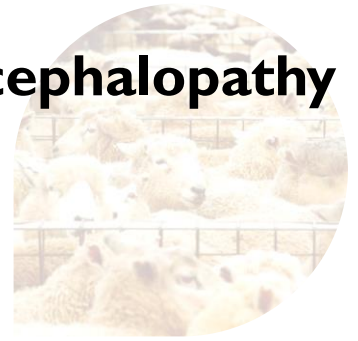
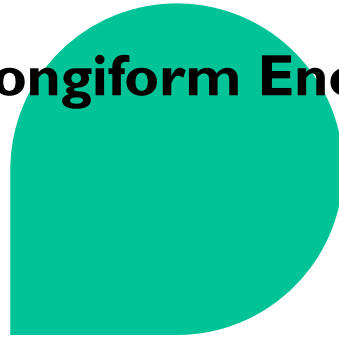


National Transmissible Spongiform Encephalopathy Program (NTSESP)

Updated January 2024



SUBMISSION CHECKLIST:

- Contact Jennifer or Helen to confirm case eligibility for TSE exclusion
- Examine animal while it is alive
- Is the animal “clinically consistent” with TSE and exhibiting ≥ 2 clinical signs?
- Submit ≤ 2 animals per disease incident per property
- Animal meets age restrictions: Cattle 1.5-9 years old; Sheep or Goats 1.5-5 years old
- Consider differential diagnoses
- Collect appropriate samples for both TSE exclusions and differential diagnoses
- Complete NTSESP “Clinical History and Post-Mortem Report” form
- Complete Animal Health Lab (AHL) “Laboratory Advice Note” (sample submission form), provide:
 - Full history
 - Tests Required: indicate “TSE exclusion”
 - Property Identification Code (PIC)
- Pack samples correctly and send to AHL, 165 Westbury Road, Prospect TAS 7250
- Email invoices to state coordinators to receive incentive fees:
 - OWNER: provide animal(s) owner with producer Tax Invoice for NTSESP
 - PRACTICE: submit invoices for professional* services

CONTACT STATE COORDINATORS

- | | | |
|-----------------|-----------------|---------------------------------|
| • Jennifer Voss | M: 0484 025 383 | E: Jennifer.Voss@nre.tas.gov.au |
| • Helen Hawkins | M: 0457 045 997 | E: Helen.Hawkins@nre.tas.gov.au |

INCENTIVES for eligible samples:

	Cattle	Sheep	Goat
Collect and document*	100 (+GST)	100 (+GST)	125 (+GST)
Veterinary fee rebate*	240 (+GST)	120 (+GST)	0
Producer incentive	330 (+GST)	110 (+GST)	0
Freight*	30 (+GST)	30 (+GST)	30 (+GST)

*Professional services

Laboratory testing for TSE (cattle, sheep, and goats) and differential diagnoses (cattle and sheep **only**) at AHL is provided, allowing diagnosis at a reduced cost.

More information and forms for download are available on the web page:

[Information for Veterinary Practitioners](#)

CLINICAL CONSISTENCY:

CATTLE

“Clinically consistent”: animal exhibiting at least two of the following clinical signs, verified by examination of live cattle by a veterinarian:

Mental status	Sensation	Posture and movement
<ul style="list-style-type: none"> altered consciousness apprehension behaviour change excitability frenzy hesitation at doors, gates, barriers herd hierarchy change moribund without evidence of infection or trauma teeth grinding 	<ul style="list-style-type: none"> blindness excessive licking of nose and flank head rubbing or pressing head shyness hyperaesthesia (sound, touch) hypoesthesia (sound, touch) kicking persistently when milked 	<ul style="list-style-type: none"> abnormal ear position abnormal head carriage ataxia circling falling fetlock knuckling paralysis/paresis recumbency tremor

Cattle Differential Diagnoses:

