

HEALTH CERTIFICATE

For export of bovine semen from Norway to the United States of America

Health Certificate No		

Name of national competent authority: 2. If replacement, original certificate number and date:					r and date:		
A. ORIGIN OF SEMEN							
3. Approva	3. Approval number of the semen collection center:						
4. Name and address of the semen collection center: 5. Name and address of the consignor:							
4a. Name an	4a. Name and address of the semen sexing facility, if applicable:						
6. Country and place of loading: 7. Means of transport:							
B. DESTINATION OF SEMEN							
8. Name and address of the consignee:							
C. IDENTIFICATION OF SEMEN							
9.1 Name of donor bull	9.2 Breed	9.3 Age	9.4 Identification Number	9.5 Number of straws	9.6 Date of collection	9.7 Collection code	9.8 Indicate one: sexed semen or non- sexed semen

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10. Seal number of container:						

D. HEALTH INFORMATION

Section A (to be signed by the Center Veterinarian)

- 11. I, the undersigned Center Veterinarian of the described semen collection center, hereinafter "SCC," certify that:
- 11.1. all bovine animals in the above SCC were:
- 11.1.1. established as residents only if admitted by a formal process of quarantine, observation, and testing as required by legislation in force, at the time of collection, notably Annex B to Council Directive 88/407/EEC, as amended by Directive 2003/43/EC or Regulation (EU) 2016/429 and Commission Delegated Regulation (EU) 2020/686 or in subsequent updates, or the national equivalent legislation;
- 11.1.2. admitted to the SCC herd only after having been proven free of brucellosis, tuberculosis, bovine genital campylobacteriosis and trichomoniasis;
- 11.1.3. admitted to the SCC herd only after having been proven free of viremia from persistent bovine viral diarrhea virus infection before entry into the SCC resident herd; and
- 11.1.4. tested annually for brucellosis, tuberculosis, bovine genital campylobacteriosis, and trichomoniasis.
- 11.2. in the SCC:
- 11.2.1. at the time of semen collection, there were no clinical signs of paratuberculosis in any animal residing in the SCC, including the donor animals;
- 11.2.2. the herd was tested for brucellosis, tuberculosis, bovine genital campylobacteriosis, and trichomoniasis in its entirety with negative results at the most recent herd test prior to the period of semen collection for export to the United States of America (USA);
- 11.2.3. no clinical or other evidence of brucellosis, tuberculosis, bovine genital campylobacteriosis, trichomoniasis or leptospirosis was found since the most recent herd test and prior to the embarkation of semen to the United States;
- 11.2.4. there was no evidence to indicate that the donors have been affected with tuberculosis or brucellosis during the 12 months prior to the collection of semen for export to the United States:
- 11.2.5. there was no clinical evidence of infection by bovine viral diarrhea virus, bluetongue virus, epizootic hemorrhagic disease (EHD) or infectious bovine rhinotracheitis virus during the 60 days prior to and during the period of collection of semen for export to the United States; and
- 11.2.6. all bulls passed a testing program with negative results consistent with the Terrestrial Animal Health Code of the WOAH (Article 4.7.2) or as outlined in Regulation (EU) 2020/686 as amended or in subsequent updates, to detect persistent testicular bovine viral diarrhea virus infection prior to semen release.
- 11.3. each donor bull for the semen described above:
- 11.3.1. originated from a tuberculosis-free herd;
- 11.3.2. was not corralled, pastured, or held with animals of lesser health status or under any restrictions which would make them ineligible to export semen to the United States during the 60 days prior to and during the period of collection of semen for export to the United States;
- 11.3.3. was subjected with negative results to the tests described in 11.4.1 to 11.4.4 within six months prior to or six months after collection of the semen described above;
- 11.3.4. was subjected with negative results to the tests for bluetongue virus group (BTV) described in 11.4.6;
- 11.3.5. was inspected on the date of semen collection and found to be free of clinical signs of diseases transmissible in semen.
- 11.4. where reference is made to health tests, the following tests were carried out:
- 11.4.1. the cervical test for bovine tuberculosis described in the WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals;
- 11.4.2. SELECT ONE: a buffered brucella antigen test (card test, rose bengal test, or the buffered plate agglutination test), or an ELISA test for bovine brucellosis (indirect or competitive) in accordance with the WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, under the condition that samples that react positively were retested with negative results using a suitable confirmatory test such as the complement fixation test;

