Ministry for Primary Industries
Manatū Ahu Matua

Guidance Document

Importing Semen & Embryos

10 August 2017

Growing and Protecting New Zealand

Ministry for Primary Industries
Standards
Animal & Animal Products
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Contents

Foreword

This guidance document has been issued to accompany the Import Health Standards for Bovine Embryos (bovemid.gen) & Bovine Semen (bovsemid.gen). This guidance document should be read in conjunction with these standards. This is to ensure that the requirements for meeting the standard are fully understood.

Scope

Bovine germplasm includes frozen bovine semen and frozen bovine embryos derived from any member of the sub-family *Bovinae*. Fresh semen, in vitro derived embryos, and cloned embryos are specifically excluded from eligibility for import under this standard.

Approved Countries

Only countries approved by MPI are eligible to export bovine germplasm to New Zealand. Current approved countries are:

- Australia
- United States of America
- Canada
- the European Community member states
- Norway (semen only)
- Switzerland

Approved Diagnostic Tests, Treatments & Vaccinations

- Diagnostic tests for risk organisms must be those prescribed for international trade by the World Organisation for Animal Health (OIE). These diagnostic tests can be found by accessing the Terrestrial Animal Health Code (Code) and Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual) online.
- Where there are no OIE prescribed diagnostic tests for a particular disease MPI will either recommend test(s) or a case may be made by the Veterinary Authority of the exporting country for an alternative. The test must be approved by MPI and will be recorded in the table below:

Disease name	**MPI approved test(s)**	**OIE prescribed test for international trade**
Bluetongue virus	OIE prescribed tests for Bluetongue Agar gel immunodiffusion (AGID)	Virus isolation (VI) Serum virus neutralisation (SN or VN) Competitive enzyme-linked immunsorbent assay (C-ELISA) Reverse-transcription RT-PCR
Bovine viral diarrhoea (BVD) – virus genotype 2 (BVDV2) is exotic	OIE prescribed tests for BVDV2 Approved antibody detection tests are SN/VN and ELISA Note: a positive antibody detection test is acceptable when accompanied by a negative antigen detection test on the same date or after.	Enzyme-linked immunsorbent assay (ELISA) for antigen detection Virus isolation (semen or serum) – may involve the immunoperoxidase (IP) method

Infectious bovine rhinotracheitis (IBR) – causative agent is bovine herpes virus and the exotic strains are BHV1.1, 1.2a, and BHV5	OIE prescribed tests capable of detecting BHV 1.1, 1.2a, and 5.	SN or VN (ELISA Real-time PCR on semen VI on semen
Q fever	ELISA Complement fixation test (CFT)	none

Model Veterinary Certificate Templates

Model Veterinary Certificate for International Trade in Bovine Semen

COUNTRY:

<table>
<tr><td rowspan="9">Details of dispatched consignment</td><td>1. Consignor (Exporter):
Name:
Address:</td><td>2. Certificate reference number:</td></tr>
<tr><td></td><td>3. Veterinary Authority:</td></tr>
<tr><td></td><td>4. Import permit number:</td></tr>
<tr><td colspan="2">5. Consignee (Importer):
Name:
Address:</td></tr>
<tr><td colspan="2">6. Country of origin</td></tr>
<tr><td colspan="2">7. Country of destination:</td></tr>
<tr><td>8. Place of shipment:</td><td>9. Date of departure:</td></tr>
<tr><td>10. Description of commodity:</td><td>11. Total quantity:</td></tr>
<tr><td>12. Identification of container seal number:</td><td>13. Antibiotics (and their concentration) added to germplasm :</td></tr>
<tr><td colspan="2">14. Transport container :
o New / disinfected (delete as appropriate)
o Disinfectant used:
o Active chemical:
o Date of disinfection:</td></tr>
</table>

Donor information

Name	Donor identification	Breed	Date of Birth	Country of Birth	Name of Owner	Address of Owner

Semen information

Donor identification	Date/s of collection	Straw identification	Number of Straws	Date of entry into semen collection centre	Name of semen collection centre	Address of semen collection centre	Semen collection centre approval number	Date of last inspection of semen centre

Test information

	Collection period for consignment		Bluetongue			Bovine viral diarrhoea			Bovine herpes virus			Bovine brucellosis			Bovine tuberculosis			Q fever		
Donor identification	Collection period start	Collection period end	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

I,……., a veterinarian authorised by the veterinary authority certify, after due enquiry that the semen described above satisfy(ies) the following requirements:

Donor eligibility

1. Donors that were imported to the exporting country have lived continuously in the exporting country for at least 90 days and in the herd of origin for at least 30 days prior to semen collection for export to New Zealand.

Semen collection centre requirements

2. Bovine semen has been collected, handled, prepared, processed and stored at semen collection centres approved for export by the veterinary authority. The semen collection centres are subject to regular inspection by an Official Veterinarian and under the supervision of a semen collection centre veterinarian approved by the veterinary authority. The name and approval numbers of these semen collection centres are stated on the zoosanitary certificate.
3. When donors were transferred from one approved semen collection centre to another of equal health status without isolation or testing, the following conditions were applied:
    - donors were examined, by the approved semen collection centre veterinarian, and showed no clinical sign of disease on the day of entry to the centre; AND
    - transfer was direct; AND
    - transfer was not through a bluetongue infected zone OR donors were protected from insect attack during transit; AND
    - donors did not come into direct or indirect contact with animals of a lower health status; AND
    - the means of transport used was disinfected before use; AND
    - routine (annual) tests for bluetongue, bovine brucellosis, bovine tuberculosis, BVD-MD, and IBR-IPV were carried out on the donor during the 12 months prior to transfer.

Donor and semen collection centre health status

4. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donors as required by this standard.
5. Prior to collection of semen for this consignment, the donors were isolated for at least 28 days at a place specifically approved for this purpose by the veterinary authority. During this time they were not used for natural mating and were isolated from animals not of equivalent health status.
6. The approved semen collection centre veterinarian ensured that, on the day(s) of collection of the semen, the health status of each donor was monitored and recorded, and the donor did not show any clinical evidence of infectious diseases transmissible in semen.

Semen collection, processing, storage and transport

7. Semen was collected, handled, prepared, processed and stored under the supervision of the approved semen collection centre veterinarian and in accordance with the OIE Code.
8. Antibiotics were added to the semen diluent in accordance with the OIE Code chapter on collection and processing of bovine semen. The names of antibiotics added and their concentration are stated on the zoosanitary certificate. After addition of antibiotics, the semen was kept above 5^{o}C for at least 45 minutes.
9. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of collection. If a code is used for this information, its decipher accompanies the consignment. The marking, in accordance with the OIE Code, conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org).
10. The semen for export was stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them have remained healthy and free from any diseases transmissible in semen.
11. The semen was only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.

12. The semen was placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the semen to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded on the zoosanitary certificate.
13. The transport container, in which the semen is to be transported to New Zealand, was sealed, by either the semen collection centre veterinarian or an official veterinarian, using tamper evident seals. The seal number is recorded on the zoosanitary certificate.

Laboratory testing

14. All required laboratory testing was conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.
15. Laboratory or other diagnostic tests are those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.
16. Any PCR testing of sexed semen was done on a representative semen sample prior to the sorting process, unless evidence has been provided to MPI demonstrating that the PCR process is valid for sorted sexed semen.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS:

Bluetongue (BTV) (Delete as applicable)

EITHER

17. At the time of semen collection for export to New Zealand, the exporting country was free from BTV in accordance with the requirements of the OIE Code;

OR

18. Donors were kept in a BTV free zone, as defined by the OIE Code or recognised by MPI, for at least the 60 days immediately prior to, and during, semen collection for export to New Zealand;

OR

19. Donors were kept during the seasonally free period in a BTV seasonally free zone, as defined by the OIE Code, or otherwise protected from Culicoides, for at least the 60 days immediately prior to, and during, semen collection for export to New Zealand;

OR

20. Donors were subjected to OIE prescribed antibody detection tests for BTV, such as the competitive enzyme linked immunosorbent assay (cELISA), at least every 60 days during, and between 21 and 60 days after semen collection for export to New Zealand, with negative results;

OR

21. Donors were subjected to OIE prescribed agent detection tests for BTV, such as a virus isolation (VI) test or a polymerase chain reaction (PCR) test, on blood samples collected at commencement and conclusion of, and at least every 7 days (for VI test) or at least every 28 days (for PCR test) during, semen collection for export to New Zealand, with negative results.

Borna disease (Delete as applicable)

EITHER

22. Donors have been resident since birth in a country or countries that have never had a reported case of Borna disease;

OR

23. Borna disease is officially notifiable in the exporting country, and the donors have been resident for the previous 3 months in herds where there have been no reported cases in the 12 months prior to semen collection for export to New Zealand;

OR

24. Donors or aliquots of semen from each semen collection for export to New Zealand have been tested for Borna disease, using a MPI-approved test and process, with negative results.

Bovine viral diarrhoea type 2 (BVD2) (Delete as applicable)

EITHER

25. At the time of semen collection for export to New Zealand, the exporting country was free of BVDV2, i.e. there have been no cases of BVDV2 for at least 3 years;

OR

26. The semen collection centre has been maintained free from BVDV2 from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BVDV, including:
    - testing all cattle prior to pre-entry isolation for antibodies and antigen using prescribed tests; AND
    - testing all cattle during pre-entry isolation for antibodies (after 21 days isolation) and antigen, using prescribed tests; AND
    - if any animal seroconverts, keeping all animals in pre-entry isolation until there is no more seroconversion for 3 weeks; AND
    - only approving entry for groups where pre-entry isolation results indicate the absence of antigen-positive cattle; AND
    - thereafter, annually re-testing seronegative cattle; AND
    - for seropositive donors, testing of semen for BVDV, with negative results, prior to use of that animal as a donor;

    OR
27. An aliquot of semen from each semen collection for export to New Zealand has been tested for BVDV2, by VI or a MPI approved reverse transcriptase polymerase chain reaction (RT-PCR) test, with negative results.

Crimean Congo haemorrhagic fever (CCHF) (Delete as applicable)

EITHER

28. The exporting country has been recognised by MPI as being free of CCHF or CCHF is officially notifiable in the exporting country, and there has not been a reported case of CCHF in the exporting country for the 21 days before and during semen collection for export to New Zealand;

OR

29. Donors were serologically tested for CCHF using MPI approved methods such as an enzyme linked immunosorbent assay (ELISA) to detect IgG and IgM antibodies. Blood samples were collected within 7 days prior to commencement of semen collection and every 21 to 60 days thereafter, until 21 to 60 days after conclusion of semen collection for export to New Zealand. The results indicate:
    - that any donor seronegative at the start of testing has maintained a seronegative status; AND
    - that any donor seropositive at the start of testing did not have a rise in titre over consecutive tests.

Foot and mouth disease (FMD) (Delete as applicable)

EITHER

30. Donors were resident for at least the 3 months before semen collection in a country or zone that is free from FMD without vaccination in accordance with the OIE Code;

OR

31. The herds of origin, semen collection centre, donor animals and semen for export complies with OIE Code recommendations for export of bovine semen from countries or zones presenting a risk of FMD; AND
    Each semen collection, processing and storage facility in the exporting country intended to be used during the preparation of an export consignment to New Zealand was approved by MPI. The approval was dependant on the facility, its location and operating standards, and that the verification systems of the veterinary authority achieve a very high level of risk management for FMD. The process for MPI approval may have included site inspection. MPI reserves the right to supervise collection, require the use of New Zealand approved semen collection personnel, or require any other measures deemed necessary to ensure compliance with facility and operating standards upon which the approval is based.

Bovine herpes virus abortifacient strains (BHV) (Delete as applicable)

EITHER

32. At the time of collection of semen for export to New Zealand, the exporting country was free of BHV 1.1, BHV 1.2a and BHV5 in accordance with the OIE Code or as recognised by MPI;

OR

33. The semen collection centre has been maintained free from BHV from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BHV, including:
    - testing all cattle prior to pre-entry isolation for antibodies using a prescribed test, with negative results; AND
    - testing all cattle in pre-entry isolation for antibodies, with negative results, or where an animal in a group has tested positive re-testing the remaining animals, with negative results, not less than 21 days after removal of the positive animal; AND
    - thereafter, annually re-testing all donors for antibodies, with negative results;

OR

34. Donors were subjected to a prescribed antibody test for BHV, at least 21 days after semen collection for export to New Zealand, with negative results;

OR

35. An aliquot of semen from each semen collection for export to New Zealand was tested for both BHV1 and BHV5, by VI or MPI approved PCR test, with negative results.

