



**VETERINARY HEALTH CERTIFICATE  
EXPORT OF BOVINE EMBRYOS TO SOUTH KOREA**

**Exporting Country:** CANADA

**Name and address of exporter:** \_\_\_\_\_

**Name and address of importer:** \_\_\_\_\_

**Name, address and code of approved embryo collection team:** \_\_\_\_\_

**Airport or port of departure:** \_\_\_\_\_ **Date of departure (yyyy-mm-dd):** \_\_\_\_\_

**Airplane company and flight number or ship's name:** \_\_\_\_\_

**Marks/ Serial number of shipping container:** \_\_\_\_\_ **Seal number:** \_\_\_\_\_

**HEALTH CERTIFICATION:**

I, the undersigned Official Veterinarian, duly authorized by the Government of Canada, hereby certify that:

1. Canada has never had an occurrence of, or has been free for the indicated period of time, with no practice of vaccination since eradication, from the following diseases: foot and mouth disease (1 year), rinderpest (2 years), and contagious bovine pleuropneumonia or lumpy skin disease (3 years), Rift Valley fever (4 years).
2. With regard to bovine spongiform encephalopathy (BSE):
  - a) it is a reportable disease in Canada;
  - b) the donor dams and bulls have not been diagnosed as infected by BSE;
  - c) the donor dams and bulls have not been fed with ruminant MBM (meat and bone meal) and greaves prohibited under Canada's feed ban; and the ban is effectively enforced.
  - d) the donor dams and bulls were born after the implementation of the feed ban (i.e. after August 4, 1997) or born, raised and belong to a herd in which no outbreak of BSE has been confirmed in the last eight years.
3. The embryo collection facility is approved by CFIA to collect embryos for export to Korea and its name and address has been provided to the Korean government. The facility meets the following requirements:
  - a) the facility is located in a province in which no vesicular stomatitis has been reported within 2 years of its approval;
  - b) the sanitary conditions of the facility have been evaluated and it is inspected periodically by a CFIA veterinarian;
  - c) there has been no clinical outbreak of any disease stated in section 5. e) at the facility from 12 months prior to the initial collection of embryos to 30 days afterwards;
  - d) the facility is designed and constructed to prevent epidemics by avoiding any contact with outside cattle or wild animals.
4. The embryo collection team complies with the following.
  - a) the team includes at least one approved veterinarian who is trained in sanitation and the prevention of epidemics.
  - b) the team members are supervised by the approved veterinarian(s) regarding all matters related to the collection of embryos, including the handling of donor dams and the disinfection and sanitation management of embryo collection facilities.
  - c) the team records all details regarding the animals at the facility, such as breed, date of birth, individual identification, medical record while in the embryo facility, the farm of origin, transfer conditions, testing details, any consequent medications/treatments, vaccination history, and the details of ova or semen collection.
  - d) any cow admitted to an embryo collection facility meets a sanitary standard equivalent to that for donor dams, and the embryo collection team records the admittance and release of all animals.
  - e) the farms where embryos are collected have in place biosecurity measures meeting the requirements for the issuance of this Veterinary Health Certificate, and the team consists of only the personnel approved by an approved veterinarian or government veterinary officer.
5. The donor dams meet the following requirements:
  - a) they were born and raised in Canada, or have been imported at least 60 days prior to the collection of embryos and kept within a embryo collection facility at least 30 days before collection;
  - b) they originate from a farm with no outbreak of tuberculosis and brucellosis as set forth in the regulations of the OIE and they have not been vaccinated for brucellosis;

- c) they originate from a farm where there has been no clinical outbreak of bluetongue disease, campylobacteriosis, infectious bovine rhinotracheitis/infectious pustular vulvovaginitis, Johne's disease, leptospirosis, bovine virus diarrhoea (BVD) or trichomoniasis during the 6 months prior to its admission to an embryo collection facility;
- d) each donor dam is identifiable and distinguishable;
- e) they have been subjected to tests administered by a CFIA veterinarian for the following diseases within the period from 3 months before to thirty (30) days after the collection of embryos, with negative results: See Table 3 for dates of tests or treatment:

- i) Bovine tuberculosis - intradermal tuberculin test
- ii) Johne's disease - ELISA
- iii) Enzootic bovine leucosis - ELISA (negative)
- iv) Leptospirosis - microscopic agglutination test (MAT), negative at less than 50% at 1:100 (L. Pomona, L. hardjo, L. icterohaemorrhagiae)

or

The donor female has been treated with two injections of dihydrostreptomycin (25 mg/kg live body weight) or tetracycline type (at the dosage recommended by the manufacturer) administered with an interval of fourteen (14) days and the second treatment was given within the twenty-four (24) hours preceding collection of the embryos

- v) Campylobacteriosis - culture of vaginal mucus for the presence of the causal agent (negative)
- vi) Trichomoniasis - direct microscopic examination and culture of vaginal mucus (negative)

