

**National Veterinary Services Laboratories  
Bovine Spongiform Encephalopathy (BSE) ELISA  
Proficiency Test Summary**

- 1. Composition of proficiency test panel:** The BSE panel consists of 20 sheep brain homogenates of varying numbers of “Positive” and “Not Detected” samples.
- 2. Cost of proficiency test:** No charge to approved laboratories.
- 3. Storage conditions:** Samples are stored frozen at temperature of at least -20°C.
- 4. Sample preparation/selection criteria:** Known scrapie positive and negative sheep brain samples (as determined by IHC) are homogenized and pooled. These pooled samples are then tested by ELISA and if determined to be appropriate, “Positive” samples (> 0.500 OD) and “Not Detected” (no more than three times the mean negative control value) are used in the panels.
- 5. Panel quality control:** The samples are first identified by IHC as positive and NVSL tests the pooled homogenates by ELISA prior to sending out the panels.
- 6. Timing of the proficiency test distribution and data collection:** The PT is issued semiannually with target months of January and June.
- 7. Test method:** The PT samples are tested by ELISA.
- 8. Submitting test results:** The testing is done in duplicate. Participants are required to have both sets of ELISA results submitted to the Head of the Special Pathology Laboratory, at the NVSL, not later than ten (10) days after panel has been received by the participant.
- 9. Scoring of individual panel samples:** For each panel a score is based on number of homogenates with correct interpretation ((NVSL1 or NVSL2) or “Not Detected”) by the participant.
- 10. Laboratory pass/fail criteria:** A final score of 100 percent correctly identified samples is considered as a passing score.
- 11. Reporting laboratory test scores:** Participate laboratories are required to run the ELISA samples in duplicate on different days. The participant laboratory should run the samples and report the ELISA results to the Head of Special Pathology at NVSL. The laboratory should wait for an affirmative response from NVSL before running the second test. Final run results should be reported within ten (10) days of receipt. NVSL will share by (e-mail/postal mail), the results with each individual participant within ten (10) days from receipt of the last panel results.

**12. Remedial actions required for failing laboratories:** If discrepant results are obtained, an investigation as to the cause will be done by NVSL, the participating laboratory, and others as required. If the apparent cause of the discrepant results are determined and rectified to the satisfaction of NVSL no additional corrective actions may be needed. At the discretion of NVSL, additional PT panels or additional training of personnel may be required. A second failure of a PT may be grounds for removal of testing approval.

**13. Special requirements: Restrictions-** A USDA permit is required to obtain the panel. Failure on the part of participate laboratories to maintain current permits may result in withdrawal of approval until such time as a permit and PT test can be administered.