Bovine Abortion Diagnostic Panel Workup Guide

Common Differential List	
Bacterial	*Ureaplasma diversum*, *Salmonella* spp., *Campylobacter* spp., *Brucella* spp., *Trueperella pyogenes*, opportunistic bacteria (*Bacillus* spp. etc.), *Leptospira* spp., *Listeria monocytogenes*
Viral	BoHV-1 (IBR), BVDV
Protozoal	*Neospora caninum*, *Sarcocystis* spp
Fungal	*Aspergillus* spp., *Mucor* spp., *Candida* spp.
Toxicities	Nitrate, ergot
Nutritional	

Standard tests run at the laboratory (included in the general investigation):

- Histopathology
- Aerobic and *Campylobacter* spp. cultures
- Bovine abortion multiplex PCR (BoHV-1, BVDV)

Additional tests (check website for preferred samples and current prices):

- Trace mineral analysis
- Nitrates
- PCR for *Neospora caninum* or *Ureaplasma diversum*
- Vitamin A and E*
- Serology (maternal or fetal)
    - Abortion Panel Bovine Serology comprehensive*
        - *Leptospira* Panel (5 serovars), *N.caninum, Brucella abortus,* BoHV-1, and BVDV types 1A, 1B and 2.
    - IgG* (fetal heart blood or thoracic fluid)

*Indicates referral test

Sample submission checklist		
❑ Heart	❑ Adrenal glands	❑ Skeletal muscle/tongue/diaphragm
❑ Liver	❑ Placenta: 2-3 cotyledons with intercotyledonary placenta and amnion	❑ Eyelid/conjunctiva
❑ Lung		❑ Fetal eye/vitreous humor
❑ Kidney		❑ Thoracic fluid
❑ Spleen	❑ Lymph node	❑ Small and large intestine
❑ Abomasal fluid	❑ Brain: whole brain, fresh	❑ Any additional gross lesions
❑ Thyroid	❑ Thymus	

NDSU VETERINARY DIAGNOSTIC LABORATORY

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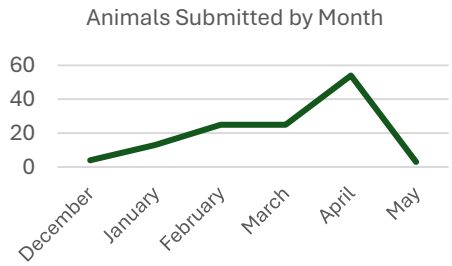
2026 Summary of Abortions in North Dakota Herds

Report prepared by

Quynn Steichen, DVM, MS, DACVP
Anatomic Pathologist, NDSU VDL

2026 Summary Statistics

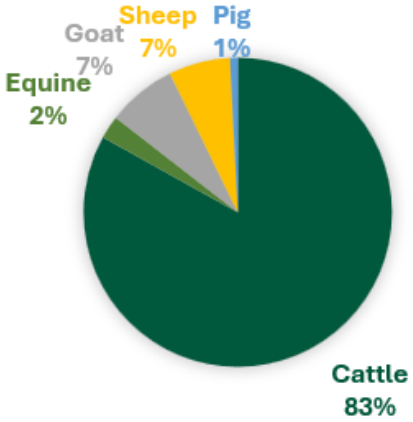
- Typical abortion season: December – May
- Total cases: 107
- Total Animals: 124

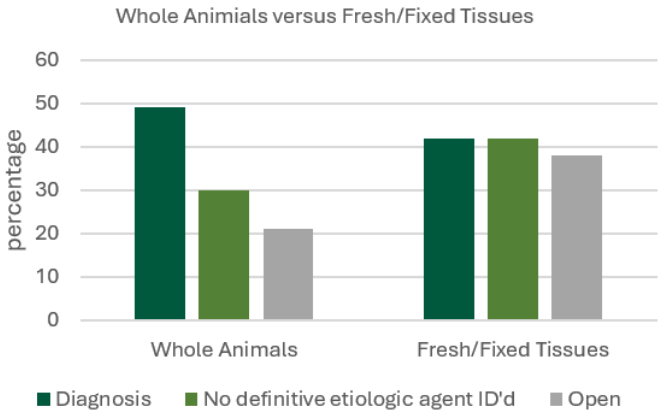


Cause	Number
Bacterial (primary, opportunistic)	28
Congenital	2
Fungal	2
No definitive etiologic agent	44
Nutritional	15
Open	23
Parasites	1
Protozoal	4
Toxicity	1
Viral	4

Causes of Death:

- **Bacterial:**
  - Primary: *Campylobacter* spp., *Chlamydia* spp., *Listeria monocytogenes, Salmonella,* Anaerobic species
  - Opportunistic: *Escherichia coli, Trueperella pyogenes, Streptococcus* spp., *Actinobacillus* spp., *Pseudomonas* spp., *Yersinia enterocolitica*
- **Nutritional**
  - Selenium toxicity, copper deficiency, vitamin A and E deficiency
- **No definitive etiologic agent identified**
  - Placentitis, fetal pneumonia, cholangitis
  - 11 cases of BALT hyperplasia (Novel pneumonia syndrome)
- **Viral**
  - BVDV, suspect BVDV, Cache Valley Virus, EHV-1





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