Lumpy skin disease (LSD) (Delete as applicable)

EITHER

36. Donors were resident for 6 months prior to semen collection in a country or zone that is free of LSD as defined by the OIE Code;

OR

37. Donors were resident in an establishment or semen collection centre that was free of clinical evidence of LSD during a period from at least 6 months prior to commencement, until 28 days after conclusion of semen collection for export to New Zealand;

OR

38. An aliquot of semen from each semen collection for export to New Zealand was tested for LSD by a MPI approved PCR test, with negative results.

Rift Valley fever (RVF) (Delete as applicable)

EITHER

39. Donors were resident, for at least the 30 days prior to, and during semen collection for export to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code;

OR

40. Donors were serologically tested for RVF, using an OIE prescribed test, on the day of semen collection for export to New Zealand, and at least 14 days later, and showed no significant rise in titre.

Vesicular stomatitis (VS) (Delete as applicable)

EITHER

41. Donors were resident in a country that is free from VS in accordance with the OIE Code;

OR

42. VS is officially notifiable in the exporting country and no reported cases have occurred within 100km of the semen collection centre during the period from 30 days prior to commencement, until 30 days after conclusion of semen collection for export to New Zealand;

OR

43. Donors were:
    - resident for the 30 days prior to and during semen collection in a herd where no case of VS was reported in that period; AND

- subjected to a serological test for VS, between 21 to 42 days after semen collection for export to New Zealand, with negative results.

Bovine brucellosis (Delete as applicable)

EITHER

44. Donors have been kept since birth in a country or zone that is free from bovine brucellosis in accordance with the OIE Code;

OR

45. The semen collection centre has been maintained free from bovine brucellosis from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to bovine brucellosis, including:
    - prior to pre-entry isolation the donors were either from a country or zone that is free from bovine brucellosis in accordance with the OIE Code or were from a herd officially free from bovine brucellosis; AND
    - during the 30 days prior to pre-entry isolation donors were tested using an OIE prescribed serological test for bovine brucellosis, with negative results; AND
    - all cattle in pre-entry isolation were tested using an OIE prescribed serological test for bovine brucellosis, with negative results; AND
    - at least annually all cattle resident in the semen collection centre were tested using an OIE prescribed test for bovine brucellosis, with negative results.

Bovine tuberculosis (Delete as applicable)

EITHER

46. The semen collection centre was:
    - free from bovine tuberculosis in accordance with the OIE Code or the veterinary authority of the exporting country; AND
    - located in a country or zone that has been recognised by MPI as being free of bovine tuberculosis;

OR

47. The semen collection centre has been maintained free from bovine tuberculosis from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to bovine tuberculosis, including:
    - prior to pre-entry isolation the donors were from a herd free from bovine tuberculosis, either in accordance with the OIE Code or the veterinary authority of the exporting country; AND
    - during the 30 days prior to entry to the semen collection centre, donors were tested using an OIE prescribed test for bovine tuberculosis, with negative results; AND
    - at least annually all cattle resident in the semen collection centre were tested using an OIE prescribed test for bovine tuberculosis, with negative results.

Contagious bovine pleuropneumonia (CBPP) (Delete as applicable)

EITHER

48. Donors were born in and have been continuously resident in a country that is free from CBPP i.e. there have been no cases of CBPP for at least 3 years;

OR

49. Donors have:
    - never been vaccinated for CBPP; AND
    - been kept since birth, or for at least the 6 months prior to commencement until conclusion of semen collection for export to New Zealand in establishments where no case of CBPP has been reported, and which are not situated in a CBPP infected zone, as defined by the OIE Code; AND

- been serologically tested for CBPP, using OIE prescribed methods on two occasions 21 to 30 days apart, with the last test within 14 days prior to semen collection for export to New Zealand, with negative results.

Mycoplasma bovis

50. Donors have never recorded a positive test for *Mycoplasma bovis*;

Q fever (Delete as applicable)

51. Donors have never recorded a positive test for Q fever;

AND EITHER

52. Donors were subjected to a MPI approved serological test for Q fever, on a sample collected between 21 and 120 days after each semen collection for export to New Zealand, with negative results;

OR

53. An aliquot of semen from each semen collection for export to New Zealand was tested for Q fever by a MPI approved PCR test, with negative results;

OR

54. Within the 6 month period before or after semen collection for export to New Zealand, the resident herd of cattle on the semen collection centre has been tested for Q fever, with negative results. This testing can be a MPI approved serological test done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND
    The semen collection centre group has been isolated for the period between semen collection and diagnostic sampling.

Semen Centre Veterinarian:	Official Veterinarian:
Name and address (in capital letters):	Name and address (in capital letters):
Date: Signature:	Date: Signature:
	Official Veterinarian signature Official stamp Apply to each page

Model Veterinary Certificate for International Trade in Bovine Embryos

COUNTRY:

<table>
<tr><td rowspan="9">Details of dispatched consignment</td><td>1. Consignor (Exporter):
Name:
Address:</td><td>2. Certificate reference number:</td></tr>
<tr><td></td><td>3. Veterinary Authority:</td></tr>
<tr><td></td><td>4. Import permit number:</td></tr>
<tr><td colspan="2">5. Consignee (Importer):
Name:
Address:</td></tr>
<tr><td colspan="2">6. Country of origin</td></tr>
<tr><td colspan="2">7. Country of destination:</td></tr>
<tr><td>8. Place of shipment:</td><td>9. Date of departure:</td></tr>
<tr><td>10. Description of commodity:</td><td>11. Total quantity:</td></tr>
<tr><td>12. Identification of container seal number:</td><td>13. Antibiotics (and their concentration) added to germplasm :</td></tr>
<tr><td colspan="2">14. Transport container :
o New / disinfected (delete as appropriate)
o Disinfectant used:
o Active chemical:
o Date of disinfection:</td></tr>
</table>

Female donor information						
Name	Donor identification	Breed	Date of Birth	Country of Birth	Name of Owner	Address of Owner

Male donor information							
Name	Donor identification	Breed	Date of Birth	Country of Birth	Name of Semen Centre	Address of Semen Centre	Semen Centre Number

Embryo information							
Female donor identification	Date/s of collection	Straw identification	Number of Straws	Number of Embryos /Straws	Name and Address of Embryo Collection Herd/Centre	Male donor identification	Date of Semen Collection or date of Natural Mating

Test information												
		Collection period for consignment		Bovine viral diarrhoea			Bovine tuberculosis			Q fever		
Female donor identification	Date of entry into Embryo Collection Herd/Centre	Collection period start	Collection period end	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

I,……., a veterinarian authorised by the veterinary authority certify, after due enquiry that the embryos described above satisfy(ies) the following requirements:

Donor eligibility

1. Donors that were imported to the exporting country have lived continuously in the exporting country for at least 60 days and in the herd of origin for at least 30 days prior to embryo collection for export to New Zealand.
2. Donors were resident in the embryo collection herd for at least 30 days prior to embryo collection for export to New Zealand.

Embryo collection team and herd approval requirements

3. At the time of embryo collection for export to New Zealand, the embryo collection team was approved by and registered with the veterinary authority of the exporting country to collect, process, and store bovine embryos for export in accordance with the current recommendations of the OIE Code or legislation of the exporting country (where MPI deems this to be equivalent) and the current manual of the International Embryo Transfer Society IETS; www.iets.org).
4. The veterinary authority has knowledge of and authority over the embryo collection herd until completion of testing specified in this standard.

Donor and herd health status

5. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 60 days before the first embryo collection for the consignment to New Zealand until completion of the testing of the donors as required by this standard.
6. Where a specific requirement for a risk organism is met by pre-collection testing, donors were isolated from other cattle not of an equivalent tested health status, from the time of the pre-collection test until completion of embryo collection for export to New Zealand.
7. On the day(s) of collection of the embryos, the approved embryo collection team veterinarian, or veterinarian responsible to the team veterinarian, was responsible for monitoring the health status of each donor and recording that the donor was free from clinical evidence of infectious diseases transmissible in embryos.
8. The semen used to produce the embryos in the consignment either:
   - was imported directly from New Zealand or is eligible for export to New Zealand; OR
   - was collected and processed at a semen collection centre that fully complies with the current OIE Code chapter on collection and processing of bovine semen; OR
   - where natural service or fresh semen was used, donor males were inspected, and found free from clinical evidence of infectious diseases transmissible in semen, and were of an equivalent isolation and tested health status to the donor females.

Embryo collection, processing, storage and transport

9. Embryos were collected, washed, processed, traceability maintained, and stored under the supervision of an approved embryo collection team veterinarian and in accordance with the recommendations in the OIE Code chapters on collection and processing of *in vivo* derived and micro-manipulated bovine embryos.
10. All the embryos in the consignment were fertilised *in vivo*, collected, processed, traceability maintained, stored, and transported in accordance with OIE Code recommendations.
11. Embryos were collected, washed, processed, traceability maintained, and stored under conditions that comply with the recommendations in the IETS Manual. The embryos were treated with trypsin during the washing process as described in the IETS Manual. Each embryo had an intact zona pellucida and was examined over its entire surface at not less than 50X magnification and found to be free of adherent material.
12. Any micro-manipulation that causes a breach of the zona pellucida was done as per the procedures described in the OIE Code and IETS Manual. These include specifications on the facilities used and require that micro-manipulation only be carried out on an embryo having an intact zona pellucida and that it be done subsequent to the last wash and examination of the embryo.

13. All biological products of animal origin used in the media and solutions for collection, processing, washing or storage of embryos was free of pathogenic organisms including pestiviruses. Media and solutions were sterilised by approved methods according to the IETS Manual and handled in such a manner as to ensure that sterility was maintained. Antibiotics as recommended in the OIE Code and IETS Manual, or a combination of antibiotics with equivalent activity, were added to collection, processing, washing and storage media. The names of antibiotics added and their concentration are stated on the zoosanitary certificate.
14. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of freezing. If a code is used for this information, its decipher accompanies the consignment. The marking should, in accordance with the OIE Code, conform to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org) and the IETS.
15. The embryos for export were stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them remained healthy and free from any diseases transmissible in embryos.
16. The embryos were only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.
17. The embryos were placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the embryos to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded on the zoosanitary certificate.
18. The transport container, in which the embryos are to be transported to New Zealand, was sealed, by either the embryo collection team veterinarian or an official veterinarian, using tamper evident seals. The seal number is recorded on the zoosanitary certificate.

Laboratory testing

19. All required laboratory testing was conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.
20. Samples of embryos/oocytes, collection fluids, and washing fluids for laboratory testing were collected, processed, and stored in accordance with the recommendations in the OIE Code chapter on collection and processing of *in vivo* derived embryos of livestock.
21. Laboratory or other diagnostic tests were those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS

Borna disease (Delete as applicable)

EITHER

22. Donors have been resident since birth in a country or countries that have never had a reported case of Borna disease;

OR

23. Borna disease is officially notifiable in the exporting country, and the donors have been resident for the previous 3 months in herds, where there have been no reported cases in the 12 months prior to embryo collection for export to New Zealand;

OR

24. Donors or aliquots of embryos/oocytes, collection fluids, and/or washing fluids from each embryo collection for export to New Zealand have been tested for Borna disease, using a MPI-approved test and process, with negative results.

Bovine viral diarrhoea type 2 (BVDV2) (Delete as applicable)

EITHER

25. At the time of embryo collection for export to New Zealand, the exporting country was free of BVDV2, i.e. there have been no cases of BVDV2 for at least 3 years;

OR

26. Donors have been tested for BVDV including:
    - prior to, or at the time of embryo collection for export to New Zealand, all donors were tested serologically for BVDV antibodies and antigen; AND
    - seronegative donors were again tested serologically, 21 to 40 days subsequent to embryo collection for export to New Zealand, for BVDV antibodies and antigens.

    Cattle that are not eligible as embryo donors for export to New Zealand are either:
    - donors that are antigen-positive in initial testing; OR
    - donors that seroconvert or are antigen-positive in the post-collection test.

    OR
27. A pooled sample of embryos/oocytes, collection fluids and/or washing fluids from each embryo collection for export to New Zealand has been tested for BVDV2, by virus isolation (VI) or a MPI approved reverse transcriptase polymerase chain reaction (RT-PCR) test, with negative results.

Crimean Congo haemorrhagic fever (CCHF) (Delete as applicable)

EITHER

28. The exporting country has been recognised by MPI as being free of CCHF or CCHF is officially notifiable in the exporting country, and there has not been a reported case of CCHF in the exporting country for the 21 days before and during embryo collection for export to New Zealand;

    OR
29. Donors were serologically tested for CCHF using MPI approved methods such as an enzyme linked immunosorbent assay (ELISA) to detect IgG and IgM antibodies. Blood samples were collected within 7 days prior to commencement of embryo collection and every 21 to 60 days thereafter, until 21 to 60 days after conclusion of embryo collection for export to New Zealand. The results must indicate:
    - that any donor seronegative at the start of testing has maintained a seronegative status; AND
    - that any donor seropositive at the start of testing did not have a rise in titre over consecutive tests.

