CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

An Overview of H5N1 Avian Influenza Virus in Livestock

(Updated October 11, 2024)

California Outbreak

In March 2024, there was a single incident of H5N1 Avian Influenza that infected a dairy cow in Texas. The single point infection led to the current outbreak of Bovine Influenza A across the U.S. On August 30, 2024, California dairies located in the Central Valley tested positive for the virus. All affected dairies are placed under quarantine and enhanced biosecurity measures are in place to prevent the spread of the virus. Sick cows are isolated and are being treated at the dairies. Most infected livestock and dairy cattle can fully recover from H5N1 infection within a few weeks.

Disease Spread

H5N1 Highly Pathogenic Avian Influenza is a highly contagious and often deadly respiratory disease in poultry, such as chickens, turkeys, and geese. It is often spread by wild birds and can infect and make other animals such as livestock and other mammals sick too. The current strain of H5N1 avian influenza affecting our livestock is spreading across the country and state due to several factors. The primary factor of viral spread is through movement of infected livestock. Transmission between farms is likely due to normal business operations including the movement of animals, contaminated vehicles, and other farm equipment frequently moving on and off affected premises and on to other premises. Additionally, H5N1 avian influenza infected cattle can have an asymptomatic incubation period of about 3-10 days so, when infected cattle that look healthy are moved, non-infected cattle are exposed to the virus.

Clinical Signs

Infected cattle may be asymptomatic (subclinical) or symptomatic (clinical) and virus is predominantly found in milk and mammary tissue regardless of symptoms.

Clinical signs may include:

1. Decrease in feed consumption with a simultaneous decrease in rumination and rumen motility
2. Respiratory signs including clear nasal discharge
3. Acute drop in milk production. Severely affected cattle may have thicker, concentrated, colostrum-like milk or produce no milk at all.
4. Abnormal tacky or loose feces

5. Lethargy
6. Dehydration
7. Fever

Diagnosis & Prevention

There is currently no cure for animals infected with Bird Flu and there are currently no vaccines available to prevent this disease. Veterinarians and livestock owners who suspect an animal may have Bird Flu should immediately contact a State or Federal animal health authority.

Testing for H5N1 Avian Influenza in milk samples (lactating cattle) or nasal swab samples (non-lactating cattle) can confirm viral infections.

Even with the best defense measures, H5N1 Bird Flu can still affect your herd. The following are ways to help protect livestock:

- No movement of clinical dairy cattle for 30 days past last matrix-A positive H5N1 test
- Ensure cattle trailers are only used to haul your cattle or thoroughly clean and disinfect trailers between use.
- Adhere to an isolation period of a minimum of 30 days for new arrivals with active observational surveillance for clinical signs.
- Feed only heat treated/pasteurized milk to calves and other livestock and heat treat/pasteurize any milk being discarded.
- Milk affected animals last with thorough cleaning and disinfection of milking equipment (utilizing dedicated milking units if possible)
- Separate animals with clinical signs from healthy animals
- Use dedicated coveralls and boots when handling clinical animals (use dedicated farm personnel to only handle clinical animals where possible).
- Use good personal hygiene measures including freshly laundered clothes and showering before visiting dairy farms or processing facilities.
- Limit vehicle/visitor traffic to strictly essential deliveries/visits (feed, milk, waste removal).
- Clean and disinfect vehicles crossing the line of separation and entering/leaving the farm or obtain a commercial car wash before and after visiting a livestock operation.
- Engage state and federal wildlife agencies for wild bird mitigation.

Sampling Protocol for H5N1 Avian Influenza in Livestock

1. Protocol for cows with clinical signs of H5N1 Avian Influenza
    a. For dairies with suspect clinical signs contact your district office for regulatory personnel to conduct a Foreign Animal Disease investigation (FADi).
2. Protocol for lactating dairy cattle moving interstate (**not direct to slaughter** movements)

a. All lactating dairy cattle moving interstate require a Certificate of Veterinary Inspection (CVI) and matrix-A negative H5N1 Avian Influenza test from a National Animal Health Laboratory Network (NALHN) laboratory within seven (7) days of movement.

b. Samples must be collected by an accredited veterinarian, a sample collector approved by a state animal health official, or a designated individual at a farm that was trained to collect milk and nasal swab samples.

c. The sample must be sent to an approved NAHLN laboratory (UC Davis California Animal Health and Food Safety (CAHFS) Laboratory is currently only approved laboratory in California)

d. 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, only 30 animals total must be tested.

3. Protocol for non-lactating dairy cattle moving interstate and any dairy cattle moving interstate direct to slaughter:

    a. Currently no testing required, must have CVI within seven (7) days of movement.

CDFA appreciates your efforts to protect livestock health in California on a daily basis. Remember, people, equipment, and vehicles can easily spread dangerous diseases from one location to another.