**Note: In the case of bovine genital campylobacteriosis and trichomonosis, testing is not required if the donor dams have not been used for natural breeding.**

- vii) BVD - immunoperoxidase test (negative)
- viii) IBR/IPV - SN test - either the donor was negative at 1:2 dilution or in the case of titred animals, the donor showed no significant increase in antibody titre (an increase of less than four-fold) on serum neutralization tests taken twice with an interval of three to five weeks.
- ix) Bluetongue - ELISA (negative)

6. The collection and handling of embryos must meet the following requirements:

- a) the collection and handling of embryos is in accordance with the recommendations of the International Embryo Transfer Society (IETS);
- b) the embryos have been examined under a microscope (minimum magnification of X50) as recommended by the IETS under the supervision of an approved veterinarian or a CFIA veterinarian, and they are graded 1 or 2, indicating there is no damage whatsoever to the surface of the zona pellucida and no foreign substances.
- c) all artificial insemination and natural breeding for the production of the embryos have been conducted under the supervision of the approved veterinarian(s);
- d) the embryos have been fertilized and produced using only semen that meets the sanitary standards for imported bovine semen required by the Korean government;
- e) there is only one embryo stored in each straw
- f) the antibiotics added to the solution used for the collection, cleaning or preservation of embryos are approved by the CFIA, and do not exceed the normally permitted level.
- g) the ampules or straws used to store embryos are identified with the following, in accordance with the requirements of the IETS: the collection date, the donor dam and donor bull, and the registration number of the embryo collection team. The ampules or straws have been sealed under the supervision of an approved veterinarian or a CFIA veterinarian;
- h) the embryos have been stored in a liquid nitrogen-filled container that has been cleaned, disinfected or sterilized using a coolant that has never been used with animal products, and stored at a site, including an embryo collection facility, under the supervision of an approved veterinarian or a CFIA veterinarian until being exported to Korea.

7. Media, solutions, sera and additives used during collection and handling of embryos:

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8. The embryo storage containers have been sealed under the supervision of an approved veterinarian or an CFIA veterinarian before being removed from an embryo collection facility, and they have been transferred in a way that prevents contamination and the spread of pathogenic organisms of any infectious cattle disease.

**Definitions of terms:**

- Donor dam: Dams used for the fertilization and collection of embryos in accordance with Article 3.3.1.4 of the Terrestrial Animal Health Code 2006 established by the OIE (World Animal Health Organization).
- Donor bull: Sires used to produce semen for artificial insemination in accordance with Article 3.3.1.4 of the Terrestrial Animal Health Code 2006 established by the OIE.
- Bovine embryo: An embryo that has been produced in accordance with Article 3.3.1 of the Terrestrial Animal Health Code 2006 established by the OIE and that is viable during the transfer process. Excludes those that have already been transferred, fertilized in vitro, or have undergone processes such as sex verification, division or cloning that may have damaged the zona pellucida. (Hereinafter referred to as "embryo.")
- Embryo collection facility: A farm designed exclusively for cattle breeding or an embryo collection facility where the fertilization, collection, handling and preservation of embryos takes place as specified in this certificate and in accordance with Article 3.3.1.6 of the Terrestrial Animal Health Code 2006 established by the OIE.
- Approved veterinarian: A veterinarian administering the management of the sanitary condition of the donor cow and the facility and the collection, handling and preservation of embryos. Must be approved by the Canadian Food Inspection Agency.
- Embryo collection team: A team conducting the collection, handling and preservation of embryos as specified in this proposal and in accordance with Article 3.3.1.2 of the Terrestrial Animal Health Code 2006 established by the OIE.

**INFORMATION CONCERNING DONORS AND EMBRYOS:**

**TABLE 1. FEMALE DONORS LIST**

Official Tag	Name	Registration n°	Breed	Name and Address of Farm of Origin	Name and Address of Embryo Collection Facility	Date of Admission in the Embryo Collection Facility

**TABLE 2. MALE DONORS LIST**

Official Tag	Name	Registration n°	Breed	Name and Address of Farm of Origin	Name and Address of Semen Centre	Semen Stud Code	Date of Admission in the Semen Centre

**Notes:** - If the donor male has been a resident in the semen centre for more than 4 years, the semen centre is also the farm of origin.  
 - Dates format should be yyyy-mm-dd



**TABLE 4. EMBRYOS**

Identification of donor female	Date of embryo collection	Straw identification	Nº of straws	Identification of donor male	Collection date of semen
<b>Total:</b>					

**Note:** Dates format should be yyyy-mm-dd

\_\_\_\_\_  
Date

\_\_\_\_\_  
Veterinarian responsible for Embryo Collection (signature and block letters)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Official Veterinarian (signature and block letters)  
Canadian Food Inspection Agency  
Government of Canada

\_\_\_\_\_  
\_\_\_\_\_  
Address of official veterinarian

\_\_\_\_\_  
Official Export Stamp