Highly Pathogenic Avian Influenza in Dairy Cattle

By: Dr. Amanda Price, Utah Assistant State Veterinarian

On March 25, 2024, the United States Department of Agriculture (USDA) announced that four dairies in Texas and Kansas that were experiencing unusual disease symptoms had detections of the virus that causes highly pathogenic avian influenza in milk and nasal swabs. On March 28 and 29, <u>additional cases were found</u> in Idaho, Michigan, New Mexico, and Ohio. Prior to March, this virus had never been detected in cattle. There is a lot we don't know about this disease including how the cows contracted the disease and how or if it is being spread between cattle. These answers will take time, so we encourage dairy producers to have patience with their regulatory agencies as states and federal agencies work together to find those answers.

Highly pathogenic avian influenza is the name given to influenza viruses that can cause high death loss in domestic poultry and other birds. The virus found in the affected cattle is the same strain that has been circulating in wild birds in North America and <u>affecting domestic poultry</u> since 2022. Prior to these dairy cattle cases, it has been found in <u>several mammalian species</u> including bobcats, bears, dolphins, seals, raccoons, and goats. Influenza viruses are constantly changing; this is why the flu vaccine changes every year and is more effective some years than others. These new dairy cases may be due to a recent change in the virus' genetic code.

Dairies in Texas began seeing this disease in February 2024. USDA has only had reports in lactating cattle; no cases have been reported to date in dry cows, youngstock, or beef cattle. The number of cases on an affected dairy appears to peak around day four after the first case and then tapers off by day ten. Anywhere from one to 20 percent of the lactating cattle in the herds have been affected. Signs of this disease include:

- Decreased milk production
- A sudden sharp drop in production with some severely impacted cows experiencing thicker, concentrated, colostrum-like milk
- A decrease in feed consumption
- Abnormal tacky or loose feces
- Low-grade fever

If dairies suspect they have cases of this disease, they should move all sick cows to the hospital pen and contact their veterinarian immediately. Veterinarians should contact the State Veterinarian to get a case number and then collect milk, blood, feces, urine, and nasal swabs from both affected and unaffected animals. In Utah, those samples should be submitted to the <u>Utah Veterinary Diagnostic Laboratory</u> in Logan.

There have not been any confirmed cases of this strain of avian influenza in people in the US. However, one of the affected dairies reported flu-like symptoms in some of their workers. <u>Symptoms in people</u> in previous outbreaks have ranged from no symptoms to mild flu-like symptoms to severe pneumonia. Symptoms may include fever, cough, sore throat, runny or stuffy nose, body aches, headaches, fatigue, and shortness of breath. Workers on affected

dairies or in processing plants that experience these symptoms should contact their <u>local health</u> <u>department</u>.

Because so little is known about this disease, dairies and processors should implement biosecurity practices to prevent moving this virus between farms. Biosecurity resources and checklists are available on the Secure Milk Supply website at <u>securemilksupply.org</u>. Some specific measures dairies can take include:

- Quarantine new animals on the dairy before commingling them with the herd.
- Disinfect milking equipment regularly.
- Keep wild birds away from feed storage areas and water troughs. Notify the Utah Department of Agriculture and Food (UDAF) and the Division of Wildlife Resources (DWR) if you find dead birds (especially waterfowl) on your dairy. Work with the UDAF Predator Control program to manage nuisance birds on the dairy.
- Require that any vehicles traveling between dairies disinfect their tires before coming onto your dairy. Here is a list of <u>disinfectants effective against avian influenza</u>.
- Avoid cross-contamination between on-farm vehicles like tractors and outside vehicles such as milk trucks, rendering trucks, and employee vehicles. Move the dead animal pick-up site if necessary to avoid dead haulers driving through the dairy.
- Avoid non-essential visitors. Provide disposable boots for milk truck drivers and visitors.

As stated before, there is a lot we still don't know about this disease. As we learn more, we will continue to communicate best practices with producers and processors.