

EXOTIC

Transmissible spongiform encephalopathies

Fact sheet

Introductory statement

The transmissible spongiform encephalopathies include bovine spongiform encephalopathy (BSE) in cattle, scrapie in sheep and goats and chronic wasting disease (CWD) in deer.

All are progressive degenerative diseases of the central nervous system. They are always fatal. All are believed to be caused by an unconventional agent, usually called a prion.

These diseases are **not present** in Australia.

Bovine spongiform encephalopathy - Cattle are the main natural hosts of BSE. There are no known breed differences in susceptibility per se, but epidemiological studies overseas have indicated a much higher incidence in dairy breeds. Some cases of spongiform encephalopathy have also occurred in antelopes and cats (both domestic and exotic).

Scrapie - Sheep and goats are the main natural hosts of scrapie. Scrapie can be experimentally transmitted to mice, rats, hamsters, monkeys and a wide range of other wild or laboratory species, as well as to its natural hosts.

Chronic wasting disease - CWD is a spongiform encephalopathy of cervids that was recognised in 1967 and has been identified in mule deer, white-tailed deer, elk, moose and reindeer in North America, South Korea and Scandinavia. CWD was originally confined to captive deer, but now many cases have occurred in free-ranging animals. CWD is transmissible and fatal. The main clinical signs are progressive weight loss, behavioural changes, excessive salivation, excessive water consumption and frequent urination. The pathology in the brain is typical of the other spongiform encephalopathies.

If you suspect a TSE you should immediately call the free **Emergency Animal Disease Watch Hotline (1800 675 888)**.

References and other information

The latest information on TSEs is available from the World Organisation for Animal Health (OIE) website: www.oie.int/fileadmin/Home/eng/Health_standards/tahm/2.04.05_BSE.pdf (BSE), www.oie.int/fileadmin/Home/eng/Health_standards/tahm/2.07.12_SCRAPIE.pdf (scrapie), and Williams and Miller (2002), "Chronic wasting disease in deer and elk in North America www.oie.int/doc/ged/D516.PDF

OIE detection, reporting and control measures for BSE and scrapie are located at www.oie.int/index.php?id=169&L=0&htmfile=chapitre_bse.htm (BSE), and www.oie.int/index.php?id=169&L=0&htmfile=chapitre_scrapie.htm (scrapie).

The Disease Strategies for the control and eradication of BSE and scrapie are available as part of the AUSVETPLAN series: BSE (version 3.2, 2012) and scrapie (version 3.0, 2009). Wildlife considerations as part of response are addressed in the Wild Animal Response Strategy (WARS) AUSVETPLAN. These documents can be found at www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/.

Information available on distribution and abundance of feral animals capable of being infected with TSEs in Australia can be accessed through "Distribution and abundance of significant invasive vertebrate pests" (2008) www.pestsmart.org.au/wp-content/uploads/2010/03/West2008_3.pdf

Further information about the management of CWD is located in the Protocol for the Management of Designated Zoo Animals Imported from Countries at Risk from Transmissible Spongiform Encephalopathies (2017): www.animalhealthaustralia.com.au/wp-content/uploads/2015/09/Protocol-for-Management-of-Designated-Zoo-Animals-2016-17_final.pdf.

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To provide feedback on this fact sheet

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email admin@wildlifehealthaustralia.com.au
or call +61 2 9960 6333