



AHL LabNote Number 7

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Transmissible spongiform encephalopathy (TSE) testing at the AHL

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Below is the current testing available at AHL for TSE diseases. **Note that all TSEs are reportable to CFIA.** The AHL is part of the Canadian TSE Laboratory Network and is approved by CFIA for TSE testing as noted in the table below.

Please call the lab in advance of submitting small numbers of samples. Fees for tissue removal and head/carcass disposal will apply.

TSE disease	Species	Sample	Sample submission	Type of test	Notes
BSE (bovine spongiform encephalopathy) (mad cow disease)	Bovine (cattle)	Brain – obex	Fresh or frozen	ELISA	For CFIA, and for OMAFRA meat inspection submissions. Clinically suspect animals should be submitted directly to CFIA.
		Brain – obex	Fixed in formalin	Histopathology, IHC	Not offered at AHL. Sent to CFIA.
CWD (chronic wasting disease)	Elk, deer	1. Brain – obex 2. Medial retropharyngeal lymph nodes (RPLN). See note below.	Fresh or frozen	ELISA	For surveillance and herd certification. Clinically suspect animals should be submitted directly to CFIA.
Scrapie**	Sheep, goats, elk, deer	Blood, tissue	EDTA Fresh tissue	Susceptibility genotyping (Sheep: codons 136, 154, 171, codons 137 and 176 upon request) (Goats: codons 146, 211, and 222) (Elk: codon 132) (Deer: codon 96)	ISO/IEC 17025 accredited by SCC.
		Brain – obex	Fresh or frozen	ELISA	

**AHL can do both screening/surveillance samples in addition to disease diagnosis suspects

Note: Both the obex and the retropharyngeal lymph nodes must be submitted for all farmed cervids tested for CWD. The primary target tissue tested for all members of the family Cervidae (with the exception of members of the genus *Odocoileus*), such as elk, reindeer, sika deer, red deer, and fallow deer, is the obex of the medulla. The primary target tissue tested for *Odocoileus* species (including white-tailed deer and mule deer) is the RPLNs. The additional submitted tissues will be frozen and held by the laboratory until the initial test is completed. Autolyzed samples in which the primary target tissue cannot be identified are not suitable for testing.