



Bovine Brucellosis

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Bovine brucellosis is a contagious disease of livestock typically caused by *Brucella abortus* which may also infect people. The disease is also known as “contagious abortion” or “Bang’s disease” in livestock and as “undulant fever” in people because of the recurring fevers accompanying the infection. It is a serious disease that has been eradicated from most livestock in the United States (U.S.). The only remaining reservoir of infection in the U.S. is in elk and bison in the Greater Yellowstone Area, with regular spill-over of infection into livestock. It is still prevalent in cattle in Mexico.

Incubation

The incubation period in cattle ranges from two weeks to several months or longer depending on their reproductive status when infected. Cattle can be infected as calves but may not show signs of infection until they abort as heifers or mature cows. Some cattle become carriers, shedding the bacteria without showing signs of illness.

Disease in Cattle

The most obvious signs in pregnant cattle include abortion, birth of weak calves, and vaginal discharge. Not all infected cows abort, but those that do usually abort between the fifth and seventh month of gestation. Even though their calves can appear healthy, infected cows continue to harbor and discharge infectious organisms in milk and uterine secretions for life. Other signs include retained placentas, uterine infections, low conception rates, hygromas, reduced milk yields in cows, and orchitis in bulls.

Cattle can be a source of *B. abortus* infection for horses resulting in the conditions of fistulous withers and poll evil which can be very difficult to treat.



Human Health

People infected with the bacteria that causes bovine brucellosis can develop fatigue, headaches, high fever, chills, joint pain, backache, and orchitis (in males). These symptoms may persist for several weeks to months or years if not treated.

Complications, such as meningitis, arthritis, and infection of the heart valves (sometimes leading to death) can occur. The main source of human infection is consuming imported raw dairy products such as soft fresh cheeses made from unpasteurized milk or consumption of raw milk.

There is no danger from eating cooked products as normal cooking temperatures kill the disease-causing bacteria. Contact with reproductive discharges from infected animals may spread the disease to livestock workers. Impermeable rubber or plastic gloves should be worn when in contact with placentas, reproductive fluids, or aborted fetuses. Milkers can be infected through the skin or by milk contacting mucous membranes. Washing hands with soap and water after working with livestock is recommended.

Prevention

California laws allow female cattle to be vaccinated against brucellosis between 4 and 12 months of age. All female dairy breed cattle living within or entering the state must be vaccinated by the age of 12 months. In California, vaccination of female cattle over 12 months of age is generally not allowed. Unvaccinated dairy breed heifers over 12 months of age may only be sold for slaughter; either directly, or to an approved feedlot for feeding to slaughter. Vaccination is optional for beef breed females. Spayed heifers, steers, and bulls are exempt from this regulation.

Human disease can be prevented by consuming only pasteurized dairy products and by workers using good hygiene. Rapid detection and removal of new cattle cases and prevention of the disease in cattle by vaccination is key to preventing human disease. Please report suspicious cattle abortion events to CDFA and submit samples for laboratory diagnosis.

Animal Health and Food Safety Services Animal Health Branch

Headquarters - (916) 900-5002
Redding District - (530) 225-2140
Modesto District - (209) 491-9350
Tulare District - (559) 685-3500
Ontario District - (909) 947-5932

USDA-APHIS-VS - (916) 854-3950 or (877) 741-3690

For more information on the Animal Health Branch please visit: www.cdfa.ca.gov/ah

