Import Health Standard
For
Bovine Semen

Short Name: bovsemid.gen

MAF Biosecurity New Zealand
Ministry of Agriculture and Forestry
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New Zealand
Issuing Authority

This standard is issued under section 22 of the Biosecurity Act 1993 (the Act).

Dated at Wellington this day of 2010

Manager Animal Imports and Exports
Ministry of Agriculture and Forestry (MAF)

For Director General
Ministry of Agriculture and Forestry
(Pursuant to delegated authority)

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Import Health Standard for Bovine Semen

PART A. BACKGROUND, SCOPE AND OUTCOMES

Background

1. Under section 22 of the Biosecurity Act, this document is the import health standard for bovine semen.

2. If this standard needs to be amended or revoked urgently, or the Director General considers that an amendment is minor, the amendment or revocation may be carried out without prior consultation.

3. A guidance document will be issued by MAF to accompany this import health standard. The document will provide guidance information relevant to how requirements may be met including definitions of terms (shown in italics) used in this standard.

Scope

4. This standard specifies the requirements that must be met to import bovine semen into New Zealand, bovine semen being semen derived from any member of the sub-family Bovinae.

5. The bovine semen must meet the general requirements and documentation requirements contained in PART B of this standard and to the extent that PART C of this standard applies, the specific requirements contained in PART C of this standard.

Outcomes

6. All imports must be subject to risk management measures for specified risk organisms associated with the commodity appropriate to the status of the risk organism, their likelihood of entry and/or establishment in New Zealand and consequent impacts.

7. The risk organisms associated with the commodity that are subject to specific risk management requirements are (with category and legal status under the Biosecurity Act as well as presence in New Zealand):
   - Bluetongue virus (Unwanted; Exotic; Notifiable)
   - Borna disease virus (Unwanted; Exotic)
   - Bovine viral diarrhoea virus type 2, BVDV2 (Unwanted; Exotic)
   - Crimean Congo haemorrhagic fever virus, CCHFV (Unwanted; Exotic)
   - Foot and mouth disease virus, FMDV (Unwanted; Exotic; Notifiable)
   - Bovine herpes virus, IBR/IPV, abortifacient strains (Unwanted; Exotic; Notifiable)
   - Lumpy skin disease virus, LSDV (Unwanted; Exotic; Notifiable)
   - Rift Valley Fever virus, RVFV (Unwanted; Exotic; Notifiable)
   - Vesicular stomatitis virus (Unwanted; Exotic; Notifiable)
   - Bovine brucellosis, including Brucella abortus, B.melitensis, B.suis (Unwanted; Exotic; Notifiable)
   - Mycobacterium bovis (Unwanted; Reportable under the Bovine Tb Pest Management Strategy)
   - Contagious bovine pleuropneumonia, CBPP, Mycoplasma mycoides subsp. mycoides SC (Unwanted; Exotic; Notifiable)
   - Mycoplasma bovis
   - Q fever, Coxiella burnetii (Unwanted; Exotic; Notifiable)
8. For each risk organism, specific risk management requirements are specified in PART C using the general form:
   o Country, zone or compartment freedom; OR
   o Specified measures to verify premises and/or donor freedom.

9. **MAF** and the veterinary authority of the exporting country will negotiate the content of the zoosanitary certificate to achieve an equivalent level of risk management as specified by this standard, taking into account:
   o the verifiable health status of the exporting country/zone/compartment; AND
   o the national systems and standards in the exporting country for regulatory oversight of the germplasm industry; AND
   o the capabilities and preferences of the exporting country Competent Authority.
   Upon conclusion of negotiations, country-specific Zoosanitary Certificate templates will be included in the Guidance Document.

**PART B. GENERAL REQUIREMENTS**

**Approved countries**

10. Countries must be approved by **MAF** to export bovine semen to New Zealand. A list of eligible countries is included in the guidance document for this standard.

**Donor eligibility**

11. *Donors* that were imported to the exporting country must 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 entering the semen collection centre.

**Semen collection centre requirements**

12. The semen collection centre must have been approved by the veterinary authority to collect semen for export, been subject to regular inspection by an Official Veterinarian, and been under the supervision of a semen collection centre veterinarian approved by the veterinary authority.

