Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

Fact Sheet

ANAPLASMOSIS IN MANITOBA

October 15, 2009 – Since December ,2008 nine beef cattle farms have been found to be infected with anaplasmosis in eastern Manitoba. In October 2009, the most recent case was found on a farm in the RM of Stuartburn .

What is anaplasmosis?
Anaplasmosis is a disease caused by a micro-organism that is a parasite of red blood cells. It affects domestic and wild ruminants, including cattle, sheep, goats and deer. However, it only causes clinical signs in cattle and giraffes.

In infected countries, including the United States, anaplasmosis is of economic importance to the cattle industry.

Is anaplasmosis a risk to human health?
There is no human health risk associated with this disease. A human disease, human granulocytic ehrlichiosis (HGE) was renamed as human anaplasmosis in 2003, but this disease is caused by a different micro-organism.

What are the clinical signs of anaplasmosis?
Cattle of all ages can become infected, but the severity of disease is age-dependant.

- Illness is rare in animals under six months of age.
- Illness is usually mild from six months to one year of age.
- The disease is acute in one to two year-old animals, but is rarely fatal.
- Mortalities range from 29 to 49 per cent in animals older than two years that have experienced clinical disease.

Clinical signs include:

- fever;
- anaemia;
- weakness; and
- respiratory distress.

Affected dairy cattle will also have a rapid decline in milk production.

Where is anaplasmosis found?
Anaplasmosis is common in tropical and sub-tropical regions of most of the world.

Anaplasmosis is not a regulated disease in the U.S. On a few occasions, it has been introduced into Canada from the U.S. through imported infected animals, but these situations were quickly eradicated as the disease had not spread beyond the premises with the imported animals. Twice outbreaks have occurred on the Prairies that could be attributable to cross-border spread.

The Canadian Food Inspection Agency (CFIA) continues to verify Canada's disease-free status for anaplasmosis through:

- the regular periodic testing of the national cattle herd; and
- investigating any suspected occurrence of the disease.

How is anaplasmosis transmitted and spread?
Anaplasmosis is transmitted through the red blood cells of infected animals. Once an animal is infected, it remains a source of the disease for life even after it has recovered.

Anaplasmosis is most often spread by ticks that bite infected cattle. The disease causing micro-organisms also infect and reproduce in the tick. The tick then transmits the micro-organism to other susceptible animals.

The disease can also be transmitted in infected red blood cells by biting flies or through contaminated instruments such as hypodermic syringes and dehorning equipment. Ticks capable of amplifying and transmitting anaplasmosis exist in Canada.

The major risk of introducing anaplasmosis to Canada is through the importation of infected livestock. Import controls remain in effect to prevent its introduction.

How is anaplasmosis diagnosed?
Preliminary detection is based on clinical signs and a history consistent with exposure to risk factors such as ticks and infected imported animals.

Traditional tests for anaplasmosis were not as sensitive as current tests, and this may have contributed to the spread of anaplasmosis within the U.S. Current tests based on DNA are highly accurate.

How is anaplasmosis treated?
No treatment for anaplasmosis has been licensed for use in Canada.

In the U.S., antibiotics are used preventatively in high risk areas. As well, animals that show clinical signs of the disease are treated with antibiotics. In severe cases involving valuable animals, blood transfusions and fluid therapy may be used.

Recovery depends on the animal's natural ability to produce new red blood cells. Younger

animals generally have a greater rate of recovery. Cattle that survive anaplasmosis can carry the micro-organism for life and become reservoirs for the disease, even after being treated with antibiotics.

What is done to protect Canadian livestock from anaplasmosis?
The Canadian Food Inspection Agency (CFIA) imposes strict regulations on the import of animals and animal products from countries where anaplasmosis is known to occur. These regulations are enforced through port-of-entry inspections done either by the Canada Border Services Agency or the CFIA.

Anaplasmosis is a “reportable disease” under the *Health of Animals Act*. This means that all suspected cases must be reported to the CFIA for immediate investigation by inspectors.

How would the CFIA respond to an outbreak of anaplasmosis in Canada?
Should anaplasmosis be diagnosed in Canadian cattle or bison, Canada’s current foreign animal disease strategy calls for its eradication through:

- the testing of infected and exposed herds; and
- the removal of infected animals.

For more information look at our Canadian Food Inspection Agency site
http://www.inspection.gc.ca/english/anima/heasan/disemala/anaplasmos/anaplase.shtml

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