Ref: CTO 2017 021 [B] **Sheep and Goat Semen and Embryos: UK Vet Cert Amendment**

CTO direction as to equivalent measures in relation to semen and embryos from sheep and goats from the UK

Pursuant to section 27(1)(d)(iii) of the Biosecurity Act 1993 I, Lucy Johnston, Manager Animal Imports, Ministry for Primary Industries (under delegated authority), give the following directions for sheep and goat semen and embryos from UK in relation to the *IHS: Semen and Embryos from Sheep and Goats* OVCAGERM.GEN (10 November 2015):

1. **Maedi-visna (MV) virus**

For **semen**, requirements for residence in disease free flocks/herds and testing prior to entering isolation (24a and b), have been replaced with:

- A *Brucella ovis* test for sheep. As with jaagsiekte virus, MV is not considered likely to be shed unless there is testicular pathology resulting from *Brucella ovis.*

This is equivalence was granted to France in December 2016 (CTO 2016 077 [B]).

It should be noted that donors must still be tested after entering isolation.

For **embryos**, clause 25a requiring flock freedom has been replaced with:

- All embryos were washed in trypsin, according to the recommendations of IETS.

This equivalence was granted to Canada in February 2017 (CTO 2017 006 [B]).

2. ***Chlamydia abortus*** **(enzootic abortion of ewes - EAE)**

An option has been added to clause 33 (b) of the **embryo** certificate and 32 (b) of the **semen** certificate, allowing PCR testing of the embryos/fluids or semen sample from each collection.

A PCR test for *Chlamydia abortus* has been approved by IDC. The test must be performed where it has been validated, in either the UK or France. This equivalence was granted to France in CTO 2016 077 [B].

A new *Chlamydia abortus* option (c) has been added to both certificates.

Semen:

Regulation and Assurance
Animal and Animal Products Directorate
Pastoral House, 25 The Terrace, PO Box 2526
Wellington 6140, New Zealand
Telephone: 0800 00 83 33, Facsimile: +64-4-894 0300
www.mpi.govt.nz

The donors were only resident in collection centres where males are not in contact with females, they occupy different areas, there is no history of late gestation abortion, and prior to entering the collection centre, donors had only been resident in herds/flocks that either:
(i) were free in accordance with the *Code*; or
(ii) had no history of late gestation abortion for the past 2 years and all female animals introduced during that time have tested seronegative for EAE after joining the herd/flock; or
(iii) tested placentae, uterine discharges, or the foetus/neonate, from every late gestation abortion/stillbirth/weak neonate, for EAE as per the OIE *Manual*, during the past 2 years, with negative results; or
(iv) conducted serological screening[2] of females for the 2 years before collection, testing at the time of abortion/parturition and between 2 and 4 weeks later, and there have been no rises in titre.

[2]Screening must be randomised and representative of the herd/flock. The sample size selected must be sufficiently large to give 95% confidence of detecting infection.

Embryo:
The semen used to fertilise the embryo satisfies New Zealand's import requirements for semen from sheep and goats; and
(i) The donor is not known to have ever aborted a foetus during the last month of gestation, had a stillbirth, or an abnormally weak neonate; and
(ii) The donor has been resident since birth, or for at least the two years prior to collection, only in flocks/herds that either:
1. are free in accordance with the *Code*; or
2. have no history of late gestation abortions for the past 2 years and all female animals introduced during that time have tested seronegative for EAE after joining the herd/flock; or
3. tested placentae, uterine discharges, or the foetus/neonate, from every late gestation abortion/stillbirth/weak neonate, for EAE as per the OIE *Manual*, during the past 2 years, with negative results; or
4. conducted serological screening[1] of ewes for the 2 years before collection, testing at the time of abortion/parturition and between 2 and 4 weeks later, and there have been no rises in titre.

[1]Screening must be randomised and representative of the herd/flock. The sample size selected must be sufficiently large to give 95% confidence of detecting infection.

These options manage the risk by ensuring that all flocks/herds where donors have been resident are free of EAE. The semen option was approved for sheep donors in France in CTO 2016 077 [B]. The embryo option was approved by deputy CTO in July 2016 at the same time the semen option was developed for France.

3. ***Coxiella burnetii***

An option has been added to both **semen** (clause 33) and **embryo** (clause 34) certificates:

Embryo:
Donors
(i) prior to 1st vaccination, only resided in herds/flocks where, for the previous 4 years, the abortion rate was:
1. 2% or under; or
2. investigated and Q fever was never diagnosed; and
(ii) recorded a negative ELISA or IFA at the time of vaccination; and
(iii) were vaccinated with an inactivated whole phase 1 vaccine, as per the OIE *Manual*. That vaccination, or a booster, was administered within the 12 months before collection; and since vaccination either
1. The donor only resided in flocks where there was no evidence of Q fever for at least the previous 4 years; or
2. Every flock where the donor resided for the past 2 years, PCR tested uterine discharges or foetuses from all late gestation abortion/stillbirth/weak neonate for Q fever, as per the Manual, with negative results.

Semen:
Donors
(i) prior to 1st vaccination, only resided in herds/flocks where, for the previous 4 years, the abortion rate was:
1. 2% or under; or
2. investigated and Q fever was never diagnosed; and
(ii) recorded a negative ELISA or IFA at the time of vaccination; and
(iii) were vaccinated with an inactivated whole phase 1 vaccine, as per the OIE Manual. That vaccination, or a booster, was administered within the 12 months before collection; and since vaccination either
1. The donor only resided in flocks where there was no
evidence of Q fever for at least the previous 4 years; or
2. The donor has only resided in herds in which the majority of the animals are unvaccinated and all unvaccinated animals have been tested for Q fever (at least annually), with negative results.

The equivalences manage for early infection by requiring flock freedom prior to vaccination, requires confirmation of seronegativity at time of vaccination, and tested herd freedom after vaccination. It also specifies the type of vaccination and administration. The semen equivalence was given to France in CTO 2016 077 [B].

The following testing options were added to the **semen** and **embryo** certificates, as an alternative to the ELISA test:

- A semen sample was subjected to a validated PCR test for Q fever at the end of each collection period (60 days or less).
- Embryos/oocytes or collection/washing fluids were subjected to a validated PCR test from the end of each collection period (60 days or less).

Confirmation that the animal has never been confirmed positive for Q fever must still be provided. The PCR and ELISA tests are considered to manage the risk with equivalent outcome. This equivalence was given to France in CTO 2016 077 [B].

I consider the proposed amended certificates, with clauses different to those in the IHS, sets measures that effectively manage the risks.

The reason for directing clearance is that the biosecurity risks associated with this commodity have been assessed and are managed effectively.

This direction takes effect from the date of signing and continues in effect until amended or revoked.