Foot and mouth disease (FMD) (Delete as applicable)

EITHER

30. Donors were resident for at least the 3 months before embryo collection in a country or zone that is free from FMD without vaccination in accordance with the OIE Code;

    OR
31. The herds of origin, embryo collection herd where the donors were resident during embryo collection, donor animals and embryos for export complies with OIE Code recommendations for export of bovine embryos from countries or zones presenting a risk of FMD; AND

    Each embryo collection, processing and storage facility in the exporting country, intended to be used during the preparation of an export consignment to New Zealand, was approved by MPI. The approval was dependant on the establishment, its location and operating standards, and that the verification systems of the veterinary authority achieve a very high level of risk management for FMD. The process for MPI approval may include site inspection. MPI reserves the right to supervise collection, require the use of New Zealand approved embryo collection personnel, or require any other measures deemed necessary to ensure compliance with facility and operating standards upon which the approval is based.

Lumpy skin disease (LSD) (Delete as applicable)

EITHER

32. Donors have been resident for 6 months prior to embryo collection in a country or zone that is free of LSD as defined by the OIE Code;

OR

33. Donors have been resident in an establishment that was free of clinical evidence of LSD during a period from at least 6 months prior to commencement, until 28 days after conclusion of embryo collection for export to New Zealand;

OR

34. A sample of embryos/oocytes, collection fluids, and/or washing fluids from each embryo collection for the export consignment to New Zealand have been subjected to a polymerase chain reaction (PCR) test for LSD, with negative results.

Rift Valley fever (RVF) (Delete as applicable)

EITHER

35. Donors were resident, for at least the 30 days prior to, and during embryo collection for export to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code;

OR

36. Donors were serologically tested for RVF, using an OIE prescribed test, on the day of embryo collection for export to New Zealand, and at least 14 days later, and showed no significant rise in titre;

OR

37. Donors showed no evidence of RVF in the period from 28 days prior, to 28 days following embryo collection for export to New Zealand, and were vaccinated with a MPI approved vaccine against RVF at least 21 days prior to embryo collection.

Vesicular stomatitis (VS) (Delete as applicable)

EITHER

38. Donors were resident in a country that is free from VS in accordance with the OIE Code;

OR

39. VS is officially notifiable in the exporting country, and no known cases have occurred within 100km of the embryo collection herd, where the donors were resident during embryo collection, during the period from 30 days prior to commencement, until 30 days after conclusion of embryo collection for export to New Zealand;

OR

40. Donors were:
    - resident for the 30 days prior to and during embryo collection in a herd where no case of VS was reported in that period; AND
    - subjected to a serological test for VS, between 21 to 42 days after embryo collection for export to New Zealand, with negative results.

Bovine tuberculosis (Delete as applicable)

41. Donors and other susceptible animals in the embryo collection herd showed no clinical signs of bovine tuberculosis during the 24 hours prior to embryo collection for export to New Zealand;

AND EITHER

42. Donors were:
    - from a embryo collection herd that is free from bovine tuberculosis in accordance with the OIE Code or the veterinary authority of the exporting country; AND
    - from a country or zone that has been recognised by MPI as being free of bovine tuberculosis;

OR

43. Donors were:

- from an embryo collection herd that is free from bovine tuberculosis, either in accordance with the OIE Code or the veterinary authority of the exporting country; AND
- subjected to an OIE prescribed test for bovine tuberculosis during the period between 30 days prior to 12 months after embryo collection for export to New Zealand, with negative results.

Contagious bovine pleuropneumonia (CBPP) (Delete as applicable)

EITHER

44. Donors were born in, and have been continuously resident in, a country that is free from CBPP i.e. there have been no cases of CBPP for at least 3 years;

OR

45. Donors have:
    - never been vaccinated for CBPP; AND
    - been kept since birth, or for at least the 6 months prior to commencement until conclusion of embryo collection for export to New Zealand in establishments where no case of CBPP has been reported, and which are not situated in a CBPP infected zone, as defined by the OIE Code; AND
    - been serologically tested for CBPP, using OIE prescribed methods on two occasions 21 to 30 days apart, with the last test within 14 days prior to embryo collection for export to New Zealand, with negative results.

Mycoplasma bovis

46. Donors have never recorded a positive test for *Mycoplasma bovis*;

Q fever (Delete as applicable)

47. Donors have never recorded a positive test for Q fever;

AND EITHER

48. Donors were subjected to a MPI approved serological test for Q fever, on a sample collected between 21 and 120 days after each embryo collection for export to New Zealand, with negative results;

OR

49. A sample of embryos/oocytes, collection fluids and/or washing fluids from each embryo collection for export to New Zealand was tested for Q fever by a MPI approved PCR test, with negative results;

OR

50. Within the 6 month period before or after embryo collection for export to New Zealand, the embryo collection herd has been tested for Q fever, with negative results. This testing can be a MPI approved serological test done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND
    The embryo collection herd has been isolated for the period between embryo collection and diagnostic sampling.

Embryo Collection Team Veterinarian: Name and address (in capital letters): Date: Signature:	Official Veterinarian: Name and address (in capital letters): Date: Signature: Stamp: Official Veterinarian signature Official stamp Apply to each page

Country Specific Agreed Veterinary Certificates for Trade in Bovine Germplasm

This section contains the veterinary health certification agreed between the Veterinary Authority of New Zealand and specific overseas countries. The certificates must be completed by the appropriate personnel as indicated in the certification and accompany the consignment to New Zealand.

The agreed certificates may record all relevant clauses as described in the model veterinary certificate. Alternatively, for current approved countries, they may be simplified to reflect MPI approved equivalent national systems of the exporting country.

The agreed country specific veterinary certificates will be added as they become available. There will be a transition phase applicable once a bilateral veterinary certificate has been finalised. This transition phase will total four months, to allow donor animals to be prepared in accordance with new conditions. This means both old and new import conditions will be accepted. The application of new import conditions will apply after the transition period, with dates listed in the table below. At that time the previous Veterinary Certificate for that country will be revoked and can no longer be used.

	Agreed on	**Transition period ends on**
Canada	5 April 2012	5 August 2012
USA	15 April 2013	15 August 2013
Norway (semen)	24 April 2012	24 August 2012
Switzerland	TBD	TBD
Australia	7 March 2013	7 July 2013
EU	20 June 2012	20 October 2012

Canada: Veterinary health certificate for export of bovine semen to NZ

(Ref. CFIA: HA1122)

COUNTRY: Canada

<table>
<tr><td rowspan="8">Details of dispatched consignment</td><td>1. Consignor (Exporter):
Name:
Address:</td><td>2. Certificate reference number:</td></tr>
<tr><td></td><td>3. Veterinary Authority:</td></tr>
<tr><td></td><td>4. Import permit number:</td></tr>
<tr><td colspan="2">5. Consignee (Importer):
Name:
Address:</td></tr>
<tr><td colspan="2">6. Country of origin:</td></tr>
<tr><td colspan="2">7. Country of destination:</td></tr>
<tr><td>8. Place of shipment:</td><td>9. Date of departure:</td></tr>
<tr><td></td><td>10. Description of commodity:</td><td>11. Total quantity:</td></tr>
<tr><td></td><td>12. Identification of container seal number:</td><td>13. Antibiotics (and their concentration) added to germplasm :</td></tr>
<tr><td></td><td colspan="2">14. Transport container :
o New / disinfected (delete as appropriate)
o Disinfectant used:
o Active chemical:
o Date of disinfection:</td></tr>
</table>

Donor information

Name	Registration number	Sire code number	Breed	Date of Birth	Country of Birth	Name of Owner	Address of Owner

Semen information

Sire code number	Date/s of collection	Straw identification	Number of Straws	Date of entry into semen collection centre	Name of semen collection centre	Address of semen collection centre	Semen collection centre approval number	Date of last inspection of semen centre
		Straws are identified with registration number, name, sire code number, collection date and centre approval number						

Test information (in the case of semen centre freedom testing, last test done on donor bull should be recorded; date format is yyyy-mm-dd.)

	Bovine viral diarrhoea			Bovine herpes virus			Q fever		
Sire code number	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

I,……., a veterinarian authorised by the veterinary authority certify, after due enquiry that the donor bulls and semen described in this certificate satisfy the following requirements:

Donor eligibility

1. Donors that were imported into Canada have lived continuously in Canada for at least 90 days and in the herd of origin for at least 30 days prior to semen collection for export to New Zealand.

Semen collection centre requirements

2. Bovine semen has been collected, handled, prepared, processed and stored at semen collection centres approved for export by the veterinary authority. The semen collection centres are subject to regular inspection by an Official Veterinarian and under the supervision of a semen collection centre veterinarian approved by the veterinary authority. The name and approval numbers of these semen collection centres are stated on the zoosanitary certificate.
3. When donors were transferred from one approved semen collection centre to another of equal health status without isolation or testing, the following conditions were applied:
   - donors were examined, by the approved semen collection centre veterinarian, and showed no clinical sign of disease on the day of entry to the centre; AND
   - transfer was direct; AND
   - transfer was not through a bluetongue infected zone OR donors were protected from insect attack during transit; AND
   - donors did not come into direct or indirect contact with animals of a lower health status; AND
   - the means of transport used was disinfected before use; AND
   - routine (annual) tests for bluetongue, bovine brucellosis, bovine tuberculosis, BVD-MD, and IBR-IPV were carried out on the donor during the 12 months prior to transfer.

Donor and semen collection centre health status

4. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donors as required by this standard.
5. Prior to admission to the semen collection centre, the donors were isolated for at least 28 days at a place specifically approved for this purpose by the veterinary authority. During this time they were not used for natural mating and were isolated from animals not of equivalent health status.
6. The approved semen collection centre veterinarian ensured that, on the day(s) of collection of the semen, the health status of each donor was monitored and recorded, and the donor did not show any clinical evidence of infectious diseases transmissible in semen.

Semen collection, processing, storage and transport

7. Semen was collected, handled, prepared, processed and stored under the supervision of the approved semen collection centre veterinarian and in accordance with the OIE Code.
8. Antibiotics were added to the semen diluent in accordance with the OIE Code chapter on collection and processing of bovine semen. The names of antibiotics added and their concentration are stated on this veterinary certificate. After addition of antibiotics, the semen was kept above 5^{o}C for at least 45 minutes.
9. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of collection. If a code is used for this information, its decipher accompanies the consignment. The marking, in accordance with the OIE Code, conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org).
10. The semen for export was stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them have remained healthy and free from any diseases transmissible in semen.
11. The semen was only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.

12. The semen was placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the semen to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded on this veterinary certificate.
13. The transport container, in which the semen is to be transported to New Zealand, was sealed by an official veterinarian, using tamper evident seals. The seal number is recorded on this veterinary certificate.

Laboratory testing

14. All required laboratory testing was conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.
15. Laboratory or other diagnostic tests are those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.
16. Any PCR testing of sexed semen was done on a representative semen sample prior to the sorting process.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS:

Bluetongue (BTV)

17. The semen was collected prior to September 3, 2015, or between January 1 and May 15 (seasonally free period); OR
18. The donors were kept in a vector-protected establishment for at least 60 days before commencement of, and during, collection of the semen; OR
19. The semen was collected after September 3, 2015 or between May 16 and December 31; AND donors tested negative for BTV in accordance with the Code's Bluetongue Chapter test requirements for infected countries.

Borna disease

20. Donors have been resident since birth in a country or countries that have never had a reported case of Borna disease.

Bovine viral diarrhoea type 2 (BVD2) *(delete section 19 or 20 as appropriate and initial)*

21. The semen collection centre has been maintained free from BVDV2 from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BVDV, including:
    - testing all cattle prior to pre-entry isolation for antibodies and antigen using prescribed tests; AND
    - testing all cattle during pre-entry isolation for antibodies (after 21 days isolation) and antigen, using prescribed tests; AND
    - if any animal seroconverts, keeping all animals in pre-entry isolation until there is no more seroconversion for 3 weeks; AND
    - only approving entry for groups where pre-entry isolation results indicate the absence of antigen-positive cattle; AND
    - thereafter, annually re-testing seronegative cattle; AND
    - for seropositive donors, testing of semen for BVDV, with negative results, prior to use of that animal as a donor;

    OR
22. An aliquot of semen from each semen collection for export to New Zealand has been tested for BVDV2, by VI, with negative results.

