

# Veterinary Update

**Animal Health and Welfare Branch/Office of the Chief Veterinarian for Ontario  
Ontario Ministry of Agriculture, Food and Rural Affairs**

**September 4, 2015**

## **Bluetongue Confirmed in Ontario**

On August 7, 2015, samples collected from an animal in an Ontario abattoir as part of the national Bovine Serological Surveillance program returned a positive result for Bluetongue serotype 13. The positive animal did not show any clinical signs of the disease prior to slaughter. On September 2, 2015, follow up testing on the farm of origin, which is located in southwestern Ontario, detected two other positive animals. None of the animals had ever left the farm nor were there any US import animals on the premises.

Canada has been considered to be free of bluetongue, except in the Okanagan Valley in B.C, which has experienced cases that are believed to be the result of wind-borne introduction of infected midges from the U.S. This is the first evidence of bluetongue serotype 13 in a Canadian animal and the first occurrence of bluetongue in a Canadian animal outside the Okanagan Valley, B.C. This serotype has been found in Canada before but only in imported animals. In 2010, following stakeholder consultations, the five bluetongue serotypes considered endemic in the U.S. (2, 10, 11, 13 and 17) were removed from the reportable disease list and moved to the immediately notifiable disease list. The remaining serotypes exotic to North America remain reportable diseases. There is no regulatory response by the CFIA to the detection of bluetongue strains that are considered endemic in the U.S. The CFIA responds only to the detection of bluetongue strains exotic to North America. Bluetongue is also immediately notifiable under Ontario's Animal Health Act.

Bluetongue is a viral disease affecting domestic and wild ruminants, including sheep, goats, cattle, bison, deer and elk. The disease is present in numerous countries and is currently spreading northward in Europe

Signs of clinical disease vary among different species and infection is mild or inapparent in the vast majority, including cattle and goats. However, in sheep and wild ruminants, bluetongue can cause serious illness and death. In sheep, the clinical signs of bluetongue include:

- fever
- reddening of the lining of the mouth and nose
- swelling of the lips, tongue and gums
- difficulty swallowing and breathing
- a swollen, purple-coloured tongue (hence, the name bluetongue)
- lameness
- abortion or “dummy” lambs

There is no specific treatment for bluetongue. Vaccines are available for certain serotypes and are used in Africa and Asia. There are adverse effects, such as fetal malformations, related to vaccine use.

The virus is spread by insects, particularly biting midges of the *Culicoides* genus. The virus does not survive in the environment outside a midge or its animal host. It cannot be spread through contact with animal carcasses and products such as meat and wool. In Canada, the presence of the virus is usually restricted to late summer and early fall, since conditions must be warm enough for the bluetongue virus to multiply within the midge (13°C to 35°C). Midge activity ceases with the first hard frost.

There is no human health or food safety risk associated with bluetongue.

The CFIA has reported the Ontario cases to the World Organisation for Animal Health (OIE) in fulfillment of its international obligations. Bluetongue impacts trade; countries free of bluetongue restrict importation of live animals or animal products, including semen and embryos, from countries that may have bluetongue. Although the disease primarily affects sheep, it also has great economic impact on the cattle industry because cattle can carry the virus post-infection and show no clinical signs. Loss of bluetongue-free status in Canada means immediate suspension of export certificates for live animals, semen and embryos until certificates can be negotiated with trading partners. Trade of beef for human consumption will not be impacted.

## **RESOURCES**

### **CFIA**

<http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/bluetongue/fact-sheet/eng/1306116803992/1306121522520>

### **OIE**

[http://www.oie.int/fileadmin/Home/eng/Media\\_Center/docs/pdf/Disease\\_cards/BLUET-EN.pdf](http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/Disease_cards/BLUET-EN.pdf)

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