13. Prior to collection of semen for this consignment the *donor* animals must have been subjected to a period of isolation of at least 30 days in accommodation 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 an equivalent health status.

14. *Donors* may be transferred from one approved semen collection centre to another of equal health status without isolation or testing if:
   o *Donors* were examined and showed no clinical sign of disease on the day of entry to centre; AND
   o transfer was direct; AND
   o transfer was not through a bluetongue infected zone OR *donors* were protected from insect attack during transit; AND
   o *donors* did not come into direct or indirect contact with animals of a lower health status; AND
   o the means of transport used was disinfected before use; AND
   o routine (annual) tests for bluetongue, bovine brucellosis, bovine tuberculosis, BVD-MD, and IBR-IPV were carried out on the *donor* during the previous 12 months.
Donor and centre health status

15. The herd(s) of origin of the donor males and the semen collection centre must have remained free from any quarantine restrictions from 90 days before the first semen collection for this consignment to New Zealand until completion of the testing of the donor animals, as required by this certificate.

16. On the day(s) of collection of the semen, each donor animal must have been inspected by the approved semen collection centre veterinarian and found free from clinical evidence of infectious diseases caused by micro-organisms transmissible in semen.

Semen collection, processing, storage and transport

17. Semen must have been collected, handled, prepared, and stored under the supervision of the approved semen collection centre veterinarian and in accordance with the recommendations in the OIE Code.

18. Antibiotics must have been added to the semen diluent in accordance with the OIE Code chapter on collection and processing of bovine semen.

19. All straws must have been sealed and clearly marked with the identification of the donor animals and the date(s) of collection. If a code is used for this information, its cipher must accompany the consignment. The code 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 International Embryo Transfer Society (IETS; http://www.iets.org).

20. The semen must have been stored only with other embryos or semen that is eligible for export to New Zealand. Containers must have been held in a storage place approved by the veterinary authority of the exporting country until export.

21. The semen must have been placed in transport containers filled with fresh (previously unused) liquid nitrogen. Transport containers may be either new or disinfected.

Laboratory testing

22. All required laboratory testing must have been conducted at a laboratory approved by the veterinary authority of the exporting country to conduct export testing.

23. Laboratory or other diagnostics tests must be those prescribed for that disease by the OIE for use during international trade, or specifically approved by MAF.

Documentation accompanying the consignment

24. The documentation that accompanies the consignment to New Zealand must consist of:
   o An original zoosanitary certificate signed and stamped on every page by an official of the competent veterinary authority of the exporting country; AND
   o a tabulated summary of laboratory tests for each donor completed in accordance with the specific requirements in the zoosanitary certificate (indicating donor identification consistent with the zoosanitary certificate, the dates of collection, and for
each relevant disease the date/s samples were drawn, the test undertaken, the laboratory, the reported result, and the accession number reference) ; AND
  o copies of laboratory reports for all tests (N.B. where the requirement is a regimen of multiple tests, for instance during qualification to enter and annually while resident on a collection facility, tested health status can be verified by providing laboratory reports of the most recent test/s); AND
  o an import permit.

PART C. SPECIFIC REQUIREMENTS FOR IDENTIFIED RISK ORGANISMS

Bluetongue (BT)

EITHER

25. At the time of collection the exporting country was free from BT in accordance with the requirements of the OIE Code; OR

26. Semen donors were kept in a BT virus free zone, as defined by the OIE Code, for at least the 100 days immediately prior to, and during, collection of the semen for consignment to New Zealand; OR

27. Semen donors were kept during the seasonally free period in a BT virus seasonally free zone, as defined by the OIE Code, or otherwise protected from Culicoides for at least the 100 days immediately prior to commencement of, and during, semen collection for the consignment to New Zealand; OR

28. Semen donors were subjected to MAF-approved antibody detection tests for BT, such as the competitive enzyme linked immunosorbent assay (ELISA) or the agar gel immunodiffusion test (AGID), between 28 and 60 days after the last collection for this consignment, with negative results; OR

29. Semen donors were subjected to MAF-approved agent detection tests for BT, 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 this consignment, with negative results.

Borna disease

EITHER

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

31. Borna disease is officially notifiable in the exporting country, and the semen donors have been resident since birth in herds where there has been no reported cases in the period from 5 years prior to commencement of collection until conclusion of collection of semen for export to New Zealand; OR

32. Donors or aliquots of semen, for export to New Zealand, have been tested using a MAF-approved test and process, and are negative for Borna disease.