Crimean Congo haemorrhagic fever (CCHF)

23. CCHF was never reported in animals in Canada.

Foot and mouth disease (FMD)

24. Donors were resident for at least the 3 months before semen collection in a country or zone that is free from FMD without vaccination in accordance with the OIE Code.

Bovine herpes virus abortifacient strains (BHV) *(delete section 23, 24 or 25 as appropriate and initial)*

25. The semen collection centre has been maintained free from BHV from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BHV, including:
    - testing all cattle prior to pre-entry isolation for antibodies using a prescribed test, with negative results; AND

- testing all cattle in pre-entry isolation for antibodies, with negative results, or where an animal in a group has tested positive re-testing the remaining animals, with negative results, not less than 21 days after removal of the positive animal; AND
- thereafter, annually re-testing all donors for antibodies, with negative results;

OR

26. Donors were subjected to a prescribed antibody test for BHV, at least 21 days after semen collection for export to New Zealand, with negative results;

OR

27. An aliquot of semen from each semen collection for export to New Zealand was tested for BHV by VI, with negative results.

Lumpy skin disease (LSD)

28. Donors were resident for 6 months prior to semen collection in a country or zone that is free of LSD as defined by the OIE Code.

Rift Valley fever (RVF)

29. Donors were resident, for at least the 30 days prior to, and during semen collection for export to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code.

Vesicular stomatitis (VS)

30. Donors were resident in a country that is free from VS in accordance with the OIE Code.

Bovine brucellosis

31. Canada is free from bovine brucellosis as per OIE standards.

AND

32. The semen collection centre has been maintained free from bovine brucellosis in accordance with the CFIA Artificial Insemination Program.

Bovine tuberculosis

33. Canada is free from bovine tuberculosis as per OIE standards

AND

34. The semen collection centre was maintained free from tuberculosis in accordance with the CFIA Artificial Insemination Program.

Contagious bovine pleuropneumonia (CBPP)

35. Donors were born in and have been continuously resident in a country that is free from CBPP i.e. there have been no cases of CBPP for at least 3 years.

Mycoplasma bovis

36. Donors have never recorded a positive test for *Mycoplasma bovis*.

Q fever

37. Donors have never recorded a positive test for Q fever

AND

38. Donors were subjected to a CF or ELISA test for Q fever, on a sample collected between 21 and 120 days after each semen collection for export to New Zealand, with negative results.

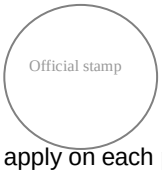
Official Veterinarian

Name:

Address (in capital letters):

Date:

Signature:



Note: Official Veterinarian signature and Official Stamp must be apply on each page

Canada: Veterinary health certificate for export of bovine embryos to NZ

(Ref. CFIA: HA1299)

COUNTRY: Canada

<table>
<tr><td rowspan="9">Details of dispatched consignment</td><td>1. Consignor (Exporter):
Name:
Address:</td><td>2. Certificate reference number:</td></tr>
<tr><td></td><td>3. Veterinary Authority:</td></tr>
<tr><td></td><td>4. Import permit number:</td></tr>
<tr><td colspan="2">5. Consignee (Importer):
Name:
Address:</td></tr>
<tr><td colspan="2">6. Country of origin</td></tr>
<tr><td colspan="2">7. Country of destination:</td></tr>
<tr><td>8. Place of shipment:</td><td>9. Date of departure:</td></tr>
<tr><td>10. Description of commodity:</td><td>11. Total quantity:</td></tr>
<tr><td>12. Identification of container seal number:</td><td>13. Antibiotics (and their concentration) added to germplasm :</td></tr>
<tr><td colspan="2">14. Transport container :
o New / disinfected (delete as appropriate)
o Disinfectant used:
o Active chemical:
o Date of disinfection:</td></tr>
</table>

Female donor information						
Name	Donor registration number	Breed	Date of Birth	Country of Birth	Name of Owner	Address of Owner

Male donor information							
Name	Donor registration number	Breed	Date of Birth	Country of Birth	Name of Semen Centre	Address of Semen Centre	Semen Centre Number

Embryo information						
Female donor registration number	Date/s of collection	Straw identification (straw # & ET code)	Number of Straws	Name and Address of Embryo Collection Herd/Centre	Male donor identification	Date of Semen Collection or Natural Mating

Test information (date format: yyyy-mm-dd)							
		Bovine viral diarrhoea			Q fever		
Female donor registration number	Date of entry into Embryo Collection Herd/Centre	Test sampling date	Test type	Result	Test sampling date	Test type	Result

I,……., a veterinarian authorised by the veterinary authority certify, after due enquiry that the embryos and donor animals described in this certificate satisfy the following requirements:

Donor eligibility

1. Donors that were imported into Canada have lived continuously in Canada for at least 60 days and in the herd of origin for at least 30 days prior to embryo collection for export to New Zealand.
2. Donors were resident in the embryo collection herd for at least 30 days prior to embryo collection for export to New Zealand.

Embryo collection team and herd approval requirements

3. At the time of embryo collection for export to New Zealand, the embryo collection team was approved by and registered with the veterinary authority of the exporting country to collect, process, and store bovine embryos for export in accordance with the current recommendations of the OIE and the current manual of the International Embryo Transfer Society IETS.
4. The veterinary authority has knowledge of and authority over the embryo collection herd until completion of testing specified in this standard.

Donor and herd health status

5. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 60 days before the first embryo collection for the consignment to New Zealand until completion of the testing of the donors as required by this standard.
6. Where a specific requirement for a risk organism is met by pre-collection testing, donors were isolated from other cattle not of an equivalent tested health status, from the time of the pre-collection test until completion of embryo collection for export to New Zealand.
7. On the day(s) of collection of the embryos, the approved embryo collection team veterinarian, or veterinarian responsible to the team veterinarian, was responsible for monitoring the health status of each donor and recording that the donor was free from clinical evidence of infectious diseases transmissible in embryos.
8. The semen used to produce the embryos in the consignment either:
   - was imported directly from New Zealand or is eligible for export to New Zealand; OR
   - was imported directly from the United States, met the CSS certified standards, and complied with CFIA import requirement; OR
   - was collected and processed at a semen collection centre that complies with the CFIA Artificial Insemination Program; OR
   - where natural service or fresh semen was used, donor males were inspected, and found free from clinical evidence of infectious diseases transmissible in semen, and were of an equivalent isolation and tested health status to the donor females.

Embryo collection, processing, storage and transport

9. Embryos were collected, washed, processed, traceability maintained, and stored under the supervision of an approved embryo collection team veterinarian and in accordance with the recommendations in the OIE Code chapters on collection and processing of *in vivo* derived and micro-manipulated bovine embryos.
10. All the embryos in the consignment were fertilised *in vivo*, collected, processed, traceability maintained, stored, and transported in accordance with OIE Code recommendations.
11. Embryos were collected, washed, processed, traceability maintained, and stored under conditions that comply with the recommendations in the IETS Manual. The embryos were treated with trypsin during the washing process as described in the IETS Manual. Each embryo had an intact zona pellucida and was examined over its entire surface at not less than 50X magnification and found to be free of adherent material.
12. Any micro-manipulation that causes a breach of the zona pellucida was done as per the procedures described in the OIE Code and IETS Manual. These include specifications on the facilities used and require that micro-manipulation only be carried out on an embryo having an intact zona pellucida and that it be done subsequent to the last wash and examination of the embryo.

13. All biological products of animal origin used in the media and solutions for collection, processing, washing or storage of embryos was free of pathogenic organisms including pestiviruses. Media and solutions were either sterilised by approved methods according to the IETS Manual or pre-packaged, commercially sterile media were used. These were handled in such a manner as to ensure that sterility was maintained. Antibiotics as recommended in the OIE Code and IETS Manual, or a combination of antibiotics with equivalent activity, were added to collection, processing, washing and storage media. The names of antibiotics added and their concentration are stated on this veterinary certificate.
14. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of freezing. The marking should, in accordance with the OIE Code, conform to the international standards of the IETS.
15. The embryos for export were stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them remained healthy and free from any diseases transmissible in embryos.
16. The embryos were only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.
17. The embryos were placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the embryos to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded on the zoosanitary certificate.
18. The transport container, in which the embryos are to be transported to New Zealand, was sealed, by an official veterinarian, using tamper evident seals. The seal number is recorded on this veterinary certificate.

Laboratory testing

19. All required laboratory testing was conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.
20. Samples of embryos/oocytes, collection fluids, and washing fluids for laboratory testing were collected, processed, and stored in accordance with the recommendations in the OIE Code chapter on collection and processing of *in vivo* derived embryos of livestock.
21. Laboratory or other diagnostic tests were those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS

Borna disease

22. Donors have been resident since birth in a country or countries that have never had a reported case of Borna disease;

Bovine viral diarrhoea type 2 (BVDV2) *(delete section 23 or 24 as appropriate and initial)*

23. Donors have been tested for BVDV including:
    - prior to, or at the time of embryo collection for export to New Zealand, all donors were tested serologically for BVDV antibodies and antigen; AND
    - seronegative donors were again tested serologically, 21 to 40 days subsequent to embryo collection for export to New Zealand, for BVDV antibodies and antigens.

    Cattle that are not eligible as embryo donors for export to New Zealand are either:
    - donors that are antigen-positive in initial testing; OR
    - donors that seroconvert or are antigen-positive in the post-collection test.

    OR
24. A pooled sample of embryos/oocytes, collection fluids and/or washing fluids from each embryo collection for export to New Zealand has been tested for BVDV2, by virus isolation (VI)

Crimean Congo haemorrhagic fever (CCHF)

25. CCHF was never reported in animals in Canada.

Foot and mouth disease (FMD)

26. Donors were resident for at least the 3 months before embryo collection in a country or zone that is free from FMD without vaccination in accordance with the OIE Code;

Lumpy skin disease (LSD)

27. Donors have been resident for 6 months prior to embryo collection in a country or zone that is free of LSD as defined by the OIE Code;

Rift Valley fever (RVF)

28. Donors were resident, for at least the 30 days prior to, and during embryo collection for export to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code;

Vesicular stomatitis (VS)

29. Donors were resident in a country that is free from VS in accordance with the OIE Code;

Bovine tuberculosis

30. Canada is free from bovine tuberculosis as per OIE standards

    AND

31. Donors were from a embryo collection herd that is free from bovine tuberculosis in accordance with the veterinary authority of the exporting country.

Contagious bovine pleuropneumonia (CBPP)

32. Donors were born in, and have been continuously resident in, a country that is free from CBPP i.e. there have been no cases of CBPP for at least 3 years;

Mycoplasma bovis

33. Donors have never recorded a positive test for *Mycoplasma bovis*;

Q fever

34. Donors have never recorded a positive test for Q fever;

    AND

35. Donors were subjected to a CF or ELISA test for Q fever, on a sample collected between 21 and 120 days after each embryo collection for export to New Zealand, with negative results;

Embryo Collection Team Veterinarian: Name and address (in capital letters): Date: Signature:	Official Veterinarian: Name and address (in capital letters): Date: Signature: Stamp: Official stamp Note: Official veterinarian signature and official stamp must be applied on each page

Norway: Veterinary health certificate for export of bovine semen to NZ

SANITARY CERTIFICATE
For export of bovine semen from Norway to New Zealand

Reference number:								

COUNTRY: Norway

1.Consignor (Exporter): Name: Address:	2. Certificate reference number: 3. Veterinary Authority: 4. Import permit number:
5. Consignee (Importer): Name: Address:	
6. Country of origin	
7. Country of destination:	
8. Place of shipment:	9. Date of departure:
10. Description of commodity:	11. Total quantity:
12. Identification of container seal number:	13. Antibiotics (and their concentration) added to germplasm :
14. Transport container: o New / disinfected (delete as appropriate) o Disinfectant used: o Active chemical: o Date of disinfection:	

Semen information							
Donor identification	Date/s of collection	Straw identification	Number of straws	Date of entry into semen collection centre	Name of semen collection centre	Address of semen collection centre	Date of last inspection of semen centre

Donor information							
Name	Donor identification	Breed	Date of birth	Country of birth	Name of owner	Address of owner	

Test information																					
	Collection period for consignment		Bluetongue			Bovine viral diarrhea			Bovine herpes virus			Bovine brucellosis			Bovine tuberculosis			Q fever		
Donor identification	Collection period start	Collection period end	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

I,…….., a veterinarian authorized by the veterinary authority certify, after due enquiry that the semen described above satisfy(ies) the following requirements:

Donor eligibility

1. Donors have lived continuously in Norway for at least 90 days and in the herd of origin for at least 30 days prior to semen collection for export to New Zealand.