- 11.4.3. SELECT ONE: a polymerase chain reaction (PCR) or culture of preputial smegma for bovine genital campylobacteriosis (Campylobacter fetus ssp. Venerealis) with negative results. The immunofluorescent antibody test may be used only as a screening test under the condition that samples that react positively must be retested using a suitable confirmatory test such as a PCR or culture of preputial smegma with negative results;
- 11.4.4. SELECT ONE: a PCR or a microscopic examination of a culture of preputial smegma for trichomoniasis (*Tritrichomonas foetus*) with negative results;
- 11.4.5. for Epizootic hemorrhagic disease (EHD) either (SELECT ONE):
- 11.4.5.1. the donors resided in Norway or a region of Norway at the time of collection where no cases of EHD have been reported within the previous 12 months, and where no serological evidence of EHD infection exists/ existed for this period; **OR**
- 11.4.5.2. the donor animals were tested by a pan-EHD PCR test, using whole blood collected at the beginning and conclusion of the collection period, and at least every 28 days during the period of semen collection, all with negative results; **OR**
- 11.4.5.3. the donor animals were tested with a whole-blood virus isolation test for EHD with one negative test at the beginning and conclusion of the collection period, and at least every 7 days during the period of semen collection; **OR**
- 11.4.5.4. the donor animals tested negative on serum samples collected prior to the first day of semen collection, at least every 60 days during the collection period, and between 21 and 60 days after semen collection using one of the following test methods: Agar immunodiffusion test (AGID) **OR** Serum Neutralization test (SNT) including all EHD serotypes on each assay²;
- 11.4.6. for bluetongue virus (BTV) either (SELECT ONE):
- 11.4.6.1. the donor animals were tested by a pan-BTV PCR test, using whole blood collected at the beginning and conclusion of the collection period, and at least every 28 days during the period of semen collection, all with negative results; **OR**
- 11.4.6.2. the donor animals were tested by whole-blood virus isolation test for BTV with one negative test at the beginning and conclusion of the collection period, and at least every 7 days during the period of semen collection; **OR**
- 11.4.6.3. the donor animals tested negative on serum samples collected prior to the first day of semen collection, at least every 60 days during the collection period, and between 21 and 60 days after semen collection using one of the following test methods: AGID **OR** ELISA;
- 11.4.7. for Schmallenberg virus either (SELECT ONE):
- 11.4.7.1. the semen for export to the United States was either collected prior to June 1, 2011; **OR** the donor animals were tested on two (2) occasions by a virus neutralization test (VNT) (using a 1:8 cutoff titer) with the first blood sample collected within 30 days prior to collection, and the second between twenty-eight (28) and sixty (60) days after the last collection of semen from the donor for this consignment with negative results.
- 11.5. the semen was collected and processed in Norway under my supervision and placed in individual ampules or straws which were permanently marked with the name of the donor, his registration number, or the collection code;
- 11.6. semen collection equipment which came into contact with bulls or their secretions and excretions was thoroughly disinfected after each use, and good laboratory practices were followed during collection and processing of semen in order to minimize the possible introduction of microbial contamination;
- 11.7. antibiotics were added to the semen and semen extender in amounts and combinations consistent with the standards described in "Certified Semen Services (CSS) Minimum Requirements for Disease Control of Semen Produced for AI," Appendix I, website: https://www.naab-css.org/minimum-requirements
- 11.8. no biological products other than frozen semen or embryos qualified for shipment to the United States were present in the containers prior to use for export of semen to the United States;
- 11.9. the storage and shipping containers are either new or cleaned and disinfected; and
- 11.10. only virgin liquid nitrogen was used to export semen to the United States;

- 11.11 for sexed semen:
- 11.11.1 The semen collected and processed under my supervision was shipped to the semen sexing facility within Norway, under seal or was maintained under the oversight of a Center Veterinarian or Official Veterinarian.
- 11.11.2 Note: the semen sexing facility used to sex the semen is located in Norway where the semen was collected. The facility has submitted a "Cleaning and Disinfection Standard Operating Protocol" reviewed and approved by the USDA APHIS, and is listed at <u>Approved European Bovine Semen Sexing Facilities</u>.

