DAIRY VETERINARY NEWSLETTER

March 2024

Highly Pathogenic Avian Influenza in Dairy Cattle - What is the Utah Response?

What began as reports of a "mystery syndrome" in some dairy cattle in Texas has turned into a major story in mainstream news media as well as in U.S. agriculture, and especially in the dairy industry. For much of the last two weeks, numerous updates have been issued regarding the outbreak; in the well-intended effort to provide timely and needed information, they sometimes include conflicting information or duplicate information on the same day. At the time of this writing, the situation will be summarized, including what the Utah dairy industry and state department of agriculture are doing in response.

Early reports of clinical signs of a mystery syndrome in dairy cattle

Late in the third week of March 2024, a syndrome including various combinations of clinical signs was described in a few Texas dairy herds:

- Decreased milk production, usually described as a 10% to 20% decline in individual cows
- Dry, hard manure, or in some cases, diarrhea
- Decreased feed intake
- Fever (Temp $> 102.5^{\circ}$ F)
- Mastitis
- Pneumonia
- Thick, gel-like or colostrum-like milk
- Dry cows and first lactation cattle were not affected
- Cows in 2nd-plus lactation, sometimes "older cows", and cows in mid-lactation or later were affected
- Different sources' reports of duration of clinical signs in most cattle range between 7 14 days



Dry and hard manure is sometimes observed -Farm Progress



Inappetence and pneumonia are sometimes observed - DairyPesa

Diagnosis of highly pathogenic avian influenza (HPAI) in dairy cattle

On March 25, 2024, the USDA, FDA, and CDC <u>confirmed the detection of highly pathogenic avian influenza</u> (HPAI) in two dairy herds in Texas and two dairy herds in Kansas. (The current HPAI outbreak in poultry, backyard flocks, and wild birds is the deadliest in U.S. history, and has been ongoing for over two years.)

On March 29, 2024, working closely with FDA and CDC, the USDA Animal and Plant Health Inspection Service (APHIS) announced that the National Veterinary Services Laboratories (NVSL) in Ames, Iowa was working on confirmation of HPAI-positive test results from dairy herds in Texas, New Mexico, and Idaho. (Kansas was not mentioned in this update.) No one with any connection to outbreak investigation or involved in the dairy industry in Utah failed to notice the increasing proximity to Utah evident in the spread of the disease.

On April 5, 2024, APHIS reports included confirmed diagnosis of HPAI in the following states and numbers of dairy herds:

- Texas (7 herds)
- Kansas (2)
- Idaho (1)
- New Mexico (1)
- Michigan (1)
- Ohio (1) NOTE: There continue to be conflicting reports as of April 5, 2024 regarding whether NVSL has or has not confirmed the diagnosis in the Ohio herd; several announcements and lists of affected states either do or do not include Ohio.

What is the current response of the Utah dairy industry, including recommendations for producers?

As of March 26, 2024, and in effect at least until April 25, 2024, the Utah Department of Agriculture and Food (UDAF) has implemented a change in import requirements for dairy cattle entering Utah:

"Certificates of Veterinary Inspection issued for the importation of lactating dairy cattle from Texas, Kansas, New Mexico, and other states affected with the emerging cattle disease, must be issued within seven days of transport. Certificates must also include a statement that there have been no signs of the emerging cattle disease in the herd." (NOTE: At the time the above statement was released, the detection of HPAI as the likely cause of the outbreak had been determined, which was acknowledged in another part of the UDAF announcement that day.)



Among the new restrictions on importation of dairy cattle into Utah from affected states, health certificates now require a written statement of no signs of "the emerging cattle disease" in the herd(s) of origin - Shutterstock

APHIS has released the following recommendations for dairy producers regarding HPAI:

Biosecurity

- Heighten biosecurity practices to keep disease off the farm. (Specifics were not provided; washable boots or disposable boots, coveralls for visitors, ideally visitors have not visited other dairies that day, and avoidance of purchasing animals from source herds or for now, even from infected states would be important.)
- 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 premise.
- 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.

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 [suspect] cattle and nasal swabs from non-lactating [suspect] 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.
- 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, [USDA] strongly recommends 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, 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.
- 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.

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.

• Conjunctivitis has been reported in one person who had exposure to dairy cattle in Texas presumed to be infected with HPAI A(H5N1) viruses. The patient - - is being treated with an antiviral drug for flu.

Safety of milk for human consumption

FDA recognizes this is an evolving situation. FDA's current best recommendations are as follows:

- Raw milk, raw milk cheese, and other raw dairy products should not be manufactured from [milk of] asymptomatic cattle that have been exposed.
- Test for HPAI in pooled milk prior to resuming commerce in unpasteurized dairy products following apparent resolution of illnesses on the premises.
- (Not from FDA): Pasteurization kills the HPAI virus in milk. Despite this, to maximize public safety, milk from affected cows is all being discarded and should not be used for any human consumption.
- Pasteurized dairy products are safe for human consumption.

This is a rapidly changing outbreak, and more news will surely be forthcoming. Dairy veterinarians are one of the key components in surveillance for HPAI and advising producers on measures to attempt to prevent it from entering Utah. Please let us know your comments and suggestions for future topics. I can be reached at (435) 760-3731 (Cell), or David.Wilson@usu.edu.

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