Semen collection centre requirements

2. Bovine semen has been collected, handled, prepared, processed and stored at the semen collection centre approved for export by the Norwegian Food Safety Authority The semen collection centre are subject to regular inspection by an Official Veterinarian and under the supervision of a semen collection centre veterinarian approved by the veterinary authority. The name and approval numbers of the semen collection centre are stated on the zoosanitary certificate.
3. When donors were transferred from one approved semen collection centre to another of equal health status without isolation or testing, the following conditions were applied:
   - donors were examined, by the approved semen collection centre veterinarian, and showed no clinical sign of disease on the day of entry to the centre; AND
   - transfer was direct; AND
   - transfer was not through a bluetongue infected zone OR donors were protected from insect attack during transit; AND
   - donors did not come into direct or indirect contact with animals of a lower health status; AND
   - the means of transport used was disinfected before use; AND
   - routine (annual) tests for bluetongue, bovine brucellosis, bovine tuberculosis, BVD-MD, and IBR-IPV were carried out on the donor during the 12 months prior to transfer.

Donor and semen collection centre health status

4. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donors as required by this standard.
5. Prior to collection of semen for this consignment, the donors were isolated for at least 28 days at a place specifically approved for this purpose by the veterinary authority. During this time they were not used for natural mating and were isolated from animals not of equivalent health status.
6. The approved semen collection centre veterinarian ensured that, on the day(s) of collection of the semen, the health status of each donor was monitored and recorded, and the donor did not show any clinical evidence of infectious diseases transmissible in semen.

Semen collection, processing, storage and transport

7. Semen was collected, handled, prepared, processed and stored under the supervision of the approved semen collection centre veterinarian and in accordance with the OIE Code.
8. Antibiotics were added to the semen diluent in accordance with the OIE Code chapter on collection and processing of bovine semen. The names of antibiotics added and their concentration are stated on the zoosanitary certificate. After addition of antibiotics, the semen was kept above 5 degrees Celsius for at least 45 minutes.
9. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of collection. If a code is used for this information, its decipher accompanies the consignment. The marking, in accordance with the OIE Code, conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org).
10. The semen for export was stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them have remained healthy and free from any diseases transmissible in semen.
11. The semen was only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.
12. The semen was placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the semen to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded on the zoosanitary certificate.
13. The transport container, in which the semen is to be transported to New Zealand, was sealed, by either the semen collection centre veterinarian or an official veterinarian, using tamper evident seals. The seal number is recorded on the zoosanitary certificate.

Laboratory testing

14. All required laboratory testing was conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.
15. Laboratory or other diagnostic tests are those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.
16. Any PCR testing of sexed semen was done on a representative semen sample prior to the sorting process, unless evidence has been provided to MPI demonstrating that the PCR process is valid for sorted sexed semen.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS:

Bluetongue (BTV)

EITHER (Delete as appropriate)

17. At the time of semen collection for export to New Zealand, Norway was free from BTV in accordance with the requirements of the OIE Code;
    OR
18. Donors were kept in a BTV free zone, as defined by the OIE Code for at least the 60 days immediately prior to, and during, semen collection for export to New Zealand;
    OR
19. Donors were kept during the seasonally free period in a BTV seasonally free zone, as defined by the OIE Code, or otherwise protected from Culicoides, for at least the 60 days immediately prior to, and during, semen collection for export to New Zealand;
    OR
20. Donors were subjected to OIE prescribed antibody detection tests for BTV, such as the competitive enzyme linked immunosorbent assay (cELISA), at least every 60 days during, and between 21 and 60 days after semen collection for export to New Zealand, with negative results;
    OR
21. Donors were subjected to OIE prescribed agent detection tests for BTV, such as a virus isolation (VI) test or a polymerase chain reaction (PCR) test, on blood samples collected at commencement and conclusion of, and at least every 7 days (for VI test) or at least every 28 days (for PCR test) during, semen collection for export to New Zealand, with negative results.

Borna disease

22. Donors have been resident since birth in a country that has never had a reported case of Borna disease;

Bovine viral diarrhoea type 2 (BVD2)

EITHER (Delete as appropriate)

23. At the time of semen collection for export to New Zealand, Norway was free of BVDV2, i.e. there have been no cases of BVDV2 for at least 3 years;

OR

24. The semen collection centre has been maintained free from BVDV2 from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BVDV, including:
    - testing all cattle prior to pre-entry isolation for antibodies and antigen using prescribed tests; AND
    - testing all cattle during pre-entry isolation for antibodies (after 21 days isolation) and antigen, using prescribed tests; AND
    - if any animal seroconverts, keeping all animals in pre-entry isolation until there is no more seroconversion for 3 weeks; AND
    - only approving entry for groups where pre-entry isolation results indicate the absence of antigen-positive cattle; AND
    - thereafter, annually re-testing seronegative cattle; AND
    - for seropositive donors, testing of semen for BVDV, with negative results, prior to use of that animal as a donor;

Crimean Congo haemorrhagic fever (CCHF)

EITHER (Delete as appropriate)

25. Donors have been resident since birth in a country that has never had a reported case of Crimean Congo haemorrhagic fever (CCHF) OR
26. Donors were serologically tested for CCHF using MPI approved methods such as an enzyme linked immunosorbent assay (ELISA) to detect IgG and IgM antibodies. Blood samples were collected within 7 days prior to commencement of semen collection and every 21 to 60 days thereafter, until 21 to 60 days after conclusion of semen collection for export to New Zealand. The results indicate:
    - that any donor seronegative at the start of testing has maintained a seronegative status; AND
    - that any donor seropositive at the start of testing did not have a rise in titre over consecutive tests.

Foot and mouth disease (FMD)

27. Donors were resident for at least the 3 months before semen collection in a country or zone that is free from FMD without vaccination in accordance with the OIE Code;

Bovine herpes virus abortifacient strains (BHV)

EITHER (Delete as appropriate)

28. At the time of collection of semen for export to New Zealand, the exporting country was free of BHV 1.1, BHV 1.2a and BHV5 in accordance with the OIE Code

OR

29. The semen collection centre has been maintained free from BHV from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BHV, including:
    - testing all cattle prior to pre-entry isolation for antibodies using a prescribed test, with negative results; AND
    - testing all cattle in pre-entry isolation for antibodies, with negative results, or where an animal in a group has tested positive re-testing the remaining animals, with negative results, not less than 21 days after removal of the positive animal; AND
    - thereafter, annually re-testing all donors for antibodies, with negative results;

OR

30. Donors were subjected to a prescribed antibody test for BHV, at least 21 days after semen collection for export to New Zealand, with negative results;

Lumpy skin disease (LSD)

EITHER (Delete as appropriate)

31. Donors were resident for 6 months prior to semen collection in a country or zone that is free of LSD as defined by the OIE Code;

OR

32. Donors were resident in an establishment or semen collection centre that was free of clinical evidence of LSD during a period from at least 6 months prior to commencement, until 28 days after conclusion of semen collection for export to New Zealand;

Rift Valley fever (RVF)

33. Donors were resident, for at least the 30 days prior to, and during semen collection for export to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code.

Vesicular stomatitis (VS)

34. Donors were resident in a country that is free from VS in accordance with the OIE Code.

Bovine brucellosis

EITHER (Delete as appropriate)

35. Donors have been kept since birth in a country or zone that is free from bovine brucellosis in accordance with the OIE Code;

OR

36. The semen collection centre has been maintained free from bovine brucellosis from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to bovine brucellosis, including:
    - prior to pre-entry isolation the donors were either from a country or zone that is free from bovine brucellosis in accordance with the OIE Code or were from a herd officially free from bovine brucellosis; AND
    - during the 30 days prior to pre-entry isolation donors were tested using an OIE prescribed serological test for bovine brucellosis, with negative results; AND
    - all cattle in pre-entry isolation were tested using an OIE prescribed serological test for bovine brucellosis, with negative results; AND
    - at least annually all cattle resident in the semen collection centre were tested using an OIE prescribed test for bovine brucellosis, with negative results.

Bovine tuberculosis

EITHER (Delete as appropriate)

37. The semen collection centre was:
    - free from bovine tuberculosis in accordance with the OIE Code AND
    - located in a country or zone that has been recognised by MPI as being free of bovine tuberculosis;

OR

38. The semen collection centre has been maintained free from bovine tuberculosis from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to bovine tuberculosis, including:
    - prior to pre-entry isolation the donors were from a herd free from bovine tuberculosis, either in accordance with the OIE Code or the veterinary authority of the exporting country; AND
    - during the 30 days prior to entry to the semen collection centre, donors were tested using an OIE prescribed test for bovine tuberculosis, with negative results; AND
    - at least annually all cattle resident in the semen collection centre were tested using an OIE prescribed test for bovine tuberculosis, with negative results.

Contagious bovine pleuropneumonia (CBPP)

39. Donors were born in and have been continuously resident in a country that is free from CBPP i.e. there have been no cases of CBPP for at least 3 years;

Mycoplasma bovis

40. Donors have never recorded a positive test for Mycoplasma bovis;

Q fever

41. Donors have never recorded a positive test for Q fever;
    AND EITHER (Delete as appropriate)
42. Donors were subjected to ELISA test for Q fever, on a sample collected between 21 and 120 days after each semen collection for export to New Zealand, with negative results;

Semen Centre Veterinarian: Name and address (in capital letters): Date: Signature:	Official Veterinarian: Name and address (in capital letters): Date: Signature: Official stamp ◯ Apply to each page

European Union: Veterinary health certificate for export of bovine semen to NZ

European Union — Export Certificate

Part I : Details of dispatched consignment

I.1. Consignor Name Address Tel.		I.2. Certificate reference No	I.2.a.
		I.3. Central competent authority	
		I.4. Local competent authority	
I.5. Consignee Name Address Postcode Tel.		I.6. No(s) of related original certificates	
I.7. Country of origin	ISO code / I.8.	I.9. Country of destination: **New Zealand**	ISO code: **NZ** / I.10. Region of destination / Code
I.11. Place of origin Name Address	Approval number	I.12. Place of destination	
I.13. Place of loading		I.14. Date of departure	
I.15. Means of transport Aeroplane ☐ Ship ☐ Railway wagon ☐ Road vehicle ☐ Other ☐ Identification Documentation references		I.16. Entry Point	
		I.17. CITES No(s)	
I.18. Temperature of products		I.19. Number/Quantity	I.20. Total number of packages
I.21. Seal/Container No			
I.22. Commodities certified for: Artificial Reproduction ☐			
I.23. Transit through 3rd country		I.24. For export ☐	

I.25. Identification of the commodities

Custom code and title :
05 11 10

Species (scientific name)	***Breed***	***Donor identity***	***Date of collection***	***Approval number of the centre***	***Quantity***

COUNTRY: **Bovine Semen**

Part II: Certification

II. **Animal health attestation**	II.a. Certificate reference No	II.b.

I, the undersigned, official veterinarian of ……..……..…….…… (Member State of the EU) certify that:

II.1. The animal products herein described, comply with the relevant European Union animal health standards and requirements which have been recognised as equivalent to the New Zealand standards and requirements as prescribed in Council Decision 97/132/EC, as last amended, specifically, in accordance with Council Directive 88/407/EEC;

II.2. The animal products are eligible for intra-Union trade without restriction;

II.3. The bovine semen complies with provisions of the Bluetongue Chapter of the OIE Code;

II.4. To the best of my knowledge and as far as I can ascertain, the donors have never been confirmed positive for Q fever; and either

The donors were subjected to a complement fixation test (CFT) (negative being no fixation of complement at a dilution of 1:10 or higher) or ELISA test for Q fever, on a sample collected between 21 and 120 days after each semen collection period (a period of 60 days or less) for export to New Zealand, with negative results; or

An aliquot of semen from each collection for export to New Zealand was tested using a laboratory validated Q fever PCR test which is in accordance with the methods described in the Q fever Chapter of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals.

Notes

Part I:

- Box I.11.: *Place of origin* shall correspond to the approved semen collection centre or semen storage centre listed in accordance with Article 9(2) of Directive 88/407/EEC on the Commission website: http://ec.europa.eu/food/animal/semen_ova/bovine/index_en.htm.
- Box I.20.: *Number of packages* shall correspond to the number of containers.
- Box I.21.: *Identification of container and seal number* shall be indicated.
- Box I.25.: *Species*: indicate "*Bos taurus*", "Bison bison" or "Bubalus bubalus" as appropriate
  Donor identity shall correspond to the official identification of the animal.
  Date of collection shall be indicated in the following format: dd/mm/yyyy.
  Approval number of the centre shall correspond to the approval number of the semen collection centre in which the semen was collected.

Part II:

- The signature and the stamp must be in a different colour of that of the printing.