12.1. Date and place	12.2. Name and qualification of the Center Veterinarian	12.3. Signature and stamp of the Center Veterinarian

Section B (to be signed by the Official Veterinarian after the Center Veterinarian has signed)

- I, the undersigned Official Veterinarian of Norway certify that: 13.
- 13.1. Norway, where the semen was collected, is considered by the USDA to be free of foot-and-mouth disease, as listed in 9 CFR Part 94¹, and was free of this disease at the time of semen collection;
- 13.2. Norway is free of contagious bovine pleuropneumonia;
- 13.3. the donor animals for the semen to be exported to the United States have been part of the national herd of Norway for a minimum of 60 days and are free from any movement or quarantine restrictions;
- 13.4. the semen collection center, hereinafter "SCC," was approved by the competent authority of Norway;
- 13.5. health tests required for export to the United States of bovine semen were performed by testing methods recognized by the World Organisation for Animal Health (WOAH) Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, as acceptable for international trade;
- 13.6. the laboratory tests mentioned in 11.4.2. to 11.4.7 were carried out with negative results in a laboratory approved by the competent veterinary services;
- 13.7. ruminant products used in commercial semen extenders in Norway were sourced from countries considered by USDA to be free from foot-and mouth disease as listed in 9 CFR Part 94¹;
- 13.8. the semen to be exported to the United States was maintained under lock and key or in the custody of the SCC veterinarian, and segregated from other semen of lesser health status, until it was placed in the shipping container and sealed with official seals of Norway;
- none of the semen for export to the USA has been stored or transported in containers with semen 13.9. produced under less than equivalent animal health conditions;
- 13.10. the integrity of the total shipment and continuity of storage conditions for semen produced in different approved SCC units and collected in Norway were maintained (delete as appropriate);
- the shipping containers were sealed with an approved seal from the competent authority of Norway, and 13.11 the seal number is recorded on the health certificate;
- the semen is routed directly to the United States from Norway with no stops en route other than those 13.12. provided on the USDA import permit; and
- the Center Veterinarian that completed Section A of this certificate is authorized by the National 13.13. Veterinary Service to perform this service;
- 13.14. for sexed semen:
- 13.14.1 The semen sexing laboratory used to sex the semen for export to the United States is located in Norway, where the semen was collected, or was imported from the United States meeting all national import requirements. The semen sexing laboratory is under the supervision of an approved Center Veterinarian and was regularly inspected and approved in accordance (at the time of collection) with EU Directive 88/407/EEC or Regulation (EU) 2016/429 and Commission Delegated Regulation (EU) 2020/686 or in subsequent updates, or equivalent national legislation. The sexing facility followed a USDA-approved "Cleaning and Disinfection Standard Operating Protocol" while processing this semen for export to the United States and is listed on the USDA webpage of approved facilities: Approved European Bovine Semen Sexing Facilities.
- 13.14.2 the integrity of this shipment was maintained through the semen sexing process and no semen from other donors was mixed with semen that originated from the animals listed in Part C.

14.1. Date and place	14.2. Name and qualification of the Official Veterinarian	14.3. Signature and stamp of the Official Veterinarian				
This certificate is valid for 30 days after issuance.						

¹ The current APHIS-recognized disease status for different countries is found at the following website: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-and-animal-product-import-information/animal-health-status-of-regions

²SNT is only a viable testing option if all EHD serotypes are run on every SNT assay.