



Western Stock Growers' Association

BULLETIN

October 27, 2016

Bovine TB in Alberta

What we know:

- A five year old cow was found with tuberculosis like lesions at a slaughter plant in Long Prairie Minnesota by USDA / APHIS.
- The cow was purchased by a dealer through Bow Slope Auction and shipped to an assembly yard in Saskatchewan and then to Long Prairie.
- The cow was shipped to Bow Slope from the Osadczuk ranch in the Jenner area - early weaned and culled as part of a group of cull cows (normal ranch management practice).
- Subsequent tests on tissues from the cow have met the CFIA case definition for bovine tuberculosis (DNA based and other tests to demonstrate presence of *Mycobacterium bovis*)
- Cow shipped from ranch September 1st; CFIA notified by USDA September 22nd; Ranch owner notified by CFIA September 27th.
- Cow originates from a herd of 385 head (index herd) which typically spend part of the grazing season on a community pasture in Special Areas (Buffalo-Atlee) or on a Grazing Co-operative on the Suffield Block.
- Fifty-one bulls used for breeding the index herd are also used on two other ranches and herds under same ownership. The three cowherds are not co-mingled.
- Bulls are pastured separately from cows except during breeding season.
- Testing of the index herd and the bulls was initiated October 17 and 18, 2016. Skin tests were read October 20th and 21st, and blood test results were back at that time.
- Two tests are being done on each animal - traditional caudal fold tuberculin skin test (looking for a delayed hypersensitivity reaction to antigens of *M. bovis*) and a newer test done on a blood sample.
- One cow in the index herd was positive on the blood test.
- Two bulls and a few cows in the index herd were reactors to the caudal fold skin test.
- The percentage of reactors in the index herd is close to the expected range for reactors in any herd (2% to 4 %).
- The caudal fold skin test has a reported sensitivity (ability to correctly detect infected animals) of 80.4% to 93.0% and a reported specificity (ability to correctly identify non-infected animals) of 89.2% to 95.2%. Bottom line is that the test is not 100% accurate either way but is very useful at the herd level.

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- Plans are being made to depopulate the index herd. Reactors to the tests will not enter the human food chain. Reactors will be euthanized and undergo an enhanced post-mortem exam with tests performed to detect *M. bovis* if it is present. Detection would confirm the diagnosis of bovine tuberculosis. Only CFIA can diagnose bovine tuberculosis and they do so when their case definition (a set of scientific criteria) are met.
- Calves and reactors in the index herd are expected to be destroyed the week of October 31st.
- Non-reactor mature animals from the index herd will undergo slaughter at a federally inspected packing plant with the meat entering the food chain subject to ante and post mortem inspection
- *Mycobacterium bovis* can infect other mammals including humans. Horses, dogs, and cats at the index herd home location are expected to be depopulated as well as the cattle.
- Interviews with herd owners who share the community pasture or grazing co-operative with the index herd are ongoing. At least twenty-nine herds have been quarantined.
- Testing of the second cowherd of the owner of the index herd was initiated October 24 and 25, 2016. Results of these tests have not been released.
- Trace-outs of animals from herds with a positive bovine TB diagnosis (only one herd so far) will occur and any still living animals from those herds will be destroyed and tested. CFIA is asking for movement records going back five years.
- CFIA does a risk assessment of each operation it investigates to determine the next steps. That risk assessment is driven by a number of factors including the test results of the index herd and subsequent herds tested.
- At this time both the province and CFIA are not anticipating immediate initiation of surveillance on the Suffield elk herd or other wildlife in the area. Testing and control in the cattle herd is CFIA's priority and they admit limitations to their resources and capacity. Both the province and CFIA discuss the potential of surveillance in the wildlife population starting sometime next year.
- CFIA is ramping up their capacity to test the cattle herds with additional testing teams anticipated in the next week or two.
- WSGA and AGLA have written to provincial officials requesting the immediate initiation of surveillance in the wildlife population. The upcoming and current hunting season presents a perfect opportunity to collect samples from that population. This is particularly the case with the Suffield elk special licence as all hunters are required to check in and out of the base through a single check-point.
- Cattle producers in Special Areas 2 and 3, Newell County, Acadia #34, and Cypress County north of Medicine Hat are being notified of the ongoing investigation and asked to keep records of the movement of their animals. Herds under quarantine are only allowed to move animals with CFIA permission.

