

Bovine Viral Diarrhea Virus (BVDV)



BVDV is a common cause of respiratory and reproductive issues and is a key component in the bovine respiratory disease complex. Direct and indirect costs to BVDV infection in a herd can include loss of cows and calves, loss in meat and milk, additional labor wages and medications, reproductive inefficiencies, and immunosuppression. Cattle of all ages are susceptible to BVDV infection. Animals can have an acute or persistent infection. Animals that test positive for BVDV can be retested in two weeks to differentiate between the two types. Despite the name, this virus does not always involve diarrhea.

Acute infection: Also known as transient infection, occurs when any animal encounters the virus via infected herd mates or contaminated items. Symptoms can include fever, lethargy, respiratory infections, and more, however, most infections are subclinical, meaning there are no outward signs of disease.

Persistent infection (PI): This occurs when a pregnant animal encounters the virus via infected herd mates or contaminated items. Exposure at 60-120 DCC can lead to the calf never recognizing the virus as an invader. If this calf survives to term, it will be infected for its entire life and will constantly shed the virus to herd mates. No animal can become a PI after birth.

Test purpose

- Bulk tank
Determines if BVDV is present in the milking herd.
- Individual tests
Determines infection status of individual animals.

Use on

- Dairy and beef cows, heifers, and calves

Sample types

ELISA (individual milk, serum, ear notch)

Individual PCR (milk, whole blood, ear notch)

Pooled PCR

Pooled Milk (20 min - 250 max. Per animal price)

Pooled ear notches (10 min - 20 max. Per animal price)

Results

ELISA

- Available in five business days
- Reported as: Positive, Negative, Suspect
- Test value reported. Positive = value > 0.30

PCR

- Available in 10 business days
- Reported as: Positive, Negative
- Test value reported. Positive = value < 38
- Positive pools followed up by individual ELISA test

Testing strategies

- Bulk tank screenings
Monitor milking herd status. Can detect the virus in groups up to 250. Consult technical specialist for herds greater than 250 cows.
- DHI milk samples
Pooling strategies on groups or whole herd to detect and confirm persistently infected cows.
- Individual serum samples
Use to detect and confirm persistently infected animals. Must be three months of age or older to test.
- Ear notches
Ideal for testing calves at any age. Samples are pooled in the lab to reduce costs. Positive pools broken down to identify positive individual(s).

Begin testing

- Order sample collection supplies at mycentralstar.com or call 800.631.3510.
- Collect samples and send with submission form to:
CentralStar Wisconsin Lab, 200 East Kelso Road Kaukauna, WI 54130
CentralStar Michigan Lab, 1163 Comet Lane - Suite 100 Grand Ledge, MI 48837