

BOVINE VIRAL DIARRHEA

(MILK TESTING)

MANAGE YOUR HERD TODAY



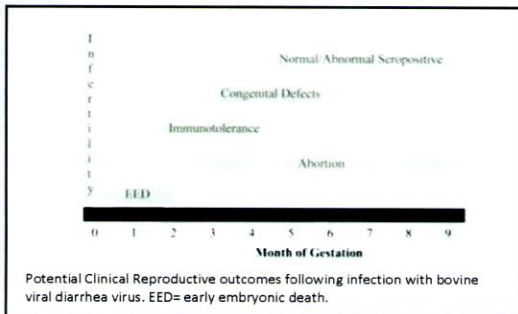
Key Notes:

- Convenient**
 Testing can be done on individual hand stripped fresh, frozen or preserved (routine DHI) milk samples.
- Accuracy**
 Detects BVDV in milk sample with test sensitivity, specificity and overall agreement are 100% in a comparison to serum and ear notch samples.*
- Cost-effective and Easier**
 BVDV ELISA represents an efficient and cost-effective method to evaluate & monitor BVDV status in dairy herds.
- Flexible**
 Schedule testing when it is right for you. Samples can be sent for testing to UBRL at any time during our operation hours; Monday-Friday 8.30am-5.00pm PST.
- Fast Results**
 Results can be available by phone, fax or email within 24 hours of sample arriving to the UBRL testing center.
- Multiple Testing Options**
 Additional diagnostic testing, such as BLV, Johne's Disease and Bovine Pregnancy, is available using the same milk sample.

Introduction

BVDV ELISA Test¹ is a highly accurate and effective method for producers and veterinarians to detect cows persistently infected (PI) and control BVDV in their cattle operations. BVD is a major source of economic loss. It is estimated that during outbreaks of transient infections (TI) BVD, the losses were \$50-\$100 per cow in the herd.²

While BVD infection are well recognized as reproductive pathogens among dairy producers, BVDV infections are also associated with increased respiratory disease, increased severity of secondary infections and decreased milk production due to its severe suppression of the immune system. PI animals are the major vectors for spreading BVDV within and among herds.³ Studies estimated that 10-15% of US herds have at least one PI animal.



Test Description

UBRL **BVDV Test** is a quantitative IDEXX enzyme-linked immunoassay (ELISA) used for the detection of BVD virus antigen in bovine milk obtained from animals that are persistently infected.

BVDV ELISA Test Sensitivity and Specificity

Sensitivity is defined as the capability of a test to accurately diagnose diseased animals as test positive.

Specificity is defined as the capability of a test to accurately diagnose non-diseased animals as negative.

Milk ELISA vs. Ear Notch or Serum ELISAs				
BVD Milk ELISA**				
		Positive	Negative	Total
BVD Status	Positive	12	0	12
	Negative	0	386	386
	Total	12	386	398

*BVD Milk ELISA comparison to serum and ear notch samples was tested by AntelBio (Antel Biosystems, BVD Milk ELISA, Lansing, MI). Data on file at Antel Biosystems Inc.

Result Interpretation

Milk ELISA	
ELISA Reading	Interpretation
<0.15	NEGATIVE
≥0.15	POSITIVE

Milk samples with OD value less than 0.15 are Negative and samples with OD value ≥ are Positive.

BVDV Milk Assay Validation Summary (UBRL)

		Comparison Method (ANTEL BIO/ Proficiency Samples)		
		Positive	Negative	Total
New Method (UBRL)	Positive	8	0	8
	Negative	0	12	12
	Total	8	12	20

Number of Observations	20
Negative Agreement	100.00%
Positive Agreement	100.00%
Total Agreement	100.00%

Sample Kits

For sample collection kit options, submission forms and sending samples directly to the laboratory please contact:

Universal Biomedical Research Laboratory (UBRL)

Phone: (559) 498-0820

Email: ubrl@universalbiopharma.org

¹ BVDV ELISA is performed with the IDEXX BVDV PI X2 Test

² *Bovine Viral Diarrhea Virus*, December 2007. Fort Collins, CO: U.S. Dept. of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services, Centers for Epidemiology and Animal Health, 2007.

³ Radpath JF, Hesseman BE, Nel JD, et al: Parameters of Ear Notch Samples for BVDV Testing: Stability, Size Requirements and Viral Load. *Proc Am Assoc Bov Pract Conf* 39:269-270, 2006