OVINE AND CAPRINE ABORTION

Specimens to submit: Entire fetus and placenta are the preferred specimens. Fetal tissues should include:

- **Brain**: 1/2 of organ, formalin-fixed
- **Ewe serum**: Optional, see notes on abortion serology. 3-5 ml ewe's serum
- **Heart**: 1/2 cm slice, formalin-fixed
- **Kidney**: 1 entire kidney, fresh/chilled
- **Liver**: 1/8-1/4 of organ, fresh/chilled
  - 1/2 cm slice, formalin-fixed
- **Lung**: 1/8-1/4 of organ, fresh/chilled
  - 1/2 cm slice, formalin-fixed
- **Placenta**: 3 cotyledons, fresh/chilled
  - 2 cotyledons, formalin-fixed
- **Spleen**: 1/2 of organ, fresh/chilled
- **Stomach contents**: 1-3 ml syringe or tube, fresh/chilled
- **Thoracic fluid**: Clear, uncontaminated, fresh/chilled
- **Thymus**: Fresh/chilled; 1/2 cm slice formalin-fixed
- **Vaginal swabs**: Optional, select recently aborted ewes

SAMPLING TECHNIQUES

1. Do NOT freeze tissues.
2. Submit placenta whenever possible.
3. Submit ewe’s sera, retain 1/2 of sample frozen.

AGENTS DETECTED BY ROUTINE EXAMINATION

| Bacteria | Truerperella (Arcanobacterium) pyogenes, Bacillus, Campylobacter, Chlamydia, Listeria monocytogenes, Coxiella Burnetti |
| Parasites | Toxoplasma gondii (see comments), Neospora |
| Viruses | Border disease virus, Caprine herpesvirus |

COMMENTS

- Diagnosis of toxoplasmal abortion can be accomplished through detection of characteristic lesions in placenta and brain and/or detection of antibody in fetal thoracic fluid. Detection of antibody in ewe serum is not evidence for abortion, only infection at some time; antibody titers persist for months. Absence of antibody in the ewe would rule out toxoplasmosis.
- Diagnosis of *Chlamydia* abortion is most readily accomplished through an ELISA test conducted on fresh placenta. The ELISA can also be conducted on swabs of fetal fluids or liver or vaginal swabs from affected ewes (within 5 days after abortion). Histopathology is also useful.
- Cache Valley virus infection can only be identified by serological studies conducted at a reference laboratory. Fetal fluids or precolostral serum from live-born affected lambs can be examined. Analysis of serological results from paired ewes (affected/unaffected) also may be helpful.
- *Chlamydia* and *Toxoplasma gondii* are 2 of the 3 most common infectious causes of ovine abortion. Without placenta, brain, and/or fetal thoracic fluid, we cannot properly address the primary differentials.