Official veterinarian/Official inspector

Name (in capital letters): Qualification and title:

Date: Signature:

Stamp:

European Union: Veterinary health certificate for export of bovine embryos to NZ

Model health certificate for imports to New Zealand from the European Union
of *in vivo* derived bovine embryos

European Union **Export certificate**

Part I : Details of dispatched consignment

I.1. Consignor Name Address Tel.	I.2. Certificate reference No	I.2.a.
	I.3. Central competent authority	
	I.4. Local competent authority	
I.5. Consignee Name Address Postcode Tel.	I.6. No(s) of related original certificates	
I.7. Country of origin / ISO code / I.8.	I.9. Country of destination: **New Zealand** / ISO code: **NZ** / I.10. Region of destination / Code	
I.11. Place of origin Name Approval number Address	I.12. Place of destination	
I.13. Place of loading	I.14. Date of departure	
I.15. Means of transport Aeroplane ☐ Ship ☐ Railway wagon ☐ Road vehicle ☐ Other ☐ Identification Documentation references	I.16. Entry Point	
	I.17. CITES No(s)	
I.18. Temperature of products	I.19. Number/Quantity	I.20. Total number of packages
I.21. Seal/Container No		
I.22. Commodities certified for: Artificial Reproduction ☐		
I.23. Transit through 3rd country	I.24. For export ☐	

I.25. Identification of the commodities

Custom code and title :
05 11 99 85

Species (scientific name)	***Breed***	***Donor identity***	***Date of collection***	***Approval number of the team***	***Quantity***

COUNTRY: ***In vivo* derived bovine embryos**

Part II: Certification

II. Animal health attestation	II.a. Certificate reference No	II.b.

I, the undersigned, official veterinarian of ……..……..…… (Member State of the EU) certify that:

II.1. The animal products herein described, comply with the relevant European Community animal health standards and requirements which have been recognised as equivalent to the New Zealand standards and requirements as prescribed in Council Decision 97/132/EC, as last amended, specifically, in accordance with Council Directive 89/556/EEC;

The animal products are eligible for intra-community trade without restriction;

II.2. To the best of my knowledge and as far as I can ascertain, the donors have never been confirmed positive for Q fever; and either

The donors were subjected to a complement fixation test (CFT) (negative being no fixation of complement at a dilution of 1:10 or higher) or ELISA test for Q fever, on a sample collected between 21 and 120 days after each embryo collection period (a period of 60 days or less) for export to New Zealand, with negative results; or

A sample of embryos/oocytes and collection and/or washing fluids from each collection for export to New Zealand was tested using a laboratory validated Q fever PCR test which is in accordance with the methods described in the Q fever Chapter of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals.

(1)*either* [II.3. The donor animal was subjected to an antigen detection ELISA or virus isolation test for BVDV, with a negative result, within 30 days prior to entry into the embryo collection centre and has been on the embryo collection centre for more than 6 months prior to embryo collection for this consignment and has remained isolated from other animals that have not been tested negative.]

(1)*or* [II.3. The donor animal has had either a pooled sample of non-viable oocytes/embryos and washing fluid (as per the OIE Code appendix for *in vivo* derived embryos) or an embryo, from the first embryo collection for this consignment subjected to either virus isolation or PCR for BVDV with negative results.]

Notes

Part I:

- Box I.11.: *Place of origin* shall correspond to the approved embryo collection team listed in accordance with Article 8(2) of Directive 89/556/EEC on the Commission website: http://ec.europa.eu/food/animal/semen_ova/bovine/ova_embryos_en.htm
- Box I.20.: *Number of packages* shall correspond to the number of containers.
- Box I.21.: *Identification of container and seal number* shall be indicated.
- Box I.25.: *Species*: indicate "*Bos Taurus*", "Bison bison" or "Bubalus bubalus" as appropriate
  Donor identity shall correspond to the official identification of the animal.
  Date of collection shall be indicated in the following format: dd/mm/yyyy.
  Approval number of the team shall correspond to the approval number of the embryo collection team by which the embryos were collected.

Part II:

- The signature and the stamp must be in a different colour of that of the printing.

Official veterinarian/Official inspector

Name (in capital letters): Qualification and title:

Date: Signature:

Stamp:

Australia: Veterinary health certificate for export of bovine semen to NZ

Australia — Export Certificate

Name and Address of Exporter	Name and Address of Importer	
AUSTRALIA	NEW ZEALAND	
	Import Permit №	

Description of Animals

Number	Kind (Species)	Class (Companion, competition, breeder etc)	Identification (microchip, eartags etc)

Description of Animal Reproductive Material

Number	Kind (Species and type; eg bovine semen)	Condition (Fresh/Frozen)	Identification (straw numbers, packing list)
	Bovine semen	FROZEN	See Attachment 1

The goods have complied with the requirements set out in the following page/s.	*1.1.1 Official Stamp*
Name of Authorised Officer — **Identity N°**	**1.1.2**
Signature of Authorised Officer — **Date of Issue** (/ /)	

I,_____ a veterinarian authorised by the veterinary authority certify, after due enquiry that the semen described above satisfy(ies) the following requirements:

Donor eligibility

1. Donors that were imported to the exporting country have lived continuously in the exporting country for at least 90 days and in the herd of origin for at least 30 days prior to semen collection for export to New Zealand.

Semen collection centre requirements

2. Bovine semen has been collected, handled, prepared, processed and stored at semen collection centres approved for export by the veterinary authority. The semen collection centres are subject to regular inspection by an Official Veterinarian and under the supervision of a semen collection centre veterinarian approved by the veterinary authority.
3. The name and approval numbers of these semen collection centres are stated in the attachment to this zoosanitary certificate. When donors were transferred from one approved semen collection centre to another of equal health status without isolation or testing, the following conditions were applied:
    - donors were examined, by the approved semen collection centre veterinarian, and showed no clinical sign of disease on the day of entry to the centre; AND
    - transfer was direct; AND
    - transfer was not through a bluetongue infected zone OR donors were protected from insect attack during transit; AND
    - donors did not come into direct or indirect contact with animals of a lower health status; AND
    - the means of transport used was disinfected before use; AND
    - routine (annual) tests for bluetongue, bovine brucellosis, bovine tuberculosis, BVD-MD, and IBR-IPV were carried out on the donor during the 12 months prior to transfer.

Donor and semen collection centre health status

4. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donors as required by this standard.

5. Prior to collection of semen for this consignment, the donors were isolated for at least 28 days at a place specifically approved for this purpose by the veterinary authority. During this time they were not used for natural mating and were isolated from animals not of equivalent health status.

6. The approved semen collection centre veterinarian ensured that, on the day(s) of collection of the semen, the health status of each donor was monitored and recorded, and the donor did not show any clinical evidence of infectious diseases transmissible in semen.

Semen collection, processing, storage and transport

7. Semen was collected, handled, prepared, processed and stored under the supervision of the approved semen collection centre veterinarian and in accordance with the OIE Code.

8. Antibiotics were added to the semen diluent in accordance with the OIE Code chapter on collection and processing of bovine semen. The names of antibiotics added and their concentration are stated on the zoosanitary certificate. After addition of antibiotics, the semen was kept above 5^{o}C for at least 45 minutes.

9. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of collection. If a code is used for this information, its decipher accompanies the consignment. The marking, in accordance with the OIE Code, conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org).

10. The semen for export was stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them have remained healthy and free from any diseases transmissible in semen.

11. The semen was only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.

12. The semen was placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the semen to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded in attachment 1 to the zoosanitary certificate.

13. The transport container, in which the semen is to be transported to New Zealand, was sealed, by either the semen collection centre veterinarian or an official veterinarian, using tamper evident seals. The seal number is recorded on the zoosanitary certificate.

Laboratory testing

14. All required laboratory testing was conducted at a laboratory accredited by the National Association of Testing Authorities (NATA).

15. Laboratory or other diagnostic tests are those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.

16. Any PCR testing of sexed semen was done on a representative semen sample prior to the sorting process.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS:

17. Australia is officially free from Borna disease, Crimean Congo haemorrhagic fever (CCHF), foot and mouth disease (FMD), lumpy skin disease (LSD), Rift Valley fever (RVF), vesicular stomatitis (VS), bovine brucellosis, bovine tuberculosis and contagious bovine pleuropneumonia (CBPP), and has been free of bovine viral diarrhoea type 2 (BVD2) for at least 3 years.

Bluetongue (BTV)

EITHER (delete non applicable)

18. Donors were kept in a BTV free zone, as defined by the OIE Code or recognised by MPI, for at least the 60 days immediately prior to, and during, semen collection for export to New Zealand;

OR

19. Donors were subjected to OIE prescribed antibody detection tests for BTV, such as the competitive enzyme linked immunosorbent assay (cELISA), at least every 60 days during, and between 21 and 60 days after semen collection for export to New Zealand, with negative results;

OR

20. Donors were subjected to OIE prescribed agent detection tests for BTV, such as a virus isolation (VI) test or a polymerase chain reaction (PCR) test, on blood samples collected at commencement and conclusion of, and at least every 7 days (for VI test) or at least every 28 days (for PCR test) during, semen collection for export to New Zealand, with negative results.

Bovine herpes virus abortifacient strains (BHV)

EITHER (delete non applicable)

21. The semen collection centre has been maintained free from IBR/IPV from commencement until conclusion of semen collection for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to IBR/IPV, including:
    - testing all cattle prior to pre-entry isolation for antibodies using a prescribed test (ELISA or virus neutralisation test) with negative results; AND
    - testing all cattle in pre-entry isolation for antibodies (ELISA or VN), with negative results, or where an animal in a group has tested positive re-testing the remaining animals, with negative results, not less than 21 days after removal of the positive animal; AND
    - thereafter, annually re-testing all donors for antibodies (ELISA or VN), with negative results;

OR

22. Donors were subjected to a prescribed antibody test for IBR/IPV at least 21 days after semen collection for export to New Zealand, with negative results;

OR

23. An aliquot of semen from each semen collection for export to New Zealand was tested for both BHV1 and BHV5 by VI or OIE prescribed PCR test for IBR, with negative results.

Mycoplasma bovis

24. Donors have never recorded a positive test for Mycoplasma bovis;

Q fever

25. Donors have never recorded a positive test for Q fever;

AND EITHER (delete non applicable)

26. Donors were subjected to an MPI approved antibody detection test, a CFT (SCAHLS approved methodology[1]) or ELISA, on a sample collected between 21 and 120 days after each semen collection for export to New Zealand, with negative results;

OR

27. (a) Within the 6 month period before or after semen collection for export to New Zealand, the resident herd of cattle on the semen collection centre has been tested for Q fever with negative results. This testing was with an

MPI approved antibody detection test, a CFT (SCAHLS approved methodology[1]) or ELISA. This testing can be done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND (b) The semen collection centre group has been isolated for the period between semen collection and diagnostic sampling.

[1] http://www.scahls.org.au/procedures/anzsdps

Bovine semen (frozen) from Australia to New Zealand

Place of Shipment:		
Antibiotics (and their concentration) added to germplasm:		
Transport container:	**New or disinfected:**	
	Disinfectant used:	
	Active chemical:	
	Date of disinfection:	

Certificate Nº

Seal Nº

Donor information

Name	Donor ID	Breed	DOB	Country of Birth	Name of Owner	Address of Owner

Semen information

Donor ID	Date/s of collection	Straw ID	No. of Straws	Date of entry into SCC	Name of SCC	Address of SCC	SCC approval number	Date of last inspection of SCC

Test information

	Collection period for consignment		Bluetongue			Bovine herpes virus			Q Fever		
Donor ID	Collection period stard	Collection period end	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

Australia: Veterinary health certificate for export of bovine embryos to NZ

Australia Export Certificate

Name and Address of Exporter	**Name and Address of Importer**	
AUSTRALIA	NEW ZEALAND	
	Import Permit №	

Description of Animals

Number	Kind (Species)	Class (Companion, competition, breeder etc)	Identification (microchip, eartags etc)

Description of Animal Reproductive Material

Number	Kind (Species and type; eg bovine semen)	Condition (Fresh/Frozen)	Identification (straw numbers, packing list)
	Bovine embryos	FROZEN	See Attachment 1

The goods have complied with the requirements set out in the following page/s.	*1.1.3 Official Stamp*
Name of Authorised Officer **Identity Nº**	**1.1.4**
Signature of Authorised Officer **Date of Issue** / /	

I,_____ a veterinarian authorised by the veterinary authority certify, after due enquiry that the semen described above satisfy(ies) the following requirements:

Donor eligibility

1. Donors that were imported to the exporting country have lived continuously in the exporting country for at least 60 days and in the herd of origin for at least 30 days prior to embryo collection for export to New Zealand.

