

## An Equivalence Assessment

## BOVINE SEMEN FROM JAPAN

to AUSTRALIA (draft)	to CANADA
<p><b>CERTIFICATION</b></p> <p><b>Country status:</b> country or zone freedom</p> <ul style="list-style-type: none"> <li>. FMD – free without vaccination</li> <li>. BCP</li> <li>. LSD</li> <li>. RVF</li> <li>. Rinderpest</li> <li>. VS</li> </ul> <p><b>Herd of origin</b></p> <ul style="list-style-type: none"> <li>. Tb and Br officially free</li> </ul>	<p><b>CERTIFICATION</b></p> <p><b>Country status:</b> country or zone freedom</p> <ul style="list-style-type: none"> <li>. BEF</li> <li>. BCP</li> <li>. LSD</li> <li>. RVF</li> <li>. Rinderpest</li> </ul> <p><b>Premises freedom</b></p> <ul style="list-style-type: none"> <li>. BT <ul style="list-style-type: none"> <li>- no clinical or epidemiological evidence and no vaccination for 12 months</li> </ul> </li> <li>. FMD <ul style="list-style-type: none"> <li>- during 12 months prior must not have lived on premises in which FMD was reported during previous 12 months</li> <li>- from herd free from FMD</li> <li>- no vaccination in herd of origin</li> </ul> </li> </ul>
<p><b>TESTING</b></p> <p>Negative tests for:</p> <ul style="list-style-type: none"> <li>. BVD – ACE or virus isolation or PCR between 30-14 days before</li> <li>. EBL – either free herd or neg antibody or neg PCR on semen</li> <li>. JD – ELISA or CFT</li> <li>. IBR – semen culture</li> <li>. BT – either 60 days in free zone or neg serology 14 days before and 21 days after or neg virus isolation at commencement and at end</li> <li>. EHD (Ibaraki) – either 60 days in free zone or neg serology or neg virus isolation (as for BT)</li> <li>. Tb, Br, Campylo and Trich as per App 4.2.1.1.</li> </ul>	<p><b>TESTING</b></p> <p>The donors must be <b>certified free of the following diseases and</b> give negative tests for:</p> <ul style="list-style-type: none"> <li>. BVD – &gt;6mo neg virus isolation – within 60 days prior</li> <li>. Br – BPAT or CFT – prior to and during</li> <li>. Campylobacter – culture or IFA</li> <li>. EBL – AGID or ELISA</li> <li>. FMD – ELISA</li> <li>. Ibaraki – premises free for 12mo. Neg SNT at least 30 days after and all animals in centre within 12 mo before</li> <li>. Lepto – MALT within 60 days and during</li> <li>. Trich – 3x neg culture, before and during</li> <li>. Tb – i/d within 60 days prior and during</li> </ul>

<p><b>CERTIFICATIONS</b></p> <p>Semen collection, processing and storage – in accordance with International Animal Health Code recommendations.</p>	<p><b>PLACE OF ORIGIN</b></p> <ul style="list-style-type: none"> <li>. continuously resident for 6mo or direct from Canada to the exporting country</li> </ul>
	<p><b>OTHER DONOR CERTIFICATIONS</b></p> <ul style="list-style-type: none"> <li>. free from infectious diseases</li> <li>. free from clinical disease before</li> <li>. free from clinical disease after</li> <li>. in centre 30 days before collection</li> <li>. 14 non breeding period</li> </ul>
	<p><b>OTHER CERTIFICATIONS</b></p> <ul style="list-style-type: none"> <li>. no quarantine of premises of origin</li> <li>. centre free from quarantine</li> <li>. semen must be processed at approved facility</li> <li>. collection facility must be approved</li> <li>. semen free from pathogens</li> <li>. freezing, labelling, storage etc</li> </ul>

## SUMMARY

The major differences between the two sets of conditions are:

### 1 Country certification

Australia requires that the donors come from herds:

- Officially free from Br and Tb.
- In a FMD free zone without vaccination.
- Canada has no herd of origin requirements for Tb or Br but requires that the donors come from premises on which there has been no outbreak of FMD for 12 months.

### 2 Testing

The significant differences are that Australia requires a negative test for Johne's disease and a semen test for IBR, whereas Canada requires negative tests for FMD and leptospirosis.

## EQUIVALENCE

The Canadian requirement that the donor animals be certified free from tuberculosis and brucellosis plus testing is equivalent to the Australian requirements. The FMD requirements are also equivalent. However, the significant additional Australian requirements are:

## **1 That the donors are tested for Johne's disease.**

The significance of the risk of Johne's disease being transmitted by AI has been the subject of some debate and it is generally accepted that the risk is negligible except when the donor is clinically affected. Johne's disease is the subject of an eradication campaign in Japan and it would be most unlikely that a clinically affected bull would be standing at an AI centre.

## **2 That the semen is cultured for IBR (bovine herpes virus 1).**

Highly pathogenic strains of BHV1, such as BHV1.1, have not been reported from Australia. Pathogenic strains are present in Japan and it is important that such strains are not introduced into Australia via bovine semen.

## **RECOMMENDATION**

Bovine semen exported from Japan to Canada under the Canadian import requirements be eligible for re-export to Australia if subjected to the following requirement:

*An aliquot of not less than 0.5 ml of processed semen from each donor, pooled from at least two collections included in this consignment if there is more than one collection, was tested, with negative results, for bovine herpesvirus-1 (BHV-1) by cell culture inoculation after 2 or 3 passages or by the nucleic acid detection test (polymerase chain reaction technology [PCR]).*