

**VETERINARY HEALTH CERTIFICATE  
EXPORT OF BOVINE EMBRYOS TO THE UNITED STATES OF AMERICA**

**SECTION I**

**Exporting Country:** CANADA

**Issuing Authority:** GOVERNMENT OF CANADA  
CANADIAN FOOD INSPECTION AGENCY

**Region:** \_\_\_\_\_

**USDA Import Permit Number:** \_\_\_\_\_

**SECTION II - Information Concerning Embryos**

i) **Name of approved veterinarian responsible for the embryo collection team:**  
\_\_\_\_\_  
\_\_\_\_\_

ii) **Name/Address and code of the embryo collection team:** \_\_\_\_\_  
\_\_\_\_\_

iii) **Total number of embryo straws or ampoules in consignment:** \_\_\_\_\_

iv) **Markings of approved seal placed on shipping container:** \_\_\_\_\_  
\_\_\_\_\_

**SECTION III**

i) **Name of Consignor:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

ii) **Name of Consignee:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

**SECTION IV - Sanitary Information**

I, \_\_\_\_\_, being a veterinary officer of the Government of Canada, certify in respect of the embryos identified above that:

1. Canada is free of foot and mouth disease, rinderpest, contagious bovine pleuropneumonia and ephemeral fever.
2. The donor dam (and donor sire if the semen was collected in Canada, or natural service performed) was:
  - i) born and reared in Canada; or
  - ii) legally imported into Canada from a country recognized to be free of foot and mouth disease and rinderpest by the U.S.D.A. in Title 9, Code of Federal Regulations, Part 94, Section 94.1, and has been released from any post-entry restrictions, and has been able to move freely within the national herd of Canada for a minimum of sixty (60) days prior to collection of the embryos; or
  - iii) legally imported into Canada from a country not recognized to be free of foot and mouth disease and rinderpest by the U.S.D.A. in Title 9, Code of Federal Regulations, Part 94, Section 94.1, and has been released from any post-entry restrictions or quarantine requirements, and has been able to move freely within the national herd of Canada for a minimum of ninety (90) days prior to the collection of embryos destined to the United States; or
  - iv) imported into Canada from the United States.
3. During the sixty (60) days prior to collection of the embryos for export to the United States, the donor dam (and donor sire, if natural service or fresh semen is used) was inspected by the approved team veterinarian and found to be clinically free of contagious diseases.
4. During the sixty (60) days prior to collection of germplasm for export to the United States, the donor dam (and donor sire, if natural service or fresh semen is used) were not corralled, pastured or held with animals that are not of equal health status or under any restrictions which would make them ineligible for export to the United States.

5. All donor animals resided in herds considered by the Government of Canada as free of tuberculosis and brucellosis, and these herds have maintained this status for at least two (2) years preceding the collection of embryos for export to the United States.
6. The approved team veterinarian has verified the source of the semen used to fertilize the embryos for export to the United States. The semen used for the insemination of the donor or for the in-vitro fertilization of the collected ova was eligible as a result of being:
  - i) semen collected in Canada at an approved semen production centre; or
  - ii) semen which was legally imported into Canada from a third country from a centre approved by the Government of Canada at a time when that country was recognized by the USDA to be free from foot and mouth disease and rinderpest; or
  - iii) semen which was legally imported into Canada from the United States of America; or
  - iv) semen introduced through natural service or fresh semen collected from a donor bull in Canada which satisfies the requirements under articles 2, 3, 4, and 5 above.
7. The approved team veterinarian is responsible for the supervision of the embryo collection team flushing the embryos from the donor dam and the processing and storage of said embryos.
8. All equipment used to process the embryos was new or was sterilized between each procedure. Standard sterilization and sanitary procedures were observed.
- 9.\*
  - i) The embryo was washed at least ten (10) times and underwent trypsin treatments.
  - ii) Each wash was accomplished by transferring the embryo into an aliquot of fresh medium that is one hundred (100) times the volume of the embryos plus any fluid transferred from the previous wash.
  - iii) No more than ten (10) embryos from the same flush were washed together.
  - iv) A sterile micropipette was used for each transfer and the embryos were well agitated throughout the entire volume of the wash before the next transfer.
  - v) Only embryos from the same donor were washed together.
10. The embryo was examined, following washing, over its entire surface at not less than 50X magnification and found to be intact and free of adherent material prior to micromanipulation of the embryo which involved penetration of the zona pellucida and before freezing or shipment.
11. After washing and examination of the zona pellucida, the embryos were individually packaged in sterile ampoules or straws marked in a permanent manner with the following information and frozen in liquid nitrogen:
  - i) the donor dam and sire identification and breed;
  - ii) the date of embryo collection;
  - iii) the identity of the embryo collection team;
  - iv) the identification number of the straw or ampoule.

If any of the above details are given in code, then deciphering information must be attached to the health certificate.
12. The embryo is contained in a shipping container which at the time of export was sealed with an approved seal, and the seal markings are recorded in Section II (iv) of this certificate.
13. The storage and shipping container was examined by the approved team veterinarian and found to be empty of embryos and other biological materials prior to use for exporting embryos to the United States.
14. The embryos were maintained under approved conditions under the supervision of the approved team veterinarian until they were placed in the shipping container and sealed by a full-time salaried veterinarian with the seals approved by the Government of Canada.
- \* The washing and trypsin treatment protocol for embryos to be exported to the United States requires the transfer of the embryos through five (5) washes of phosphate buffered saline (with or without Ca<sup>++</sup> and Mg<sup>++</sup>) containing antibiotics and 0.4 percent bovine serum albumin, then through two (2) aliquots of trypsin, pH 7.6 - 7.8, for a total time in the trypsin of 60-90 seconds.
 

The trypsin should be sterile (1:240) with an activity such 1 g will hydrolyze 250 g of casein at 25 degrees C, pH 7.6, in 10 (ten) minutes, in Hanks balanced salt solution without Ca<sup>++</sup> and Mg<sup>++</sup>, at a concentration of 0.25 percent.

After trypsin treatment, the embryos are to be transferred through five (5) washes of phosphate-buffered saline containing antibiotics and two (2) percent serum.

**NOTES:**

- i) The U.S. importer is responsible for obtaining an import permit from the United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services, National Center for Import and Export, 4700 River Road, Unit 39, Riverdale, Maryland, 20737-1231.
- ii) The shipment must be routed directly to the United States with no stops en route other than those provided for on the USDA import permit.
- iii) An official health certificate is required. The official health certificate must be issued by the veterinarian approved by the Government of Canada responsible for the embryo collection team, and must be endorsed by an official salaried of the Government of Canada veterinarian attesting to the certifications required in this protocol. The health certificate must accompany the embryos to the port of entry designated on the U.S.D.A. import permit.
- iv) The embryos must be collected by an embryo transfer team recognized by the country of origin as approved to collect and process embryos for export to the United States.
- v) It is acceptable if other embryos and/or semen are shipped in the same container, so long as all contents of the container meet U.S. importation requirements, and that the integrity of the total shipment can be certified by the Government of Canada at the time the approved seal is applied.

