

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

This protocol describes the conditions required to import semen from domestic sheep (*Ovis spp.*) and goats (*Capra spp.*) according to regulations found in 9 CFR Part 98.

1. GENERAL REQUIREMENTS

1.1. The importer must obtain an import permit from the:

U.S. Department of Agriculture (USDA)
Animal and Plant Health Inspection Service (APHIS)
Veterinary Services (VS)
Strategy & Policy (S&P)
4700 River Road, Unit 39
Riverdale, MD 20737-1231

Telephone: **(301) 851-3300, Option 2**
Fax: **(301) 734-4704**

Web Site: [APHIS Imports](#)

The application, **VS Form 17-129, “Application for Import or in Transit Permit,”** may be obtained by writing or telephoning NIES, or by downloading it from the APHIS web site: [Animal Health Permits](#)

- 1.2. An official health certificate is required. This official health certificate must be issued by a veterinarian designated by the Australian Department of Agriculture and must be endorsed by a Department of Agriculture veterinarian attesting to the certification and tests as required in this protocol. The health certificate must accompany the embryos to the port of entry designated on the USDA import permit.
- 1.3. The embryos must originate from an embryo collection (EC) unit that is approved by the Government of Australia.
- 1.4. An embryo collection unit is defined as: An area or areas where the donor dam will be bred to produce embryos for importation into the United States, and where the embryos will be collected, processed, and stored pending shipment to the United States.

2. CERTIFICATIONS

- 2.1. Australia is free of foot-and-mouth disease (FMD), surra, scrapie, goat pox, *Brucella abortus* and *Brucella melitensis*.
- 2.2. Bovine tuberculosis is a notifiable disease in Australia.
- 2.3. No cases of disease caused by Schmallenberg virus have been detected or reported in Australia.

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

- 2.4. The donor animals were born, raised, and continuously resident in Australia or were part of Australia's national herd for a minimum period of time. Paragraphs 2.4.1 and 2.4.2 describe how the United States defines "part of the national herd" and the length of time the animals must be part of the national herd.
 - 2.4.1. If the donor animals were imported from countries recognized by USDA as free of FMD, then these animals must have been free of any import quarantine restrictions and able to move freely within Australia's national herd for a minimum of 60 days prior to beginning the qualifications necessary for the collection of germplasm for export to the United States.
 - 2.4.2. If the donor animals were imported from a country not recognized by USDA as free of FMD, then the animals for export must have been free of any import quarantine restrictions and able to move freely within Australia's national herd for a minimum of 90 days prior to beginning the qualifications necessary for the collection of germplasm for export to the United States.
- 2.5. During the 60 days prior to collection of germplasm for export to the United States, the donors were not corralled, pastured, or held with animals that were not of equal health status or under any restrictions which would have made them ineligible for export to the United States.
- 2.6. During the 12 months prior to the collection of germplasm for export to the United States, there has been no evidence to indicate that the donors have been affected with or exposed to bluetongue, Akabane, Aino, tuberculosis, or brucellosis.
- 2.7. There must be no clinical evidence of any infectious disease in the embryo collection unit herd on the dates of embryo collection.

3. THE HEALTH CERTIFICATE MUST SHOW:

- 3.1. The name and address of the place where the embryos were collected;
- 3.2. The name and address of the veterinarian who collected the embryos;
- 3.3. The date of embryo collection;
- 3.4. The identification and breed of the donor dam and donor sire;
- 3.5. The number of ampules or straws covered by the health certificate and the identification number or code on each ampule or straw;
- 3.6. The dates, types, and results of all examinations and tests performed on the donor dam and donor sire as a condition for importing the embryo; and
- 3.7. The name and address of the consignor and consignee.

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

4. TESTING

4.1. Arboviruses: The donor dams were **EITHER**

4.1.1. Kept continuously in an Australia Department of Agriculture registered embryo collection center located in a region certified free from Akabane and Aino for a minimum of 60 consecutive days before commencement of, and during, collection of the embryos. The dates of residence in the embryo collection center will be included on the export health certificate.

4.1.2. **OR** were tested on two occasions, the first test at or near the time of collection (within 30 days prior to collection), and the second test between 30 and 180 days after collection of the embryos, using the following tests:

4.1.2.1. Akabane - Negative to a serum neutralization test at 1:4 serum dilution.

4.1.2.2. Aino - Negative to a serum neutralization test at a 1:10 serum dilution.

4.1.3. **OR** were tested negative for Akabane and Aino by a virus isolation test or PCR on blood samples collected at the start and conclusion of, and at least every 7 days during embryo collection for this consignment.

