

SAMPLING GUIDELINES FOR OVINE ABORTION INVESTIGATION



Sending the best possible range of samples improves the chances of getting a positive diagnosis for the reason behind your sheep abortion outbreaks. This guide is intended to provide you with assistance as to what samples to take and how.

What warrants investigation?

- 2% or more of total flock aborted, **or**
- 2 or more aborting over 2-3 days (irrelevant of the size of the flock)

A few key points:

- If you or the farmer are close to a lab, please submit the whole foetus and placenta
- Sample fresh cases
- Avoid cases that are very autolysed or mummified
- When investigating an abortion outbreak sample more than one case
- Do the samples as soon as the problem is notified and get them in the post ASAP
- Speak to your lab of choice if you have specific concerns or questions

Equipment needed:

- PM knife and sterile scalpel blades
- Red and green vacutainer tubes (minimum 3)
- Universal pots – large and small
- Plain swabs



What to take	Details	What is this used for?
Placenta	Sample as much as possible and ensure it contains cotyledons and some intercotyledonary tissue. Put in a universal container. If there is no placenta, take an impression smear of the tongue, this is not as good as placenta but is a useful back up.	Enzootic abortion (EAE) testing. It can also be tested for <i>Brucella</i> , <i>Coxiella</i> (Q fever) and <i>Toxoplasma</i> .
Foetal Stomach Contents	Take a sterile sample – use a vacutainer and red top tube, or sterile needle and syringe. If fluid is very thick, open with a sterile scalpel blade and sample with a syringe into a sterile container.	Key for bacteriological culture for example <i>Campylobacter</i> or <i>Salmonella</i> .
Foetal Fluids	Collect with a vacutainer into a red top tube, collect thoracic, abdominal or pericardial fluid. Can also be collected by sterile syringe or needle.	To tested for <i>Toxoplasma</i> antibody.
Foetal Spleen (fresh)	Collect into a universal container.	To look for Border disease.
Foetal Liver (fresh)	Collect into a universal container.	To look for additional bacteriology.
Foetal Brain (fresh)	Collect into a universal container – to look for <i>Toxoplasma</i> or <i>Schmallenberg Virus</i> .	It is useful to have fixed samples although they are not commonly processed.
Maternal Blood	Collect serum into a red top and plasma into green top tube.	For future confirmatory tests, if needed.

- Take as many of the above samples as possible.
- Be aware that submissions without placenta are significantly less likely to get a definitive diagnosis.
- Please include as detailed a history as possible including vaccinal status and any thoughts you have on the cause. This will help the lab determine which tests to run.
- Many labs will run tests in a logical order, so some samples may not need to be screened but if they don't have the sample it may result in no diagnosis.
- If possible, discuss the case with the lab and then take appropriate samples.

Summary:

- Multiple samples are best.
- Ideally the whole foetus and placenta should be sent directly to the lab. If there are multiple lambs from the same ewe, sample the freshest foetus.

If you have to do an on farm post mortem:

- Put all samples in universal containers or red top tubes.
- Send placenta, foetal stomach contents, foetal fluids, fresh liver, spleen and brain; plus a red top serum and green top plasma maternal blood sample.

The more fresh samples taken the more likely a diagnosis will be found.