2. Donors were resident in the embryo collection herd for at least 30 days prior to embryo collection for export to New Zealand.

Embryo collection team and herd approval requirements

3. At the time of embryo collection for export to New Zealand, the embryo collection team was approved by and registered with the veterinary authority of the exporting country to collect, process, and store bovine embryos for export in accordance with the current recommendations of the OIE Code or legislation of the exporting country (where MPI deems this to be equivalent) and the current manual of the International Embryo Transfer Society IETS; www.iets.org).

4. The veterinary authority has knowledge of and authority over the embryo collection herd until completion of testing specified in this standard.

Donor and herd health status

5. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 60 days before the first embryo collection for the consignment to New Zealand until completion of the testing of the donors as required by this standard.

6. Where a specific requirement for a risk organism is met by pre-collection testing, donors were isolated from other cattle not of an equivalent tested health status, from the time of the pre-collection test until completion of embryo collection for export to New Zealand.

7. On the day(s) of collection of the embryos, the approved embryo collection team veterinarian, or veterinarian responsible to the team veterinarian, was responsible for monitoring the health status of each donor and recording that the donor was free from clinical evidence of infectious diseases transmissible in embryos.

8. The semen used to produce the embryos in the consignment either:

   - was imported into Australia (AQIS import permit number) from Canada, the European Union, New Zealand, Norway, Switzerland or USA (delete non applicable); OR
   - was collected and processed at a semen collection centre that fully complies with the current OIE Code chapter on collection and processing of bovine semen; OR
   - where natural service or fresh semen was used, donor males were inspected, and found free from clinical evidence of infectious diseases transmissible in semen, and were of an equivalent isolation and tested health status to the donor females.

Embryo collection, processing, storage and transport

9. Embryos were collected, washed, processed, traceability maintained, and stored under the supervision of an approved embryo collection team veterinarian and in accordance with the recommendations in the OIE Code chapters on collection and processing of in vivo derived and micro-manipulated bovine embryos.

10. All the embryos in the consignment were fertilised in vivo, collected, processed, traceability maintained, stored, and transported in accordance with OIE Code recommendations.

11. Embryos were collected, washed, processed, traceability maintained, and stored under conditions that comply with the recommendations in the IETS Manual. The embryos were treated with trypsin during the washing process as described in the IETS Manual. Each embryo had an intact zona pellucida and was examined over its entire surface at not less than 50X magnification and found to be free of adherent material.

12. Any micro-manipulation that causes a breach of the zona pellucida was done as per the procedures described in the OIE Code and IETS Manual. These include specifications on the facilities used and require that micro-manipulation only be carried out on an embryo having an intact zona pellucida and that it be done subsequent to the last wash and examination of the embryo.

13. All biological products of animal origin used in the media and solutions for collection, processing, washing or storage of embryos was free of pathogenic organisms including pestiviruses. Media and solutions were sterilised by approved methods according to the IETS Manual and handled in such a manner as to ensure that sterility was maintained. Antibiotics as recommended in the OIE Code and IETS Manual, or a combination of antibiotics with equivalent activity, were added to collection, processing, washing and storage media. The names of antibiotics added and their concentration are stated in Attachment 1 to the zoosanitary certificate.

14. All straws are sealed, and clearly and permanently marked to identify the donor and the date(s) of freezing. If a code is used for this information, its decipher accompanies the consignment. The marking should, in accordance with the OIE Code, conform to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org) and the IETS.

15. The embryos for export were stored in the frozen state for at least 30 days after collection, before shipment to New Zealand, and during this time the donors and all animals in contact with them remained healthy and free from any diseases transmissible in embryos.

16. The embryos were only stored with germplasm that has been collected and processed in compliance with the OIE Code. Containers were held until export in a storage place approved by the veterinary authority of the exporting country.

17. The embryos were placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the embryos to New Zealand, the disinfectant used, its active chemical and date of disinfection is recorded in Attachment 1 to the zoosanitary certificate.

18. The transport container, in which the embryos are to be transported to New Zealand, was sealed, by either the embryo collection team veterinarian or an official veterinarian, using tamper evident seals. The seal number is recorded on this zoosanitary certificate.

Laboratory testing

19. All required laboratory testing was conducted at a laboratory accredited by the National Association of Testing Authorities (NATA).

20. Samples of embryos/oocytes, collection fluids, and washing fluids for laboratory testing were collected, processed, and stored in accordance with the recommendations in the OIE Code chapter on collection and processing of *in vivo* derived embryos of livestock.

21. Laboratory or other diagnostic tests were those prescribed for that disease by the OIE for use during international trade, or specifically approved by MPI.

SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS

22. Australia is officially free from Borna disease, Crimean Congo haemorrhagic fever (CCHF), foot and mouth disease (FMD), lumpy skin disease (LSD), Rift Valley fever (RVF), vesicular stomatitis (VS), bovine tuberculosis and contagious bovine pleuropneumonia (CBPP)

23. Bovine viral diarrhoea type 2 (BVDV2) – at the time of embryo collection for export to New Zealand, there have been no cases of BVDV2 for at least 3 years.

Mycoplasma bovis

24. Donors have never recorded a positive test for *Mycoplasma bovis*;

Q fever

25. Donors have never recorded a positive test for Q fever;

AND EITHER (**delete non applicable**)

26. Donors were subjected to an MPI approved antibody detection test, a CFT (SCAHLS approved methodology[2]) or ELISA, on a sample collected between 21 and 120 days after each embryo collection for export to New Zealand, with negative results;

OR

27. (a) Within the 6 month period before or after embryo collection for export to New Zealand, the embryo collection herd has been tested for Q fever, with negative results. This testing was with an MPI approved antibody detection test, a CFT

[2] http://www.scahls.org.au/procedures/anzsdps

(SCAHLS approved methodology[1]) or ELISA. This testing can be done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND
(b) The embryo collection herd has been isolated for the period between embryo collection and diagnostic sampling.

Note: the word donor applies to females only, except in regard to the requirements associated with the status of semen used for the production of embryos.

Bovine embryos (frozen) from Australia to New Zealand

Place of Shipment:		
Antibiotics (and their concentration) added to germplasm:		
Transport container:	**New or disinfected:**	
	Disinfectant used:	
	Active chemical:	
	Date of disinfection:	

Certificate Nº	Seal Nº

Female donor information

Name	Donor ID	Breed	DOB	Country of Birth	Name of Owner	Address of Owner

Male donor information

Name	Donor ID	Breed	DOB	Country of Birth	Name of SCC	Address of SCC	SCC Number

Embryo information

Female donor ID	Date/s of collection	Straw ID	No. of straws	No of Embryos/ Straws	Name & Address of Embryo Collection Herd/Centre	Male donor ID	Date of Semen Collection or date of Natural Mating

Test information

		Collection period for consignment		Bovine viral diarrhoea			Q fever		
Female donor ID	Date of entry into Embryo Collection Herd/Centre	Collection period start	Collection period end	Test sampling date	Test type	Result	Test sampling date	Test type	Result

Certificate No._____
USDA Veterinary Seal
Appears Over the Certificate Number)

United States: Veterinary health certificate for export of bovine semen to NZ

1. Consignor: Name: Address:	2. Certificate reference number: 3. Veterinary Authority: **USDA, APHIS** 4. Import permit number:
5. Consignee: Name: Address:	6. Country of origin: **UNITED STATES** 7. Country of destination: **NEW ZEALAND**
8. Approved semen collection center: Name: Address:	9. Approval number of semen collection center:
10. Place of shipment:	11. Date of departure:
12. Description of commodity: **BOVINE SEMEN**	13. Total number of straws:

DONOR AND SEMEN IDENTIFICATION

Name	Identification number	Breed	Date of birth	Collection date	Collection code	Straw ID	Number of straws

HEALTH CERTIFICATION

Certificate No._____
USDA Veterinary Seal
Appears Over the Certificate Number)

I,…….., an approved veterinarian authorized by APHIS, certify, after due enquiry, with respect to the donor animals and semen identified in this certificate, that:

Country freedom

1. For the last 12 months prior to semen collection for export to New Zealand, the United States has been free of foot and mouth disease, Borna disease, Crimean Congo haemorrhagic fever, lumpy skin disease, Rift Valley fever, and contagious bovine pleuropneumonia, and these diseases are officially notifiable.

Donor eligibility

2. Donors that were imported to the United States have lived continuously in the United States for at least 90 days and in the herd of origin for at least 30 days prior to semen collection for export to New Zealand.

Semen collection centre requirements

3. Bovine semen has been collected, handled, prepared, processed and stored at a semen collection center approved for export by APHIS. The semen collection center has been subject to regular inspection by an APHIS veterinarian and is under the supervision of an approved veterinarian. Date of last inspection: _____

4. If donors were transferred from one approved semen collection centre to another of equal health status, without isolation or testing, the following conditions were applied:
   - donors were examined by the approved semen collection centre veterinarian and showed no clinical sign of disease on the day of entry to the centre; AND
   - transfer was direct; AND
   - transfer was not through a bluetongue infected zone OR donors were protected from insect attack during transit; AND
   - donors did not come into direct or indirect contact with animals of a lower health status; AND
   - the means of transport used was disinfected before use; AND
   - routine (annual) tests for bovine brucellosis, bovine tuberculosis, and bovine viral diarrhea were carried out on the donor during the 12 months prior to transfer.

Donor and semen collection centre health status

5. The donors were not resident in any establishment that is subject to quarantine restrictions for at least the 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donors, as required by this standard.

6. Prior to collection of semen for this consignment, the donors were isolated for at least 28 days at a place specifically approved for this purpose by APHIS. During this time, the animals were not used for natural mating and were isolated from animals not of equivalent health status.

7. The approved semen collection centre veterinarian ensured that, on the day(s) of collection of the semen, the health status of each donor was monitored and recorded, and the donor did not show any clinical evidence of infectious diseases transmissible in semen.

Semen collection, processing, storage and transport

8. Semen was collected, handled, prepared, processed and stored under the supervision of the approved semen collection centre veterinarian and in accordance with Certified Semen Services (CSS) requirements.

9. Antibiotics were added to the semen diluent in accordance with CSS requirements. After addition of antibiotics, the semen was kept above 5^{o}C for at least 45 minutes.

   Name and concentration of antibiotics:

   _____

10. All straws are sealed and clearly and permanently marked to identify the donor and the date(s) of collection. The marking, in accordance with the OIE Code, conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org).

11. The semen for export was stored in the frozen state for at least 30 days after collection before shipment to New Zealand, and during this time, the donors and all animals in contact with them have remained free from any diseases transmissible in semen.

12. Where semen is removed from the transport containers for further processing, the date of transfer, approved semen collection center, reason for transfer, and approved collection center veterinarian must be recorded on the veterinary certificate.

    Date of transfer: _____

    Approved semen collection center: _____

    Approved collection center veterinarian: _____

    Reason for transfer: _____

13. The semen was stored only with germplasm that has been collected and processed in compliance with the OIE Code or CSS standards. Containers were held until export in a storage place approved by APHIS.

14. The semen was placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the semen to New Zealand:

    a. Disinfectant used: _____

    b. Active chemical: _____

    c. Date of disinfection: _____

15. The transport container in which the semen is to be transported to New Zealand was sealed by an approved veterinarian using tamper evident seals. Seal number(s):
    _____

TESTING

16. All required laboratory testing was conducted at an approved laboratory and test results are documented in the table attached to this certificate.

Bluetongue (BTV) (delete section 17 or 18, as appropriate, and initial)

EITHER

17. Donors were subjected to OIE prescribed antibody detection tests for BTV, such as the competitive enzyme linked immunosorbent assay (cELISA), at least every 60 days during semen collection, and between 21 and 60 days after semen collection for export to New Zealand, with negative results;

OR

18. Donors were subjected to OIE prescribed agent detection tests for BTV, such as a virus isolation (VI) test or polymerase chain reaction (PCR) test, on blood samples collected at commencement and conclusion of, and at least every 7 days (for VI test) or at least every 28 days (for PCR test) during semen collection for export to New Zealand, with negative results.

Bovine viral diarrhea type 2 (BVD2)

19. Donors were tested for BVD2 in accordance with Certified Semen Services (CSS) requirements, with negative results.

Bovine herpes virus abortifacient strains (BHV) (delete section 20, 21 or 22, as appropriate, and initial)

EITHER

20. An aliquot of semen from each semen collection for export to New Zealand was tested for BHV using the OIE prescribed real-time PCR for infectious bovine rhinotracheitis, with negative results;

OR

21. An aliquot of semen from each semen collection for export to New Zealand was tested for BHV using the OIE prescribed virus isolation method, with negative results;

OR

22. Donors were subjected to an OIE prescribed antibody test (ELISA or virus neutralization) for BHV, at least 21 days after semen collection for export to New Zealand, with negative results.

