2013-08-16-063 Johne's disease, bovine - Australia: (WA)
To: (04) Mycobacterial diseases;

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JOHNE'S DISEASE, BOVINE - AUSTRALIA: (WESTERN AUSTRALIA)
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A ProMED-mail post
ProMED-mail is a program of the International Society for Infectious Diseases <http://www.isid.org>

Date: Sun 14 Aug 2013
Source: ABC (Australian Broadcasting Corporation) Rural [edited]
http://www.abc.net.au/news/2013-08-14/nrn-bjd-bulls-in-wa/4887230

In Western Australia's [WA] Kimberley 2 bulls have now tested positive to the muscle wasting bovine Johne's disease [BJD].

Late last year [2012], 6 properties were placed under investigation by the Department of Agriculture of WA after importing cattle from a Queensland stud which had tested positive.

The department's Michelle Rodan says the 5 stations still under investigation will undergo testing for several years.

"One bull, even though it was clinically normal, has been confirmed as shedding BJD bacterium and that means there's a risk of transmission to other cattle on that property. We also have a 2nd bull on another property; it doesn't have any shedding of the bacterium in its faecal at the moment."

Three of the stations under investigation have shown no evidence of having the disease, however they will continue to be tested. Ms Rodan says they have collected about 19 000 samples, with testing finished on about 12 000 of these.

Movement restrictions have been placed on all 5 of the stations stopping them from sending 'at risk' cattle to BJD sensitive countries.

These restrictions will continue until stations are cleared of the disease which the department says may take several years.

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communicated by:
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[Bovine Johne's disease is caused by _Mycobacterium avium_ subsp. _paratuberculosis_.

Johne's disease (JD) is a serious disease of cattle, sheep, goats, alpaca, llama, camels, and deer. It produces chronic diarrhoea or ill thrift, leading to emaciation and eventually death.

There are 2 known strains of the organism:
- a cattle strain, which infects mainly cattle, alpaca, goats, deer, and camels to cause bovine Johne's disease (BJD) and
- a sheep strain, which infects mainly sheep and goats to cause ovine Johne's disease (OJD)

This is a notifiable disease under legislation.

Young animals are infected by ingestion of _M. paratuberculosis_ either when suckling their dam or grazing contaminated pasture. The bacteria invade the mucosa of the small intestine and lymph nodes.
After a period of time, usually years, infected animals may develop clinical signs.

Clinical signs of JD infection are a gradual loss of bodyweight despite a normal appetite. During a period of several weeks, diarrhoea develops in cattle, but not routinely in sheep. Animals showing signs of disease will inevitably die. There is no treatment.

The bacteria may be found in the colostrum, milk, and faeces of infected animals. Apparently healthy carrier animals with no signs of disease as well as clinical cases can shed the organism.

Bacteria are transmitted from an infected female animal to its offspring in colostrum or milk or from faecal contamination of the teats and udder. Ingestion of contaminated food or water can also cause infection.

Bacteria survive in faecal material and on pastures where other animals can pick up the infection. In wet conditions, bacteria can survive in the environment for up to a year.

Blood and faecal samples are collected from live animals to test for JD. The blood test is rapid but unreliable as an individual animal test because false positives and negatives can occur. The blood test is suitable only as a herd test. Faecal culture provides a reliable result but the test takes up to 3 months to complete. Tissue samples of the small intestine can be collected at autopsy for histological examination and culture.

There is no treatment for JD and animals showing clinical signs inevitably die. A vaccine is available to aid protection against ovine Johne's disease (OJD) in sheep and goats, and one is being developed for use in cattle.

Since laboratory tests for JD are unreliable or take a long time to complete, eradication of the disease is not easy. Leaving properties or paddocks empty of stock for a period of time can eliminate the bacteria from the environment. The period of time will depend on environmental conditions.

A National Johne's Disease Control Program (NJDCP) has been in place in Australia since 1996. Specific control and management plans are available for OJD and BJD. The Australian Johne's Disease Market Assurance Program, an audited quality assurance program, incorporates animal health risk assessment, testing, and movement controls. It provides a source of low-risk animals for the various industry sectors in the jurisdictions where the disease is known to occur.

Whenever Johne's disease is detected, all opportunities for spread into and within Queensland are investigated. Biosecurity Queensland conducts these tracing activities to protect the livestock industries against the impacts of further spread.

Veterinary practitioners may be called to provide investigative services to their clients.

This comment has been extracted from
<http://www.daff.qld.gov.au/4790_12157.htm>

Western Australia may be found on the interactive HealthMap/ProMED-mail map at <http://healthmap.org/r/3AAa>. - Mod.TG]

[see also:
2012

Johne's disease, bovine - Australia: (QL) 20121129.1429594 2010

Johne's disease, ovine - Australia: (SA) 20100528.1772
2009

Johne's disease, ovine - Australia: (NS) 20091222.4316
2008

Johne's disease, zoo animals - USA (AR) 20080318.1046
2006

Johne's disease, bovine - Australia (WA) 20060711.1904
2004

Johne's disease, ovine - Australia (WA) 20040408.0951
2001

Johne's disease, ovine - Australia (Tasmania) 20011019.2575 Johne's disease, dairy cows - USA 20010529.1045 Johne's disease, cattle - Australia (Queensland) 20010420.0777 Johne's disease, red deer - Australia 20010413.0736 Johne's disease, macropods - Australia 20010405.0681]

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