Bovine viral diarrhoea type 2 (BVD2)
EITHER

33. At the time of collection of semen 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

34. The semen collection centre must have been maintained as free from BVD from the commencement until after conclusion of collection of semen for export to New Zealand, through compliance with the recommendations in the OIE Code in relation to BVDV, including:
   o testing all cattle for antibodies and antigen using prescribed tests prior to entry into pre-entry isolation and during pre-entry isolation, and only approving entry for groups where pre-entry isolation results indicate the absence of sero-conversion and absence of antigen-positive cattle; AND
   o thereafter, annual re-testing of sero-negative cattle; AND
   o for seropositive donors, testing of semen for BVDV2 with negative results, prior to initial dispatch; AND
   o for seronegative donors, an antibody test using prescribed methods, with negative result, from samples collected after the conclusion of semen collection for export; AND

35. Semen donors that have been on the semen collection centre for less than 3 years have had an aliquot of semen from each collection in the consignment to New Zealand tested for BVDV2 by VI or reverse transcriptase polymerase chain reaction (RT-PCR), with negative results.

Crimean Congo haemorrhagic fever (CCHF)

EITHER

36. CCHF is officially notifiable in the exporting country, and there has never been a reported case of CCHF in the country or countries in which the donors have been resident for the 21 days before, and during, semen collection for export; OR

37. Semen donors were treated for ticks with an efficacious acaricide in accordance with the manufacturer’s directions, inspected after ten days and found to be free of ticks, and then resident in a tick-free semen collection centre for at least 3 weeks prior to the commencement of collection until conclusion of collection of semen for export. Verification of tick freedom in the semen collection centre is performed by inspections done at least monthly where no ticks were found; OR

38. Donors were serologically tested for CCHF using prescribed methods such as a validated ELISA to detect IgG and IgM antibodies on blood samples collected within 7 days prior to commencement, every 60 days thereafter, until 21 to 60 days after conclusion of embryo collection for export to New Zealand. The results must indicate:
   o that any donor seronegative at the start of testing has maintained a seronegative status; AND
   o that any donor seropositive at the start of testing did not have a rise in titre over consecutive tests.

Foot and mouth disease (FMD)

EITHER
39. Semen 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

40. The herds of origin, semen collection centre, donor animals and semen for export must comply with OIE Code recommendations for export of bovine semen from countries or zones presenting a risk of FMD; AND

41. MAF will individually approve each semen collection, processing and storage facility/ies in the exporting country intended to be used during the preparation of an export consignment to New Zealand. The approval will be 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 MAF approval may include site inspection. MAF 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 (IBR/IPV)**

**EITHER**

42. The semen collection centre must have been maintained as free from IBR/IPV from the commencement until after conclusion of collection of semen for export to New Zealand through compliance with the recommendations in the OIE Code, including:
   o testing all cattle, prior to entering pre-entry isolation, for antibodies using a prescribed test, with negative results; AND
   o 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
   o thereafter, annual re-testing of all donor bulls for antibodies, with negative results; AND
   o a negative antibody test result from sampling after the time of collection of semen for export to New Zealand must be supplied; OR

43. An aliquot equivalent to at least 0.05ml of raw semen from each semen collection for the export consignment to New Zealand must have been subjected to a VI test or validated PCR test, for both BHV1 and BHV5, with negative results.

**Lumpy skin disease (LSD)**

**EITHER**

44. Semen donors must have been 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

45. Semen donors must have been 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 collection of semen for export to New Zealand; OR

46. An aliquot equivalent to at least 0.05ml of raw semen from each semen collection for the export consignment to New Zealand must have been subjected to a validated PCR test for LSD, with negative result.
Rift Valley fever (RVF)

EITHER

47. Semen donors were resident, for at least the 3 months prior to and during semen collection, for consignment to New Zealand, in a country or zone that is free from RVF in accordance with the OIE Code; OR

48. Semen donors were resident for the 6 months prior to and during collection of semen for export to New Zealand in a RVF infected country, during which climatic changes predisposing to outbreaks have not occurred; OR

49. Semen donors have been held in mosquito-free premises for the period at least 30 days prior to commencement until conclusion of collection of semen for the consignment to New Zealand.