Vesicular stomatitis (VS) (delete section 23, 24 or 25, as appropriate, and initial)

EITHER

23. Donors were resident in a country that is free from VS in accordance with the OIE Code;

OR

24. VS is officially notifiable in the exporting country, and no known cases have occurred within 100 km of the semen collection center where the donors were resident during semen collection, during the period from 30 days prior to commencement until 30 days after conclusion of semen collection for export to New Zealand;

OR

25. Donors were:

a. resident for the 30 days prior to and during semen collection in a herd where no case of VS was reported in that period; AND
b. subjected to a serological test for VS, between 21 to 42 days after semen collection for export to New Zealand, with negative results.

Bovine brucellosis

26. The semen collection centre has been officially free of bovine brucellosis from commencement until conclusion of semen collection for export to New Zealand and the donor has been tested in accordance with CSS requirements.

Bovine tuberculosis

27. The semen collection centre has been officially free of bovine tuberculosis from commencement until conclusion of semen collection for export to New Zealand and the donor has been tested in accordance with CSS requirements.

Mycoplasma bovis

28. Donors have never been confirmed positive for *Mycoplasma bovis*.

Q fever (delete section 30 or 31, as appropriate, and initial)

29. Donors have never been confirmed positive for Q fever;

AND EITHER

30. Donors were subjected to a CF or ELISA test for Q fever on a sample collected between 21 and 120 days after each semen collection for export to New Zealand, with negative results;

OR

31. Within the 6 month period before or after semen collection for export to New Zealand, the resident herd of cattle on the semen collection centre has been serologically tested with a CF or ELISA for Q fever, with negative results, done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND

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The semen collection centre herd has been isolated for the period between semen collection and diagnostic sampling.

Approved Semen Collection Center Veterinarian: Name and address (in capital letters): Date: Signature:	Official APHIS Veterinarian: Name and address (in capital letters): Date: Signature: Stamp:

Certificate No._____
USDA Veterinary Seal
Appears Over the Certificate Number)

Test information (date format is dd-mm-yyyy)

		Bluetongue			Q fever			Bovine herpes virus abortifacient strains (BHV)			Vesicular stomatitis (if applicable)		
Sire ID	Collection Date	Test sampling	Test type	Result	Test sampling	Test type	Result	Test sampling	Test type	Result	Test sampling	Test type	Result

Health Certificate No._____
(Valid only if USDA Veterinary Seal Appears Over the Certificate Number)

United States: Veterinary health certificate for export of bovine embryos to NZ

1. Consignor: Name: Address:	2. Certificate reference number:
	3. Veterinary Authority: **USDA, APHIS**
	4. Import permit number:
5. Consignee: Name: Address:	6. Country of origin: **UNITED STATES**
	7. Country of destination: **NEW ZEALAND**
8. Approved embryo collection team: Name: Address:	9. Approval number of embryo collection team:
10. Place of shipment:	11. Date of departure:
12. Description of commodity: **BOVINE EMBRYOS**	13. Total number of embryos/straws:

DONOR (sire and dam) AND EMBRYO IDENTIFICATION

Name	Registration number	Breed	Date of birth	Collection date	Collection code	Straw ID	Number of embryos/ straws

HEALTH CERTIFICATION

I,……., an approved veterinarian authorized by APHIS certify, after due enquiry, that the embryos described above satisfy(ies) the following requirements:

Country freedom

1. For the last 12 months prior to embryo collection for export to New Zealand, the United States has been free of foot and mouth disease, Borna disease, Crimean Congo haemorrhagic fever, lumpy skin disease, Rift Valley fever, and contagious bovine pleuropneumonia, and these diseases are officially notifiable.

Donor eligibility

2. Donors that were imported into the United States have lived continuously in the United States for at least 60 days and in the herd of origin for at least 30 days prior to embryo collection for export to New Zealand.

3. Donors were resident in the embryo collection herd for at least 30 days prior to embryo collection for export to New Zealand.

Embryo collection team and herd approval requirements

4. At the time of embryo collection for export to New Zealand, the embryo collection team was approved by and registered with APHIS to collect, process, and store bovine embryos for export in accordance with the current recommendations of the OIE Code and the current manual of the International Embryo Transfer Society (IETS).

5. The approved embryo collection team veterinarian, under the supervision of APHIS, has knowledge of and authority over the embryo collection herd until completion of testing specified in this certificate.

Donor and herd health status

6. The donors were not resident in any establishment that is subject to quarantine restrictions, for at least the 60 days before the first embryo collection for the consignment to New Zealand until completion of the testing of the donors as required by this certificate.

7. Where a specific requirement for a risk organism is met by pre-collection testing, donors were isolated from other cattle not of an equivalent tested health status, from the time of the pre-collection test until completion of embryo collection for export to New Zealand.

8. On the day(s) of collection of the embryos, the donors were free from clinical evidence of infectious diseases transmissible in embryos, and the health status of the donors was monitored and recorded.

9. The semen used to produce the embryos in the consignment either:
    - was imported directly from New Zealand or is eligible for export to New Zealand; OR
    - was collected from a bull resident in a Certified Semen Services (CSS) participating herd; OR
    - was collected and processed at a semen collection centre that fully complies with the current OIE Code chapter on collection and processing of bovine semen; OR
    - where natural service or fresh semen was used, donor males were inspected and found free from clinical evidence of infectious diseases transmissible in semen, and were of an equivalent isolation and tested health status to the donor females.

Embryo collection, processing, storage and transport

10. All embryos in the consignment were fertilized *in vivo,* collected, washed, processed, traceability maintained, stored, and transported under the supervision of an approved embryo collection team veterinarian and in accordance with the recommendations in the OIE Code chapters on collection and processing of *in vivo* derived and micro-manipulated bovine embryos.

11. The embryos were treated with trypsin during the washing process as described in the IETS Manual. Each embryo had an intact zona pellucida and was examined over its entire surface at not less than 50X magnification and found to be free of adherent material.

12. Any micro-manipulation that causes a breach of the zona pellucida was done as per the procedures described in the OIE Code and IETS Manual and included specifications on the facilities used. Micro-manipulation was carried out on an embryo having an intact zona pellucida and was done subsequent to the last wash and examination of the embryo.

13. All biological products of animal origin used in the media and solutions for collection, processing, washing or storage of embryos were free of pathogenic organisms including pestiviruses. Media and solutions were sterilized by approved methods according to the IETS Manual and handled in such a manner as to ensure that sterility was maintained. Antibiotics as recommended in the OIE Code and IETS Manual, or a combination of antibiotics with equivalent activity, were added to collection, processing, washing and storage media.

    Name and concentration of antibiotics:
    _____

14. All straws were sealed, and clearly and permanently marked to identify the donor and the date(s) of freezing. If a code is used for this information, its decipher accompanies the consignment. The marking conforms to the international standards of the International Committee for Animal Recording (ICAR; www.icar.org) and the IETS.

15. Where embryos are removed from the transport containers for further processing, the date of transfer, approved embryo collection team, reason for transfer, and approved embryo collection team veterinarian must be recorded on the veterinary certificate.

    Date of transfer:
    _____

    Approved embryo collection team: _____

    Approved embryo collection team veterinarian:
    _____

    Reason for transfer:
    _____

16. The embryos for export were stored in the frozen state for at least 30 days after collection before shipment to New Zealand, and during this time, the donors and all animals in contact with them remained free from any diseases transmissible in embryos.

17. The embryos were only stored with germplasm that has been collected and processed in compliance with the OIE Code or semen collected and processed according to CSS standards. Containers were held until export in a storage place approved by APHIS.

18. The embryos were placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers are either new or empty and disinfected. For the transport container used to transport the embryos to New Zealand:

    Name of disinfectant: _____
    Disinfectant active chemical: _____
    Date of disinfection: _____

19. The transport container in which the embryos are to be transported to New Zealand was sealed by the approved embryo collection team veterinarian, using a tamper evident seal.

Seal number: _____

Laboratory testing

20. All required laboratory testing was conducted at an approved laboratory and test results are documented in the table attached to this certificate.

21. Samples of embryos/oocytes, collection fluids, and washing fluids for laboratory testing were collected, processed, and stored in accordance with the recommendations in the OIE Code chapter on collection and processing of *in vivo* derived embryos of livestock.

22. Laboratory or other diagnostic tests were those prescribed for that disease by the OIE for use during international trade, or specifically approved by the Ministry of Primary Industries.

SPECIFIC REQUIREMENTS:

Bovine viral diarrhea type 2 (BVDV2) (delete section 23 or 24, as appropriate. and initial)

EITHER

23. Donors have been tested for BVDV including:
    a. prior to, or at the time of embryo collection for export to New Zealand, all donors were tested serologically for BVDV and for BVDV antigen using an OIE prescribed test; AND
    b. 21 to 40 days subsequent to embryo collection for export to New Zealand, seronegative donors were tested serologically for BVDV and for BVDV antigen using an OIE prescribed test.

NB: Cattle that are not eligible as embryo donors for export to New Zealand are either:
    a. donors that are antigen-positive in initial testing; OR
    b. donors that seroconvert or are antigen-positive in the post-collection test.

OR

24. A pooled sample of embryos/oocytes, collection fluids and/or washing fluids from each embryo collection for export to New Zealand has been tested for BVDV2, by virus isolation (VI), with negative results.

Vesicular stomatitis (VS) (delete section 25, 26 or 27, as appropriate, and initial)

EITHER

25. Donors were resident in the United States, a country that is free from VS in accordance with the OIE Code;

OR

26. VS is officially notifiable in the United States, and no known cases have occurred within 100km of the embryo collection herd, where the donors were resident during embryo collection, during the period from 30 days prior to commencement until 30 days after conclusion of embryo collection for export to New Zealand;

OR

27. Donors were:
    a. resident for the 30 days prior to and during embryo collection in a herd where no case of VS was reported in that period; AND
    b. subjected to a serological test for VS, between 21 to 42 days after embryo collection for export to New Zealand, with negative results.

Bovine tuberculosis

28. Donors and other susceptible animals in the embryo collection herd showed no clinical signs of bovine tuberculosis during the 24 hours prior to embryo collection for export to New Zealand;

AND

29. Donors were:

a. from an embryo collection herd that is officially free from bovine tuberculosis; AND
b. subjected to a tuberculin test for bovine tuberculosis during the period between 30 days prior to 12 months after embryo collection for export to New Zealand, with negative results.

Mycoplasma bovis

30. Donors have never recorded a positive test for *Mycoplasma bovis*;

Q fever (delete section 32 or 33, as appropriate, and initial)

31. Donors have never been confirmed positive for Q fever;

AND EITHER

32. Donors were subjected to a CF or ELISA test for Q fever, on a sample collected between 21 and 120 days after each embryo collection for export to New Zealand, with negative results; OR
33. Within the 6 month period before or after embryo collection for export to New Zealand, the embryo collection herd was tested for Q fever, with negative results, using a CF or ELISA test done on either the whole herd or a random sample of at least 60 animals (whichever is the lesser number); AND
The embryo collection herd was isolated for the period between embryo collection and diagnostic sampling.

Approved Embryo Collection Team Veterinarian: Name and address (in capital letters): Date: Signature:	Official APHIS Veterinarian: Name and address (in capital letters): Date: Signature: Stamp:

Health Certificate No._____
(Valid only if USDA Veterinary Seal Appears Over the Certificate Number)

Test Information (date format is dd-mm-yyyy)

		Bovine viral diarrhea (BVD2)			Q fever			Bovine tuberculosis			Vesicular stomatitis (if applicable)		
Donor registration name/number	Collection date	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result	Test sampling date	Test type	Result

Review & Amendment

This guidance document is subject to ongoing review and amendment. MPI is committed to ensuring that guidance and advice is sought and considered prior to amendments being finalised.

All stakeholders are responsible for ensuring that the most recent version of the guidance document, as available on the MPI website, is used.

Amendment	Date of amendment/version
First issue of Guidance Document	27 June 2011
Negotiated veterinary certificates for bovine germplasm from Canada included	12 April 2012
Negotiated veterinary certificate for bovine semen from Norway included	03 May 2012
Minor amendment to veterinary certificates for bovine germplasm from Canada	12 June 2012
Negotiated veterinary certificates for bovine germplasm from EU included	12 July 2012
Negotiated veterinary certificates for bovine germplasm from Australia included	7 March 2013
Negotiated veterinary certificates for bovine germplasm from USA included	15 April 2013
Negotiated veterinary certificates for bovine germplasm from Switzerland added	24 June 2014
Removal of explanation on *Mycoplasma bovis* testing	10 August 2017