

Submission of Samples for Cervidae TB Serological Testing

The Dual Path Platform VetTB Assay (DPP) is both the primary test and subsequent secondary test for official program testing to diagnose TB in farmed and captive elk, red deer, white-tailed deer, fallow deer, and reindeer.

Sample Collection

- Blood samples are to be collected in a 10-ml red top (clot) tube or 10 ml serum separation tubes.
- 10 ml of whole blood needs to be collected to obtain 2 ml of serum to be submitted for testing.
- If also testing for brucellosis, submit a separate red top tube of blood to an approved brucellosis testing laboratory
- DO NOT place freshly collected tubes directly on ice

Sample Processing and Handling

- Allow blood to clot at room temperature
- The specimen to be tested is serum; centrifuge sample and remove serum from clot; place serum in a new clean tube
- Excessive hemolysis in the serum may make samples untestable
- Refrigerate serum samples; **Do Not Freeze**
- Label tube with sample number and official animal ID
- Keep samples refrigerated until shipped
- Ship serum samples by either first- or second-day delivery. NVSL recommends shipping the sample as quickly as possible (ideally 24-48 hours), but no more than 72 hours after collection.

Submission Form and Paperwork

- Requires a VS Form 10-4 Submission Form
 - VS Forms 10-4 and 10-4a (continuation sheet) are available at the VS Area Office or can be downloaded at:
http://www.aphis.usda.gov/library/forms/pdf/VS_Form10_4.pdf,
http://www.aphis.usda.gov/library/forms/pdf/VS_Form10_4a.pdf
- A VS Form 6-22 form (the regular TB test chart) must also be completed and mailed or faxed (405)751-2344 to the VS Office within 5 business days of sample collection.
- Fill out the VS Form VS 6-22 (Tuberculosis Test Record) accurately and completely identifying the tube/sample number, official identification (and all other ID), age, species of cervid (e.g., elk, red deer, white-tailed deer, fallow deer or reindeer), and gender for each animal.
- If a large number of animals are tested, a list of the animals can be attached to the VS Form 10-4 if it includes the info requested on the 10-4 form:
 - VS Form 10-4A – official continuation sheet
 - Print out from a spreadsheet
 - Photocopy of VS Form 6-22 (Tuberculosis Test Record) with the corresponding blood tube numbers.

Sample Submission to NVSL

- Organize the serum tubes into a tube box in the same order as animals are listed on the submission form or attached list. This allows the receiving laboratory personnel to quickly verify and test the submitted samples. If sample submission kits from NVSL are needed, they should be obtained before collecting the blood samples.
- Refrigerated serum should be shipped to NVSL within 24 to 48 hours
- Do not ship to arrive at NVSL over the weekend
- Make sure that submitted sample tubes are packed with frozen gel packs, but not in direct contact with the frozen packs in the shipping container.
- If sample submission kits from NVSL are needed, they should be obtained prior to collecting the blood samples
- Cervid specimen submission shipping boxes are available from the NVSL for about \$42.50; this includes the cost of return shipping to NVSL. They may be ordered by calling (515)337-6200 or emailing NVSL_userfee@aphis.usda.gov. Each kit contains shipping instructions, an ice pack, VS Forms 10-4 (Specimen Submission Form) and 10-4A (Continuation Sheet), and a prepaid shipping label to NVSL.
- Veterinarians may also submit serum samples using their own shipping box, which should include ice or gel packs as well as the required laboratory submission forms.
 - Ship specimens by next-day or 2nd-day delivery
 - Ship UPS or FedEx only; the U.S. Postal Service does not deliver to the NVSL.
 - The submitting veterinarian must pay for routine screening DPP tests; the current cost is \$12.00 per test. This may be done by setting up an account with the NVSL business office by calling 515-337-6200, providing a credit card number on the submission form, or including a check made out to NVSL with the samples and submission form. There is no charge for the secondary DPP test after 30 days on those animals that have primary positive test result.

Sample testing

- Serum samples will be tested using the DPP test following test kit instructions and internal NVSL standard operating procedures.
- If the DPP primary test result obtained is above the optical density reader value cutoff point that has been established, the test will be called positive.
- Results of the DPP primary test will be reported to the submitting accredited veterinarian, the respective State animal health official, ADD, and District epidemiologist of the State where the animals are located. The District epidemiologist will report to the National Cervid TB epidemiologist.
- The District Epidemiologist or National Cervid TB Epidemiologist will classify the animals.
- Animals negative on the DPP primary test will be classified as negative.
 - Animals non-negative on the DPP primary test will be classified as suspect unless the District or National Cervid TB staff epidemiologist determines that a reactor classification is warranted.
 - Animals classified as suspect by a DPP primary test may be retested with the DPP secondary test with a new blood sample drawn no sooner than 30 days after the initial sample was obtained.
 - Animals testing negative on the DPP secondary test will be classified as negative.
 - Animals that are non-negative on two successive DPP tests (primary and secondary after 30 days) will be classified as reactor.