- Trauma
- Nutritional myopathy - Vit E or Selenium deficiency



- Metabolic diseases – hypomagnesaemia/calcaemia, acetonaemia, hepatic or renal encephalopathy, PEM, heat stress.
- Infectious Diseases - brain or spinal abscess, listeriosis, thromboembolic meningo-encephalomyelitis, sporadic bovine encephalomalacia, bovine malignant catarrhal fever, focal symmetrical encephalomalacia (*C. perfringens*), bovine ephemeral fever (exotic to Tasmania), rabies (exotic).
- Toxicosis: lead, plant, botulism, urea toxicoses, snakebite.
- Genetic
- Neoplasia

SHEEP and GOATS

“Clinically consistent”: animal exhibits at least two of the following clinical signs, verified by examination of live sheep or goat by a veterinarian:

Mental status	Sensation	Posture and movement
<ul style="list-style-type: none"> • altered consciousness • apprehension • behaviour change • frenzy • moribund without evidence of infection or trauma • temperament change 	<ul style="list-style-type: none"> • blindness • hyperaesthesia (sound, touch) • hypoaesthesia (sound, touch) • rubbing/itching • wool loss (flank and hind quarter) 	<ul style="list-style-type: none"> • abnormal head carriage • ataxia • circling • falling • fetlock knuckling • paralysis/paresis • recumbency • tremor

Sheep Differential Diagnoses:

- Pruritis - lice, keds, mite, cutaneous myiasis
- Metabolic diseases - (hypomagnesaemia/calcaemia), hepatic and renal encephalopathy, PEM, copper deficiency
- Infectious Diseases - brain or spinal abscess, meningitis, listeriosis, melioidosis, focal symmetrical encephalomalacia (*C. perfringens*), rabies (exotic)
- Genetic
- Toxicosis - lead, plant, Solanum, perennial ryegrass staggers, phalaris staggers, botulism, etc.
- Neoplasia

See [Animal Health Australia’s Surveillance National Guidelines for Field Operations for further information.](#)

REQUIRED SAMPLES

Essential for TSE exclusion:

Cattle: Whole brain fixed in 10% buffered formalin and 2-3 cm of cervical spinal cord and/or medulla caudal to the obex unfixed but chilled.

Sheep and Goats: as for cattle PLUS the top third of the cerebellum via horizontal approach.



Samples for Differential Diagnosis:

- Euthanasia by vet: tissue samples (fresh and fixed), blood (EDTA and serum), blood smear, faeces, GI contents.
- Animal died (i.e., vet examined live and animal later died): whole fresh eye or sample of aqueous fluid, plus fresh and fixed tissue samples, faeces and GI contents.

If unsure of extra samples: contact the pathologists at AHL @ 03 6777 2111

Resources for brain sampling technique:

Training video <https://www.youtube.com/watch?v=UN4DVoHnsps>

Brain sampling instruction sheet available at [Brain Removal Techniques](#), or ask your regional Veterinary Officer for a printed instruction sheet.

Packing and posting samples

Ensure that: the specimens are securely and correctly packaged for transport AND all relevant details accompany the specimens, especially the **required** forms: “Laboratory Advice Note” and the “NTSESP Clinical History and Post-Mortem Report”.

Fresh Specimens - some fresh/chilled specimens (i.e. for microbiological culture, blood for biochemistry and haematology) should be dispatched on the day of collection to ensure handling at the laboratory as soon as practicable after death. The specimens must be sent with the required forms and a clear indication that fixed specimens will follow. The cervical spinal cord and/or medulla caudal to the obex, if kept chilled (4°C), can be submitted with the fixed brain a few days after collection.

Fixed Specimens - to avoid transporting heavy and dangerous volumes of formalin, adequately fixed tissues can be kept moist during transport by placing fixed tissues in a securely tied, double plastic bag with either: 50 ml of 10% formalin or wrapped in formalin-soaked high absorbency paper towels. The brain and other fixed specimens should be sent to the laboratory with a laboratory advice form that indicates in the submission details that fresh specimens had been previously sent.

