

Herd Health Diagnostics

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BVD ELISA Frequently Asked Questions

Q: What is Bovine Viral Diarrhea (BVD)?

A: Bovine viral diarrhea is a viral disease of cattle and other ruminants that is caused by the bovine viral diarrhea virus (BVDV). Clinical signs of BVDV infection are highly variable and range from no signs to very severe signs including death. Signs of acute infection include fever, lethargy, loss of appetite, ocular discharge, nasal discharge, oral lesions, diarrhea and decreasing milk production. The common consequences of BVDV infection are respiratory and reproductive problems including abortions and congenital defects. Losses are also associated with weak and abnormally small calves, poor doing, persistently infected (PI) animals and death among PI animals.¹

Q: How does the BVD ELISA work?

A: The enzyme-linked immunosorbent assay (ELISA) detects BVDV antigen in bovine serum samples and individual ear notch samples obtained from animals that are persistently infected.

Q: How much does it cost?

A: \$3.65 per sample.

Q: How long does it take to receive results?

A: Samples are tested weekly on Mondays with results on Monday. Samples must arrive on or before the Friday prior to testing in order to be run that Monday. Samples that arrive on Monday or later will be held until the following week's test day.

Q: How long are samples good for and how do I ship?

A: Blood and ear not samples should be shipped on ice and should be in transit for no more than a few days.

Q: What type and how much of sample do I need?

A: For blood samples, a good rule of thumb is to collect 1-2 ccs for each test requested. Only precolostral newborn calves or calves that are 3 months of age or older should be tested by blood. Otherwise a large or small ear notch sample can be collected and tested at any duration of the animal's life.

Q: Can multiple tests be run on one sample?

A: Yes! One blood sample can be used for multiple services. Additional services available for cattle include: BioPRYN (pregnancy), Bovine Leukosis Virus (BLV) and Johnes. When using one sample for multiple services, be sure to collect 1-2 milliliters of blood for each service (i.e. if wanting 3 tests, collect about 3-6 mls of blood).

Q: What sample collection supplies do I need and where do I buy it?

A: For blood samples, we recommend a plain, 3-5 ml, plastic, red top tube (with or without clot activator) or serum separator tube (tiger). If using a tiger top tube, be sure to fill the tube 3/4 full or more. We recommend using an 18 or 20-gauge double sided needle by 1 to 1 1/2 inches long. You may also use a syringe and then transfer to a blood tube as well. For ear notch samples we recommend collecting the sample with an ear notching tool and transferring the ear notch into a plan red top tube. You will also need disinfectant to use on the ear notching tool in between animals.

Supplies can be purchased through the BioTracking Store, your local vet supply or ranch or farm store. There are also many online stores such as Amazon who sell supplies.

Q: How do I label tubes for testing?

A: Each tube should be labeled in sharpie with a tube sequence number (e.g. 1, 2, 3, etc.) and unique animal ID or ear tag # (e.g. 875).

Q: Who do I contact for more information?

A: Contact Amber at Herd Health Diagnostics from 8:30 am to 4 pm Pacific Time, Monday – Friday. The testing lab number is 509.715.1131 and her email is amber@herdhealthdiagnostics.com

References: [1] APHIS Veterinary Services. Bovine Viral Diarrhea Virus. December 2007.