Ewe abortion and newborn lamb deaths surveillance program 2018

The Department of Primary Industries and Regional Development (DPIRD) ewe abortion and newborn lamb deaths surveillance program helps sheep producers identify the cause of abortions and newborn lamb losses in their flocks.

The program also conducts important surveillance and testing to support Western Australia’s sheep exports markets, which were worth over $192 million in 2014/15.

The causes of ewe abortions and lamb deaths often go undiagnosed, because there are a range of infectious and non-infectious causes. The issue is often not recognised until marking, by which time the samples needed for testing are not available.

To overcome this issue, the program asks producers to collect samples from aborted or dead lambs at the time the losses occur.

The producer freezes samples as they are collected and, when at least three cases have been sampled, the producer contacts their veterinarian and sends the frozen samples to DPIRD Diagnostic Laboratory Services for testing.

Benefits of laboratory testing for ewe abortions and newborn lamb losses

Samples are tested for infectious causes of abortion known to occur in Australia. If the testing identifies an infectious disease is causing the losses, management strategies to reduce future impact may be available.

Where testing does not find an infectious disease, the producer may need to consider other factors that may be contributing to infertility, foetal loss or lamb deaths.

Samples are also tested for some significant causes of sheep abortion that do not occur in Australia, such as the bacterial infection *Brucella melitensis* and enzootic abortion of ewes.

The negative test results are used to show that WA and Australia continue to be free of those exotic diseases. This ‘proof of freedom’ is required for sheep to be exported to existing or new markets.

What cases of abortion or lamb deaths are eligible?

Producers can submit samples for laboratory testing once they have collected samples from at least three lamb abortions or newborn lamb deaths (see sampling information below).

Only cases where the lamb has not walked (gel still present on the hooves) are suitable for this targeted surveillance. Samples must be collected fresh (less than 12 hours after death when collected) and subsequently frozen.

This program is intended to make it easy for producers to obtain a diagnosis by sampling abortions and lamb deaths that they may not consider to be significant. If the abortions or lamb deaths continue, or if adult sheep are unwell, producers should call a vet for a full investigation and advice.

What diseases will be tested for?

Common or endemic infectious causes of ewe abortion that will be tested for include:

- toxoplasmosis
- Q fever
- campylobacteriosis (previously known as vibriosis)
- salmonellosis
- listeriosis
- border disease
- leptospirosis.

Important disclaimer
The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from use or release of this information or any part of it.
Exotic and reportable causes of ewe abortion that will also be tested for include:

- *Chlamydophila abortus* (enzootic abortion of ewes)
- *Brucella melitensis*
- *Salmonella abortus*.

DPIRD pays the cost of this laboratory testing.

**What samples should be collected and frozen?**

Some of the diseases that cause sheep abortions are zoonotic (can cause human illness). Gloves must be worn when sampling. Wash hands and equipment with soap or detergent after sampling. Pregnant women should take particular precautions.

The required sample is a piece of the buttons of the placenta (if available) or a piece of liver from the aborted, stillborn or dead newborn lamb.

Please refer to the detailed sampling guideline included in the sampling kit. The guideline includes step-by-step instructions and photos. The sampling guideline can also be downloaded from the program webpage (visit agric.wa.gov.au and search ‘lamb death’).

**Sampling kits available**

Producers can request a sampling kit from their local DPIRD veterinary officer or by arrangement from their private veterinarian or sheep consultant. Each sampling kit contains an esky, detailed sampling instructions, gloves and the jars and bags to package the sample.

**How to submit the samples**

When three sets of samples are ready to be sent, contact your preferred private veterinarian or sheep consultant (by arrangement) or local DPIRD veterinary officer to arrange submission of the samples.

Your nominated veterinarian or consultant will receive the laboratory test results so they can assist with interpretation and recommend management strategies if required.

**More information**

For more information about the program, sample collection and submission, contact:

- your local DPIRD field veterinary officer, or
- Dr Anna Erickson, program coordinator on +61 (0)8 9881 0211 or email anna.erickson@dpird.wa.gov.au