



## Handling Milk from Cattle Infected with H5N1 Influenza



Highly Pathogenic Avian Influenza H5N1 virus is an emerging disease in cattle. Currently, it is unclear exactly how the virus is being spread between farms. Preliminary data indicates some instances of spread from cow to cow, dairy to dairy, and from dairy premises to poultry premises. Testing indicates virus is shed in milk at high concentrations, therefore, anything that comes in contact with unpasteurized (raw) milk from infected animals may spread the virus. This includes humans, animals, vehicles, and other objects or materials. All affected premises are required to develop a milk management plan with their field investigator to help minimize the spread of the virus.

### **Can milk from an affected premises be sold for human consumption?**

Milk from animals showing clinical signs or having a confirmed positive must be withheld from sale. Milk from animals not showing signs of disease can be sold to a dairy processing plant where it will be pasteurized. Studies have shown that pasteurization is an effective method for inactivating the virus. An affected premise does not require any special permits to sell milk for pasteurization.

Because raw milk from an affected premises may contain live viral particles, this milk cannot be sold from the farm to individuals for direct consumption. Raw milk can harbor dangerous germs that can pose serious health risks to those that consume it.

### **Can waste milk from an affected premises be used for personal consumption or fed to other animals?**

Because live H5N1 viral particles can be present in raw

milk from infected cattle and this could cause illness, producers should not offer milk from these animals to people or other animals (calves, cats, dogs) prior to heat treatment. Some animals, such as cats, can have very serious health consequences from an infection with the H5N1 virus, and all exposures to potentially contaminated milk should be avoided.

### **What measures can be taken to prevent the spread of H5N1 through raw milk on the farm?**

Producers should take precautions when discarding milk from infected cows so this milk does not become a source of further viral spread. The best option for handling discarded milk is heat-treatment or pasteurization prior to dumping in lagoons or field application. Heat treatment is the only proven method for inactivating the virus. Other methods should be considered only if heat treatment is not available.

## How should affected premises handle disposal of a rejected or contaminated load of milk?

Occasionally milk sold from farms is rejected at the receiving plant; examples may include an antibiotic positive load, excessively high bacterial counts, or an oversupply situation. Large quantities of milk from cows infected with H5N1 should be dealt with in a carefully considered manner. All milk that has left the farm, but that requires disposal, must be returned to the affected premises and disposed of in an approved manner. Prior approval of the disposal method is required for each individual disposal event.

- In the event of a rejected or contaminated load from an affected premises contact the MDA at 651-201-6700 or [Mooving.Milk.MDA@state.mn.us](mailto:Mooving.Milk.MDA@state.mn.us) to obtain approval for a disposal plan.
- DO NOT send a rejected or a contaminated load to a different premises. If on-site disposal is not an option, the MDA will review an alternate plan with the producer. Other options, such as incineration, may be viable and acceptable options.
- Clean and disinfect all equipment used to transport and dispose of the milk.

## How should affected premises handle on-farm disposal of small quantities of waste milk?

Milk from infected animals must be held out of the bulk tank and handled appropriately. Any milk from sick cows used to feed calves (or other animals) must be heat treated prior to feeding. This heat treatment should use similar times and temperatures commonly found in commercial milk pasteurization processing and calf pasteurizers used on farms. Additional recommendations for disposing of a small quantity of waste milk include:

- Pasteurizing all waste milk prior to dumping in a lagoon or applying to fields.
  - Be considerate of your neighbors – do NOT spread on fields near a poultry or dairy farm.
- If pasteurization is not available, incinerate or add chemical treatment to alter the pH of the milk and inactivate the virus prior to dumping in a lagoon or applying to fields. Contact MDA for more information on acceptable chemical treatment methods.
- Ensure all milk disposed into a lagoon is stored for at least one month.
  - Limit the access of wild birds and animals to the lagoon to the extent possible.
  - Do NOT spread on fields before the aging process is completed.
  - When manure is spread on fields, incorporate it right after application.

## What other precautions should I take when disposing of waste milk?

Because waste milk is highly likely to contain live viral particles, anyone who is handling the milk should wear appropriate personal protective equipment (PPE). Wearing safety goggles, gloves, and face coverings/shields are highly recommended to avoid milk splash. Other options may include fluid-resistant coveralls, respirator (e.g. N95 respirator), rubber boots/boot covers, hair/head coverings, and other clothing that can be changed prior to moving into other animal areas, homes, or other locations. Workers should also avoid eating, drinking, smoking, vaping, chewing gum, or dipping tobacco while handling waste milk. PPE should be removed or changed prior to going to the bathroom, moving to other areas of the farm, or going home.

## What incentives are available to offset the cost of on-farm disposal of waste milk?

The United States Department of Agriculture (USDA) has established financial incentive programs to help producers offset the cost of addressing the H5N1 virus, including reimbursement for establishing a system used to heat treat all waste milk from sick cows before disposal.

Contact the USDA Area Veterinarian in Charge for Minnesota ([stephan.l.schaeffbauer@usda.gov](mailto:stephan.l.schaeffbauer@usda.gov)) to get additional information on how to take advantage of these incentives and learn more about the latest programs.