



Fact Sheet on Brucellosis

What is Brucellosis?

Brucellosis is a disease caused by several species of the *Brucella bacterium*. It is a 'zoonotic' disease, meaning it can spread from animals to humans. Brucellosis is a contagious disease that can affect many species of mammals, particularly cattle, swine, bison, elk, deer, goats, sheep, horses and other ruminants. According to the World Health Organization, human infection is rare.

Canada initiated an eradication program for bovine brucellosis in livestock in the 1940s, and was declared free of the disease in 1985. Several isolated cases of bovine brucellosis in livestock were subsequently identified, with the last known case occurring in a cattle herd in Saskatchewan in 1989.

Brucellosis in Canada?

Three beef cows from two farms in British Columbia were classified as "reactors" in brucellosis tests done during routine slaughter testing in the United States at the end of May 2010. The two farms, which had been quarantined, were removed from quarantine after a thorough investigation by the Canadian Food Inspection Agency (CFIA) completed on June 9, 2010, did **NOT** confirm the presence of brucellosis.

The CFIA investigation verified the health status of the herds and traced the movement of animals on and off both premises.

The CFIA also completed further analysis of the original samples from the USDA at its internationally recognized brucellosis reference laboratory in Ottawa. These analyses, using more specific tests, found that the original suspicious test reactions observed in the U.S. laboratory appear to have been caused by another bacterium that is known to create false-positive test results.

The United States Department of Agriculture (USDA) has removed temporary brucellosis testing requirements for certain cattle and bison from British Columbia effective June 17, 2010. Sexually intact cattle and bison that have resided in B.C. since March 25, 2010, are no longer required to test negative for brucellosis prior to export to the U.S.

What are the clinical signs of Brucellosis?

Following infection, the bacteria spread through the blood and lymphatic system of the animal, infecting many tissues—particularly the reproductive organs, mammary glands and joints. This can cause abortions, weakened offspring and infertility.

In cattle, abortions are the main clinical sign of the disease. Most animals abort during the first pregnancy following infection, and will carry subsequent pregnancies to term. However, they remain carriers for life, and can continue to shed large quantities of the bacteria during subsequent births and occasionally in their milk.

How is Brucellosis spread?

People can be infected by consuming unpasteurized milk and dairy products from infected cows, sheep and goats. It can also be spread when skin wounds are contaminated through contact with infected animal tissue, urine, blood, vaginal discharges, aborted fetuses, and especially placentas.

While brucellosis can cause a disease in humans called “undulant fever,” human cases are rare in Canada. Sanitary practices in slaughterhouses and pasteurization of milk are effective in preventing the vast majority of human cases of brucellosis. Human infection can be prevented by avoiding unpasteurized dairy products (e.g. milk, cheese) and by careful handling of infected animals and their tissues.

There is no danger from eating cooked meat products, because the disease-causing bacteria are not normally found in muscle tissue. Besides, these bacteria are killed by normal cooking temperatures. The disease could only be transmitted to humans while slaughtering infected animals or processing contaminated organs from freshly killed animals.

Sources:

Canadian Food Inspection Agency:

<http://www.inspection.gc.ca/english/anima/disemala/brucello/brucellofse.shtml>

Centre for Disease Control and Prevention,

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis_g.htm