4.2. If natural breeding or fresh semen was used to fertilize ova to produce embryos for export, then the donor sire must meet the test requirements of Section 4 of this protocol.

4.3. If artificial insemination is used, a semen export health certificate for the donor male(s) must accompany the embryo shipment. This certificate must show the donor male(s) was/were eligible to export semen to the United States in accordance with the criteria set forth in the USDA APHIS "Protocol for the Importation of Goat and Sheep Semen from Australia." located at https://www.aphis.usda.gov/import_export/animals/downloads/australia-sheep-goat-semen.pdf

4.4. Tests of all donors shall be conducted in laboratories designated and approved by Australia Department of Agriculture to conduct the tests.

5. EMBRYO COLLECTION UNIT

Goat and sheep embryos may be imported into the United States if they were conceived, collected, processed, and stored prior to importation at an EC unit. The embryo collection unit may be located on the premises where the donor dam's herd of origin is kept, or at any other location, provided that the following requirements are met:

5.1. **Animal holding and breeding area(s).** The EC unit must have an area or areas for holding the donor dams and for breeding them (either natural breeding or artificial insemination).

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

- 5.2. **Embryo collection area.** The EC unit must have a room or outdoor area for collection of embryos that contains a device or devices for restraining goats and sheep during embryo collection. If the EC unit is a room, then the floor, walls, and ceiling must be impervious to moisture and disinfection. If the EC unit is an outdoor area, then the area must have a floor that is impervious to moisture and is constructed of materials that can withstand repeated cleaning and disinfection. If the outdoor area also has walls or a roof, the walls or roof also must be impervious to moisture and be constructed of materials that can withstand repeated cleaning and disinfection.
- 5.3. **Embryo processing area.** The EC unit must have an enclosed room which may be mobile that is used only for processing embryos. The walls, floor, and ceiling of the room must be impervious to moisture and constructed of materials that can withstand repeated cleaning and disinfection. The room must contain a work surface for handling the embryos, such as a table or countertop that is impervious to moisture. The room also must contain a microscope with a minimum of 50x magnification and equipment for freezing the embryos.
- 5.4. **Embryo storage area.** The EC unit must have one lockable area that is used only for storing frozen embryos intended for exportation to the United States.
- 5.5. **Area for cleaning and disinfection or sterilizing equipment.** The EC unit must have an enclosed room for cleaning and disinfecting or sterilizing equipment used for the artificial insemination or for the collection, processing, or storage of embryos. The walls, floor, and ceiling of the room must be impervious to moisture and constructed of materials that can withstand repeated cleaning and disinfection.

6. CLEANING, DISINFECTION, AND STERILIZATION

- 6.1. All equipment that comes in contact with embryos or with media used for their collection or processing must be sterile. Equipment used for embryos from one donor dam, or with associated media, may not be used for embryos or associated media from any other donor dam until it has been re-sterilized.
- 6.2. All equipment that comes in contact with a donor dam's secretions or excretions must be sterile and may not be used with any other donor dam until it has been re-sterilized.
- 6.3. Containers used for storing embryos or for shipping embryos to the United States must be free of any organic matter and then disinfected before the ampules or straws are placed inside.
- 6.4. The floor, ceiling, and walls of any room or outdoor area used for embryo collection, and restraining device(s) used for this procedure, must be cleaned with soap and water and disinfected before the room or area is used to collect embryos intended for exportation to the United States, and at least daily while in use for this purpose.
- 6.5. The room and work surface used for processing embryos must be kept free of insects,

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

rodents, trash, manure, and other animal matter and must be cleaned with soap and water and disinfected before the room is used for embryos intended for exportation to the United States, and the work surface must be cleaned and disinfected at least daily while in use for this purpose.