Vesicular stomatitis (VS)

EITHER

50. Semen donors were resident in a country that is free from VS in accordance with the OIE Code; OR

51. VS is officially notifiable in the exporting country, and no 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 collection for export to New Zealand; OR

52. Donors were kept in insect free premises from at least the 30 days prior to commencement until conclusion of semen collection for export to New Zealand, and were subject to a validated serological test for VS, with negative results, between 3-6 weeks after semen collection for the consignment to New Zealand.

Bovine brucellosis

EITHER

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

54. The semen collection centre must have been maintained as free from bovine brucellosis from the commencement until after conclusion of collection of semen for export to New Zealand through compliance with the recommendations in the OIE Code in relation to bovine brucellosis, including:
   o Prior to entry into pre-entry isolation the donor bulls 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 in accordance with the OIE Code and were subjected to a prescribed serological test for bovine brucellosis with negative results during the 30 days prior to departure for the semen collection centre; AND
   o Donor animals, in pre-entry isolation prior to entering the semen collection facilities, were subjected to a serological test for Brucella abortus, with negative results; AND
o All bulls and teasers resident in the semen collection facilities have been tested, at least annually for bovine brucellosis, with negative results.

**Bovine tuberculosis**

EITHER

55. *Donors* have been kept since birth in a country that is free from bovine tuberculosis in accordance with the *OIE Code*; OR

56. The semen collection centre must have been maintained as free from bovine tuberculosis from the commencement until after conclusion of collection of semen for export to New Zealand through compliance with the recommendations in the *OIE Code* in relation to bovine tuberculosis, including:
   o Prior to entry into pre-entry isolation the *donor* bulls were either from a country that is free from bovine tuberculosis in accordance with the *OIE Code*; OR were from a herd officially free from bovine tuberculosis in accordance with the *OIE Code* and were subjected to an *OIE* prescribed test for bovine tuberculosis with negative results during the 30 days prior to departure for the semen collection centre; AND
   o All bulls and teasers resident in the semen collection facilities have been tested, at least annually, using an *OIE* prescribed test for bovine tuberculosis, with negative results.

**Contagious bovine pleuropneumonia (CBPP)**

EITHER

57. Semen *donors* were born in and have been continuously resident in a country that is free from CBPP in accordance with the *OIE Code*; OR

58. Semen *donors* have never been vaccinated for CBPP; AND

59. Semen *donors* have been kept since birth or for at least the 6 months prior to commencement and 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

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

**Mycoplasma bovis**

EITHER

61. Semen *donors* were subjected to a *MAF approved* serological test for *Mycoplasma bovis*, with negative result, on a sample collected between 21 and 120 days after the last collection of germplasm for export to New Zealand; OR

62. An aliquot equivalent to at least 0.05ml of raw semen from each semen collection for the export consignment to New Zealand must have been subjected to a validated PCR test for *Mycoplasma bovis*, with negative result; OR
63. The resident herd of cattle on the semen collection centre has been subject to a *MAF approved* whole herd serological test or a serological test on a random sample of at least 60 animals (whichever is the lesser number) for *Mycoplasma bovis* no more than 6 months before/after semen collection for consignment to New Zealand, with negative results.

**Q fever**

EITHER

64. Semen donors were subjected to a *MAF approved* serological test for Q fever, with negative result, on a sample collected between 21 and 120 days after the last collection of germplasm for export to New Zealand; OR

65. An aliquot equivalent to at least 0.05ml of raw semen from each semen collection for the export consignment, to New Zealand, has been subjected to a validated and *MAF approved* PCR test for Q fever, with negative result; OR

66. The resident herd of cattle on the semen collection centre has been subjected to a *MAF approved* whole herd serological test or a serological test on a random sample of at least 60 animals (whichever is the lesser number) for Q fever no more than 6 months before/after semen collection for consignment to New Zealand, with negative results.

**PART D. EQUIVALENCE**

67. The requirements for importation of bovine semen are met if, in the opinion of the Director-General, the measures taken for managing the risks associated with the importation of those goods, are equally effective at managing those risks as the requirements specified in (1) to (66) above. If an equivalence measure (s) is approved, *MAF* will issue an Import Permit (under Section 22 of the Biosecurity Act).