

Bovine TB News

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Michigan Update:

Captive deer positive for bovine tuberculosis (bTB)

A deer from a captive cervid facility of about 130 head in the Atlanta area (Montmorency County) has been confirmed positive for bTB. This is only the third infected captive herd in Michigan since 1997. A depopulation plan is being developed.

MDA seeks to fill Regional TB Coordinator position

MDA has extended its search for a replacement for Dr. Dan Graham who formerly coordinated the bTB program out of the Atlanta MDA field office. The requirements have been modified such that the applicants do not need to be a veterinarian.

The brief job description read: "The purpose of this position is to plan, coordinate, and direct office/program activities relating to the bovine Tuberculosis Eradication Program in the rural northeastern portion of Michigan's Lower Peninsula. This position requires individuals with strong managerial and communication skills as well as a thorough knowledge of government disease control programs. Ideal candidates would be able to demonstrate effective administrative and supervisory experience working with animal agricultural industries, animal disease control programs, or other disease control programs. The bovine Tuberculosis Eradication Program exists to protect animal health, public health, and production agriculture."

Interested persons should reply to Dr. John Tilden, Animal Industry Division, MDA at PO Box 30017, Lansing MI 48909. Phone: 517-241-2934. E-mail:

tildenj@michigan.gov.

New MOU with USDA will increase push for Wildlife Risk Assessments and plans

MDA is currently working on a new Memorandum of Understanding (MOU) with USDA that is believed to put a premium on producers in the current MAZ (Modified Accredited Zone) having a Wildlife Risk Assessment (WRA) and mitigation plan. Beginning in 2010, Michigan buyers of breeding stock purchased from the MAZ will be targeted for surveillance testing unless the herd they are purchased from has had a WRA

and has implemented a risk mitigation plan. Therefore, in 2009, MDA is targeting beef and dairy producers in the MAZ who market breeding stock to educate them about the need for a Wildlife Risk Plan and encourage them to schedule a WRA.

Preliminary investigation indicates that there may be 40 breeders in the 5 county core area (Alcona, Alpena, Montmorency, Oscoda, Presque Isle) who sold 10 or more head of breeding stock in the past three years. Likewise, 18 producers in the 6 county western MAZ area (Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Otsego) sold at least 10 head of breeding stock in the same time period. These 58 producers then are the highest priority in 2009 for a WRA if they are willing.

Beginning in 2011, Michigan buyers of feeder calves from the MAZ will be targeted for surveillance testing. Many more beef producers in the MAZ sell feeder calves. Estimates are that there are 388 feeder calf producers in the 5 county area and 316 in the 6 county area. Preparing those operations through a WRA is planned for 2010.

In order for buyers not to be targeted for whole-herd surveillance testing, WRA risk mitigation plans must be implemented. WRA can be scheduled by calling Randy Mellburg at the Alpena Conservation District at 989-356-3596 x 108.

Though the new MOU has not been completed nor signed yet, preliminary discussions indicate that USDA is agreeable to the proposal of MDA. It is projected that the MOU will be wrapped up around the end of this month.

National Update:

USDA TB Listening Sessions

Summaries from the USDA TB listening sessions have not yet appeared on the aphis.usda.gov website. When they are posted, they should be available at www.aphis.usda.gov; click on Hot Issues (you may need to select “more”), and select Bovine Tuberculosis. Written comments were invited to be submitted to TB.Comments@aphis.usda.gov. There has been no indication of a deadline for comments. A written comment submitted on December 23, 2008 was acknowledged on December 29, 2008.

Research Update:

Human and canine pulmonary *Mycobacterium bovis* infection in the same household: Re-emergence of an old zoonotic threat? Shrikrishna D, et. al., Thorax. 2009 Jan;64(1):89-91.

Bovine tuberculosis remains a serious animal health problem in the UK, despite longstanding statutory surveillance and control measures. Endemic infection in the European badger population is thought to complicate bTB eradication efforts. Sporadic cases of *M bovis* infection have also been reported in domestic animals other than cattle.

Human M bovis infection is extremely rare in the native UK population. In this case report, pulmonary TB infection in a UK born female and her pet dog is described. The disease is caused by an identical strain of M bovis. Latent TB infection was also identified in a household contact. ***This report highlights the potential human health consequences of bTB and highlights the continued need for disease control in both domestic and wild animals.***

Effect of paratuberculosis on the diagnosis of bovine tuberculosis in a cattle herd with a mixed infection using interferon-gamma detection assay. Alvarez J, et. al., Vet Microbiol. 2008 Sep 21 (Epub).

Interferon-gamma (IFN-gamma) detection assay is used in Michigan as an aid in the detection of cattle infected with bTB. Johne's disease in cattle has been pointed out as a potential cause of false positive reactions. In this study, the impact of Johne's disease infection on the apparent sensitivity of the IFN-gamma assay was studied in a Spanish bullfighting cattle herd with a mixed tuberculosis-paratuberculosis infection, using culture of Mycobacterium bovis and Mycobacterium avium paratuberculosis as the gold standard to determine the infection status of every animal.

A total of 218 animals were slaughtered and sampled for bacteriology after blood sampling. IFN-gamma assay showed a lower apparent sensitivity in animals with a mixed infection (50%) compared to all animals suffering bTB infected herds could imply a serious impairment in the sensitivity of IFN-gamma detection test.

NOTE: Researchers at MSU are also looking at the effects of Johne's disease on the IFN-gamma assay and preliminary findings are similar to the ones reported here.

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This newsletter is meant to keep you updated about bTB in Michigan and elsewhere and to answer questions you may have. If you have a question, please send it by return e-mail. Address questions or comments to Phil Durst at 989-826-1160 or durstp@msu.edu.

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