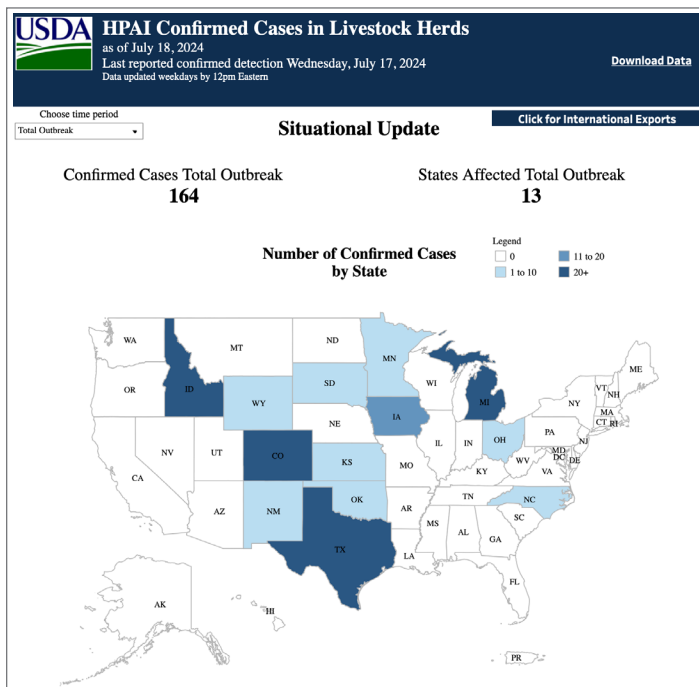
The best sample for AI diagnostics in cattle during this outbreak is milk and mammary tissue, followed by nasal swabs. Feces have variable results on PCR diagnostics. At this time, testing is being done on a case-by-case basis, and any suspected cases of HPAI in dairy cattle should be brought to the attention of the State Veterinarian before pursuing diagnostics.

Is my milk safe?

Yes. Milk from clinically sick cows is not allowed to enter US food production, and bulk tanks from affected herds are removed from production. Additionally, pasteurization is effective in eliminating the virus.

What should cattle owners & veterinarians do?

Cattle owners should quarantine new animals for at least 2 weeks before herd introductions. Sick cattle should be



immediately isolated and seen by a licensed veterinarian. All animals should be tested before necessary movements, and movements should be minimized. Biosecurity of all visitors (including vehicles) should be meticulous.

By federal order per the USDA-APHIS on April 24th, dairy cattle are required to receive a negative Influenza A virus test at an approved National Animal Health Laboratory Network (NAHLN) laboratory PRIOR to interstate movement. Any positive Influenza A nucleic acid detection results (PCR or sequencing) in livestock MUST be reported to USDA-APHIS.

For the state of TN, states reportedly affected by HPAI in dairy cattle shall require permitting by the TDA and may be required to complete pre-movement AI testing as determined by the State Veterinarian. Failure to abide by these importation requirements will result in a whole premises quarantine on imported animals for 21 days and negative PCR testing for HPAI before release. Movement of cull lactating cows within TN with the intent for direct slaughter do NOT require pre-movement testing as long as they remain in the slaughter chain. Intrastate movements of dairy cattle do not require official documentation or testing. All lactating dairy cows must have a Certificate of Veterinary Inspection (CVI) and a negative HPAI test within 7 days before import into TN.

If you suspect a case of HPAI in dairy cattle, immediately call the State Veterinarian at (615) 837-5120 or the USDA-APHIS at 1-866-536-7593.



For the most up to date information from the USDA, visit their website at www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/livestock