- 6.6. The area of the embryo collection unit used to store embryos intended for exportation to the United States must be kept free of insects, rodents, trash, manure, and other animal matter and must be cleaned with soap and water and disinfected before being used to store the embryos.
- 6.7. The room used for cleaning and disinfection or sterilizing equipment used for artificial insemination or for collection, processing, or storage of embryos must be kept free of insects, rodents, trash, manure, and other animal matter and must be cleaned with soap and water and disinfected before being used to store the embryos.
- 6.8. The room used for cleaning and disinfecting or sterilizing equipment used for artificial insemination or for the collection, processing, or storage of embryos must be kept free of insects, rodents, trash, manure, and other animal matter and must be cleaned with soap and water and disinfected before being used to prepare equipment for donors of embryos intended for exportation to the United States, and at least daily while in use for this purpose.

7. COLLECTION AND PROCESSING OF EMBRYOS

- 7.1. If embryos are collected in an outdoor area, they must be collected by using a closed collection system, so the embryos are not exposed to open air until they are inside the embryo processing room.
- 7.2. Embryos from donors not meeting the requirements of this protocol may not be in the processing room at the same time as embryos intended for exportation to the United States.
- 7.3. Each embryo must be washed at least 10 times. Each wash must be accomplished by transferring the embryo into an aliquot of fresh medium that is 100 times the volume of the embryo, plus any fluid transferred from the previous wash. No more than 10 embryos from the same flush may be washed together. A sterile micropipette must be used for each transfer, and the embryos must be well agitated throughout the entire volume of the wash before the next transfer. Embryos from different donors may not be washed together.
- 7.4. After the last wash, each embryo must be microscopically examined over its entire surface at not less than 50x magnification. An embryo may not be imported into the United States unless its zona pellucida is found to be intact and free from any adherent material.
- 7.5. After washing and examination of the zona pellucida, embryos must be packaged in sterile ampules or straws and frozen in liquid nitrogen. The donor dam's and sire's

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

identification and breed, the date of embryo collection, the name and address of the place where the embryos were collected, and an identification number for the straw or ampule must be recorded with indelible markings on each ampule deciphering information must be attached to the health certificate for the embryos.

- 7.6. The Administrator may require additional measures to be taken in processing embryos after collection (for example, adding trypsin to the washes) if he or she determines that such measures are necessary to ensure the embryos' freedom from infectious agents that may cause communicable diseases. Circumstances that may result in such additional measures being required include, but are not limited to: (1) the existence of other communicable disease of livestock in the country of origin and (2) of an increase in the incidence of a communicable disease in the country of origin.

8. MEDIA; CRYOGENIC AGENT

- 8.1. All media containing products of animal origin and used for embryo collection and processing must be from sources in countries that are recognized by USDA to be free of exotic disease as described in Part 94, 9 CFR.
- 8.2. The liquid nitrogen used to freeze embryos may not have been used previously for any other products of animal origin.

9. STORAGE AND SHIPMENT OF EMBRYOS

- 9.1. Frozen embryos to be imported into the United States must be stored in a locked area or must remain in the custody of the official veterinarian until they are shipped to the United States.
- 9.2. Containers housing embryos to be exported into the United States must be sealed by the official veterinarian with the official seal of the country of origin or, if the official veterinarian is an employee of the Animal and Plant Health Inspection Service, with an official seal of the USDA. The seal number must be recorded on the health certificate that accompanies the embryos to the United States.
- 9.3. The shipment must be routed directly to the United States with no stops en route other than those provided for on the USDA APHIS import permit.

10. ARRIVAL AND INSPECTION AT THE PORT OF ENTRY

- 10.1. The shipment must be routed directly to the United States from Australia with no stops en route other than those provided on the USDA import permit. This shipment may not transit a region considered by USDA APHIS to have foot and mouth disease (FMD) as noted on the USDA APHIS webpage: [Animal Health Status of a Region](#)

**USDA APHIS VETERINARY SERVICES, STRATEGY & POLICY
PROTOCOL FOR THE IMPORTATION OF SHEEP AND GOAT EMBRYOS
FROM AUSTRALIA**

February 2005, Modified May 2018

- 10.2. On arrival at the port of entry, the importer or the importer's agent must present the original health certificate and the original import permit for the embryos to an inspector at the port.
- 10.3. The shipping container and all straws or ampules containing embryos must be made available for inspection at the port of entry and may not be removed from such port of entry until an inspector determines that the embryos are eligible for importation in accordance with this protocol and releases them.

11. EMBRYOS REFUSED ENTRY

If any embryos are determined to be ineligible for importation into the United States on arrival at the port of entry, the importer must remove such embryos from the United States within 30 days, or the embryos will be destroyed.