

Bovine Abortion Sampling Guidelines

Use one abortion kit and submission form per foetus

Samples required for core testing

Placenta – Place a piece of placenta (as clean as possible) in the labelled universal provided. Please include a cotyledon and surrounding membrane in the sample. Gram and MZN stains, plus wet preparations to detect fungi, are carried out on the placenta as part of the basic package in addition to culture.

Foetal fluid – Using the pipette provided, fill both labelled red top tubes with as much fluid as possible. Fluid from the thorax/pericardium/abdomen or unclotted blood is suitable (see image 1). Foetal fluid is tested for BVD (antibody and antigen), *N.caninum* and *L.Hardjo* antibodies as part of the basic package.

Foetal stomach contents (FSC) – Using the vacutainer needle and labelled red top tube aspirate fluid from the stomach (see image 2). FSC is used for bacteriology so caution should be taken to minimise contamination of the sample with bacteria from the environment.

Lung – Cut a section of lung 2cm³ and place in the labelled universal container (see image 3). Any bacteria cultured in pure growth from the FSC and/or lung are a potentially significant cause of abortion. The basic package includes all routine cultures including Salmonella and Campylobacter screens which take up to 1 week to complete.

Tissues for Histopathology – Tissues should be stored in 10 times the volume of formalin for 48 hours after collection. They can then be transferred to a smaller volume of formalin for postage. 2cm tissue cubes are required (except brain). The following tissues are recommended: Thyroid, Lung, Heart, Liver, Brain (whole) and Placenta.



Image 1



Image 2



Image 3

Additional testing

BoHV-1, BVDV or Schmallenberg virus – BoHV-1 can be detected in liver by PCR; BVDV can be detected in spleen by PCR; SBV can be detected from umbilical tissue or hair-coat fluid by PCR. A 1cm³ of tissue in virus transport medium or a separate aliquot of hair-coat fluid (SBV only) is required. These can be frozen until bacteriology results are available and tested retrospectively.

Schmallenberg virus antibody – Foetal fluid can be screening for presence of SBV antibodies

Iodine – In a still born calf dissecting out the thyroid (see image 4) and storing half in formalin and half fresh is useful if iodine deficiency is suspected. The fresh tissue can be analysed for iodine content. Fixed tissue can be examined histologically for evidence of iodine deficiency.

Selenium – Liver tissue (fresh) can be analysed for selenium content.

Maternal Serology – Blood from the aborting dam can be screened for antibodies to BVDV, L. Hardjo, N. caninum, BoHV-1 and Schmallenberg virus.

Sending Samples

Send kit and completed submission form to: *SRUC Veterinary and Analytical Laboratory, Pentlands Science Park, Bush Loan, Penicuik, Midlothian, EH26 OPZ.*



Image 4

Please remove sharps from the pack before posting and ensure all containers are labelled and tightly sealed, with adequate absorptive material.

Packs must comply with packaging Instruction P650; for more information go to: tinyurl.com/1s6futj1

Bovine Abortion Submission Form

Date sampled:		Vet Practice:		SAC Ref:
Client:		Clinician:		Date:
Farm:				Suites:
Postcode:		Crofter	Yes / No	
CPH:	__ / __ / ____	Health Scheme Member	Yes / No	Duty Vet:

Dam Information					
Dam ID:		Age of Dam:		Breed of Dam:	
Breed of Sire:		Stage of gestation:		Group Size:	
AI or Natural service:			Assisted calving:		Yes <input type="checkbox"/> No <input type="checkbox"/>
Dam body condition & clinical signs:					
Number of foetuses submitted:			Number of placentas submitted:		

Herd Management Information					
Herd Size:		Beef or Dairy:		Feeding:	
Housed or Outside:		Source of Replacements:			
Vaccinations:	BVD <input type="checkbox"/> Leptospirosis <input type="checkbox"/> IBR <input type="checkbox"/> IBR Marker <input type="checkbox"/>		Other vaccs:		

Abortion Outbreak Information					
No. of abortions:		Date of 1st abortion:		Date of 1 st calving:	
Abortions in previous years?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Details / Diagnosis:			
Gross pathology in abortion material (placentitis, arthrogryposis, etc):					
Comments (inc. history of infertility/re-absorptions/high barren rate):					

Core Testing (included in price)	Office Use Only				
Tick if collected	<i>Micro</i>	<i>BVD Ab / Ag</i>	<i>Neospora Ab</i>	<i>Lepto MAT</i>	<i>Histopath</i>
Foetal stomach contents	✓				
Lung	✓				
Foetal fluid		✓	✓	✓	
Placenta	✓				
Histopathology tissues					✓

Additional Testing (Tick if required)	BoHV-1 PCR	SBV PCR	SBV Ab	BVD PCR	Iodine	Selenium
Liver						
Foetal fluid						
Spleen						
Umbilicus / Coat scrape						
Thyroid						

Other samples collected	
Sample Type	Testing Required

Maternal Serology – tick testing required						
Dam ID	BVD Ab	Lepto Ab	N Caninum Ab	BoHV-1 Ab (IBR-gB)	BoHV-1 Ab (IBR-gE)	SBV Ab