



Frequently Asked Questions about Bluetongue

Prepared by the Canadian Cattlemen's Association

1. What is Bluetongue?

Bluetongue is an insect-transmitted viral disease of sheep, goats, wild ruminants such as deer and elk, and occasionally cattle. It's spread by one particular species of biting fly. Bluetongue does not affect humans.

2. How common is bluetongue in Canada?

Bluetongue has only been found sporadically in one location in Canada. That location is the Okanagan Valley of British Columbia.

Bluetongue occurs widely on the African continent and to a lesser extent in Asia, Europe and North America. The fly that serves as a vector for the virus (*Culicoides sonorensis*) may periodically travel north from the United States to Canada on high winds during the warm months of the year. For transmission of the disease to occur, a fly must bite an infected animal and then the virus must reproduce within the fly for two weeks in high environmental temperatures. The Okanagan Valley borders on the US and is noted for high summer temperatures, likely a contributing factor to this disease having been isolated in that location and nowhere else in Canada.

3. How serious a threat is this disease to livestock in Canada?

This disease is not considered a serious threat to livestock in Canada. Cattle in the Okanagan Valley were first found to be carrying the bluetongue antibody (an indication they had been exposed to bluetongue) in 1977. Since then 15,000 random bovine blood samples from across Canada have been tested at three year intervals, with no other indications of the disease occurring.

4. What are the symptoms of bluetongue?

Cattle can be reservoirs of the disease but do not often show signs of infection. Sheep and some species of deer are most likely to show symptoms. Symptoms in sheep are an initial fever, with reddening of the lining of the mouth and nose, swelling of the lips, tongue and gums. The tongue may develop ulcers and be a purple colour due to lack of oxygen, hence the name bluetongue. Swallowing and breathing may become difficult due to swelling of the head, and there may be a nasal discharge and drooling with blood. The virus may affect the hooves with a dark red or purple band developing just above the hoof. Recovering sheep may have cracking of the hooves and the muzzle skin.

5. Is there a vaccine to prevent bluetongue?

There is a vaccine, but it is only used in countries where this disease is widespread, such as countries in Africa.

6. How is this disease handled in Canada?

Since bluetongue was detected in the Okanagan Valley of British Columbia in 1977, monitoring for the disease has been extensive. Monitoring is accomplished with six sentinel herds maintained at the south end of the Okanagan Valley. These animals are tested at approximately three week intervals from June until the middle of October, the months in which the fly that carries bluetongue may be present. A program that identifies all cattle, sheep and goats that leave the Okanagan Valley allows traceback of any animals should they later show signs of being positive for the disease. As well, a national surveillance program tests 15,000 random bovine blood samples from across Canada at three-year intervals.

In Canada, bluetongue is considered a foreign animal disease. It is a Reportable Disease, meaning any cases diagnosed must be immediately reported to the Canadian Food Inspection Agency (CFIA). If a diagnosis were made, CFIA would place a quarantine on the premise where the animal was found. All livestock known to be in contact with the infected animal would also be tested. All animals testing positive would be destroyed and the owner compensated under the Health of Animals Act.